In evaluating their results they attached importance to failure of the participants' reported improvement, PCRs, and their written records of sexual feelings to change in relation to the periods of withdrawal and reintroduction of the treatments. As discussed by McConaghy in his 1977 review expectation that treatment effects would disappear when treatment was withdrawn was accepted at the time in applied behavior analysis theory. That this meant that treatment effects would be evanescent was overlooked. McConaghy concluded the study could be considered an uncontrolled report of a positive response to orgasmic conditioning in three patients, and a negative response in a fourth, who subsequently responded to aversive therapy. Conrad and Winzce accepted the validity of the individual participants' PCR assessments and considered they may have reported changes they did not feel and that both treatments were unsuccessful. Laws and Marshall in their 1991 review decided the study was the only well-controlled study of thematic shift and accepted the authors' interpretation that it failed to demonstrate any effects for the procedure.

C. Fantasy Alternation

Laws and Marshall reviewed the use of fantasy alternation in studies with one to four subjects that used self-report and PCR assessment as outcome measures. Some studies attempted to causally relate the treatment to outcome using a multiple-baseline design. This design relies on demonstrating that the introduction of the treatment targeting one behavior modifies only that behavior and not others that were not targeted. If this occurs it is accepted that the modification is a specific effect of the treatment. This methodology ignores the possibility that the targeting of one behavior has induced an expectancy effect in regard to that behavior and not the others not targeted. In any case in a study cited of a bisexual pedophile, though arousal to female children was targeted and declined, that to male children declined without having been targeted. Laws and Marshall attached significance to one study of four confused, apparently ego-distonic homosexuals, in two of whom the procedure produced increase rather than decrease in deviant arousal as assessed by their PCRs. They also pointed out that from the theoretical basis of orgasmic reconditioning use of masturbation to deviant fantasies as in fantasy alteration would increase rather than decrease the ability of such fantasies to excite sexual arousal. They concluded it was hard to see any justification for further investigation of the procedure.

D. Directed Masturbation

Laws and Marshall considered there was some evidence that directed masturbation might be effective. At the same time they raised the issue of whether it was appropriate to attempt to reduced men's sexual arousal to deviant fantasies by encouraging them to masturbate exclusively to nondeviant fantasies if they were already strongly sexually aroused by such fantasies. The evidence they cited supporting the procedure was again that of single-case uncontrolled studies using either self-report and/or PCR circumference assessments. It is difficult to see how this evidence was stronger than that supporting the efficacy of thematic shift, which they considered inadequate.

E. Satiation

Laws and Marshall cited single-case studies evaluating satiation, which were also uncontrolled and used participants' self-report and PCR changes as outcome measures. In one a multiple-baseline design was used in which PCR assessed reductions in sexual arousal occurred to stimulus categories targeted in sequence by the satiation procedure. Laws and Marshall did not discuss the possible confounding influence of expectancy effects and/or the ability of the participant to consciously or unconsciously modify his penile responses. Men's ability to modify their PCRs had been well documented by the time of their study. They considered satiation was clearly responsible for the reduction in inappropriate arousal that they considered had been demonstrated by the change in the participant's PCRs. The participant's assessed arousal to adult females showed only a modest increase. In another participant satiation produced marked decline in deviant arousal and a modest increase in arousal to adult women, as assessed by his PCRs. The participant had previously failed to respond to self-esteem enhancement and electrical aversive conditioning. Laws and Marshall criticized single-case studies evaluating combinations of directed masturbation and satiation as providing inadequate data concerning the outcome, or lacking appropriate control. Gray in 1995 reported a comparison study of verbal satiation alone and directed masturbation followed by ammonia aversive therapy in 28 participants, 14 nonrandomly allocated to one or other procedure. Outcome was assessed by participants' PCRs to audiotapes of sexual interactions with adults

and children. Seven of those who received satiation and six of those who received the combined procedure showed reduction in assessed arousal to appropriate stimuli, a finding not discussed by the author. Significant reduction in assessed arousal to deviant stimuli followed the procedure incorporating aversive therapy but not satiation, and it was concluded the former was more effective.

F. Conditioning Theory Basis of Orgasmic Reconditioning Questioned

Accepting the theoretical basis of orgasmic reconditioning that pairing of sexual cues with orgasm would increase sexual arousal, Marshall and Eccles in 1993 concluded concerning pedophiles that

> Each time the offender has sex with a child, he obviously pairs heightened sexual arousal with vivid, realistic visions of children and the proprioceptive stimuli produced by his own actions. These contacts provide powerful conditioning trials, and if repeated often enough, should entrench a growing attraction to sex with children even in the absence of masturbating to children.

Evidence that would appear to question this belief was provided by McConaghy in a 1978 study that has been consistently ignored. Using the valid penile volume assessment of the sexual preference of individual men, the arousal to moving films of nude men as compared to that to films of nude women was determined in 181 men seeking treatment for compulsive homosexual feelings. Married men who had repeatedly experienced orgasm in the presence of female cues, namely their wives, but had not had intercourse with other women showed no evidence of increased penile volume arousal to films of women or decrease to films of men, compared to single men with no history of heterosexual intercourse. If all the married men utilized exclusive homosexual fantasies during their intercourse with their wives, it could be argued that these fantasies inhibited the effect of any physical cues from the bodies of the women with whom they were in intimate physical contact. However fewer than 20% of these men reported that they used homosexual fantasy during intercourse with their wives. All had sought treatment to cease homosexual activity and wished to continue the relationship with their wives with whom they frequently stated they were in love. Most said they were sexually aroused by thoughts of their wives, though they felt no sexual attraction to other women. It is possible that in men who report no sexual arousal to women generally, the repeated experience of heterosexual intercourse with one woman does condition sexual arousal to her, but it does not generalize to other women.

G. Need for Penile Volume Response Assessment of Effects of Orgasmic Reconditioning

The finding that the orgasmic reconditioning procedure experienced regularly by married homosexual men produced no change in their validly assessed sexual preference strongly indicates the need for valid empirical evidence of the ability of the procedure to modify the sexual preference of sex offenders, in whose treatment it remains widely used. The empirical research evaluating it in uncontrolled case studies using self-report and PCR assessment has been conducted in participants most of whom wish to experience or to report changes in their sexual orientation either for their own emotional comfort or to impress therapists who may be influential in regard to legal decisions concerning them. Given the superior validity of penile volume responses to films of nude males and females in assessing sexual preference, studies utilizing it to evaluate the various forms of orgasmic reconditioning used in current sex offender programs would seem urgently required. As stated earlier, Lalumiere and Harris suggested in 1998 that treatments which induce change in PCR assessments may do so not by changing men's sexual preference but by increasing their ability to control inappropriate arousal. If so, orgasmic reconditioning procedures that involve prolonged or repeated masturbation on instruction would seem to require comparison with more acceptable procedures that increase this ability. These include alternative behavior completion (imaginal desensitization), demonstrated in placebo-controlled studies to do so. The conclusion of Laws and Marshall that the combination of directed masturbation and satiation needs to be evaluated in a systematic study could stimulate a randomized controlled comparison of the combination with alternative behavior completion. Unfortunately this seems unlikely.

H. Incorporation of Orgasmic Reconditioning in Multimodal Approaches

As various forms of orgasmic reconditioning are now usually combined with a variety of treatments in multi-

modal approaches, research evaluating any forms alone is unlikely to be carried out. Quinsey in 1986 reported the response of self-referred sex offenders treated with covert sensitization and masturbatory satiation, cognitive restructuring, social and assertiveness skills and sex education; 89% of 44 contacted at 6 months and 79% of 19 contacted at 12 months under confidential conditions reported no recidivism. Travin, Bluestone, Coleman, Cullen, and Melella in 1985 reported a somewhat lower rate of recidivism over a shorter follow-up period with similar therapy in more highly selected sex offenders. These results were not superior to those reported by McConaghy and colleagues in 1985 and 1988 with therapy using alternative behavior completion combined with brief nonstructured counselling carried out during follow-up interviews. However comparisons of the results of these studies cannot be accepted to be meaningful in view of the lack of control of participant differences. McConaghy and colleagues treated all participant who sought treatment for deviant urges they could not control in a cost-free program tailored to allowed those employed to continue to work. The selection procedures and cost of the other programs was not specified, as is common. A further indication that research evaluating individual behavioral procedures is unlikely to be conducted is implicit in the comment of Quinsey and Earls in 1990. They considered that cognitive therapies for sex offenders may not require the addition of behavioral approaches, as the variety of behavioral treatments used to modify sexual arousal patterns all appeared to be at least somewhat effective, and hence all may act nonspecifically.

IV. APPLICATIONS AND EXCLUSIONS

Orgasmic conditioning procedures would appear to have been abandoned in the management of participants reporting problems in relation to homosexual feelings by some therapists because they consider that changing sexual preference by these and other methods is impossible, and others because they consider such attempts are unethical. The American Psychiatric Association in 1998 issued a statement opposing reparative therapy, that is, attempts to change homosexual preference. Currently orgasmic conditioning procedures are used in men with paraphilias, mainly sex offenders. Such men are under considerable social and often legal pressure to comply with treatment. The use of procedures that encourage them to masturbate particularly for long periods would seem likely to be experienced as demeaning by many such participants whose self-esteem is usually already low. In view of the lack of evidence of the effectiveness of the procedures in changing the sexual preference of men with paraphilias in an appropriate direction, they would seem unlikely to encourage them to form appropriate social relationships. It would seem acceptable to encourage men with paraphilias when they do masturbate to attempt not to use deviant fantasies. However to instruct them, particularly if they are under legal pressure to comply, to masturbate as a therapeutic procedure could be considered unethical when no acceptable evidence has been advanced of its value.

V. SUMMARY

Orgasmic reconditioning aims to change participants' sexual preference so they are more aroused by persons deemed appropriate in age, sex, and ability and willingness to consent, and less by those deemed inappropriate. The various forms that are or have been used are described, and their theoretical bases discussed. Associating pictures, verbal descriptions, or fantasies of appropriate persons with orgasm was considered to act by conditioning to increase arousal to the group to which such persons belonged. Associating similar representations of inappropriate persons with reduction of sexual arousal by repeated masturbation producing satiation was considered to inhibit arousal to the group to which such persons belong. Empirical research considered to support the value of the procedures lacked validity as it was based on self-report and/or change in treated participants' penile circumference responses to representations of appropriate or inappropriate subjects. Penile circumference responses unlike penile volume responses lack validity as measures of individual men's sexual preference. Using penile volume to assess their sexual preference, it was no different in married homosexual men who had repeatedly experienced orgasm with their wives compared to single homosexual men who have never had heterosexual intercourse. This finding casts considerable doubt on the theoretical basis of orgasmic reconditioning and indicates a need for valid research evaluating the procedures that remain in widespread use in the treatment of sex offenders. Until such evidence is produced as the procedures could be experienced by the subjects treated as demeaning, their use particularly by legal compulsion could be considered unethical.

See Also the Following Articles

Arousal Training ■ Bioethics ■ Electrical Aversion ■ Emotive Imagery ■ Multimodal Behavior Therapy ■ Sex Therapy ■ Thought Stopping

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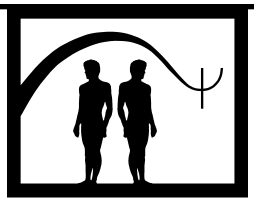

Outcome Measures

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GLOSSARY

clinical significance Refers to the relevance or meaning of change for the individual client. This is in contrast to statistical significance, which refers to the differences between group means on a measure.

efficacy research Designed to determine the success of specific treatment interventions for a particular disorder.

effectiveness research Intended to discover the overall success of interventions with typical clients in the usual clinic setting.

patient-focused research Centers on observing the individual client's progress throughout the course of therapy to determine how that particular client is responding.

reliable change index The least number of units a score can change on a measure to be certain that the change was not a chance fluctuation due to measurement error inherent from the reliability of the instrument.

Outcome measures are procedures used to document client functioning before, during, and after participating in psychotherapy. These can include self-report questionnaires, therapist and clinician rating scales, scales completed by the clients' relatives, or even records such as school, medical, insurance, or employment history.

I. THE PURPOSE OF OUTCOME MEASURES

The accurate measurement of clients' responses to psychotherapy is vital in order to (1) improve psychotherapy services both at the individual clinician level and at the level of establishing viable treatment protocols for specific disorders; and (2) demonstrate the effectiveness, including cost-effectiveness, of clinical interventions to interested parties (i.e., consumers, clinicians, researchers, third-party payers, administrators, and those who develop policy).

II. MULTIDIMENSIONAL NATURE OF CLIENT CHANGE

The accurate measurement of client response to psychotherapy is complex due to the multidimensional nature of change. For example, a group of clients who meet the diagnostic criteria for depression may experience to a different degree each of the clinical symptoms (i.e., sadness, suicidal ideation, and so forth). In addition to these distinctions, clients may also experience

variations in other areas such as interpersonal difficulties, physical problems, financial concerns, work impairment, or substance abuse. These various difficulties are frequently the focus of therapeutic interventions, and proper assessment of a client's response to therapy requires that these areas also be evaluated. Hence, outcome measures by necessity must focus on many different areas of performance to give a complete picture of client functioning. Various researchers have proposed that outcome measures could conceivably evaluate aspects of client functioning such as (1) psychological symptoms, (2) interpersonal functioning in close relationships, (3) social role functioning in work or school, (4) physical health, (5) the cost of care and treatment utilization, (6) reduction in public health and safety threats, (7) client satisfaction, and (8) global well-being or quality of life.

III. EXPERIMENTAL DESIGN AND OUTCOME MEASURES

The purpose of an outcome study influences the type of outcome measures used. Efficacy research is designed to determine the relative success of specific treatment protocols for a particular disorder. This type of research uses experimentally controlled conditions with homogeneous populations. Different treatment interventions are given to the experimental and control groups. The responses of the experimental and control groups to the different interventions are measured with scales designed for that population and/or disorder. For example, a study exploring the response of clients to different interventions for depression might use the Beck Depression Inventory (BDI, a short self-report instrument that the client completes), the Hamilton Depression Rating Scale (HDRS, a rating scale completed by a clinician), a structured diagnostic interview, a client self-report scale to assess cognitive distortions, and so on. Differences between the experimental group and the control group on such scales are compared. Conclusions concerning the relative efficacy of interventions are based on tests of statistical difference between the means of the experimental and the control groups.

Effectiveness research measures the mean response of a more heterogeneous group of clients in naturalistic clinic settings. This type of research is designed to discover the overall success of interventions with typical clients in the usual clinical environment. Outcome measures in such studies often evaluate a wider range of difficulties because clients are not screened and come with more diverse problems. Examples could include instruments with a wider range of symptoms such as the Symptom Checklist 90-Revised (SCL-90-R, a 90-item self-report instrument completed by the client), program evaluation surveys, or client satisfaction questionnaires.

Patient-focused research centers on observing the individual client's response throughout the course of therapy and afterward. This approach determines how each particular client is responding in therapy. Outcome measures that sample a wide range of symptoms are also appropriate for this kind of study. Patient-focused research concentrates on the clinical significance of the individual client's responses to interventions rather than just the statistical significance of differences between group averages as is common in efficacy and effectiveness studies. Establishing the clinical significance of change reveals not just the magnitude of change but also the meaning of change for the individual client.

The most commonly accepted method of defining clinical significance has two components. First, a cutoff point that distinguishes between the "normal" and "dysfunctional" populations on the outcome measure is established. For example, the cutoff point could simply be defined as one standard deviation above the mean of the "normal" group on the measure (or below, depending on which way is more dysfunctional). The second step is to determine the reliable change index (RCI). The RCI is the minimal number of units the client's score must change between administrations to reliably say that the change is not due to chance fluctuation. The RCI is calculated by dividing the absolute change between two scores on the same instrument by the standard error of measurement for that instrument. For a clinically significant positive change to occur by this two-part definition, a client's change in score between the initial administration and subsequent administrations of the scale would have to (1) move from the "dysfunctional" side of the cutoff point into the "normal" range, and (2) move at least as many units as the RCI to ensure that the change was not due to measurement error. Cutoff points and RCIs have been established for many of the most commonly used outcome instruments. For example, on the BDI a client's total score after the initial administration would have to be under 14 (the cutoff score to be in the "normal" population), and would have to be at least 7 points lower than the initial administration in order to comply with this definition of a clinically significant change.

IV. BRIEF HISTORICAL REVIEW AND COMMON OUTCOME MEASURES

The theoretical orientation of researchers has historically influenced the type of instruments used to measure client change. For example, due to the influence of Freudian dynamic psychology, early measures such as the Thematic Apperception Test and the Rorschach Ink Blot Test attempted to measure changes in unconscious processes as a result of participation in psychotherapy. Later, measures such as the Q-Sort Technique were used because of their congruence with client-centered theory. Such procedures are no longer used due to poor psychometric qualities, dependence on inference, and the amount of time and cost required to administer and score them. Measures consistent with behavioral theory (behavioral monitoring) and cognitive theories (e.g., Irrational Beliefs Inventory) have also been used with interventions consistent with those theories.

Early efforts to document client outcome also relied heavily on unstandardized procedures and therapists' ratings of the clients' general improvement in one dimension. More recent efforts have focused instead on measuring outcome in many areas of functioning from a variety of viewpoints. This could include samples from the client, outside observers, relatives, physiological indices, and institutional information such as employment of school records. Current outcome measures have also improved in that they focus on specific symptoms without being theory-bound. Some measures can be used to examine patterns of change over time because they are brief and can be repeated many times through the course of therapy.

Several reviews have demonstrated which instruments have been most frequently used in outcome studies over the past three decades. The most frequently used standardized self-report measures include the State-Trait Anxiety Inventory (STAI), the Minnesota Multiphasic Personality Inventory (MMPI), the Rotter Internal-External Locus of Control, the S-R Inventory of Anxiousness, the BDI, and the SCL-90. A more recent measure, the Outcome Questionnaire-45,(OQ-45,a 45-item self-report questionnaire that measures the clients symptoms and self-distress, functioning in close interpersonal relationships, and social role functioning in society) has been used in a variety of studies to examine patterns of change in psychotherapy. The Hamilton Rating Scale for Depression (HRSD) is the most common scale used by therapists or expert raters, and the Locke-Wallace Marital Adjustment Inventory has been used most frequently with significant others to describe changes in relatives participating in therapy.

Unfortunately, researchers studying client outcome in psychotherapy have more frequently created their own unstandardized measurs to study client response to treatment. The use of unstandardized measures results in difficulty in communicating, interpreting, and integrating findings between treatment approaches and across studies. Many researchers have therefore proposed the notion of individualizing outcome measures. This usually entails creating specific treatment goals for clients and rating their progress on a graded series of possible outcomes from least to most desirable. The Target Complaints Measure and Goal Attainment Scaling are examples of this type of approach. These approaches have not yet produced valid, reliable, unbiased measures of outcome with findings that are easily integrated across studies.

V. CATEGORIZING OUTCOME MEASURES

As has been mentioned, client outcome to psychotherapy is complex due to (1) the different purposes of outcome research and the resulting variations in research design (efficacy, effectiveness, and patient-focused research; statistical vs. clinical significance); (2) the multidimensional nature of client change; (3) the diversity in psychological theories and approaches to treatment (4) the lack of consistent use of standardized instruments; and (5) the need to evaluate outcome from a variety of viewpoints (such as the trerapist, patient, and significant others). One way to bring order to this complexity is to categorize outcome measures on four dimensions: content, temporality, source, and technology. It is possible to categorize any outcome measure on each of these dimensions.

The content dimension refers to the aspect of functioning that is being sampled. This could include intrapersonal events (affect, cognitions, behaviors, symptoms), interpersonal events within close relationships, and the fulfillment of social roles through the client's interaction with society at large (i.e. work and/or school performance).

The temporality category refers to two aspects of a measure. First, it can reflect whether the instrument measures unstable state-like constructs that are expected to show change as a response to psychotherapy versus stable trait-like constructs that are more likely to remain

consistent. Second, the temporality category also calls attention to the number of times the researcher uses the instrument during the course of the study. Some researchers administer an instrument both before and after therapy, whereas others utilize repeated administration throughout the course of therapy to establish a pattern of change both during and following treatment.

The source dimension refers to who completes the instrument: the client, the therapist, relevant others, trained observers, or a social where records are maintained. This dimension is a continuum moving from those most involved with therapy to those least involved. A robust finding is that studies using measures of outcome from different sources do not always yield consistent results. For example, treatment of a phobia may produce a reduction in behavioral avoidance as rated by observers, but it may not produce a decrease in levels of self-reported discomfort. This highlights the need for careful consideration of the source of outcome data in discerning the true impact of therapeutic intervention.

The technology dimension refers to the method or process of data collection. For example, this could include subjective global retrospective ratings of improvement at the end of therapy by the therapist or the client, more careful descriptive procedures that pinpoint specific symptoms at the time of the assessment, frequency counts of observed behaviors by trained observers, or measures of physiological status (e.g., electrodermal response, heart rate). The type of technology used influences the findings of outcome studies. For example, studies using measures that are more open to bias, such as posttherapy retrospective global ratings of change, will produce larger treatment effects than studies that use measures that are less susceptible to rater bias. Scales that are less susceptible to bias, such as those requiring descriptions of specific symptoms at the time of the administration of the instrument, lead to smaller estimates of treatment effect sizes. Thus researchers and consumers of outcome research need to consider carefully the type of technology used in the study when interpreting the findings.

The most common outcome instruments sample intrapersonal content (symptoms or distress) with descriptive technology (assessing current functioning at the time of administration) using self-report as the source. On the temporality dimension, the instruments are usually used as both pre- and posttherapy measures, and are intended to measure state-like client characteristics that hopefully change as a response to therapy. This means that the typical outcome instrument requires that the client rate his or her own behavior, feelings, and symptomatic distress on a paper-and-pencil measure. This would include instruments such as the BDI, the SCL-90-R, or the OQ-45.

VI. CHARACTERISTICS OF GOOD OUTCOME MEASURES

Researchers have often called for the creation of a "core battery" of outcome instruments to facilitate the comparison and integration of research findings. No such battery has materialized, but the following guidelines in outcome research and the use of instruments have evolved: (1) Specify clearly what is being measured to facilitate replication; (2) examine client functioning from diverse perspectives; (3) use a variety of type of scales and methods; (4) utilize symptom-based atheoretical instruments; (5) examine patterns of change over time with repeated administrations of the measure; (6) instruments should be inexpensive, and should be easy to score and administer; (7) scales should be appropriate for clients with a variety of diagnoses; (8) instruments must be psychometrically sound (standardized, reliable, and valid) and be sensitive to change; (9) instruments must be less susceptible to bias by focusing on the current functioning of the client; (10) they should have enough items in the "normal" and "dysfunctional" range to correct for possible floor and ceiling effects; and(11) they should sample a variety of content areas such as symptoms, interpersonal functioning, and performance in social roles.

VII. FUTURE RESEARCH POSSIBILITIES

With cutoff points and reliable change indexes available on many of the most commonly used instruments, clinicians can now use repeated administrations of brief symptom-oriented measures to see how well clients are progressing in therapy. Both clients and clinicians could be given feedback on how the client is responding, and studies could examine how such immediate feedback improves the outcome and process of therapy. In addition to this, normal patterns of change or "recovery curves" that typify the usual progress of clients during therapy could be formulated for specific outcome instruments. The progress of the individual client could then be compared with the usual progress of clients with the same initial level of disturbance. If patients are not progressing as well as their cohorts, therapists could use that information to reassess and restructure therapeutic interventions.

With sound outcome measures, therapeutic effectiveness could be established for specific disorders, interventions, programs, and even individual providers. Questions concerning "dosages of therapy" for different patient subtypes or disorders could be explored. Further work could be performed linking client outcome with the process of psychotherapy. It would be possible to correlate client progress with specific behaviors during therapy. It would also be possible to study the relationship between clients' pretherapy characteristics and their distinct responses to therapeutic interventions. This would help answer the question of which types of clients respond best to which kinds of interventions or processes.

With sound outcome measures, the target of defining cost-effective treatment becomes more attainable. This would entail identifying which interventions, therapists, and therapeutic processes result in the best outcomes for which kinds of clients suffering from which kinds of disorders for the least expenditure in time and money.

The wise use of solid outcome measures can give feedback to clinicians about how to help improve their own practice. Master clinicians who repeatedly produce better outcomes can be studied so that other practitioners can learn from their procedures.

VIII. SUMMARY

Outcome measures examine the client's response to psychotherapy. The use of such measures can improve psychotherapy services and can inform the decisions made by all parties involved in the process. Client change is multidimensional (i.e. personal distress, interpersonal functioning, social role fulfillment), and needs to be assessed from a variety of viewpoints (such as the therapist, the client, and significant others).

Different experimental designs (efficacy, effectiveness, patient-focused research) have different purposes and require different types of outcome measures. Patient-focused research centers on the clinical significance of a change for the individual client rather than on the statistical significance of a difference between group means on a scale score. One definition of clinical significance is that (1) the client move from the "dysfunctional" to the "functional" range on the measure; and (2) the client's change is greater than a chance fluctuation due to the measurement error of the instrument (is greater than the reliable change index).

Early outcome measures were linked more heavily to theoretical trends of the day, and may have relied more heavily on therapist global retrospective ratings of client improvement. More recent measures are atheoretical, pinpoint a wider variety of specific symptom complaints at the time of the administration, are brief, and can be administered repeatedly to examine patterns of change. The widespread use of unstandardized measures in the past has resulted in difficulty coordinating and integrating findings.

Outcome measures can be classified according to the dimensions of content (the aspect of client functioning sampled), temporality (the degree to which the measure focuses on state or trait characteristics, and the utility of the instrument in being administered repeatedly), source (who completes the instrument), and technology (the process by which the information is gathered). The type of instrument chosen influences the reported effect sizes of the interventions. Careful researchers need to pick the type of outcome measure that will best answer their research question, and that will most clearly add to the body of growing outcome literature. "Core batteries" of outcome measures have not been established, but the characteristics of a good outcome measure have been identified. As good measures are utilized, future research could more clearly examine what interventions work best with which types of clients and disorders. Cost-effectiveness of interventions can be more clearly investigated, client progress can be monitored during the course of therapy, and clinicians can more easily learn from each other.

See Also the Following Articles

Economic and Policy Issues ■ Effectiveness of Psychotherapy ■ Efficacy ■ Individual Psychotherapy ■ Objective Assessment ■ Research in Psychotherapy ■ Termination

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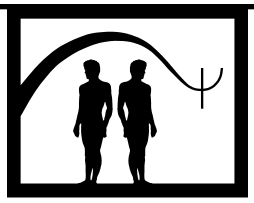

Overcorrection

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GLOSSARY

graduated guidance Adjustment of the amount of force applied to the client's body to provide the minimum amount of physical assistance necessary for completion of required movements.

manual guidance Therapist placement of hands on the client's body to physically assist the client through required movements.

stereotyped behavior Repetitive acts that have no apparent functional effect on the environment.

Overcorrection is a diverse set of treatment techniques that involve contingent delivery of aversive consequences following undesirable behavior. The unique element of overcorrection is that the aversive consequences involve correct forms of behavior directly related to the undesirable act. This use of topographically similar responses is regarded as the critical feature that distinguishes overcorrection from other punishment techniques.

I. DESCRIPTION OF TREATMENT

Overcorrection procedures involve the contingent use of aversive consequences that are directly related in form (i.e., topographically similar) to the undesirable behavior they follow. In a 1982 review of overcorrection research, Richard M. Foxx and D. R. Bechtel identified several other important features of overcorrection.

1. The client is made to experience the effort that would be required of other individuals to correct the personal or environmental effects of the client's undesirable behavior.
2. The client also is required to rapidly perform overcorrection procedures, thereby increasing the effort involved.
3. Physical or manual guidance is employed to ensure client cooperation with, and completion of, the overcorrection procedures.
4. Manual guidance is graduated in that it is adjusted according to the degree to which the client voluntarily responds to directions to perform the required overcorrection acts.

The sequence of procedures used in overcorrection involves several important steps. Initially, the client is informed of his or her inappropriate action. Then the client receives brief verbal instruction regarding the overcorrection responses required. If the client does not immediately initiate the instructed responses,

graduated guidance is provided. Finally, graduated guidance is terminated when the client complies with and/or completes the overcorrection procedure.

Originated in the early 1970s by Nathan H. Azrin and Richard M. Foxx, overcorrection procedures were classified by their developers as consisting of either restitutional or positive practice procedures. Restitutional overcorrection is employed in the treatment of maladaptive behaviors that result in disturbance to the environment (including harm to the client). Such procedures require an individual who demonstrates a maladaptive target behavior to restore the environment and him- or herself to a state that is vastly improved in comparison with conditions prior to the maladaptive behavior. The objective of overcorrecting environmental effects is achieved after first identifying the specific and general disturbances created by the misbehavior and identifying the behaviors needed to greatly improve the consequences of the disturbance. The individual then is required to perform corrective actions in the appropriate context whenever the undesirable behavior occurs. Useful examples of restitutional overcorrection procedures from Foxx and Azrin's initial studies include procedures referred to as oral hygiene training and household orderliness training. Oral hygiene training was employed as a consequence for repetitive mouthing, a behavior that may cause self-infection. The procedure involved verbal instruction and physical guidance directing the client to cleanse the teeth, gums, and lips with mouthwash for a period of 10 min. Household orderliness training was employed as a consequence for acts involving property damage. After throwing or overturning furniture, the client was required to spend 30 min or more wiping tables, emptying ashtrays, and rearranging magazines as well as returning the furniture to its original position.

Positive practice overcorrection is employed in the treatment of maladaptive behaviors that result in no apparent disturbance to the environment or harm to the client. Positive practice procedures require the individual who demonstrates a maladaptive target behavior to repeatedly practice appropriate responses that are relevant to the maladaptive behavior and the context in which it occurred. This objective, repeatedly practicing correct forms of relevant behavior, is achieved after first identifying appropriate behaviors that should be practiced. The client then is required to perform the correct behaviors after each occurrence of the target behavior. In Azrin and Foxx's initial applications, positive practice overcorrection procedures referred to as functional movement training were used to treat forms of self-stimulatory behaviors such as stereotyped head weaving and repetitive hand clapping. The procedures involved physically restraining either the client's head or hands and then verbally instructing and physically guiding the client through a series of head or hand movements for a period of 5 min.

Overcorrection procedures have been employed in the treatment of self-injurious behaviors, inappropriate toileting, and undesirable social and academic behaviors, as well as inappropriate oral behaviors, aggressive-disruptive behaviors, and self-stimulatory behaviors such as those cited in the preceding examples. Incorporating correct forms of behavior that are topographically similar to a wide range of target behaviors, numerous procedural variations of restitutional and positive practice overcorrection have been developed. In addition to oral hygiene training, household orderliness training, and functional movement training procedures, clinicians have developed overcorrection procedures labeled as medical assistance training, cleanliness training, quiet training, personal hygiene training, personal appearance training, social apology/reassurance training, required relaxation, hand control and awareness, autism reversal, and theft reversal.

Due to potential confusion that may arise from the various procedural labels used to characterize overcorrection treatments, Richard Foxx and D. R. Bechtel have recommended the elimination of all procedural terms and labels, including restitution and positive practice. These authors contended that overcorrection procedures consist of consequences that should be individually designed for each specific target behavior. Accordingly, overcorrection procedures should be described on a case-by-case basis, thus limiting the usefulness of procedural terms and labels.

Foxx and Bechtel noted that the use of the term positive practice has resulted in erroneous inferences regarding the inclusion of negative practice and positive reinforcement as components of overcorrection. It is important to recognize that overcorrection procedures do not include either of these elements. Overcorrection procedures are different from negative practice, a procedure whereby the client is asked to repeatedly practice the undesirable behavior. Moreover, the inclusion of positive reinforcement as a component in overcorrection procedures would alter the aversive nature of these procedures and possibly lead to increases in the target behavior. In those overcorrection studies in which positive reinforcement has been employed, such reinforcement was administered for appropriate behaviors that occurred during times when overcorrection

was not delivered, rather than for correct forms of behavior that were required as part of the overcorrection sequence.

II. THEORETICAL BASES

As aversive stimuli that produce decrements in the behaviors they follow, overcorrection techniques clearly function as punishment procedures. When delivered immediately following undesirable behavior, overcorrection also includes timeout from positive reinforcement, as the client's ongoing behavior is interrupted and opportunities to obtain reinforcement from the environment are eliminated during overcorrection. Negative reinforcement, in the form of removal of manual guidance and termination of the overcorrection procedure, also occurs for the individual's compliance with and completion of the required overcorrection acts.

Overcorrection procedures have been regarded as unique compared with other punishment procedures because of their use of correct forms of behavior that are topographically similar to the maladaptive target response. Whether this element of topographical similarity results in behavioral outcomes that are different from outcomes of other punishment procedures is a question that has not been adequately addressed. Several studies have demonstrated that variations of overcorrection that employ topographically dissimilar forms of behavior can also produce suppression of target behaviors. Moreover, few studies have included data or anecdotal reports of increases in appropriate behavior associated with the use of topographically similar overcorrection procedures. Accordingly, Foxx and Bechtel have recommended the elimination of terms referring to the "educative" and "training" functions of overcorrection. Thus, researchers are left with the question of whether overcorrection entails anything more than an elaborate, albeit effective (as is discussed in the next section), set of punishment procedures.

III. EMPIRICAL STUDIES

Although overcorrection procedures have been utilized most commonly with persons with mental retardation in institutional settings, these procedures also have been employed in the treatment of autism, emotional disturbances, and behavior disorders in a variety of settings. Although many of the treatment studies have focused on children, significant numbers of studies have been conducted with adults as well. In their 1982 review of 97 overcorrection studies, Foxx and Bechtel classified the maladaptive behaviors treated with overcorrection techniques into categories of aggressive-disruptive behaviors, self-stimulatory behaviors, self-injurious behaviors, toileting behaviors, inappropriate oral behaviors, and educational-social development behaviors. Historically, the vast majority of applications of overcorrection have occurred with aggressive-disruptive, self-stimulatory, and toileting behaviors.

The initial application of overcorrection procedures occurred as a method of toilet training individuals with mental retardation in institutional settings. An extensive set of procedures known as dry-bed training was used following bowel and bladder accidents. The procedures usually consisted of mopping the floor, cleaning wet and soiled items, redressing oneself in clean clothing and replacing bed linens, and repeatedly walking to the toilet and performing a series of responses (pulling pants down, sitting, etc.) involved in appropriate toileting. These procedures later were modified for application to normal children with greater emphasis placed on the positive practice component (i.e., repeatedly walking to the toilet and rehearsing appropriate toileting behaviors). Similar procedures have been applied to children diagnosed with enuresis or encopresis. Despite some variation across studies and populations treated, the duration of overcorrection with toileting behaviors usually has been 30 min or greater, often ranging up to 45 min. Because overcorrection procedures usually have been combined with other effective procedures such as Mowrer and Mowrer's bell-and-pad training and reinforcement for appropriate voiding, it is not possible to determine the relative contribution of overcorrection to the successful outcomes reported in such multicomponent treatment programs. However, reductions of greater than 80% in wetting and/or soiling usually have been reported, with near 100% reductions often being achieved within 1 to 3 months and maintained at 2- to 18-month follow-up.

With aggressive-disruptive behaviors, overcorrection has been employed rather extensively in treating relatively mild problems, such as out-of-seat behavior or talking out, as well as in treating more extreme acts, such as hitting, biting, and assaultive sexual behavior. Typical overcorrection procedures for aggressive-disruptive behaviors include picking up thrown or ripped items, apologizing to the victim, and/or assisting in medical care of the victim. In a few studies, overcorrection has involved requiring the aggressor to lie down, to pat and stroke the victim, or to engage in a series of arm

movements. The duration of these overcorrection procedures has ranged from less than 1 min to 2 hr, with the most frequent durations being 5 to 10 min. In relatively few of these studies has overcorrection been used as the only treatment procedure. Instead, many studies have combined overcorrection with procedures such as verbal warnings and positive reinforcement during periods when the client was not engaged in overcorrection acts. Using DRI (differential reinforcement of incompatible behaviors) or DRO (differential reinforcement of other behaviors) procedures, positive reinforcement has been made contingent either on responses that are incompatible with the target behaviors or on the absence of aggression or disruption for specified intervals. In investigations of overcorrection treatments, reductions of greater than 85% have been observed within 2 weeks to 2 months for most aggressive-disruptive behaviors, with a large number of researchers reporting reductions of near 100%. Maintenance of behavior change has been reported in most studies, with follow-up periods ranging from 5 weeks to 1 year.

In a large number of studies, overcorrection has been used to treat a variety of self-stimulatory behaviors including hand flapping and posturing, stereotyped vocalizations, rocking, hair pulling, and mouthing objects. Behaviors most frequently treated have been hand flapping, rocking, and mouthing. The most commonly used overcorrection procedures for these responses consist of required movement of the body parts involved in the self-stimulatory behaviors. Other common procedures have included enforced toy play and required toothbrushing. The duration of the overcorrection procedures for self-stimulatory behavior has ranged from 30 sec to 20 min, with a typical duration of 2 min. Relatively few treatments for self-stimulatory behaviors have employed overcorrection alone, as most combine overcorrection with other procedures. Additional treatment procedures have included verbal warnings, prevention of self-stimulatory behavior by physical restraint or other means, and/or positive reinforcement (i.e., DRI or DRO procedures). Nearly all investigators reported reductions in target behaviors of greater than 80%, with near 100% reductions observed in the majority of studies. However, follow-up data have been reported in very few studies, with maintenance of behavior reductions rarely reported for longer than 1 to 3 months.

Self-injurious behaviors, such as face slapping, head banging, hand biting, and eye poking and gouging also have been the focus of a relatively small number of overcorrection studies. The most frequently treated self-injurious behaviors have been head banging and biting. Overcorrection procedures for these behaviors usually have consisted of required movement of the body part involved in the self-injury, sometimes combined with required toothbrushing for self-biting, hair combing for head banging, required bed rest, and applying medication or cream to the affected area. The duration of these overcorrection procedures typically has ranged from 5 to 10 min. Overcorrection has been utilized as the only treatment procedure in most studies but has been combined with positive reinforcement of alternate behaviors in a few instances. Reductions in self-injurious behaviors of 95 to 100% have been reported in less than 1 week of treatment for most cases. The majority of studies have reported follow-up data, with maintenance of treatment effects being demonstrated for 4 to 33 months posttreatment.

A handful of investigations have addressed maladaptive oral behaviors in individuals with mental retardation. This category of behaviors includes drooling, vomiting, rumination (the repeated rechewing and swallowing of regurgitated food), pica (the ingestion of nonnutritive substances such as paper or cigarette butts), and coprophagia (the ingestion of fecal material). Overcorrection procedures have consisted of picking up trash, required practice in correct vomiting, cleaning of vomited matter from various surfaces including walls and floors, and required handwashing, toothbrushing, and mouth wiping. Durations for such procedures have varied considerably, often involving periods of less than 2 min for rumination, drooling, and pica as contrasted with 20 min to 2 hr for coprophagia and vomiting. Brief durations of overcorrection have been used most often combined with other procedures such as DRO and positive reinforcement for appropriate behaviors. Except for drooling, near 100% reduction in these maladaptive oral responses has been reported at posttreatment. The majority of studies conducted follow-up assessments and reported maintenance of these reductions at 3 to 12 months posttreatment.

A limited number of studies have addressed various responses identified by Foxx and Bechtel as educational-social development behaviors. Maladaptive responses in this broad category include errors on academic-related tasks (e.g., oral reading, spelling, writing proficiency, manual signing) and failure to comply with directions/demands to stay on-task, attend class, share with other children, make eye contact, vocalize, eat appropriately, and perform tasks with adequate speed. Overcorrection procedures for these behaviors typically have consisted of requiring

clients to repeatedly correct academic errors, complete written academic tasks, comply with verbal instructions, and engage in required movements of specific body parts (e.g., hand movements with eating utensils or puzzle pieces, head movements in the direction of the therapist). Modeling and reinforcement procedures often have been included as treatment components in these studies. Combinations of these procedures usually have resulted in significant decrements in maladaptive responses, as well as significant improvements in compliance with instructions and accurate responding. However, relatively few studies examining the use of overcorrection procedures with social-academic behaviors have addressed issues of maintenance of behavior change.

As with other punishment procedures, the literature on overcorrection is replete with numerous reports (usually anecdotal in nature) of positive and negative side effects. The majority of studies that have provided data-based observations of side effects have examined stereotyped behaviors of a self-stimulatory or self-injurious nature. Associated with overcorrection have been reported increases in prosocial behaviors such as compliance, cooperation, and appropriate toy play, as well as increases in negative responses such as aggression, emotional outbursts, and nontargeted self-stimulatory behaviors.

IV. SUMMARY

In general, overcorrection represents a response-suppression method that has been demonstrated as highly effective in the treatment of a variety of maladaptive behaviors. Especially when combined with treatment procedures that promote appropriate behaviors, overcorrection has resulted in near elimination of aggressive and disruptive behaviors, self-injurious behaviors, inappropriate oral behaviors, and inappropriate toileting, as well as impressive decrements in self-stimulatory behaviors. Brief (i.e., 5 min or less), as well as extended, administrations of overcorrection have been demonstrated to suppress maladaptive behaviors with nearly equal effectiveness. As with most punishment procedures, many studies have reported positive and/or negative side effects with the use of overcorrection. Although a number of single case studies suggest the superiority of overcorrection when compared with other behavioral treatments, methodological problems inherent in these studies severely limit the conclusions that can be drawn from such comparisons. For this reason as well as ethical and practical considerations, inclusion of brief durations of overcorrection are recommended as a component of treatment protocols that provide positive reinforcement for incompatible responses and for alternate forms of appropriate behavior.

See Also the Following Articles

Aversion Relief ■ Positive Punishment ■ Positive Reinforcement ■ Retention Control Training ■ Self-Punishment

Further Reading

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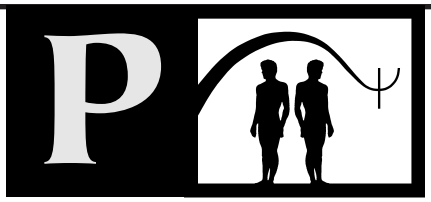

Pain Disorders

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GLOSSARY

acute pain Pain from an obvious nociceptive source. It is generally self-limited and short-lived.
automatic thoughts Spontaneous and rapid, often inaccurate, interpretation of a situation.
biofeedback The technique of making unconscious, physiological processes perceptible to the senses through the use of a monitoring device in order to manipulate them by conscious mental control.
chronic pain Over 6 months, the original nociceptive cause can no longer explain the duration or severity of the pain.
continuous pain Long-standing pain from an obvious source (e.g., cancer pain).
hypnosis Induction of a state of selective attention, usually through a combination of imagery and relaxation techniques.
nociceptor A specialized peripheral nerve receptor the function of which is to receive pain stimuli.

The treatment of pain is a difficult challenge for all physicians. Recently, JCAHO has made adequate treatment of pain a priority for all hospitalized patients. Clinicians treating pain need to consider factors such as the duration and intensity of the pain, its psychosocial context, and its associated psychiatric comorbidity. This article will examine the treatment of pain in a biopsychosocial framework, concentrating on psychotherapy as a tool to help treat the pain patient.

I. TYPES OF PAIN

A. Overview

Pain was initially perceived as being purely a sensory event, resulting from tissue damage. The fact that patients respond to the same pain-generating stimulus in vastly different manners suggests that such an explanation is much too simplistic. Pain should more appropriately be viewed as a perceptual phenomenon rather than a sensory one. In a perceptual framework, both sensory and psychological factors are incorporated, and there is a much greater recognition of the importance of the attentional, cognitive, affective, and social components to the pain experience.

Physicians often question whether their patients are experiencing "real pain" or not. Such concern is generally useless, as it views pain solely as a sensory rather than a perceptual experience. Accepting patients' pain complaints as real is important; treatment can then be based on the sensory and psychological experience unique to that patient. Pain is often described as acute,

continuous, or chronic in nature. Table I examines the differences between these types of pain.

B. Acute Pain

In most instances, the treatment of acute pain is uncomplicated. Adequate pharmacological analgesic relief is the first guiding principle. Physicians have often been leery of using narcotic medications even for severe pain because of a fear of the patient becoming addicted. This fear is grossly exaggerated, and narcotics can be used when clinically appropriate with minimal risk of addiction. Patients occasionally do not respond as well as expected to standard pharmacological analgesic treatment, and, in these instances, psychiatric consultation is sometimes requested. Psychosocial components to the pain should be explored in depth, and nonpharmacologic interventions can often be quite helpful. Many of these interventions will be described below.

C. Continuous Pain

Patients suffering from continuous pain pose very different challenges. For example, a patient with bone metastases may suffer some degree of pain no matter how aggressively he or she is treated with narcotic medications. The goal in managing pain in these patients is to help the patient learn to accommodate to the pain. A variety of psychotherapies can accomplish this task and may also permit the patient to decrease the dose of pain medication, minimizing the overall side effect burden. Biofeedback, cognitive-behavioral therapy, and hypnosis have all been demonstrated to be effective in such patients and will be described in further depth below.

D. Chronic Pain

Psychiatric consultation is most frequently requested for patients suffering from chronic pain. In these patients, the original nociceptive cause of the pain is no longer sufficient in explaining the current level of pain that the patient is experiencing. Pain behavior demonstrated in chronic pain patients often leads the physician to question the veracity of the pain complaints. The patient may complain of being in agonizing pain, but appear quite comfortable, or he may only cry out in pain only when the health care professional walks past his hospital room. Such behavior happens when the patient begins adapting to the pain. If the physician questions whether the pain is real because of this, then the patient may feel he needs to prove that his pain is real. Often, the disruption of the doctor–patient relationship that may ensue in such instances may further complicate the treatment. Patients need to be assured that their pain is real, and that the request for a psychiatric consult does not mean that the physician believes the pain is "all in their head." The consulting psychiatrist should emphasize that the goal of treatment is not cure of the pain, but instead to help the patient deal with it better. Aggressive treatment of underlying psychiatric conditions such as depression or anxiety that are often present in patients with chronic pain is necessary. Pharmacologic treatment must address both the pain and the underlying psychiatric issues to be successful. Psychotherapy interventions must do the same.

II. COGNITIVE-BEHAVIORAL THERAPY FOR PAIN DISORDERS

A. Overview

Cognitive-behavioral therapy has been shown to be effective in patients suffering from either continuous or chronic pain. Patients are taught skills such as distraction, imagery techniques, and calming self-talk, and learn to decrease negative, catastrophizing thoughts that are present in pain patients. Restructuring the patients'

TABLE I
Differences in Pain Types

Pain type	*Obvious nociceptive source*	*Response to narcotics*	*Time course of symptoms*	*Associated with psychological symptoms*
Acute	Yes	Good	Short, generally 1 month or less	No
Continuous	Yes	Good	Over 6 months	Sometimes
Chronic	No	Fair to poor	Over 6 months	Frequently

cognitive approach to pain is important. Beliefs about their condition, their expectations for the future, and cognitive distortions must all be examined. A catastrophic, overly negative view of the future has been found to be correlated to more intense pain reports. Helping the pain patient to have a more realistic assessment of the future may enable him or her to deal with the pain in the present.

B. Automatic Thoughts

Discovering the automatic thoughts that are present can enable them to be replaced with more realistic thoughts. For example, when the pain becomes worse, an automatic thought may be triggered such as "I'm never going to get better" or "I can't do anything." Such automatic thoughts often lead to more emotional distress, and increased physical and psychological dysfunction. Challenging the patients' inaccurate automatic thoughts can provide the patient with a more realistic and adaptive view of the problem. These same cognitive-behavioral techniques can also be used to treat the comorbid depression and anxiety that are often found in patients with pain.

C. Homework

Homework assignments are always an important part of cognitive-behavioral therapy. In patients with pain disorders, homework assignments may include asking patients to keep track of which specific thoughts, actions, and behaviors exacerbated or helped the pain. Homework can also be used to aid the patient in utilizing the coping strategies discussed in the therapy session. Homework should start easier and get progressively harder as the therapy continues. When easier tasks can be accomplished, the patient is more likely to be motivated to attempt to accomplish the more difficult tasks.

D. Relaxation Training and Imagery

Relaxation training and imagery are important components of cognitive-behavioral therapy for pain patients as well. Progressive muscle relaxation, stretch-based relaxation, and breathing relaxation are all techniques that have been shown to be beneficial. Progressive muscle relaxation involves tensing a muscle group for several seconds, passively focusing on how the tensed muscle feels. The tensed muscles are then released, with passive focus of attention on how the muscles feel as the relaxation takes place. This sequence is then applied to the major muscle groups of the body.

Stretch-based relaxation is utilized when tensing muscle groups exacerbates the pain. In stretch-based relaxation, series of muscles are very gently stretched without the tensing and relaxing techniques utilized in progressive muscle relaxation. For patients immobilized by their pain, stretch-based relaxation rather than progressive muscle relaxation is often utilized. Once patients become more mobile, progressive muscle relaxation techniques can begin to be used in combination with a stretch-based program.

Breathing relaxation focuses on slow, patterned abdominal breathing. Patients are instructed to inhale slowly and deeply through the nose, allowing the abdomen to expand. With inhalation, the abdomen rises, and the diaphragm moves downward. As the breath continues, the lower part of the chest expands and eventually the upper part of the chest does so as well. When the breath is completed, the patient is instructed to hold the breath for approximately 1 second, and then begin exhaling. The process is reversed with exhalation. The breath is slowly released as the abdomen is drawn back in and the diaphragm is lifted back up. The previously expanded chest now relaxes and exhalation is completed. The empty lungs are held this way for 1 second, and the cycle is again repeated. The entire process should take approximately 8 to 10 seconds, with inhalation and exhalation each lasting 3 to 4 seconds, and pauses following the completion of inhalation and exhalation lasting 1 second.

The use of imagery is often a part of cognitive-behavioral treatment as well. Patients can imagine returning to a calm, relaxing place. For pain patients, this allows their attention to be taken away from their pain. Imagery can also be more specific to the pain. The patient who suffers stabbing, intense trigeminal neuralgia pain, may imagine a knife stabbing into his cheek and can then be guided in therapy into imagining the knife becoming duller, and then ultimately becoming a blunt piece of wood. Other patients may be asked to focus intently on their pain, paying particular attention to its character. Pain does not remain at a constant level, but worsens significantly at times. When the patient becomes more aware of the pain and its inconstant nature, they can be more successful in utilizing imagery to help decrease the pain.

E. Coping Skills

Cognitive-behavioral therapy also involves the practical application of techniques enabling better coping

with day-to-day pain. Diversional techniques such as reading or listening to music can be encouraged. Finding an appropriate pace for activities is equally important. Patients frequently alternate between doing too much, then being nearly immobilized from pain as a result. Encouraging activity, but in a restrained manner that is not likely to exacerbate the pain, is crucial for these patients. Other patients may be too inactive for fear of worsening their pain. Setting concrete, attainable goals may enable them to slowly become more active.

Cognitive-behavioral groups are utilized frequently in hospital-based pain programs. These groups often have a coping skills training component. Coping skills emphasized in such groups often emphasize assertiveness training, acknowledging and expressing feelings appropriately, and self-acceptance. When patients can hear from other fellow pain patients possible coping strategies, they are more likely to utilize them. Groups also offer the benefit of allowing patients to realize that they are not facing their problem alone.

F. Relapse Prevention

Relapse-prevention and maintenance of the learned skills in dealing with pain is an important part of cognitive-behavioral therapy as well. When patients have a flare-up of pain, especially when they have been relatively pain-free for a while, they will often become quite distressed, and feel that they need to "start all over" or that they will never get better. They frequently can forget the coping strategies and cognitive-behavioral techniques described above and can benefit from a short "refresher course." Emphasizing that one bad day does not undo all the good days that came before it is important as well. Patients can often benefit from a systematic approach to identifying the cause of the increased pain and discovering ways to prevent future flare-ups.

III. OTHER THERAPIES

A. Operant-Behavioral Therapy

In the operant-behavioral approach to the patient with pain, the goal is simply to change behavior by reinforcing well behavior and ignoring pain behavior. The operant model pays particular attention to the role that the patient's family may play in contributing inadvertently to pain behavior. Pain behavior may have been reinforced by providing attention, or permitting the patient to avoid undesirable activity. The family of the pain patient is told to ignore pain behaviors such as lying in bed moaning, while even small steps toward increased function are strongly reinforced. Homework assignments for both the patient and the family are often a part of the treatment. When both the family and the treating physician are involved, the benefits of this approach are magnified. An operant-behavioral approach to pain is often used in conjunction with a cognitive approach for additional therapeutic benefit.

B. Biofeedback

Biofeedback has often been used for a variety of pain complaints, including chronic tension headaches, low back pain, temperomandibular pain, fibromyalgia, and arthritis pain. Patients undergoing biofeedback become adept at monitoring physiological processes such as heart rate, muscle tension, and galvanic skin response. Patients learn to control these processes and thereby control overall physiological arousal. Biofeedback treatment often involves 10 to 20 sessions in which a physiological monitoring device is attached to the patient. The patient is then instructed to do whatever possible to alter the physiological parameter (e.g., skin temperature) in the specified direction. Biofeedback training typically includes training in specific relaxation strategies, such as progressive muscle relaxation or diaphragmatic breathing to aid patients to better control their physiological processes. The success of biofeedback is greatly dependent on the patient continuing to use the techniques learned in the biofeedback sessions at home.

C. Hypnosis

Hypnosis can also be a useful psychotherapeutic tool in the management of the pain patient. It has been shown to be effective in alleviating the chronic pain associated with cancer, irritable bowel syndrome, tension headaches, temperomandibular disorders, and a variety of other chronic pain disorders. Hypnosis is defined as the induction of a state of selective attention, typically through relaxation and imagery techniques. Hypnosis has both presuggestion and postsuggestion components. The presuggestion component involves attentional focusing through the use of imagery, distraction, or relaxation, and has features quite similar to relaxation techniques discussed earlier. During the suggestion component, the specific goal is introduced (e.g., a change in the nature of the pain from intolerable to mildly annoying). The postsuggestion phase involves continued use of the new behavior after hypnosis is terminated.

The hypnotherapist can, at times, teach patients to hypnotize themselves. Self-hypnosis has the potential to be an effective method for controlling both acute and chronic pain as well, especially for the motivated patient that will practice the technique at home. While not all patients can master this technique, benefits for those who can may include an increased sense of control over their illness and less dependency on the health care system. As with any pain treatment technique, hypnosis works best when it is employed early in the pain cycle, before the pain has become severe enough to impair concentration.

Meditation serves a similar function to hypnosis or self-hypnosis for patients but does not involve suggestion, autosuggestion, or the induction of a trance state. Mindfulness meditation focuses on development of an awareness of bodily sensations and mental activities in the present moment to allow the body to relax and the mind to calm. Chronic pain patients generally feel at the mercy of their illness and are quite frustrated by how much their pain controls their life. Offering tools such as meditation and self-hypnosis that patients may utilize on their own empowers them and allows patients to feel that they are once again in control of their life.

Biofeedback, hypnosis, and meditation are often used in conjunction with cognitive-behavioral therapy. As described earlier, the relaxation techniques utilized in cognitive-behavioral therapy are used in biofeedback to aid the patient in garnering more control over physiological processes, and used in the presuggestion phase of hypnosis. There is an underlying presumption in cognitive-behavioral therapy, biofeedback, and hypnosis that it is possible to attenuate the effects of pain through the use of the mind. Each of these therapies requires active intervention on the part of the patient, especially when self-hypnotic techniques are added to regular hypnotherapy. The patient must take not only an active part in his or her therapy, but must continue to do so once at home to ensure that gains made will be sustained. Table II describes the similarities and differences in cognitive-behavioral therapy, operant-behavioral therapy, biofeedback, and hypnosis.

IV. COMBINED TREATMENT OF PAIN AND PSYCHIATRIC DISORDERS

Patients with pain disorders often have comorbid psychiatric disorders. Patients who have either continuous or chronic pain are very likely to develop depression. Other psychiatric disorders, including anxiety and somatoform disorders, can frequently be found as well. The psychotherapist treating the patient who has a pain disorder must be alert to the likelihood of psychiatric disorders and ensure that they too are aggressively treated. A better treatment outcome is likely when both the comorbid psychiatric illness and the pain disorder are treated, rather than exclusively focusing on one or the other.

Many of the therapeutic methods utilized to treat the comorbid psychiatric illnesses can also be helpful in treating the pain disorder. Pharmacologic approaches such as antidepressants are often used as adjunctive agents in the treatment of pain disorders, as well as being a primary method in the treatment of depression. Anticonvulsant medications such as carbamazepine and gabapentin have often been used in a variety of pain disorders and are considered useful as augmenting agents in the treatment of anxiety or depression.

Cognitive-behavioral therapy techniques useful in the treatment of pain disorders are also helpful in the treatment of depression and anxiety. Relaxation therapy techniques utilized in the treatment of pain disorders are also frequently used in the treatment of anxiety disorders. Other cognitive-behavioral techniques, such

TABLE II
Therapies for Pain Disorders

Therapy	*Automatic thoughts*	*Relaxation techniques*	*Homework*	*Family involvement*	*Monitor physiological process*	*Induction of state of selective inattention*
Cognitive-behavioral	Yes	Yes	Yes	Yes	No	No
Operant-behavioral	No	No	Yes	Yes	No	No
Biofeedback	No	Yes	Yes	No	Yes	No
Hypnosis	No	Yes	No (except in self-hypnosis)	No	No	Yes

as cognitive restructuring and changing automatic thoughts, are common to the treatment of pain disorders, depression, and anxiety. The patient who has learned these techniques in one context should be able to more easily apply them when the other illness is being treated.

When treatment for the comorbid psychiatric illness is initiated, the therapist must be careful not to imply that this means that the therapist feels that the illness is "all in the patient's head." Most patients will readily accept the concept that psychiatric illness and pain disorders amplify each other's effects. For example, when a patient's pain becomes worse, this will often worsen a depression. A worsened depression makes it even harder to handle the pain, and this can lead to further pain, and even more depression. If the depression can be treated, then the patient's capacity to tolerate pain may increase as well.

In a similar vein, anxiety disorders must be appropriately treated as well. Patients with anxiety disorders frequently suffer from muscle tightness and have a constant low-grade muscle tenseness. For the chronic pain patient, this constant tension can be a source of additional discomfort. Treatment of anxiety with psychotropic medications or psychotherapy is necessary for complete treatment of the underlying pain.

V. SUMMARY

The treatment of the patient with a pain disorder poses a significant challenge for any clinician. Patients often resent being referred to a mental health professional, and are hesitant to accept that there may be an emotional overlay to their pain complaints. Clinicians need to take care not to suggest that the pain experienced is anything less than real, but also need to treat the comorbid psychiatric illnesses that are often present in the chronic pain patient population.

Psychotherapeutic approaches that have been shown to be effective in the treatment of patients with pain disorders include cognitive-behavioral therapy, operant-behavioral therapy, biofeedback, and hypnosis. Relaxation techniques such as progressive muscle relaxation are often used in cognitive-behavioral therapy, biofeedback, and hypnosis and are an important component of the treatment of pain disorders. Patients with psychiatric disorders such as anxiety or depression can often benefit from a psychotherapeutic approach that utilizes many of the features found in the treatment of pain disorders.

See Also the Following Articles

Biofeedback ■ Comorbidity ■ Medically Ill Patient: Psychotherapy ■ Somatoform Disorders ■ Stretch-Based Relaxation Training

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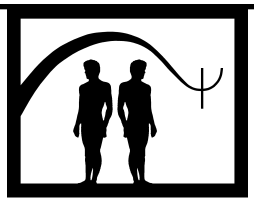

Panic Disorder and Agoraphobia

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GLOSSARY

agoraphobia Significant anxiety about places or situations from which escape might be difficult or in which help might not be easily available in the event of having a panic attack. Approximately one-third of patients with panic disorder meet this additional diagnosis.

panic disorder An anxiety disorder that is characterized by recurrent and unexpected panic attacks, which are discrete episodes of intense fear that are accompanied by a number of typical somatic and cognitive symptoms. Approximately 3% of the population is affected by this disorder over the course of a lifetime.

This article presents the therapeutic techniques, the theoretical basis, and the empirical evidence of cognitive-behavior therapy, an empirically supported intervention for the treatment of panic disorder and agoraphobia.

I. DESCRIPTION OF TREATMENT

The most effective psychological treatment for panic disorder with agoraphobia to date is cognitive-behavior therapy (CBT). This treatment is usually delivered in 12 weekly 60-min individual treatment sessions but can also be conducted in a small group format consisting of two therapists and between four and seven patients. Between each session, the patients are given clearly specified "homework" assignments to practice the newly acquired skills that are discussed in treatment. In addition, patients are expected to complete daily monitoring forms in order to identify specific panic attack triggers. These monitoring forms also serve the purpose of monitoring the patients' progress throughout treatment and of enhancing the patients' sense of predictability and controllability.

One of the best-studied CBT manuals for panic disorder is the Panic Control Treatment protocol (PCT) developed by David H. Barlow and his colleagues. The treatment consists of the following components: *(a)* education about the nature of anxiety and panic; *(b)* training in slow breathing; *(c)* cognitive restructuring; *(d)* interoceptive exposure exercises; and *(e) in vivo* situational exposure exercises for individuals with high levels of agoraphobia.

A. Education about the Nature of Anxiety and Panic

During the first two sessions, patients are taught about the nature and function of fear and its nervous system correlates. The fear response is presented as a normal and generally protective state that enhances the individual's

ability to survive. Panic attacks are conceptualized as inappropriate fear reactions arising from spurious, but otherwise normal, activation of the body's fight-or-flight response system. Like other fear reactions, panic attacks are portrayed as alarms that stimulate the person to take immediate defensive action. Because the individual normally associates the fight-or-flight response with the presence of danger, panic attacks typically motivate a frantic search for the source of threat. When none is found, the treatment model assumes that the person looks inward and interprets certain bodily symptoms as signs of a physical or psychological catastrophe (e.g., "I'm dying of a heart attack," "I'm losing my mind").

In addition to normalizing and demystifying panic attacks, the educational component of PCT provides patients with a model of anxiety that emphasizes the interaction between the mind and body and provides a rationale and framework for the skills to be taught during treatment. A three-component model is utilized, in which the dimensions of anxiety are grouped into physical, cognitive, and behavioral categories. The physical component includes bodily changes (e.g., neurological, hormonal, cardiovascular) and their associated somatic sensations (e.g., shortness of breath, palpitations, lightheadedness). The cognitive component consists of thoughts, images, and impulses that accompany anxiety or fear (e.g., thoughts of dying, images of losing control, impulses to run). The behavioral component contains behaviors that are associated with anxiety (e.g., pacing, carrying a safety object, or simply avoiding or escaping the situation). These three components are described as interacting with each other, often with the result that anxiety is heightened. The therapist then explains that the goal of treatment is to learn skills for controlling each of the three components of anxiety. To manage some of the physical aspects of anxiety, such as sensations due to hyperventilation (e.g., lightheadedness and tingling sensations) or muscle tension (e.g., trembling and dyspnea), patients are taught slow, diaphragmatic breathing. To reduce anxiety-exacerbating thoughts and images, patients are further taught to critically examine, based on past experience and logical reasoning, their estimations of the likelihood that a feared event will occur, the probable consequences if it should occur, and their ability to cope with these consequences. In addition, they are assisted in designing and conducting behavioral experiments to test their predictions.

B. Breathing Retraining

Beginning with Session 3, patients are taught a breathing technique that encourages slow, diaphragmatic breathing over fast chest breathing. When introducing this treatment component, the patients are usually asked to first voluntarily hyperventilate by standing and breathing fast and deeply, as if blowing up a big balloon, for approximately 1 min. This exercise typically induces intense and unpleasant bodily sensations (e.g., racing heart, dizziness, tingling sensations in hands and feet), which often resemble some of the sensations that patients experience during a panic attack. Once the symptoms have abated, the therapist educates the patients about the physiological basis of hyperventilation and suggests that this may often be associated with panic attack episodes. It is then suggested that chronic hyperventilation, which may be caused by relatively fast and shallow chest breathing, might lower the threshold and therefore increase the risk for experiencing recurrent panic attacks.

In the next step, the therapist introduces a breathing control technique, which encourages patients to rely on the diaphragm rather than on chest muscles when breathing. In addition, patients are instructed to concentrate on their breathing by counting their inhalations and thinking the word "relax" on exhalations. The therapist models the suggested breathing patterns and then provides corrective feedback to patients while they practice this technique in the office setting. In Session 4, patients are further taught a technique to slow the rate of breathing with the goal of comfortably spanning a full inhalation and exhalation cycle over 6 sec. Again, the therapist models and then provides corrective feedback as practice is conducted during the session. As part of the homework assignment, patients are instructed to practice diaphragmatic breathing at least two times a day, for at least 10 min for each of the remaining sessions.

C. Cognitive Restructuring

The PCT manual introduces this treatment component in Session 4 by suggesting that thoughts are hypotheses or guesses rather than facts. The therapist explores the patients' thinking errors that are typically associated with panic attacks. Two main types of cognitive errors are described. The first error is probability overestimation, or jumping to negative conclusions and treating negative events as probable when in fact they are unlikely to occur. The second error is catastrophic thinking, or blowing things out of proportion.

The method for countering overestimation errors is to question the evidence for probability judgments. Typical probability overestimations are: "The feeling of dizziness are caused by a brain tumor," or "the feeling

of breathlessness is a sign of a heart attack." Patients are encouraged to examine the evidence for these predictions, while considering alternative, more realistic hypotheses. This is best done in a Socratic style (i.e., leading questions) so that patients examine the content of their statements and reach alternative explanations.

Similarly, the method of countering catastrophic thinking is best be done by using Socratic questions. This type of error typically arises from viewing an event as "catastrophic" when, in actuality, it is not. Typical kinds of catastrophic thoughts are "If I faint people will think that I am weak and this would be unbearable," or "If people notice my anxiety, I will make a fool of myself and I could not deal with this." By challenging and modifying these catastrophic thoughts ("decatastrophizing") the patients begin to realize that the actual occurrences are not as "catastrophic" as originally assumed because there are ways to cope with these situations.

D. Interoceptive Exposure

To change maladaptive anxiety behaviors, patients learn to engage in graded therapeutic exposure to cues they associate with panic attacks. The exposure component (interoceptive exposure) focuses primarily on internal cues, specifically, frightening bodily sensations. The rationale for needing to perform interoceptive exposure exercises is very important for facilitating generalization from in-session practices to daily exposures. For this purpose, the therapist explores the way in which avoidance of feared sensations serves to maintain fearfulness. Activities that are avoided because of the associated physical sensations may not be immediately obvious to patients. They may include physical exercise, emotional discussions, suspenseful movies, steamy bathrooms, drinking coffee, and other arousing activities.

The purpose of these interoceptive exposure exercises is to repeatedly induce sensations that are feared and to weaken the fear response through habituating and learning that no actual danger results. In addition, the repeated inductions allow practice in applying the cognitive techniques and breathing strategies. As a result, fear of physical sensations that occur naturally is significantly reduced.

During exposure, patients deliberately provoke physical sensations like smothering, dizziness, or tachycardia by means of exercises such as breathing through a thin cocktail straw, hyperventilating, spinning, or strenuous physical exercise. These exercises are done initially during treatment sessions, with therapist modeling, and subsequently by patients at home. As patients become less afraid of the sensations, more naturalistic activities are assigned, such as drinking caffeinated beverages, watching suspenseful movies, or going to a sauna.

E. *In Vivo* Situational Exposure

An optional situational exposure component can be added for patients with significant agoraphobic avoidance. As currently administered, exposure therapy typically begins with the construction of a hierarchy of feared situations, which the patients are encouraged to enter repeatedly, starting with easier ones, and remain until anxiety diminishes. Sometimes the therapist accompanies the patients initially, but ultimately they are expected to do the task alone.

The most challenging aspect of this treatment component is to motivate the patients to engage in these exposure exercises without using any avoidance strategies. Before conducting the exercises, the therapist needs to thoroughly explore any forms of avoidance and anxiety-reducing strategies that patients typically use, some of which might be more obvious (e.g., carrying medication or a cell phone) than others (e.g., carrying quarters for a public phone, sunglasses, or chewing gum). Ideal situations at the beginning of the exposures are situations that are under the therapists' control and in which escape and avoidance strategies are difficult (e.g., leaving patients alone in a shopping mall). Once the patients have successfully mastered those situations, the therapist will then choose situations that are less controllable by the therapist (e.g., driving long distances in the car alone).

II. THEORETICAL BASES

A. History of Diagnosis and Treatment Models

Panic disorder was first officially recognized as a distinct diagnostic entity after a series of pharmacological experiments conducted by Donald Klein and his collaborators in the late 1950s and early 1960s. Klein and his colleagues observed that imipramine, an antidepressant, was effective against spontaneous panic attacks, but not against chronic and anticipatory anxiety. Klein concluded that panic and anticipatory anxiety reflect two qualitatively different underlying biological processes. By the 1980s, the efficacy of pharmacological treatment with imipramine in patients with panic disorder had been well established, and imipramine became the pharmacological criterion standard for the treatment of panic disorder for more than 20 years, until the emergence of the selective serotonin reuptake inhibitors.

Prior to including panic disorder as a distinct type of anxiety disorder in *DSM-III* in 1980, psychological therapies tended to focus primarily on the behavioral pattern of situational avoidance that frequently occurs in patients with panic attacks. During the 1960s and 1970s, systematic desensitization, consisting of imaginal exposure to feared situations paired with muscle relaxation, was the principal form of treatment. That approach was preferred to *in vivo* exposure, because it was thought the latter might engender too much anxiety for patients to manage. However, subsequent studies showed that *in vivo* exposure was superior to systematic desensitization for treating agoraphobia. During the 1980s, paralleling with the increasing recognition of the importance of fear of panic attacks as a factor in the development and progression of panic disorder, investigators began to experiment with treatments aimed more specifically at patients' experiences of anxiety related to panic and somatic sensations. These treatments are now called exposure therapy, behavior therapy, cognitive therapy or cognitive-behavioral therapy, depending on the theoretical orientation of the clinician or the emphasis placed on the treatment components, although in practice there is considerable overlap among them.

Researchers today generally agree that a combination of cognitive and behavioral strategies is the most effective psychological treatment for panic disorder and agoraphobia. Some researchers believe that exposure therapy primarily targets agoraphobic avoidance, whereas CBT either enhances the efficacy of exposure therapy or specifically addresses the panic attacks and associated features. Others assume that the treatment effects are primarily due to either exposure therapy or CBT.

B. Contemporary Psychological Models

The most popular psychological model of panic and agoraphobia today is the cognitive model. This model assumes that preexisting beliefs about the harmfulness of bodily sensations predispose people to regard them fearfully. Panic attacks are therefore viewed as resulting from the catastrophic misinterpretation of certain bodily sensations, such as palpitations, breathlessness, dizziness, and so on. An example of such a catastrophic misinterpretation would be a healthy individual perceiving palpitations as evidence of an impending heart attack. The vicious cycle of the cognitive model suggests that various external stimuli (i.e., the feeling of being trapped in a supermarket) or internal stimuli (i.e., body sensations, thoughts or images) trigger a state of anxious apprehension if these stimuli are perceived as threatening. It is assumed that this state is accompanied by fearful bodily sensations that, if interpreted in a catastrophic fashion, further increases the apprehension and the intensity of bodily sensations. Moreover, this model states that the attacks appear to come from "out of the blue" because patients fail to distinguish between the triggering body sensations of the subsequent panic attack and the general beliefs about the meaning of an attack.

Another popular psychological model is the anxiety sensitivity hypothesis by Steven Reiss and Richard J. McNally. Anxiety sensitivity denotes the tendency to respond fearfully to anxiety symptoms and is based on beliefs that these symptoms lead to harmful consequences. Similar to the cognitive model, the anxiety sensitivity hypothesis assumes that beliefs about the harmfulness of bodily sensations predispose people to respond fearfully. In contrast to the cognitive model, however, the anxiety sensitivity hypothesis does not require that patients misconstrue anxiety as something else (such as a heart attack). Instead, the model assumes that people with high anxiety sensitivity may be well aware of what causes the feared bodily sensations. Rather, patients believe that the high arousal itself might eventually lead to heart attacks, insanity, or other catastrophes.

C. Contemporary Biological Models

Biological models of panic assume that the disorder is associated with the dysregulation of a number of different biological systems. One of the most popular biological models today is the suffocation alarm hypothesis by Donald Klein. This model assumes that panic disorder is characterized by a pathologically low threshold for firing of an evolved "suffocation alarm," which can be activated by a number of biological (e.g., carbon dioxide inhalation) and psychological challenge procedure (e.g., feeling of being trapped) that signal impending loss of oxygen.

III. EMPIRICAL STUDIES

The efficacy of CBT has been demonstrated in numerous clinical studies. For example, it has been shown that PCT is superior to a relaxation condition or alprazolam, a frequently prescribed benzodiazepine to treat panic attacks. More recently, the PCT protocol was compared to imipramine, an antidepressant, which is often considered to be the gold standard pharmacological

treatment for panic disorder. This study compared the efficacy of imipramine, a pill placebo, and combinations of PCT with imipramine or a pill placebo in a large, multicenter trial conducted by David H. Barlow and his colleagues. A total of 312 panic disorder patients with mild or moderate agoraphobia were randomly assigned to imipramine, PCT, PCT plus imipramine, PCT plus placebo, or placebo only. Participants were treated weekly for 3 months. In addition, responders were seen monthly for 6 months and then followed up for an additional 6 months after treatment discontinuation. The results of this study showed that combining imipramine and CBT had limited advantage acutely but more substantial advantage in the longer term: Both imipramine and PCT were superior to placebo on some measures for the acute treatment phase and even more pronounced after the 6 monthly maintenance sessions. Six months after treatment discontinuation, however, people were more likely to maintain their treatment gains if they received PCT, either alone or in combination with a pill placebo. Individuals who received imipramine were more likely to relapse than those who did not receive the antidepressant.

Similar results were also reported with a CBT protocol that focuses more on cognitive restructuring. For example, a study by David M. Clark and his colleagues compared cognitive therapy, applied relaxation, imipramine, and a wait-list control group. At posttreatment, 75% of the cognitive therapy patients were panic free, compared with 70% in the imipramine condition, 40% in the applied relaxation condition, and 7% in the wait-list control condition. Cognitive therapy was superior to the wait-list control group on all panic and anxiety measures, whereas imipramine and applied relaxation were better than the wait-list control group on approximately one-half of the measures. At 9-month follow-up, after imipramine had been discontinued, the panic-free rates were 85% for cognitive therapy, 60% for imipramine, and 47% for applied relaxation. These results are consistent with reviews and meta-analyses of treatment outcome studies utilizing *in vivo* situational exposure, suggesting that 60 to 75% of treatment completers experience clinical improvement with fairly stable treatment gains at treatment follow-ups.

It is not known at present which components of CBT are most important for treatment efficacy or whether they all contribute uniquely to efficacy. Panic patients with high levels of agoraphobia seem to respond best to *in vivo* situational exposure. Patients with moderate or mild agoraphobia seem to respond best to CBT protocols that combine cognitive restructuring, psychoeducation, interoceptive exposure exercises, and breathing retraining and relaxation exercises. Unfortunately, except for the use of a relaxation control condition in some studies, direct comparisons of the various components are lacking. However, there is some indication in the literature that repeated interoceptive exposure practices alone are effective in reducing panic attacks even without any explicit cognitive restructuring techniques. Similarly, *in vivo* situational exposure practices seem to be effective in treating panic disorder and agoraphobia without explicit cognitive interventions. Thus, although CBT for panic disorder and agoraphobia is clearly effective, little is known about the most important active ingredients in treatment and the mechanism of treatment action.

IV. SUMMARY

Panic disorder is a debilitating disorder that is characterized by recurrent and unexpected panic attacks. Approximately 3% of the population is affected over the course of a lifetime, and one-third of those individuals also develop agoraphobia, usually within 1 year of the initial occurrence of the panic attacks.

A number of biological and psychological models of the disorder have been proposed. A prominent biological model, the suffocation alarm hypothesis, assumes that panic disorder is the result of a pathologically low threshold for firing of a "suffocation alarm." The two most prominent psychological models are the cognitive model and the anxiety sensitivity model. The cognitive model assumes that panic attacks result from the catastrophic misinterpretation of certain bodily sensations. The anxiety sensitivity hypothesis does not assume that all panic attacks are caused by catastrophic beliefs. Instead, this hypothesis is based on the assumption that individuals with panic disorder have inherited a tendency to respond fearfully to anxiety symptoms.

CBT and *in vivo* exposure therapy are the most effective treatments for panic disorder with agoraphobia. A typical CBT protocol combines education about the nature of panic attacks, controlled breathing procedures, cognitive restructuring, interoceptive exposure exercises, and situational exposure practices. The treatment is usually delivered in 12 weekly 60-min individual sessions. The efficacy of this treatment protocol is well documented. Controlled studies show that this intervention is more effective than relaxation techniques and at least as effective as alprazolam or imipramine. Cognitive restructuring, interoceptive exposure practices, and

in vivo situational exposure exercises all seem to be important components for the treatment of panic disorder and agoraphobia. However, it remains unclear which component is most effective for treating the disorder and what the mechanism of action of treatment is.

See Also the Following Articles

Anxiety Disorders ■ Applied Relaxation ■ Breathing Retraining ■ Complaints Management Training ■ Exposure *in Vivo* Therapy ■ Homework ■ Relaxation Training

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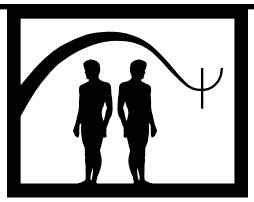

Paradoxical Intention

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GLOSSARY

fear-of-fear The concern that anxiety will result in the experience of negative physical consequences; these consequences can range from life threatening (e.g., cardiac arrest) to seemingly innocuous (e.g., perspiration).

logotherapy An existential approach to psychotherapy—developed by Viktor Frankl—that postulates meaning in one's life is a basic human need and that the failed search for such meaning underlies much neurotic distress.

recursive anxiety An extreme form of social phobia that is based on the concept of fear of fear and the additional suggestion that a self-maintaining process contributes to the experience of excessive anxiety.

reframe A common therapeutic procedure that involves changing the valence of a reported event from negative to positive without changing the facts.

Although paradoxical intention has been popularly identified with Frankl's logotherapy, and with family therapy, more recently the procedure has gained some favor with behavior therapists. As a behavioral strategy, it is typically presented as a directive by the therapist to an individual who is experiencing a problem associated with activity of the sympathetic nervous system—usually within a social context. For example, a person may complain about perspiring in public. In general, the behavioral difficulty is exacerbated by the anxiety about the effects of anxiety (i.e., fear of fear) and with the attempt to take voluntary control of this anxiety to avoid these unwanted effects. The paradoxical intention directive generally contains two elements common to most other paradoxical procedures: It is unexpected and counterintuitive (i.e., contrary to common sense) and it requires the individual to maintain the discomforting focal behavior as it is presently being experienced. Thus, an effected person might be told to seek as many opportunities as possible in which he or she might expect to perspire and, once in the situation, to try to become anxious and perspire.

I. DESCRIPTION OF TREATMENT

Paradoxical intention (PI) is one of a group of—not easily differentiated—techniques and strategies all of which are classified under the rubric of therapeutic paradox. It is an approach employed in a variety of schools of psychotherapy, especially family and Gestalt therapy—although its name was coined by Viktor Frankl whose use of the technique in logotherapy, an existential

approach to psychotherapy, predates these. This article is confined to its use as a behavioral procedure.

Paradoxical intention is generally employed with responses that are impeded by recursive anxiety—a concept associated with fear of fear. A typical example would involve individuals complaining of anxiety when giving a public address. If a behavioral analysis suggested that discomfort were associated exclusively with factors external to the speaker (e.g., the size of the audience, aspects of the attendees, effect of the speaker on those assembled), then conventional behavioral procedures would be appropriate (e.g., systematic desensitization *in vivo*). In contrast, if discomfort were largely related to internal factors associated with anxiety, then paradoxical intention would be the treatment of choice. A characteristic complaint would be "I am afraid that when giving a public address, I will become very anxious and my heart rate will increase to the point that I will have a heart attack." The core instruction administered to such a client—provided within the context of a behavioral program, which would include procedures designed to support the paradoxical intervention—would be to make a presentation while focusing on, and attempting to augment, the most salient aspect of sympathetic activity—in this case, "try to increase your heart rate."

The role of PI is that of assisting individuals with recursive anxiety to enhance their desired performance by circumventing the goal of remaining calm. To do this, clients are directed to enter those situations in which they experience recursive anxiety, focus on the most salient aspect of sympathetic discomfort, and attempt to augment that process. Then they are instructed to remain in the situation until they have regained their composure. Thus a person who is afraid of blushing in front of others at work would be asked to participate in as many of these discomforting circumstances as possible and "really try to blush—turn as red as a traffic light—become so bright red that people will have to turn away to avoid being blinded by the light."

Naturally, a great deal of collateral work must be done to support these individuals in engaging in behavior that may at least be seen as dreadfully embarrassing and at most, life threatening. Frankl, and before him, Allport, discussed the role of humor in neutralizing anxiety. They believed that neurotic clients had taken a significant stride toward their therapeutic goals when they could laugh at their neurotic complaints. Frankl therefore considered humor to represent a important part of PI with respect to both its administration and its effectiveness. In fact, one of the components of PI that is a necessary part of humor is the opposition to expectation: the element of surprise. Practically speaking, before individuals consult a psychotherapist, they generally seek formal and informal guidance from a variety of acquaintances, both nonprofessional and those in relevant professions (e.g., a family physician). The longer the problem is extant, the more advice and counseling they accumulate. They combine all this information with their own preconceived notions and bring the result to the therapist. The therapist, applying PI gives them instructions that are counter to that which they expect, that is, in essence: Remain the way you are, stop trying to change.

Of course, as with most therapeutic procedures, considerable rapport must first develop. In addition, the manifestation by the therapist of great confidence in the procedure is necessary. These are the very minimal aspects required to form a supporting basis for the successful use of PI in the behavioral approach to recursive anxiety. Finally, paradoxical procedures have commonly been employed to enhance cooperation. In this context, clients are generally not provided with information about the techniques. In contrast, PI when utilized as the behavioral treatment of choice for problems associated with recursive anxiety requires, like any conventional behavioral technique, that the therapist provide the client with as many details as possible regarding the operation of the procedure (e.g., suitability of PI for the specific problem, available research, the experience of the therapist with the procedure, full instructions on intersession self-administration). The client and therapist are seen as equally important members of the team that must first formulate and then administer treatment to a successful conclusion. Therefore, the client must be as informed as is the therapist.

II. THEORETICAL CONSIDERATIONS

The myriad descriptions of the effective use of paradoxical interventions as a group, and especially PI, that are replete throughout the literature of psychotherapy are accompanied by an equal abundance of explanations for this efficacy. Because the scope of this article does not permit a survey of these hypotheses, discussion is confined to an explanation of the operation of PI from a behavioral perspective. Within that context, PI is presented as the treatment of choice for behavior that is impeded by recursive anxiety.

Fear of fear refers to concern about possible negative physical effects of anxiety on oneself. This phenomenon

is typically associated not with all anxiety but with that experienced in specific locations or situations. Such an individual who is afraid of crowded places may notice an increase in cardiac rate at such times and can become afraid that the anxiety experienced under these circumstances will result in a rising cardiac rate that eventually reaches a level that produces a heart attack. So although most people with phobias attribute their anxiety to aspects of the external environment on which they remain focused, those with fear of fear shift their attention from external factors to internal stimuli and to the effects of anxiety on the functioning of certain physiological processes.

Recursive anxiety that is based on the concept of fear of fear adds two additional complications. The first concerns the sympathetic mechanism that maintains these individuals at a high level of anxiety. Suppose that circumstances require the person in the earlier example to participate in an event that involves a crowd. This individual will become apprehensive and will begin to focus on that aspect of the sympathetic syndrome that is of most concern. In the case of individuals who fear having a heart attack, that sympathetic component would be heart rate. As the time for the presentation draws near, anxiety will increase and the cardiac rate will be elevated. This in turn will be associated with a further increase in anxiety and a consequent additional elevation of the cardiac rate. The resulting pernicious circle is self-maintaining because it is based on this recursive process.

The second complication associated with recursive anxiety refers to observations of Michael Ascher, Tom Borkovec, Diane Chambless, and Alan Goldstein, among others, who have written about processes related to recursive anxiety. They have emphasized the significant role of social anxiety and have suggested that *in vivo* exposure to the social environment is of considerable importance. Ascher has further hypothesized that no matter what the person with recursive anxiety initially reports fearing—heart attack, passing out, losing bladder control, going crazy—the basic concern is loss of control. Such loss of control will result in emitting embarrassing behavior that will engender the negative evaluation of observers. The consequence will be a significant negative life change.

Individuals with recursive anxiety generally exhibit low-self esteem. They focus on what they believe to be substantial deficits in the qualities or skills necessary to maintain significant aspects of their lives. Because of their perceived inadequacies, people with recursive anxiety feel that they must depend on others for support and therefore place a great deal of importance on these interpersonal relationships.

At work, for example, affected people may attend to negative aspects of their skill, education, or performance profile, infusing these presumed inadequacies with disproportionate importance. They believe that by maintaining themselves in their positions they are perpetrating a fraud—no matter what evidence exists to the contrary. They, like Blanche DuBois, must rely on the kindness of strangers or, in this example, colleagues, both to assist them in the performance of their responsibilities and to maintain their—self-determined—fraudulent facade.

Thus, the person in our example who is anxious in crowds may be concerned that while participating in a business meeting at which the attendance of a large number of people is required, he or she will become very anxious and, fearing a heart attack, may run out of the room at an inopportune time. The horrible soap opera continues with all of those in attendance assuming that the departure had negative associations (e.g., "_____ was obviously psychotic." or, "_____ is certainly not "executive material" and should leave the firm"), and the CEO will demand resignation from their highly compensated position. In the final scene, the loss of this income and status results in the rapid deterioration of lifestyle, divorce, and finally descent into alcoholism and homelessness.

Because of their perceived dependency on these relationships, individuals with recursive anxiety will devote extraordinary effort to developing and nurturing associations with people deemed to have a significant role in their lives. They do this by advancing themselves as "nice" people and will do all that is necessary to support this perception. They believe that people who are "nice" are more likely to garner assistance when necessary and to have their shortcomings overlooked.

All individuals who perform goal-directed behavior have as their object the satisfactory achievement of the ostensible purpose of these actions. Those giving public addresses, for example, aim to educate or influence their audience in an entertaining manner. Or, supermarket shoppers wish to fill their grocery lists as efficiently as possible. Again, individuals driving across bridges simply want to get from one side to the other without encountering any difficulties or delays. Of course, those with recursive anxiety aim for the same goals as everyone else. However, they also have a second goal that is of more immediate concern: that of remaining calm while attempting to accomplish the ostensible goal.

They must remain calm to avoid the hypothesized disastrous consequence (e.g., heart attack, going crazy, looking foolish to others). This latter objective is difficult, if not impossible to accomplish. Moreover, in any case, attempts to remain calm subvert the professed aim of the performance by diverting the attention and effort necessary for accomplishing the ostensible goal.

Recursive anxiety represents a significant impediment over and above that resulting from simple phobias (i.e., those that are confined to aspects of the environment external to the individual). Thus people who exhibit simple public-speaking phobia are uncomfortable when giving a public lecture, but they remain largely concerned about the quality of their performance and direct their effort toward improving their presentation. Those with public-speaking phobia complicated by recursive anxiety initially attend to external aspects of their performance. But, at high levels of anxiety, they shift their focus to internal stimuli and begin to worry about the possibility of emitting some embarrassing behavior in front of an audience (e.g., freezing, vomiting, losing bladder control). They believe that this would be disastrous, and it therefore becomes vital that they remain free of anxiety to preclude this disaster. Remaining calm, then, becomes their primary commitment.

A number of hypotheses have been offered in an attempt to explain the efficacy of this procedure with recursive anxiety. Most recently, Ascher has advanced a proposal that combines his position on recursive anxiety with some of the formulations of Daniel Wegner. To understand Ascher's suggested explanation, it is first necessary to briefly describe Wegner's view of cognitive control.

Wegner describes the process of cognitive control by postulating a bimodal system. When individuals wish to exercise cognitive control (e.g., when there is a wish to inhibit specific classes of disconcerting, distracting thoughts in order to fall asleep or study or work on last year's taxes), activity on the part of the "operating" system (OS)—the active, effortful cognitive regulator—is initiated to ensure this control. A complementary "monitoring" system (MS) is an effortless component that is constantly searching for cognitions in opposition to the desired state of control. When the MS detects an errant thought it acts to bring this thought into the focus of attention of the OS and initiates the OS to control the incompatible cognition. In the normal individual, under ordinary circumstances, cognitive control by the OS generally occurs smoothly and effectively.

In contrast, when the person is under cognitive stress, the OS can become overloaded and increasingly less effective. In addition, if sufficiently bereft of resources, the OS will be able to do nothing with the incompatible thought that has now been released into the individual's focus of attention. In this way, a thought that is in opposition to the specific goal of cognitive control is very likely to be expressed.

Ascher hypothesizes that the difference between individuals who experience phobias with and without a recursive anxiety component is that the former attempt to control their cognitive state, whereas the latter are more concerned with the characteristics of the external situation. In addition, when recursive anxiety is associated with the phobic system, the result is the development of a "fundamental" fear of a significant negative life change. This would seem to add a considerable degree of stress and, therefore, cognitive load, relative to those exhibiting a simple or "common" phobia.

Thus, individuals with a simple public-speaking phobia, for example, would be absorbed in monitoring and enhancing their performance while observing audience response to measure their success. In contrast, those with recursive anxiety complicating their public-speaking phobia would be engaged in controlling their cognitive environment. They would attempt this by monitoring their thoughts and related emotional experiences in an effort to minimize stimuli incompatible with their objective of remaining calm. The more significant they deemed this goal of calmness to be—this depends on the details of the hypothesized disastrous consequence—the more cognitive load is generated, and the weaker becomes the OS. The result would be an increasing frequency of incompatible thoughts brought by the MS to the attention of the powerless OS that would be permitted to remain unmodified. This bimodal explanation of cognitive control is also compatible with the self-maintaining recursive component of the fear-of-fear process. That is, awareness of incompatible, anxiety-provoking thoughts increases cognitive load and decreases the ability of the OS to control them, thus permitting further discomforting thoughts, additional cognitive load, and continuing deterioration of the OS.

Combining the bimodal explanation with PI suggests the utility of the procedure with recursive anxiety. Paradoxical intention is based on instructions—to relinquish control and to accept whatever cognitive and physical experiences are present, but primarily—to try to protract the duration and the degree of discomfort of the most unpleasant of these symptoms. In such cases, the MS would be engaged in seeking thoughts that are incompatible with the goal of attempting to generate

more profound discomforting symptoms—that is, thoughts of calmness and control, and also neutral, distracting thoughts. These cognitions enter the OS and become the focus of attention because these individuals begin their presentations with an already weakened OS. The thoughts that are incongruous with the PI are compatible with diminished stress and reduced cognitive load in situations that are uncomfortable for the individual with a public-speaking phobia and recursive anxiety. The result is a more positive experience for these affected individuals.

III. APPLICATIONS AND EXCLUSIONS

As a conventional behavioral procedure, PI for disorders associated with recursive anxiety and similar processes is appropriate for most groups of individuals. However, because of its counterintuitive nature, it may not be practical for those with cognitive developmental disabilities. At the very least, considerable repetition of instructions will be necessary. In addition, supervision of the *in vivo* practice conducted by family members, or others, can be a valuable adjunct to therapy and increase the probability of success with this population.

Although a careful behavioral analysis is the necessary preparation for the administration of any behavioral program, when the therapeutic program includes PI as its central focus, the behavioral analysis takes on an even more crucial role. As Ascher has written on several occasions, and demonstrated in his recent study with public-speaking phobia (described in the next section), it is important to differentiate between those experiencing simple phobias and those whose phobias are complicated by recursive anxiety. Simple phobias are adequately addressed by systematic desensitization, and covert conditioning, among a host of conventional behavioral strategies. But, the use of PI with simple phobias has been shown not only to be less useful than the established treatments of choice, but actually to impede the course of therapy and thereby protract its length in many cases.

In contrast, when the phobia is complicated by recursive anxiety, then PI becomes the treatment of choice, behavioral procedures devoid of the *in vivo* exposure to the interpersonal milieu tend to provide less satisfactory results.

Finally, it seems almost unnecessary to caution against the use of paradoxical procedures with individuals who are severely depressed or suicidal or with those attempting to control maladaptive approach responses (e.g., sexually offensive behavior, difficulties with alcohol, drugs, or tobacco).

IV. EMPIRICAL STUDIES

Since Viktor Frankl began writing about PI in the 1920s, many case studies have been published demonstrating its effectiveness with a wide variety of behavioral problems. Of course, uncontrolled case studies are of very limited value, at best.

In 1978, Michael Ascher and Jay Efran published the first controlled investigation of the procedure. They used a multiple-case study design with clients whose latency to sleep onset did not diminish as the result of a standard 10-week behavior therapy program appropriate for this problem. Subsequent to this 10-week segment, these clients were exposed to PI instructions. By the end of the next 2-week period, all clients reported that their sleep onset latency had reached a satisfactory level.

Rather than presenting an exhaustive review of the numerous experiments that followed the work of Ascher and Efran, many based on designs incorporating sophisticated controls, this section is intended to present a survey of studies that exemplify the research associated with paradoxical intention.

The first study to utilize the random assignment of subjects to groups in testing the efficacy of paradoxical intention was conducted in 1979 by Ralph Turner and Michael Ascher. In this study, PI was compared to two treatments of choice for reducing clinically significant levels of latency to sleep onset (relaxation, stimulus control). Two control groups were also included (attention-placebo and waiting-list). Analysis of the results failed to find any significant differences among the three treatment groups, each of which was significantly superior to the control groups. No differences were found between the two control groups. In a partial replication of their study, Ascher and Turner in 1979 confirmed the efficacy of PI with sleep onset insomnia.

When administered like any conventional behavioral technique, all aspects of the procedure and its goals are fully disclosed to the client. However, when used in other contexts (e.g., family therapy) this is not always the case. Then, PI, used to reduce resistance, is presented in a more obscured manner. In 1980, Ascher and Turner investigated the relationship of these two methods for administrating PI. They randomly assigned volunteers who complained of clinically significant levels

of sleep onset insomnia to all groups. These conditions included two treatment groups (PI with veridical or obfuscated instructions) and two control groups (attention-placebo and waiting-list). Clients receiving the veridical instructions showed significantly greater treatment effects than did the group from whom the purpose of the procedure was obscured.

Ascher went on to conduct controlled multiple-case study investigations of PI with the travel restriction associated with agoraphobia and with psychogenic urinary retention. The results of these studies supported the hypothesis that PI, when administered as a conventional behavioral procedure, could be an effective component of a treatment program.

Subsequent to Ascher's study, Matig Mavissakalian, Larry Michelson, and a number of co-workers conducted a series of large-sample randomized groups experiments. Their target behavior was agoraphobia, and one of the treatment strategies in which they were interested was PI. This research extended from 1983 through 1986 and produced variable results with all treatment groups. One conclusion that might have been drawn from their final study was that although randomized assignment of clients to groups was a powerful method of control, it might have distorted the actual relationship of the treatment with the specific clinical profile of the client. That is, were a clinician to assign individuals with agoraphobia to treatment groups following a behavioral analysis, the results might have been more consistent, and of more benefit to the individual. Such clinically focused assignment might also reduce the variability of the resulting treatment data.

In 1999, Ascher tested this hypothesis with groups that had public-speaking phobias. Using a 2×2 design, he randomly assigned individuals with a simple phobia or with a phobia complicated by recursive anxiety to one of two treatment groups. One treatment condition involved a standard behavioral approach to public-speaking phobia, the other, added PI to the standard behavioral program. The results supported the idea that a better outcome was possible when clients are paired with treatment on the basis of clinical criteria as opposed to random assignment. Those with simple public-speaking phobia showed significantly greater improvement when the standard behavioral treatment program did not include PI. When this technique was added, the course of therapy was greatly protracted. The reverse was the case with clients exhibiting recursive anxiety. When their treatment included PI, their performance improved significantly relative to those who did not receive PI instructions. Of course, this selective assignment is fraught with design problems that can only be adequately addressed with sophisticated controls. However, a more valid picture of clinical operations may possibly be the outcome.

The body of research investigating the efficacy of PI from Ascher and Efran's study in 1978 through the mid-1980s grew in frequency and in sophistication of design. It generally suggested that PI was an effective procedure with a variety of behavioral complaints. The results were not uniform, nor were they based on designs that were above criticism. The data do support the impression that in the hands of an experienced clinician, PI viewed as a conventional behavioral procedure can be a useful and effective addition to the behavior therapist's repertoire.

V. CASE ILLUSTRATION

A 30-year-old, married, white male complained of becoming anxious and experiencing tremors at inopportune times. He was a psychologist who worked in the student health center of a private university. Each morning all members of the counseling section were required to participate in a meeting whose general focus was case presentation and case management. During the course of these meetings, coffee and cake were available; the coffee was served in ceramic cups on sauces (it was a well-endowed university). It was under these daily circumstances that the client experienced the most disconcerting occurrence of the problem.

He was afraid that if he were experiencing tremors when he removed his cup from the saucer, the resulting tapping would be noticed by others. On the basis of this behavior, the other members of the counseling team would conclude that the client had a serious mental health problem that would preclude him from continuing to work in the center. This information would become available to those in the mental health field at large, and he would be permanently denied employment in his profession.

He had been at the student health center for more than one year. He enjoyed his work and seemed to be doing well. He was popular with his student clients, had been commended by his supervisor on several occasions, and appeared to have the respect of his colleagues. Yet he felt that he could not quite meet the standard that was expected by these colleagues. As he explained it, this deficit was because all the professionals in the center had degrees in clinical psychology

whereas his was in counseling psychology—which he deemed to be inferior.

Each workday he would be awakened early by what he described as an anxiety attack. He would monitor himself for tremors, squeezing his hands tightly into fists or around objects in an effort to moderate these attacks. His anxiety would remain fairly high until he entered the conference room for the morning meeting, whereupon his anxiety would increase markedly. Along with the anxiety would appear sporadic, mild intention tremors. His thoughts would shift from strategies for dealing with these tremors to their catastrophic consequences. He attended most meetings and did not generally leave before their conclusion. However, each meeting was an ordeal that never seemed to diminish.

Because the social phobic component of these complaints was immediately manifest and clear to the client, a good deal of the preparation generally necessary with cases involving recursive anxiety was precluded. The PI instructions are greeted by most people as counterintuitive and anxiety provoking. They are not only told to do something that may be in opposition to what they thought would be useful but are directed to do exactly what they fear. Here again, the client's professional training proved to be helpful. He was able to grasp the reason for the paradoxical suggestion and, rather than viewing it as counterintuitive, could understand its underlying logical structure.

With the assistance of the client, the therapist composed a hierarchy of anxiety-provoking, social situations. Emphasis was placed on those circumstances in which the client had experienced tremors or feared that he might have such an experience. Of course, the top of the hierarchy was occupied by the daily clinic meetings. The client was then encouraged to enter a situation that was of a lower degree of discomfort and to "try to become anxious. Practice exhibiting your tremors." He was not to exaggerate them, but to attempt to display them as realistically as possible. He first practiced them in the office but had a great deal of trouble making the tremors look realistic. They were jerky and spastic, and he devoted considerable effort to producing authentic tremors that, in so doing, served to create a good deal of attendant entertainment for both the client and the therapist. The client left the office in apparent good spirits and with a professed sense of confidence based on his new perspective.

On returning the following week, the client reported that he had practiced the procedure in a social situation, midway on the hierarchy, and he indicated his pleasure with his performance. He went with the expectation of acting as though he had tremors, he felt quite calm, and found it difficult to produce them in a realistic fashion.

It is important when using PI with recursive anxiety that the therapist not reinforce clients for success, because an effusive response on the part of the therapist will generally serve to impede progress. The reasons for this vary with the client. One common possibility is that it places additional pressure on acquiescent clients to meet what they consider to be the expectations of their therapists. The safest thing for the therapist to do is to reflect clients' positive emotion associated with their demonstration of efficacy. In this way, the therapist can remain relatively neutral and thereby reduce his or her role in client's *in vivo* activities. In the present case, the therapist encouraged the client to discuss his uncharacteristic comfort in the party that he had attended, and how it contributed to his enjoyment of the evening. In another effort not to bring the client's expectations to an unrealistic level, the therapist cautiously introduced the point that the client still had a good deal of work to do in this area, and that although it was pleasant that he was able to begin with a successful experience, impediments and setbacks were certain to appear sporadically. The instructions were repeated, and the client selected his next target.

During the next three sessions, the client continued to report improvement, but on the fourth session, he described an encounter that resulted in considerable anxiety and what the client described as a failure. The therapist reframed the event to support a more positive view and suggested that perhaps the client went into the situation with too much confidence. Possibly he was not prepared to allow his anxiety-free reign and to display his tremors. Maybe he thought that he was "cured" and was no longer in need of such preparation. The therapist reaffirmed the idea that the client should assume that he would be employing the paradoxical strategy in social situations for a considerable length of time. This seemed to have the desired effect, because the client's progress in dealing with his social anxiety resumed its positive trend in subsequent weeks.

With regard to his comfort during the morning meetings at the student counseling center, the client began to feel more comfortable after his first reported success in another social context. For some time, however, he was unwilling to take the chance of "trying to become anxious" in that most difficult setting. Finally, after some weeks, having gained some confidence in the PI procedure, and experiencing somewhat less anxiety at these morning meetings, he began to apply the procedure in the counseling center and found it to be quite helpful.

The focus of this case description was intended to rest on the administration of PI with recursive anxiety. Naturally, substantial ancillary activity was necessary to support the paradoxical intervention. In addition, other significant aspects of the client's life were addressed. Very often in the past, case studies illustrating the efficacy of PI emphasized this procedure to the point that its role in the therapeutic process was unrealistically exaggerated. PI as a conventional behavioral treatment of choice for recursive anxiety is, like other behavioral procedures, administered in an appropriate behavioral context.

VI. SUMMARY

Paradoxical intention as described in this article is a conventional behavioral treatment of choice for recursive anxiety—a phenomenon associated with fear of fear that reflects extreme social anxiety. Individuals who complain of anxiety about exhibiting the secondary aspects of anxiety in public (e.g., flushing, perspiration, tremors, urinary frequency or retention) represent good examples of this behavior. The paradoxical instruction, administered within the context of a standard behavioral program, requires clients to increase the frequency of that which they would prefer to inhibit, or to inhibit that which they would prefer to increase. Thus, a woman who has been avoiding public places for fear of being embarrassed by blushing would be advised to seek as many opportunities as possible to blush in front of others. Such suggestions often have the effect of reducing some of the anxiety that the person associates with interpersonal contact.

See Also the Following Articles

Family Therapy ■ Gestalt Therapy ■ Logotherapy

Further Reading

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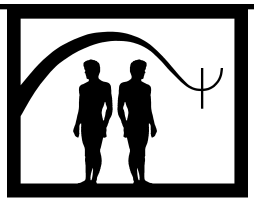

Parent–Child Interaction Therapy

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GLOSSARY

clinically significant The extent to which the effect of an intervention makes an important difference to the individual or has practical or applied value.

negative reinforcement The removal of a negative stimulus (e.g., child whining) contingent on the occurrence of a behavior (e.g., parent yelling), which causes the behavior to occur more often.

prevalence rate Percentage of cases in the general population at one time.

Parent–child interaction therapy (PCIT) is a psychosocial treatment for preschoolers with conduct problems and their parents. In this article we describe the assessment procedures that guide the course of treatment and the treatment procedures in each major phase of treatment: (1) the child-directed interaction (CDI) phase in which parents learn play therapy skills, and (2) the parent-directed interaction (PDI) phase in which parents learn discipline skills. We address the significance of conduct problem behavior for children and families and present the theoretical foundation of PCIT, which draws from both attachment theory and social learning theory in teaching parents to interact with their child in new ways to change the child's behavior. Finally, we review the PCIT outcome studies and the directions for future research.

I. DESCRIPTION OF TREATMENT

A. Assessment in PCIT

Parent–child interaction therapy is an assessment-based treatment in which progression through treatment is guided at every point by the data. To begin treatment, the PCIT therapist must have a thorough understanding of the child's problem behaviors and the context in which they occur. This information is obtained by an assessment approach that involves multiple methods and informants, including parent interviews, parent and teacher ratings scales, and behavioral observations in the clinic and school or day care setting.

The initial clinical interview with the parent is designed to establish rapport and obtain information about the child's family that will impact treatment planning, including the parents' attitudes and beliefs about child rearing and their goals and expectations for treatment. Family factors known to present barriers to treatment, such as transportation problems for low-income families, are discussed with the family as well, so that they can be resolved immediately. Following the clinical

interview, a structured diagnostic interview is conducted to determine whether the child meets criteria for oppositional defiant disorder. Children whose behavior problems are less severe may not require a treatment as intensive as PCIT. The diagnostic interview is also important for the identification of comorbid disorders that must be considered in tailoring PCIT to the specific needs of the child and family.

The Eyberg Child Behavior Inventory (ECBI) is a 36-item parent rating scale of disruptive child behavior used initially as a baseline measure and regularly throughout PCIT to assess the child's progress. Richard Abidin's parent self-report scales, the Parenting Stress Index—Short Form and the Parenting Alliance Measure, are given as baseline measures at the initial assessment session as well, to enable assessment of the effects of treatment on the parents' functioning.

The Dyadic-Parent Child Interaction Coding System-II, developed by Sheila Eyberg and colleagues, is used to assess parent–child interactions during three brief, structured play situations in which the degree of control required by the parent is varied. These initial observations provide baseline data for comparison throughout treatment, and specific situations are coded at the beginning of the treatment coaching sessions to monitor change in the parents' skills, to provide direction for the coaching, and to determine when the parents are ready to move to the next phase of treatment.

For children who present behavior problems at school or day care as well as at home, their teachers are asked to complete the Sutter-Eyberg Student Behavior Inventory—Revised, a measure of oppositional and inattentive behavior in the classroom. In addition, classroom observations are often conducted to assess disruptive behavior using the Revised Edition of the School Observation Coding System (REDSOCS). These measures are repeated at the end of treatment to assess the degree of generalization of treatment effects to the school.

B. The Format of PCIT

Treatment sessions begin as soon as the initial assessment is completed. PCIT is typically conducted in 1-hour weekly sessions and is usually completed within 9 to 16 weeks. The first phase of treatment, CDI, is focused on developing the parents' use of prosocial skills, and the second phase of treatment, PDI, emphasizes the parents' use of consistent disciplinary techniques. The principles and skills of each interaction are first presented to the parents alone during a single didactic session using modeling and role-play, and the subsequent sessions in each phase involve direct coaching of the parents to use the skills with their child. During these coaching sessions, the parents take turns being coached by the therapist as they interact with their child while the other parent observes the coaching.

1. Child-Directed Interaction

In CDI, parents learn to follow their child's lead in play by avoiding commands, questions, and criticism, and using the nondirective "PRIDE" skills: *P*raising the child, *R*eflecting the child's statements, *I*mitating the child's play, *D*escribing the child's behavior, and being *E*nthusiastic during the play. The parents learn to manage the child's behavior by directing the PRIDE skills to the child's appropriate play and ignoring the child's inappropriate behavior. Parents are asked to practice CDI skills at home for 5 minutes each day. Handouts summarizing the CDI skills are given to parents for their review (see Table I), and additional handouts on topics of relevance to individual families, such as social support or modeling appropriate behavior, are provided to parents during the course of CDI as needed.

Each of the CDI coaching sessions begins with a 5-minute observation of the interaction, coded by the therapist, which indicates the primary focus of the session. During coaching, the therapist prompts and reinforces the parents' use of the PRIDE skills and points out their positive effects on the child's behavior. The therapist uses this time to encourage and shape reciprocal interactions and responsive parenting. The CDI phase of treatment continues until the parents meet criteria for skill mastery: 10 behavioral descriptions, 10 reflective statements, 10 labeled praises, and no more than 3 questions, commands, or criticisms within the 5-minute interval. The criteria also include ignoring the child's inappropriate behavior.

2. Parent-Directed Interaction

During PDI, parents continue to use their CDI skills, but they also learn to direct their child's behavior using effective commands and specific consequences for compliance and noncompliance. Parents first teach the child to mind using "running commands," which are commands to perform a specific behavior immediately. Parents are taught the eight rules of effective commands (see Table II) and the precise steps that must be followed after a running command is given to the child (see Fig. 1). Parents are taught to give a labeled praise if the child obeys or to initiate the time-out procedure if the child disobeys.

During the PDI didactic session, the entire time-out procedure is role-played with each parent, and the parents are asked to review handouts summarizing PDI techniques prior to the next session. Parents are

TABLE I
CDI Skills Handout

Child		
Rules	*Reason*	*Examples*
Praise your child's appropriate behavior	• Causes your child's good behavior to increase • Lets your child know what you like • Increases your child's self-esteem	• Good job of putting the toys away! • I like the way you're playing so gently with the toys.
Reflect appropriate talk	• Shows your child that you are listening • Demonstrates that you accept and understand your child • Improves your child's speech	• Child: The doggy has a black nose. Parent: The dog's nose is black.
Imitate appropriate play	• Shows your child that you approve of the activity • Shows that you are involved • Teaches your child how to play with others and take turns	• Child (drawing circles on a piece of paper) Parent: I'm going to draw circles on my paper just like you.
Describe appropriate behavior	• Shows your child that you are interested • Teaches your child concepts • Models speech for your child • Holds your child's attention on the task	• You are putting together Mr. Potato Head. • You put the girl inside the fire truck.
Be **E**nthusiastic	• Lets your child know that you are enjoying the time you are spending together • Increases the warmth of the play	• Parent: You are REALLY being gentle with the toys.
Avoid **C**ommands	• Takes the lead away from your child • Can cause unpleasantness	*Indirect commands:* • Could you tell me what animal this is? *Direct commands:* • Please sit down next to me.
Avoid **Q**uestions	• Leads the conversation • Many questions are commands and require an answer • May seem like you are not listening to your child or that you disagree	• We're building a tall tower, aren't we? • What sound does the cow make? • What are you building? • You're putting the girl in the red car?
Avoid **C**riticism	• Often increases the criticized behavior • May lower your child's self-esteem • Creates an unpleasant interaction	• That wasn't nice. • I don't like it when you make that face. • Do not play like that. • That animal doesn't go there.
Ignore negative behavior (unless it is dangerous or destructive)	• Helps your child to notice the difference between your responses to good and bad behavior • *Consistent* ignoring decreases many behaviors	• Child: (sasses parent and picks up toy) Parent: (ignores sass; praises picking up)
Stop the play time for aggressive and destructive behavior	• Teaches your child that good behavior is required during special play time • Shows your child that you are beginning to set limits	• Child: (hits parent) Parent: (CDI STOPS.) Special play time is stopping because you hit me.

TABLE II
Eight Rules for Effective Commands

Rule	*Reason*	*Examples*
1. Commands should be *direct* rather than indirect	• Leaves no question that child is being told to do something • Does not imply a choice or suggest parent might do the task for child. • Is not confusing for young children	• Please hand me the block. • Put the train in the box. *instead of* • Will you hand me the block? • Let's put the train in the box.
2. Commands should be *positively stated*	• Avoids criticism of child's behavior • Provides a clear statement of what child should do	• Come sit beside me. *instead of* • Don't run around the room!
3. Commands should be given *one at a time*	• Helps child remember the command • Helps parent determine if child completed entire command	• Put your shoes in the closet. *instead of* • Put your shoes in the closet, take a bath, and brush your teeth.
4. Commands should be *specific* rather than vague	• Permits child to know exactly what is to be done	• Put this lego in the box. *instead of* • Clean up your room.
5. Commands should be *age-appropriate*	• Makes it possible for child to understand the command	• Draw a square. *instead of* • Draw a hexagon.
6. Commands should be given *politely and respectfully*	• Increases likelihood child will listen better • Teaches child to obey polite and respectful commands • Avoids child learning to obey only if yelled at	Child: (Banging block on table) • Parent: Please hand me the block. *instead of* • Parent: (Said loudly) Hand me that block this instant!
7. Commands should be explained *before* they are given or *after* they are obeyed	• Avoids encouraging child to ask "why" after a command as a delay tactic • Avoids giving child attention for not obeying	• Parent: Go wash your hands. Child: Why? • Parent: (Ignores, or uses time-out warning if child disobeys). Child: (Obeys) • Parent: Now your hands look so clean! It is so good to be all clean when you go to school!
8. Commands should be used *only when necessary*	• Decreases the child's frustration (and the amount of time spent in the time-out	Child: (Running around) • Parent: Please sit in this chair. (Good time chair)to use this command) *instead of* • Parent: Please hand me my glass from the counter. (Not a good time to use this command)

instructed to spend the following week faithfully practicing their CDI skills at home, so that the child's first "time-outs from CDI" will be especially salient. Parents are coached through their first PDI with the child in the clinic so that the therapist will be available to provide the parents with emotional support during the initiation of the time-out procedure.

As the family progresses in PDI, the child's rate of compliance increases rapidly. Parents' homework assignments gradually expand their use of running com-

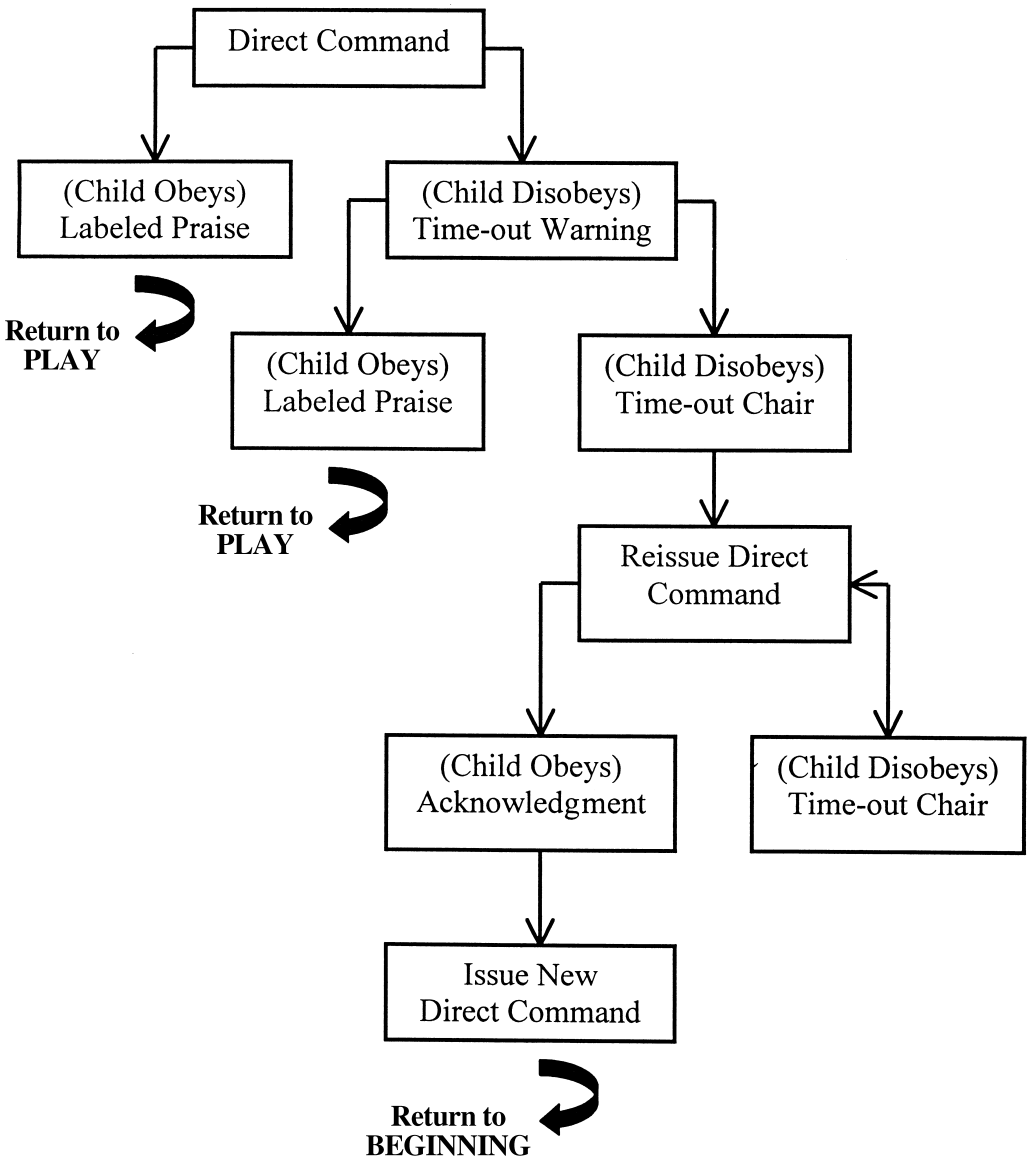

FIGURE 1 Parent-directed interaction diagram. (Copyright Sheila Eyberg, 2000).

mands to address specific problems that were identified during the assessment. For example, to encourage the child's use of words to indicate wants, the parent might give a command directing the child to say the name of the object the child is pointing to, and then follow the child's compliance with an enthusiastic labeled praise that explains the reason that the behavior is important, such as, "Nice job of using your words! Now that I know you want me to hand you the hat, I can give it to you really fast without guessing."

3. House Rules

As they progress in PDI, parents frequently want help with their child's aggressive behavior that is not decreased by parental ignoring and is not easily corrected with running commands. After a child's compliance to running commands is under control, parents may be introduced to the house rules procedure, which is a "standing command" variation of PDI. In teaching this procedure, parents are instructed first to label the target behavior problem for the child for 3 days to en-

sure that the child is aware of the label and the specific behavior it refers to, before a house rule to decrease that behavior is put into effect. For example, each time the child hits another person, the parent would say "You are hitting. Starting on Sunday, each time you hit, you will go to time-out." Once a house rule is in effect, the parent must use the time-out procedure when the targeted behavior occurs and must praise the child for behaviors incompatible with the target behavior, for example, "Good job of keeping your hands to yourself when she messed up your track." Parents keep a record of each house rule and the daily frequency of rule violations so that the effectiveness of the technique can be evaluated by the therapist. A new house rule may be added when the child shows improvement in an earlier target behavior, although a child should have no more than two active house rules at a time.

4. Public Behavior

Toward the end of PDI, another problem that may remain for some children is disruptive behavior in public places. To apply the PCIT principles to this situation, parents are advised to describe to the child their expectations for the child's behavior prior to entrance into the public area. Parents are then prompted to think of ways to give positive attention to the child's appropriate public behavior and ways to implement a time-out procedure for unacceptable behavior that cannot be ignored. The parent is given the opportunity to practice the new strategy with coaching as the therapist accompanies the family to public areas, such as a waiting room or parking lot.

Mastery of the PDI skills is demonstrated during clinic observations when 75% of the parents' commands are effective commands that allow the child time to obey, and when the parent follows through correctly at least 75% of the time after the child responds to a command, either with praise after compliance or initiation of time-out after noncompliance. The final PCIT session includes specific discussion of ways to maintain treatment gains and methods to deal with setbacks or new problems that arise in the future.

5. Follow-Up

Follow-up strategies are important to ensure the maintenance of parenting skills and the child's improved behavior. Maintenance techniques range from letters from the therapist reminding the family of the importance of daily practice sessions, to booster sessions in the clinic. One promising model of maintenance treatment currently under empirical study is an aftercare model in which the therapist continues contact with the parent with short, monthly telephone calls to monitor maintenance and determine the level of intervention indicated, if any. Three levels of intervention are used during the maintenance period, with Level 1 consisting of supportive services. A Level 2 intervention includes the components of Level 1 in addition to the implementation of a problem-solving approach for an identified problem. A Level 3 intervention is a clinic session and is indicated for significant problems or crisis situations. The components of a Level 3 intervention include support, problem solving, clinic observations of parent–child interactions followed by coaching, and the development of a plan for problem resolution. The goal of the maintenance model is to monitor treatment gains and intervene immediately at the first sign of new or recurrent problems so as to prevent relapse.

II. THEORETICAL BASES

A. Conduct Problem Behavior in Preschoolers

In young children, the prevalence of clinically significant conduct problems is thought to be rising. Recent studies have found as many as 23% of preschool children in the general population score in the clinically significant range on parent-rating scales of externalizing behavior problems. Not surprisingly, conduct problems are the most common reason for referral to child mental health services.

Although once dismissed as a transient phase of children's development, we now know that, without treatment, conduct problem behavior that begins in early childhood tends to persist and worsen with time. Evidence indicates that early parent–child interactions have a powerful influence on the development of conduct problems, particularly in children with difficult temperaments, and parenting practices continue to play an important role in the maintenance of conduct problem behavior throughout the child's development. Fortunately, evidence has also shown that parent training interventions with young conduct-disordered children can reverse their behavior and may produce lasting change.

Parent training programs for young children with conduct problems have historically taken either a relationship enhancement approach, as exemplified by Bernard Guerney in 1964, or a behavioral approach, as exemplified by Robert Wahler in 1965. In relationship enhancement therapies, parents are trained to use

nondirective play therapy techniques to strengthen the parent–child bond, foster greater independence and self-acceptance on the part of the child, and increase parental acceptance of the child. In contrast, behavior therapies train parents in the application of learning principles to alter specific child behavior problems. In 1969, Constance Hanf developed a behavioral model of therapy that focused on coaching parents *in vivo* as they played with their child. Her treatment consisted of two stages, in which parents were first taught to change their child's behavior by using differential social attention, which involves ignoring inappropriate behavior and attending to positive behavior. In the second stage, parents were trained to change their child's behavior by giving direct commands, praising compliance, and punishing noncompliance with time-out.

Parent–child interaction therapy is a parent–child treatment for young children with behavior problems that places a dual emphasis on relationship enhancement and behavioral parent management training. The goal of PCIT is to create a nurturing, secure relationship by teaching parents to increase their child's prosocial behaviors while decreasing their child's inappropriate behaviors. Like the Hanf model, PCIT includes two primary phases in which parents are coached in the treatment skills as they play with their child. Goals of the first phase, CDI, are to strengthen the parent–child relationship, increase positive parenting, and increase child prosocial behavior. Goals of the second phase, PDI, are to decrease child noncompliance and defiance by improving parents' ability to set limits and be fair and consistent in disciplining their child. PCIT is most distinct from the Hanf model in its emphasis on teaching parents to use traditional play therapy techniques and the skills of reciprocal interaction in the first phase, and, in the second phase, on teaching parents to use problem-solving skills to apply general discipline paradigms to problem behavior, with an overarching objective to improve the quality of parent–child interactions.

B. Theoretical Underpinnings of PCIT

PCIT draws on both attachment and social learning theories. Children's optimal emotional, behavioral, and social development is enhanced by a secure, stable attachment and healthy interaction patterns with their parents. Attachment theory asserts that attentive and sensitive parenting during infancy leads children to develop a cognitive-affective model that their parents will be responsive to their needs. Children whose parents are cold, distant, and unresponsive to their child's needs are likely to develop a maladaptive attachment with their parents and peers, display increased aggression, and have poor self-esteem, coping skills, and social competence. The CDI emphasizes responsive parenting to establish or strengthen a secure attachment relationship as the foundation for establishing effective child management skills.

Gerald Patterson's coercion theory also provides a transactional account of early disruptive behavior in which children's conduct problems are inadvertently established or maintained by negative reinforcement in the parent–child interaction. Dysfunctional interactions must be interrupted by a change in parent behavior involving clear limit-setting that is consistently enforced early in the child's life. PDI incorporates these social learning principles by teaching parents a highly structured algorithm of positive and negative consequences to follow once they have issued a command or set a rule in place.

III. EMPIRICAL STUDIES

Parent–child interaction therapy outcome research has demonstrated significant findings in the treatment of conduct-disordered behavior of preschool children, including improvements in children's behavior at the end of treatment on parent and teacher rating scales and direct observation measures and significant changes on parents' self-report measures of psychopathology, personal distress, and parenting locus of control. Important changes in the interactional styles of fathers and mothers in play situations with the child, such as increased reflective listening, physical proximity, and decreased criticism have also been demonstrated at treatment completion. Treatment effects have been found to generalize to the school setting and to untreated siblings. Comparison studies have found PCIT superior to waitlist control groups and other treatments including parent group training.

Several studies have addressed the issue of maintenance of behavioral improvements following completion of PCIT by examining the short- and long-term recurrence of conduct problems for study participants in later childhood. In a study conducted by Toni Eisenstadt and her colleagues in 1993, short-term maintenance of treatment effects for 14 families was found on parent ratings of behavior problems, activity level, and maternal stress, and observational measures of parenting skills and child compliance. Two years later, 13 of

these families were located for follow-up, and 9 (69%) of these families had maintained treatment gains on measures of behavior problems, activity level, and parenting stress at the same level as found at the end of treatment. Most of the children (7 of 13 or 54%) also remained free of diagnoses of disruptive behavior disorders. Recently, maintenance of treatment gains in child behavior and parenting confidence at 4 to 6 years after treatment have been found.

Daniel Edwards and colleagues examined differences in long-term outcomes between 23 PCIT dropouts and 23 PCIT completers. Ten to 30 months after their pretreatment assessment, mothers of children who dropped out of PCIT reported significantly more symptoms of the disruptive behavior disorders and higher levels of parenting stress than did those who completed treatment. The follow-up scores for dropout families showed no differences from their scores before treatment started, whereas follow-up scores for the families who completed treatment showed no differences from their scores at the end of treatment. These data suggest that PCIT can alter the developmental path of disruptive behavior for those young children and families who complete treatment, and they also highlight the problem of attrition.

Addressing attrition must become a research priority. The rate of attrition from PCIT has ranged from 0 to 32% in recent studies, which compares favorably to the average 40% to 60% attrition rate typically found in child clinic samples. Neither the poorest families nor the children with the most severe problems drop out more than other families, but maternal distress has been identified as a significant predictor of dropout from PCIT. Such findings indicate the necessity of addressing broader contextual issues in treatment to prevent attrition in the high-stress families of conduct-disordered children. In particular, attention to the parents' personal concerns will need even greater emphasis in PCIT.

Further attention to treatment maintenance is a second research priority. Although long-term maintenance of PCIT effects has been documented, the effects of treatment do not last for every family. Given the persistent and recurrent nature of early-onset conduct disorder, it may be unrealistic to expect that the current models of short-term treatment, which end immediately on initial resolution of the presenting problems, will lead to lasting changes in child and family behavior as the child develops and the family faces new challenges. In addition to testing promising models of maintenance treatment, it will be important to examine both the course and the predictors of long-term maintenance to identify the factors related to long-term behavior change, which will help in designing more effective interventions for all families.

IV. SUMMARY

Parent–child interaction therapy is a treatment for preschool-age children with conduct problems and their families. This treatment is theoretically based, assessment driven, and empirically supported. During PCIT sessions, parents play with their child while the therapist coaches them to use specific skills to change their child's behavior. In the first phase of treatment parents learn the CDI skills, designed to strengthen the parent–child attachment relationship and to increase positive parenting and the child's prosocial behavior. In the second phase, parents learn the PDI skills, designed to decrease child noncompliance and aggression by improving parents' ability to set limits and be fair and consistent in disciplining. Treatment ends when parents demonstrate mastery of these relationship enhancement and child management skills with the child and report that the child's behavior problems are within normal limits on standardized measures. Studies have clearly demonstrated the effectiveness of PCIT in decreasing disruptive behavior and increasing prosocial behavior of the child and improving the psychological functioning of the parents. The early long-term follow-up studies suggest that the changes seen at the end of treatment tend to last for most children and families, although further study of both maintenance and attrition is imperative.

See Also the Following Articles

Animal-Assisted Therapy ■ Child and Adolescent Psychotherapy: Psychoanalytic Principles ■ Communication Skills Training ■ Family Therapy ■ Home-Based Reinforcement ■ Primary-Care Behavioral Pediatrics ■ Therapeutic Storytelling with Children and Adolescents ■ Transitional Objects and Transitional Phenomena

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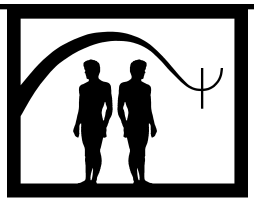

Patient Variables: Anaclitic and Introjective Dimensions

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GLOSSARY

anaclitic A developmentally-oriented perspective on traits, behaviors, capacities, psychological structures, and psychopathological configurations that emphasizes relatedness, interpersonal relations, and attachments across the spectrum of maturity. The term is derived from the idea of "leaning upon."

introjective A developmentally-oriented perspective on traits, behaviors, capacities, psychological structures, and psychopathological configurations that emphasizes the establishment and maintenance of a sense of self. It literally means, "to take in."

Psychotherapy research usually assumes an homogeneity among patients and treatments. A number of research methodologists and psychotherapy investigators have questioned these assumptions and have noted the need to differentiate among patients and to examine systematically the role of the patient in the treatment process. As observed by the distinguished research methodologist, Lee Cronbach almost a half century ago, differences in the effects of various forms of therapeutic intervention may be a function of the congruence of certain characteristics of the patient with particular aspects of the treatment process. Rather than assuming that all patients respond to treatment in the same way, it may be more productive to distinguish among patients and to examine interactions between types of treatment and types of patients expecting some patients to respond more effectively to one form of treatment whereas other patients might respond more effective to another form of treatment. Jerome Frank, a major figure in initiating systematic psychotherapy research, noted in 1979 that research consistently suggests that "major determinants of therapeutic success appear to lie in aspects of the patients' personality and style of life." He saw as crucial the development of better criteria for the assignment of different types of patients to different therapies. He suggested that patients who conceptualize their subjective worlds in greater complexity might do better in unstructured situations whereas less conceptually complex patients may respond better to a more structured therapy. Mardi Horowitz and colleagues, in a study of brief therapy for bereavement in 1984, found that patients with developmentally more advanced levels of self-concept had better outcome in insight-oriented treatment, whereas patients with developmentally lower self-concept responded better to supportive techniques.

In an analysis of data from the National Institute on Mental Health (NIMH) sponsored Treatment of Depression Collaborative Research Program (TDCRP), Stuart

Sotsky and colleagues in 1991 identified several pretreatment characteristics of patients that were predictive of treatment outcome. Higher social functioning predicted a generally favorable outcome (completion of treatment and reduction of severity of depression at termination), particularly in responsiveness to interpersonal therapy (IPT). Higher cognitive functioning also appeared to predict good outcome, (i.e., reduction of severity of depression), especially to cognitive-behavior therapy (CBT). Patients with both impaired social and work functioning responded best to medication (imipramine) plus clinical management (i.e., reduction of depression severity and completion of treatment). These findings led the authors to suggest that "each psychotherapy relies on specific and different learning techniques to alleviate depression, and thus each may depend on an adequate capacity in the corresponding sphere of patient function to produce recovery with the use of that approach." Patients with relatively good social functioning are better able to take advantage of interpersonal strategies in IPT to recover from depression, whereas patients with relatively less cognitive impairment are better able to utilize cognitive-behavioral techniques to reduce depression. In a 1994 review of attempts to predict therapeutic outcome from a host of patient personality variables (e.g., rigidity, ability to feel deeply, ego strength, coping capacities, extroversion, and neuroticism), assessed via both objective and projective procedures, Sol Garfield concluded that "although a number of investigations have reported some positive findings, most of the relationships secured between personality variables and outcomes have been of limited strength."

The study of the interactions of patient characteristics with process and outcome variables in psychotherapy research was initially proposed by Lee Cronbach in 1952 in his demonstration that differential efficacy of various teaching procedures was a consequence of the congruence of particular educational procedures and teacher's style with characteristics of the individual student. As Cronbach noted, these findings not only have implications for educational psychology, but they have important implications for psychotherapy research in their suggestion that the investigation of patient-treatment (PT) and patient-outcome (PO) interactions may provide a more productive methodology for psychotherapy research. The investigation of the interaction between patient characteristics with aspects of the treatment process might facilitate the investigation of the efficacy of various types of treatment, as well as the exploration of possible differences in treatment outcome and process. Different types of treatment may not only be differentially effective with different individuals, but different individuals may experience different, but equally desirable, outcomes with the same therapeutic intervention. The identification of patients' characteristics that interact with particular therapeutic modalities and different outcomes could provide fuller understanding of important aspects of the therapeutic process.

The view that different types of patients might have differential responses to different types of therapy has been discussed since Cronbach's initial observations, more recently emphasized in a 1991 special issue of the *Journal of Consulting and Clinical Psychology* devoted to this topic. Donald Kiesler noted in 1966 that among the most salient obstacles to the development of methodologically sophisticated psychotherapy research are the assumptions of "patient and therapist uniformity." Patient uniformity is based on the assumption that "patients at the start of treatment are more alike than they are different." Kiesler stressed the need to abandon these uniformity myths in favor of "designs that can incorporate relevant patient variables and crucial therapist dimensions so that one can assess which therapist behaviors are more effective with which type of patients." Later in 1991, Larry Beutler called for more specific operational definitions of therapy and of patient characteristics if we are to develop effective predictive models. However, he stressed that the inclusion of PT and PO interactions in psychotherapy research requires conceptual models to identify the personality variables that might mediate the responses to different types of treatment and result in different types of therapeutic outcome.

The primary difficulty in developing this line of research is the identification of certain qualities, out of the infinite array of possible personal characteristics of patients, that might be relevant to the treatment process. Research not guided by theoretically derived or empirically supported principles could lead investigators into a "hall of mirrors" because of the complexity of the potential interactions. Cronbach noted in 1975, "One can avoid entering (this) hall of mirrors by exploring the interactions between theoretically meaningful … variables" that are grounded in conceptual models. The choice of patient qualities needs to be theory driven and include dimensions relevant to the processes that are assumed to underlie psychological change. One possible model for introducing patient variables into psychotherapy research is the theory of personality development and psychopathology that articulates two primary dimensions in personality development—interpersonal relatedness and self-definition—and notes their differential role in different forms of psychopathology as well as their possible impact on the treatment process.

Sidney Blatt and colleagues beginning in 1974 proposed a theoretically derived and empirically supported model of personality development and psychopathology that has the potential to facilitate the introduction of patient variables into psychotherapy research. Blatt and colleagues conceptualized personality development as involving two fundamental developmental lines: (a) a relatedness or anaclitic line that involves the development of the capacity to establish increasingly mature and mutually satisfying interpersonal relationships, and (b) a self-definitional or introjective line that involves the development of a consolidated, realistic, essentially positive, differentiated, and integrated self-identity. These two developmental lines normally evolve throughout the life cycle in a reciprocal or dialectic transaction. An increasingly differentiated, integrated, and mature sense of self is contingent on establishing satisfying interpersonal relationships, and, conversely, the continued development of increasingly mature and satisfying interpersonal relationships is contingent on the development of a more mature self-concept and identity. In normal personality development, these two developmental processes evolve in an interactive, reciprocally balanced, mutually facilitating fashion throughout life.

These formulations are consistent with a wide range of personality theories ranging from fundamental psychoanalytic conceptualizations to basic empirical investigations of personality development. Sigmund Freud, for example, observed in *Civilization and Its Discontents,* that

> the development of the individual seems … to be a product of the interaction between two urges, the urge toward happiness, which we usually call "egoistic," and the urge toward union with others in the community, which we call "altruistic." … The man who is predominantly erotic will give the first preference to his emotional relationship to other people; the narcissistic man, who inclines to be self-sufficient, will seek his main satisfactions in his internal mental processes.

Freud also distinguished between object and ego libido and between libidinal instincts in the service of attachment and aggressive instincts necessary for autonomy, mastery, and self-definition. Hans Loewald, a distinguished psychoanalytic theorist, noted that the exploration of

> these various modes of separation and union … [identify a] polarity inherent in individual existence of individuation and "primary narcissistic union"—a polarity that Freud attempted to conceptualize by various approaches but that he recognized and insisted upon from beginning to end by his dualistic conception of instincts, of human nature, and of life itself.

John Bowlby from an ethological viewpoint considered striving for attachment and separation as the emotional substrate for personality development. Michael Balint, from an object-relations perspective, also discussed these two fundamental dimensions in personality development—a clinging or connectedness (an ocnophilic tendency) as opposed to self-sufficiency (a philobatic tendency). Shor and Sanville, based on Balint's formulations, discussed psychological development as involving a fundamental oscillation between "necessary connectedness" and "inevitable separations" or between "intimacy and autonomy." Personality development involves "a dialectical spiral or helix which interweaves these two dimensions of development." A wide range of more general personality theorists including David Bakan, David McClelland, and Jerry Wiggins have also discussed relatedness and self-definition as two primary dimensions of personality development.

Various forms of psychopathology can be conceptualized as an overemphasis and exaggeration of one of these developmental lines and the defensive avoidance of the other. This overemphasis defines two distinctly different configurations of psychopathology, each containing several types of disordered behavior that range from relatively severe to relatively mild forms of psychopathology. Based on developmental and clinical considerations, anaclitic psychopathologies are those disorders in which patients are primarily preoccupied with issues of relatedness, ranging from symbiotic and dependent attachments to more mature relationships, and utilize primarily avoidant defenses (e.g., withdrawal, denial, repression) to cope with psychological conflict and stress.

Anaclitic disorders involve a primary preoccupation with interpersonal relations and issues of trust, caring, intimacy, and sexuality, ranging developmentally from more to less disturbed, and include non-paranoid schizophrenia, borderline personality disorder, infantile (or dependent) character disorder, anaclitic depression, and hysterical disorders. These patients utilize primarily avoidant defenses like denial and repression. In contrast, introjective psychopathology includes disorders in which the patients are primarily concerned with establishing and maintaining a viable sense of self ranging from a basic sense of separateness, through concerns about autonomy and control, to more complex and internalized issues of self-worth. These patients utilize primarily counteractive defenses (projection, rationalization, intellectualization, doing and undoing, reaction formation,

overcompensation) to cope with conflict and stress. Introjective patients are more ideational and concerned with establishing, protecting, and maintaining a viable self-concept than they are about the quality of their interpersonal relations and achieving feelings of trust, warmth, and affection. Issues of anger and aggression, directed toward the self or others, are usually central to their difficulties. Introjective disorders, ranging developmentally from more to less severely disturbed, include paranoid schizophrenia, the schizotypic or overideational borderline, paranoia, obsessive–compulsive personality disorders, introjective (guilt-ridden) depression, and phallic narcissism.

The distinction between these two broad configurations of psychopathology can be made reliably from clinical case records. In contrast to the atheoretical diagnostic systems established in the diagnostic and statistical manuals of mental disorders developed by the American Psychiatric Association based primarily on differences in manifest symptoms, the diagnostic differentiation between anaclitic and introjective pathologies is based on dynamic considerations, including differences in primary instinctual focus (libidinal vs. aggressive), types of defensive organization (avoidant vs. counteractive), and predominant character style (e.g., emphasis on an object vs. self-orientation, and on affects vs. cognition).

The theoretical model of personality development and psychopathology based on the polarity of relatedness and self-definition provides a theoretically grounded, empirically supported, conceptual framework for introducing personality variables into psychotherapy research. Differences in the nature of therapeutic outcome and in the treatment process between anaclitic and introjective patients were examined in three different research programs: (a) in the study of therapeutic change in the long-term, intensive, psychodynamically oriented inpatient treatment of patients who are seriously disturbed and treatment resistant (the Riggs–Yale Project), (b) in the comparison of the therapeutic efficacy of psychoanalysis and long-term supportive-expressive outpatient psychotherapy (the Menninger Psychotherapy Research Project), and (c) in the comparison of four different, brief (16-week), outpatient interventions for major depression (the NIMH-sponsored TDCRP).

Sidney Blatt and colleagues demonstrated that the distinction between anaclitic and introjective patients facilitated the identification of important differences in the processes of clinical change in long-term intensive treatment with both inpatients and outpatients. The results of these two studies indicate that anaclitic and introjective patients have different needs, respond differentially to different types of therapeutic interventions, and demonstrate different treatment outcomes. Analyses of the data in these two studies based on more conventional diagnostic differentiations (e.g., psychosis, severe borderline, and neurotic psychopathology) were not as effective in identifying differences in change over the course of treatment. This conclusion is consistent with earlier findings that patient characteristics based on psychodynamic indices, as compared to symptomatic and descriptive distinctions, seem to have greater utility in predicting aspects of the therapeutic process and outcome.

I. THE AUSTEN RIGGS-YALE STUDY

Therapeutic change was studied in young adult inpatients who were seriously disturbed and treatment resistant in long term (at least 1 year), intensive, psychodynamically oriented treatment, including at least four times weekly individual psychoanalytic psychotherapy, in an open therapeutic facility. The differentiation of anaclitic and introjective patients was based on a review of admitting clinical case reports prepared during the first 6 weeks of hospitalization. Two judges made this differentiation from the case records at a high level of reliability. Systematic differences were found in the response of anaclitic and introjective patients on a number of measures of therapeutic change reliably derived from clinical case records and independent psychological test protocols that had been obtained at the outset of treatment and again after, on average, 15 months of inpatient treatment and, on average, 10 months prior to discharge from the clinical facility. Patients generally demonstrated significant improvement across these multiple independent assessments. Introjective patients, however, had greater overall improvement than did anaclitic patients on many of the measures. Independent of the degree of therapeutic gain, anaclitic and introjective patients expressed their therapeutic change (progression and regression) in different ways. Introjective patients expressed therapeutic change primarily through changes in their clinical symptoms, as reliably rated from clinical case reports and in their cognitive functioning, as independently assessed on psychological tests—in thought disorder on the Rorschach and in intelligence as assessed on the Wechsler Adult Intelligence Test. In contrast, anaclitic patients expressed change primarily in the quality of their interpersonal relationships, as reliably rated from clinical case reports, and in their representation of the human form on the Rorschach. Thus, anaclitic and introjective patients

changed primarily in the dimensions of their basic concerns and preoccupations. Anaclitic patients changed primarily on measures of interpersonal relatedness; change in introjective patients was found primarily in measures of cognitive functioning and of clinical symptoms.

II. THE MENNINGER PSYCHOTHERAPY RESEARCH PROJECT (MPRP)

The Menninger Psychotherapy Research Project compared the therapeutic response of outpatients in 5-times weekly psychoanalysis with patients in long-term, psychodynamically oriented, twice-weekly, supportive-expressive psychotherapy. Extensive prior analyses of the clinical evaluations and psychological test assessments, conducted both before and after treatment, have repeatedly failed to find any significant differences in the therapeutic response of patients to these two types of therapeutic intervention. Significant differences between psychotherapy and psychoanalysis, however, were found when patient variables were introduced into the data analyses. Anaclitic and introjective patients were reliably differentiated by two judges who reviewed the pretreatment case reports. Independent evaluation of psychological test data gathered at the beginning and the end of treatment indicated that anaclitic patients had significantly ($p < .05$) greater improvement in psychotherapy than they did in psychoanalysis. Introjective patients, in contrast, had significantly ($p < .05$) greater improvement in psychoanalysis than they did in psychotherapy. Not only were these differences between the two types of treatment significant within each type of patient, but the patient-by-treatment interaction was a significant ($p < .001$) cross-over interaction. Thus, the relative therapeutic efficacy of psychoanalysis versus psychotherapy was contingent, to a significant degree, on the nature of the patient's pathology and pretreatment character structure. It seems consistent that the dependent, interpersonally oriented, anaclitic patients were more responsive to a therapeutic approach that provided more direct interaction with the therapist. It also seems consistent that the more ideational introjective patients, preoccupied with separation, autonomy, and independence, would be more responsive in psychoanalysis.

The findings of both these studies—the comparison of outpatients in two different forms of treatment and the therapeutic response of inpatients who are seriously disturbed and treatment resistant in long-term, intensive treatment—clearly indicate that aspects of patients' personality interact with dimensions of the therapeutic process to determine the nature of therapeutic change and the differential response to different therapeutic modalities. Patients come to treatment with different types of problems, different character styles, and different needs, and respond in different ways to different types of therapeutic intervention.

III. THE TREATMENT OF DEPRESSION COLLABORATIVE RESEARCH PROGRAM (TDCRP)

The availability of the empirical data from the large-scale, multicenter, treatment program for depression, the TDCRP, sponsored by The National Institute of Mental Health (NIMH), provided opportunity to explore the role of patient dimensions in the brief outpatient treatment of depression. The NIMH TDCRP was a comprehensive, well designed, carefully conducted, collaborative, randomized clinical trial that evaluated several forms of brief (16-week) outpatient treatment for depression. Two hundred thirty-nine patients were randomly assigned to one of four treatment conditions: cognitive-behavior therapy (CBT), interpersonal therapy (IPT), imipramine plus clinical management (IMI-CM) as a standard reference, and pill placebo plus clinical management (PLA-CM)[1] as a double-blind control condition. It seemed particularly appropriate to explore patient differences in the TDCRP with regard to the fundamental polarity of relatedness and self-definition, given the considerable evidence by Aaron Beck in 1983 and Sidney Blatt in 1974 that indicated the reliability and validity of the distinction between anaclitic and introjective forms of psychopathology, especially in the study of depression.

Patients were nonbipolar, nonpsychotic, seriously depressed outpatients who met RDC criteria for major depressive disorder and had a score of 14 or greater on a modified, 20-item, Hamilton Rating Scale for Depression (HRSD). Among patients who began treatment, 70% were female, 38% were definitely endogenous by RDC criterion, and 64% had had one or more prior episodes of major depression. The average age was 35.

Patients were systematically assessed at intake, at 4-week intervals until termination at 16 weeks, and again at three follow-up evaluations conducted 6, 12, and 18 months after termination. Assessments included an interview and a self-report measure of depression HRSD

[1] Clinical management (CM) was a 20-min nonspecific supportive interaction.

and Beck Depression Inventory [BDI], respectively), an interview and a self-report measure of general clinical functioning (Global Assessment Scale [GAS] and Hopkins Symptom Checklist [HSCL-90], respectively), and an interview assessment of social adjustment, the Social Adjustment Scale (SAS). In addition, patients, therapists, and independent clinical evaluators (CEs) rated various aspects of therapeutic progress during treatment, at termination, and at the three follow-up assessments (therapists did not participate in the follow-up assessments). Prior analyses of the TDCRP data indicated some differences in therapeutic outcome at termination among these brief treatments for depression; IMI-CM and IPT, but not CBT, were more effective than PLA-CM, but only with patients who were more severely depressed. Though at midtreatment, IMI-CM resulted in more rapid reduction of symptoms than CBT and IPT, no significant differences in the extent of symptom reduction were found among the three active treatment conditions in the TDCRP (CBT, IPT, and IMI-CM) at termination. In addition, no significant differences in the intensity of symptoms were found among all four treatment condition at the three follow-up assessments conducted at 6, 12, and 18 months. However, Blatt and colleagues found significant differences between the two psychotherapy conditions and the medication condition at the follow-up evaluations in the degree to which patients thought treatment had a constructive impact on their development of adaptive capacities to deal with interpersonal relationships and their experiences and symptoms of depression.

The development of these adaptive capacities early in the follow-up period, at the 6-month follow-up assessment, significantly moderated the degree to which subsequent stressful life events resulted in increases in depressive symptoms at the final follow-up assessment conducted 18 months after the termination of treatment. Thus, despite frequent claim of the efficacy of the medication condition in the TDCRP, analyses of data from all three follow-up assessments, including the last assessment conducted 18 months after termination, indicate that patients in the two psychotherapy conditions, CBT and IPT, reported greater satisfaction with their treatment and that their treatment had significantly greater positive effect on their life adjustment in a number of important areas—in their ability to deal with interpersonal relationships and their experiences and symptoms of depression than did patients in the medication condition. The development of these adaptive capacities decreased patients' vulnerability to subsequent stressful life events. These findings raise questions about the relative value of reduction in symptoms versus reduction of vulnerability as measures of therapeutic progress.

A. Impact of Patient Variables on Therapeutic Outcome

To introduce patient variables into analyses of data from the TDCRP, an experienced judge reviewed the intake clinical evaluations to see if he could differentiate anaclitic and introjective patients but found that these clinical case reports contained primarily descriptions of patients' neurovegative symptoms and lacked sufficient detail about aspects of the patients' lives to allow the judge to discriminate reliably between anaclitic and introjective patients. Fortunately the Dysfunctional Attitudes Scale (DAS) had been included in the TDCRP protocol, primarily to assess the effects of treatment on dysfunctional cognitions. A factor analysis conducted on the pretreatment DAS in the TDCRP data set, consistent with several prior studies, indicated that the DAS is composed of two primary factors—need for approval (NFA) and perfectionism (PFT) or self-criticism. Prior research indicated that NFA factor on the DAS assesses primarily the relatedness or anaclitic dimension whereas the PFT factor in the DAS assesses primarily the self-definitional or introjective dimension. Thus, the pretreatment DAS provided the basis for introducing differences among patients on the dimensions of relatedness and self-definition into analyses of data from the TDCRP.

Pretreatment PFT significantly (ps = .032 to .004) predicted negative outcome, assessed by all five primary measures of clinical change in the TDCRP (HSRS, BDI, GAS, SCL-90, and SAS across all four treatment groups. Factor analysis of the residualized gain scores of these five outcome measures at termination revealed that these measures all load substantially ($p > .79$) on a common factor with an eigenvalue of 3.78, accounting for 75.6% of the variance, indicating that this factor is a consistent measure of therapeutic change. Pretreatment PFT had a highly significant ($p < .001$) negative relationship to this composite residualized gain score at termination. NFA, in contrast, had a marginal, but consistently positive, relationship to treatment outcome as assessed by each of these five outcome measures and by the composite outcome measure ($p = .11$).

Pretreatment PFT also had a significant negative relationship to outcome ratings made by therapists, independent CEs, and the patients at termination. This negative impact of perfectionism on the therapeutic process persists even as late as the last follow-up assessment, 18 months after termination. Pretreatment

PFT correlated significantly with follow-up ratings by CEs of poorer clinical condition and a need for further treatment, and with ratings by patients of dissatisfaction with treatment. Perfectionistic patients gave poorer ratings of their current condition, said that they experienced less change in treatment, and said that treatment had less impact on their general life adjustment and their coping skills (i.e., dealing with relationships and their ability to recognize and deal with their symptoms of depression).

It is important to note that not only did patients with elevated pretreatment PFT feel subjectively less satisfied with treatment and report less impact of treatment on the ability to develop adaptive capacities, but ratings by the therapists (at termination) and CEs indicated a significant negative relationship between patients pretreatment PFT scores and ratings of the degree to which they thought the patients improved at termination and at the 18-month follow-up, independent of the type of treatment the patient had received. Thus, introjective personality traits significantly interfered with patients' capacity to benefit from short-term treatment, whether the treatment was pharmacotherapy (IMI-CM), psychotherapy (CBT or IPT), or placebo. These findings of impaired response of introjective (perfectionistic) patients in short-term treatment stand in contrast to the findings of more positive responses of introjective patients in the long-term, intensive treatment of inpatients who are seriously disturbed at the Austen Riggs Center and in the long-term, intensive treatment of outpatients evaluated in The Menninger Psychotherapy Research Project.

B. Impact of Patient Variables on the Therapeutic Process

The extensive data gathered as part of the NIMH TDCRP also provided Blatt and colleagues the opportunity to examine some of the dynamics of brief treatment and to identify when and how introjective personality characteristics interfere with the therapeutic process.

Therapeutic gain in the TDCRP was assessed every 4 weeks until termination, and thus it was possible to evaluate when in the treatment process pretreatment PFT began to disrupt therapeutic outcome. PFT significantly disrupted therapeutic progress primarily in the last one half of the treatment process. Until midtreatment at the 8th week, no significant differences were found in therapeutic gain between patients at different levels of PFT. Beginning at midtreatment, however, only patients in the lower one third of the distribution of PFT continued to make significant progress. When two thirds of the patients, those with higher pretreatment levels of perfectionism, approach the end of treatment, they seem to experience a sense of personal failure, dissatisfaction, and disillusionment with treatment. Even further, perfectionistic (introjective) individuals are very concerned about maintaining control and preserving their autonomy. Thus, another factor that may disrupt the therapeutic progress in the last one half of the treatment process of the more perfectionistic (introjective) patients in the TDCRP may be the unilateral, external imposition of an arbitrary, abrupt termination date.

Not only were we able to identify when introjective personality qualities began to disrupt therapeutic progress, but we were also able to discover some of the mechanisms though which this disruption occurs. Janice Krupnick and colleagues in 1996 had used a modified form of the Vanderbilt Therapeutic Alliance Scale (VTAS) to assess the contributions of patient and therapist in establishing an effective therapeutic alliance in the TDCRP. Judges rated videotapes of the 3rd, 9th, and 15th treatment sessions. They found that the VTAS comprised two factors: (a) a patient factor that assessed the extent to which the patient was open and honest with the therapist; agreed with the therapist about tasks, goals, and responsibilities; and was actively engaged in the therapeutic work; and (b) a therapist factor that assessed the extent to which the therapist committed self and skills to helping the patient and the degree to which the therapist acknowledged the validity of the patient's thoughts and feelings. The contribution of patients to the therapeutic alliance, but not that of the therapist, significantly predicated treatment outcome. Therapeutic outcome across treatment groups was predicted by the degree to which the patient became increasingly involved in the treatment process.

Using these ratings of the therapeutic alliance made by Krupnick and colleagues, David Zuroff and colleagues recently explored the impact of the pretreatment levels of PFT on the development of the therapeutic alliance and found that PFT significantly impedes the capacity of patients to develop a therapeutic alliance, particularly in the latter one half of treatment. Thus, not only were we able to identify when in the treatment process perfectionism disrupts therapeutic progress, but we also discovered how introjective personality traits impede patients' capacity to gain from the brief treatment of depression. Patients who make therapeutic progress usually become increasingly involved in a constructive collaborative relationship with their therapist,

but this increased involvement in treatment is moderated by the patient's pretreatment level of perfectionism, independent of the treatment they were receiving. Increases in therapeutic alliance were significantly smaller or absent in patients at higher levels of perfectionism, particularly in the latter one half of the treatment process.

Perfectionistic individuals generally have limited capacities for developing open, collaborative relationships, and therefore it may take a more extended period of time for them to establish an effective therapeutic alliance. The effects of pretreatment PFT on therapeutic outcome is not only moderated by the quality of the therapeutic alliance, but, as Golar Sharar and colleagues demonstrated, it is also moderated by the extent to which patients are able to establish and maintain external social support during treatment and the follow-up period. Thus, the disruptive effects of pretreatment PFT on the treatment process is primarily the consequence of the disruptive effects of perfectionism on interpersonal relatedness both in the treatment process and in interpersonal relationships more generally.

Blatt and colleagues in 1996 also tried to identify aspects of the treatment process that could facilitate treatment outcome with these patients who are more difficult and highly perfectionistic. The TDCRP research team, using the Barrett–Lennard Relationship Inventory (B–L RI), asked patients, at the end of the second treatment session, to rate the degree to which they thought their therapist was empathic and caring. The B–L RI includes subscales to assess patient's perception of the therapist's emphatic understanding, level of positive regard, and congruence—qualities of the therapist that Carl Rogers believed were the necessary and sufficient conditions for therapeutic change. Prior studies demonstrated that the B–L RI was significantly related to treatment outcome at termination.

Overall, the degree to which patients in the TDCRP perceived their therapist as empathic and caring at the end of the second treatment session had a significant (p <.05) positive relationship to therapeutic outcome. However, this facilitating therapeutic effect of the patients' early view of the therapist as empathic and caring was very much contingent on the patients' level of perfectionism. An initial positive view of therapist had only marginal effects on treatment outcome at low and high levels of PFT (ps <.10 and .15, respectively). Patients who are highly perfectionistic did relatively poorly in treatment whereas patients low in perfectionism had relatively better outcome, independent of how they perceived the therapist early in treatment. However, at the middle level of PFT, the patient's early view of the therapist had a highly significant (p <.001) impact on treatment outcome. At the middle level of perfectionism, an early view of the therapist as empathic and caring significantly reduced the disruptive effects of perfectionism on treatment outcome, whereas a negative view of therapist significantly compounded these disruptive effects. Thus at the middle level, the effect of perfectionism on treatment outcome is significantly contingent on the degree to which the patient, very early in the treatment process, perceived the therapist as empathic and caring.

In sum, analyses of brief treatment of depression in the TDCRP indicate that therapeutic outcome is significantly influenced by pretreatment characteristics of the patient—by pretreatment level of perfectionism or self-criticism—independent of the type of treatment provided. This negative effect of pretreatment PFT on outcome occurs primarily in the second one half of the treatment process, as patients approach termination. This impact of pretreatment PFT on outcome occurs in large part through interference with patients' capacity to continue to be involved in interpersonal relationships both in the therapeutic alliance, particularly as termination approaches, as well as in interpersonal relations external to the treatment process. This negative impact of perfectionism on treatment outcome is significantly reduced, but only at middle levels of perfectionism, if the patient initially perceives the therapist as empathic and caring.

IV. SUMMARY

A fundamental polarity of relatedness and self-definition, central to many of Freud's theoretical formulations, as well as to those of many other psychoanalytic and non-psychoanalytic investigators, provides a basis for articulating a model of personality development: A model that involves a complex, mutually facilitating, dialectic transaction between the development of interpersonal relationships and of self-definition throughout the life cycle. This polarity also provides a basis for identifying two major types of depression: an anaclitic or dependent and introjective or self-critical depression. This polarity also provides a way for understanding a wide range of psychological disturbance, from schizophrenia to the neuroses, as emerging from disruptions in the dialectic development of the two fundamental developmental lines of relatedness and self-definition. This differentiation of two primary configurations of psychopathology—anaclitic and introjective—is based, not on differences in manifest symptoms, but on fundamental dimensions of personality organization: differences in primary instinctual focus (sexuality vs.

aggression), type of defensive organization (avoidant vs. counterphobic), and personality style (e.g., emphasis on relationships vs. a self-orientation and an emphasis on feelings and emotions versus cognition). This conceptual model of two major configurations of psychopathology developed by Blatt and colleagues facilitates an appreciation of the continuities between personality development and normal variations in personality or character style, as well as among various forms of psychopathology.

This conceptual model of personality development and psychopathology facilitated the introduction of personality dimensions into the study of therapeutic outcome and process in both short- and long-term treatment. These analyses demonstrated that anaclitic and introjective patients come to treatment with different capacities, needs, and problems, are differentially responsive to different types of treatment, and change in different, but equally, desirable ways. These theoretical formulations about a fundamental polarity of relatedness and self-definition provided a fuller understanding of personality development and the nature of psychopathology and facilitated a fuller exploration of important aspects of the therapeutic process and the nature of therapeutic change.

The introduction of patient variables into research on therapy outcome and process enables investigators to begin to identify factors that impede or facilitate therapeutic change. Even further, the inclusion of patient characteristics in research designs enables investigators to examine more systematically aspects of the therapeutic process and to identify when and how in the treatment process particular characteristics of the patients facilitate or impede therapeutic progress as well as identify particular aspects of the therapeutic process that can facilitate therapeutic change with patients who are treatment resistant.

See Also the Following Articles

Behavioral Assessment ■ Integrative Approaches to Psychotherapy ■ Neuropsychological Assessment ■ Outcome Measures ■ Projective Testing in Psychotherapeutics ■ Research in Psychotherapy ■ Therapeutic Factors

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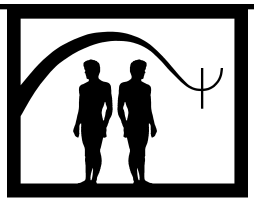

Positive Punishment

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GLOSSARY

aversive A nontechnical term often used to refer to punishment and negative reinforcement procedures.

conditioned punisher An event that acquires its capacity to serve as a punisher through learning.

negative punishers Punishers that involve removing something from an individual's environment.

negative punishment A procedure (or process) in which responding is weakened by its consequences, which involve removing something from an individual's environment.

negative reinforcement A procedure (or process) in which behavior is strengthened as a function of its consequences, which involve terminating a stimulus that is present or postponing (or preventing) the delivery of an otherwise forthcoming stimulus.

positive practice overcorrection A procedure that reduces the frequency of undesired behavior by having an individual emit appropriate relevant behaviors repeatedly each time the troublesome behavior occurs.

positive punishers Punishers that involve adding something to an individual's environment.

positive punishment A procedure (or process) in which responding is weakened by its consequences, which involve adding something to the individual's environment.

Premack principle A lower-probability behavior may be reinforced by allowing an individual to engage in a higher-probability behavior after the lower-probability behavior occurs. Conversely, a higher-probability behavior may be punished by requiring an individual to engage in a lower-probability behavior after the higher-probability behavior occurs.

punishers Consequences that weaken behavior.

punishment A procedure (or process) in which responding is weakened by its consequences, which are termed punishers.

respondent conditioning A procedure in which a previously neutral stimulus comes to control behavior by virtue of reliably preceding a stimulus that controls behavior at the onset of and throughout stimulus–stimulus pairings.

restitutional overcorrection A procedure that reduces the frequency of undesired behavior by requiring a person to repair the damage done by that behavior and to make the relevant parts of the world better than before the misdeed occurred.

simple correction A procedure that reduces the frequency of undesired behavior by having an individual emit appropriate relevant behaviors a single time after the troublesome behavior occurs.

stimulus An environmental event.

unconditioned punisher An event that does not require learning to serve as a punisher.

Many people consider punishment to be any attempt at disciplining a person by harming that individual, either physically or psychologically, when misbehavior occurs. When it is defined in this way, whether punishment increases, decreases, or has no effect on the future

likelihood of occurrence of the misbehavior is irrelevant. Thus, spanking a child for cursing would be considered as punishment, regardless of whether the child curses more, less, or equally often after being spanked. When punishment is construed in this way, the behavioral function of the procedure is unclear and what stands out is that punishment is intended to hurt the person exposed to it. Not surprisingly, people who view punishment in this way typically object to its therapeutic use, although they may support it as retribution for heinous misdeeds.

To increase clarity and to avoid the negative connotations associated with "punishment" as the term is used in ordinary language, many behavioral psychologists define punishment not in terms of the intent of the person who implements it, but instead in terms of the nature of the operation and its effects on behavior. Specifically, punishment occurs when behavior is weakened by its consequences, which are termed *punishers*. The nature of those consequences, the intent of the person who administers them, and whether they harm the individual exposed to punishment are irrelevant to this definition, which we prefer. What is relevant is that the consequences of a particular behavior make it less likely that such behavior will occur in the future.

I. DESCRIPTION OF TREATMENT

It is convention to distinguish between positive and negative punishment. Positive punishment occurs when a response adds something to an individual's environment and is therefore weakened. If, for example, a parent says "don't poke your brother" when an older sibling jabs a toddler, and the subsequent rate of jabbing decreases as a result of this consequence, then the procedure is positive punishment. Negative punishment, in contrast, occurs when a response takes something away from an individual's environment and is therefore weakened. If, for example, the older sibling loses access to TV after poking the toddler, and the subsequent rate of jabbing decreases as a result of this consequence, then the procedure is negative punishment. In almost all cases, as in these examples, the response-weakening effects of punishment involve a decrease in the rate of responding. Other changes in behavior, however (e.g., an increase in response latency), can also be indicative of the response-weakening effects of punishment.

Positive punishment procedures can be divided into two general categories, those that involve presenting an external stimulus to a client and those that entail requiring the client to engage in nonpreferred (i.e., low-probability) behaviors. It is usual practice to refer to events that serve as positive punishers as "aversive" stimuli and to consider punishment as an "aversive" intervention. Unfortunately, these same terms also are often applied to negative reinforcers and negative reinforcement procedures, respectively, which is a source of confusion. Negative reinforcers are events that, when removed as a consequence of a particular kind of behavior, strengthen that behavior (e.g., pressing the "off" button on an alarm clock is strengthened by removal of the sound). Reinforcers always strengthen behavior, punishers always weaken it, and events that serve as negative reinforcers do not always serve as positive punishers. In addition, in everyday language "aversive" means "unpleasant" or "noxious," but the subjective effects of punishment are not a part of its technical definition. Punishment is defined functionally, in terms of how it affects behavior (i.e., it weakens it), not in terms of how it makes people feel. For these reasons, little is gained by labeling punishment as "aversive," although the practice is very common.

Positive punishment by presenting an external stimulus to a client when misbehavior occurs requires two steps. First, an effective positive punisher must be isolated and, second, conditions must be arranged so that this stimulus consistently and immediately follows the behavior that is to be reduced.

Positive punishers can be unconditioned (unlearned, or primary) or conditioned (learned, or secondary). Unconditioned punishers, which include events that provide extreme stimulation of any sensory system (e.g., loud sounds, bright lights, extreme cold or heat, strong pressure on the skin), suppress behavior automatically. That is, their delivery following a behavior reduces the likelihood that such behavior will recur in similar settings regardless of the history of the person in question. Events that serve as unconditioned positive punishers are similar across people. Moderate to intense electrical stimulation (shock) applied to the skin is a good example of such a punisher.

Unlike unconditioned punishers, conditioned positive punishers acquire their capacity to reduce responding through learning. This can occur through respondent conditioning when an established punisher reliably and shortly follows a neutral stimulus. For example, if a tone of moderate intensity that is not initially punishing occurs just before a person is shocked on a number of occasions, the tone eventually will acquire a punishing function. This function will be maintained so long as the tone is at least occasionally paired with the shock.

Conditioned punishers also can be established through verbal mediation. Consider, for instance, a music teacher who is giving voice lessons to a highly motivated student who is practicing singing on-key. The teacher says, "When you go too high, I'll raise my forefinger." By virtue of a unique learning history, the student is motivated not to sing at a pitch beyond that targeted by the teacher, that is, to "not go too high," and doing so is punishing. So is any indication that this is occurring, like the teacher's raised forefinger. Barring the teacher's explanation, the raised finger would not punish (i.e., reduce the future likelihood of) singing off-key in this student. In addition, unless their histories were similar to that of the student in our example, the teacher's raised finger would not serve as a positive punisher for the behavior of other people.

Once an effective unconditioned or conditioned punisher that is practical and ethically acceptable is isolated or established—which is an essential first step that can be difficult to accomplish—effective reduction of the targeted behavior is most likely to occur if:

1. The punisher immediately follows each occurrence of the behavior that is to be reduced.
2. The punisher is introduced at its optimum intensity initially, rather than being gradually increased in intensity over time.
3. The conditions of punishment are explained accurately to the client, if she or he has the verbal skill to understand them.
4. The reinforcer that maintains the troublesome behavior is made available for an alternative, desirable response.

As explained in later sections, positive punishment through the delivery of an external stimulus is not a common therapeutic procedure. More common, although still controversial, is requiring an individual to engage in a low-probability behavior when a high-probability, but troublesome, behavior occurs. This form of punishment is based on the Premack principle, which was devised by David Premack in the 1950s. It states that *(a)* the opportunity to engage in a higher-probability behavior will reinforcer a lower-probability behavior, and *(b)* the requirement of engaging in a lower-probability behavior will punish a higher-probability behavior.

Premack measured the probability of different incompatible behaviors by allowing an individual unconstrained opportunity to engage in them and measuring the amount of time spent in each activity. For example, a middle-school student on the playground during a 30-min recess would be given the opportunity to play soccer or softball, two independent activities that cannot occur together. If the student spent 24 min playing softball and 6 min playing soccer, then playing softball is the higher-probability, or preferred, activity. The Premack principle suggests that one could increase the amount of time the child played soccer by requiring this behavior to occur before the opportunity to play softball was provided. Conversely, the amount of time spent playing softball could be reduced if the child was required to play soccer for a considerable period after playing softball for a short time. In this case, however, neither behavior is necessarily undesirable and, unless they loved soccer and loved softball, there would be no reason for parents or teachers to punish playing softball in this manner. In other cases, however, the higher-probability behavior is clearly undesirable and the lower-probability behavior desirable (or innocuous), and the Premack principle of punishment can be used to good advantage. This is the case with overcorrection, a procedure that Richard Foxx and Nate Azrin developed in the early 1970s to reduce aggressive and other disruptive behaviors exhibited by clients with mental retardation living in an institutional setting.

In essence, overcorrection requires a client to engage in a low-probability (nonpreferred) behavior each time a higher-probability, but troublesome, behavior occurs. Two versions of overcorrection are distinguished, depending on the nature of the nonpreferred behavior that the client is required to perform. In positive practice overcorrection, the client is required to emit appropriate relevant behaviors repeatedly each time the troublesome behavior occurs. For example, a child who kicks a chained dog passed on the way to school might be required to walk the block on which the dog lives 10 times without approaching (or kicking) it.

A procedure similar to positive practice overcorrection is simple correction, in which the individual is required to emit appropriate relevant behaviors once after the undesired behavior occurs. For instance, the hypothetical child who kicks a chained dog would be required to walk past the dog once without approaching it.

In restitutional overcorrection, or restitution, each time the problem behavior occurs the client is required to repair the damage done by that behavior and to make the relevant parts of the world better than before the misdeed occurred. If, for instance, a child spits on the kitchen floor, she or he would be required to not only clean up the spittle, but also to mop and dry the entire kitchen floor. An advantage of restitution is that it has an educational, as well as a punishing, function.

Although they are not typically construed as overcorrection, a number of other interventions make use of the Premack principle to reduce inappropriate responding. One such procedure is contingent exercise, where a client who rarely exercises is required to do so when an undesired response occurs. Another is guided compliance, where a client who misbehaves while performing a task is physically guided through the task until it is completed. If, for instance, a child who is asked to turn off and put away a tape player begins to whine and argue (the undesired behavior), the parents may physically guide the child in performing the requested activity. Here, as in all cases involving punishment by requiring clients to engage in nonpreferred activities, when physical guidance is provided the stimulation resulting from such guidance may be punishing.

In some cases, it is difficult or impossible to get an individual to engage in nonpreferred activities, and attempts at doing so can create a host of problems. Among them are inconsistent application of the intervention and physical harm to the client, the therapist, or other people. In general, punishment based on the Premack principle is best used with compliant and easily managed individuals. One would not, for instance, attempt to physically guide a large, strong, and angry client in performing a task she or he abhorred.

II. THEORETICAL BASES

As discussed in the entry for operant conditioning, operant conditioning has been likened to natural selection in that both involve processes of variation, selection, and retention. Punishment "selects out" operants that produce certain consequences. Studies by neuroscientists may reveal the physiological mechanisms through which this occurs and, if so, contribute to a comprehensive theory of punishment. No such theory is currently available, which perhaps has contributed to widespread misunderstanding of what punishment entails.

Psychologists have been concerned with punishment from the discipline's early days. Although Edward Thorndike made no mention of what we now call punishment in the earliest versions of his well-known law of effect, by 1905 when his book *The Elements of Psychology* appeared, he recognized that the consequences of behavior could have bidirectional effects. That is, they could make it either more or less likely that such behavior would recur. Thorndike wrote:

> Any act which in a given situation produces satisfaction becomes associated with that situation, so that when the situation recurs the act is more likely than before to recur. [This is reinforcement.] Conversely, any act which in a given situation produces discomfort becomes disassociated from that situation, so that when the situation recurs the act is less likely than before to recur. [This is punishment.]

Later in life, Thorndike came to believe that punishment was not effective in reducing behavior. This belief was fostered by the results of studies conducted with college students learning to match English words with Spanish synonyms. Thorndike found that saying "Right" after correct matches facilitated learning, therefore, reinforcement was effective. But saying "Wrong" after incorrect matches had no effect on subsequent performance, therefore, punishment was ineffective. Although Thorndike's results are subject to alternative explanations, his view of punishment as ineffective was popularized in the lay press with respect to child-rearing practices.

B. F. Skinner greatly extended Thorndike's research and theorizing regarding the effects of consequences on behavior. Skinner acknowledged punishment as a principle of behavior, but throughout his life he argued that the effects of punishment are short lived and that, in general, punishment should not be used therapeutically or in the culture at large. Skinner's position regarding the short-lived effects of punishment were supported by his research findings with rats, and by the findings of his student, William Estes. In one study, Estes initially rewarded (reinforced) rats' lever presses with food. After the response was occurring reliably, food was no longer available, and each lever press produced an intense electric shock delivered to the rat's feet. This procedure reduced responding to near zero levels. If, however, a substantial period of time passed without the rats being tested, they would resume lever pressing. Thus, punishment did not eliminate behavior but only suppressed it so long as the punishment procedure was in effect.

Results such as these, as well as philosophical considerations, caused Skinner to have strong negative opinions regarding positive punishment. For example, the chapter in his 1953 book *Science and Human Behavior* that deals with punishment is titled "A questionable technique." He argues therein that *(a)* punishment does not produce lasting effects, *(b)* punishment often is used abusively, *(c)* punishment often engenders strong and negative emotional responding, *(d)* punishment engenders escape from and avoidance of stimuli associated with the experience, and *(e)* viable alternatives to punishment are available. He acknowledged,

however, that relatively little research had been conducted on the effects of punishment and suggested that further work in the area was necessary.

Laboratory research concerning punishment by the delivery of aversive stimuli increased dramatically during the 1960s, but interest in the area soon waned. The studies that were conducted revealed a great deal about the variables that influence the degree of response suppression produced by positive punishment and also provided evidence that punishment could eliminate, or substantially reduce, behavior over long periods. In fact, after summarizing the research literature, Nate Azrin and William Holz concluded in 1966 that:

> As a reductive procedure, punishment appears to be at least as effective as most other procedures for eliminating responses. … If we have not overlooked the effects of [important] variables, there is every reason to believe that our punishment procedure will be completely effective in eliminating the undesired response. The emotional state or enduring behavioral disruption of the punished subject are not necessarily undesirable outcomes of punishment, nor are the severity of the response reduction or the behavioral generalization of the punishing effects undesirable.

They suggest that disruption of social interactions, caused by the tendency of the individual exposed to punishment to avoid or react aggressively toward the person who inflicts punishment, is the major disadvantage of using punishment. Although Azrin and Holz' influential chapter is by no means a glowing endorsement for therapeutic applications of positive punishment, the studies reviewed therein make it clear that punishment can be effective in reducing behavior. These laboratory studies, which dealt with the application of external stimuli as punishers, provided an empirical basis for therapeutic applications of positive punishment during the 1960s and 1970s.

Although many theoreticians construe punishment as a process that is similar to reinforcement, but with opposite effects on behavior, there is an alternate view. From this perspective, the response reduction produced by punishment is due to passive avoidance responding. That is, organisms learn that emitting certain responses produce undesired (i.e., punishing) consequences and, because of this, they withhold such responses even though variables are present that would otherwise cause those responses to occur. Behavioral psychologists do not agree as to whether or not experimental data provide solid support for either the passive avoidance or direct response reduction theory of punishment. Although the issue is of theoretical significance, it does not appear to have important implications for clinical applications of positive punishment.

Most basic laboratory research in the area of positive punishment has involved delivery of aversive stimuli, and most theorizing has concerned the effects of such stimuli. There have, however, been some extensions of Premack's work concerning punishment by requiring the performance of low-probability (nonpreferred) activities. It is now generally accepted that forcing an individual to engage in a higher-probability behavior can punish a lower-probability behavior, so long as the individual is forced to engage in the higher-probability behavior for a longer period than would occur normally. Although this finding is interesting, it is of little clinical significance.

III. APPLICATIONS AND EXCLUSIONS

Restrictions on the use of positive punishment depend on the specific procedure under consideration. In general, ethical and legal considerations severely limit the use of positive punishment as a primary intervention in therapeutic settings. There is, however, debate about whether positive punishment should ever be used with protected populations (e.g., children, people with mental retardation).

No legitimate therapist recommends positive punishment as a first-line intervention, and advocates of "nonaversive" interventions contend that the procedure should never be used. Advocates of the right to effective treatment also acknowledge that positive punishment is a restrictive (harmful) intervention. They contend, however, that it may be appropriate to use the procedure to deal with serious behavioral problems that have not responded favorably to other, less restrictive, interventions. If fact, some argue that it is unethical to withhold a potentially valuable, although momentarily unpleasant, intervention if doing so maintains the client in a dangerous or uncomfortable state.

As a rule, the use of unusual unconditioned punishers (e.g., electric shock, aromatic ammonia) is more strongly restricted than are procedures that deliver common conditioned punishers (e.g., verbal reprimands) or that require clients to perform generally accepted, but (for them) low-probability behaviors. For instance, in 1990 the American Association on Mental Retardation condemned "aversive procedures which cause physical damage, pain, or illness" and procedures "which are

dehumanizing—social degradaion, verbal abuse and excessive reactions." Common forms of conditioned punishment, as described in the example of the music teacher's raised finger, are common in many human interactions, including therapeutic interchanges in which clients and therapists talk to one another. Such interchanges are not, however, based primarily on punishment or generally considered as punishment procedures.

If punishment is to be used systematically as a part of therapy, it is important that appropriate safeguards be put in place to protect both clients and staff. In general, a clear decision-making process regarding the use of punishment should be in place. This process should recognize that punishment is a restrictive (harmful) intervention and adhere to the doctrine of the least restrictive alternative intervention. This doctrine states that other, less restrictive, interventions must be evaluated and found ineffective before punishment is considered.

Clear guidelines must be established regarding the exact nature of the punishment procedure, including who is to implement it and the specific standards of accountability. Input from clients and client's advocates, as well as behavior-change experts, should play a crucial role in determining the details of punishment, including who is to administer it and how its effects are to be monitored. Unambiguous rules regarding the behavioral data that will support continuation, modification, and termination of punishment must be established by a vigilant, expert, and caring treatment team before punishment is implemented, and these rules must be followed unless the good of the client dictates otherwise in the opinion of the team. Whenever possible, positive punishment should be avoided entirely.

IV. EMPIRICAL STUDIES

Most of the published studies of therapeutic applications of positive punishment involve attempts to reduce harmful behaviors in people with mental retardation and other developmental disabilities. A well-known example of research in this area concerns Ivaar Lovaas's successful use of electric shocks during the 1960s to reduce pernicious self-injury in children with autism. Other researchers replicated his findings concerning the effectiveness of electric shock punishment in reducing self-injury and also demonstrated that the procedure could be used to reduce other harmful behaviors to acceptable levels.

Several unconditioned primary punishers have been evaluated in published studies, including water mist sprayed in the face, ice cubes placed against the jaw, lemon juice squirted in the mouth, and aromatic ammonia held close enough to the client to be smelled. These stimuli have proven to be effective in reducing self-injury and other troublesome behaviors when presented immediately after such behavior occurred. In short, published studies provide clear evidence that punishment via the delivery of aversive stimulation can provide rapid, strong, and enduring suppression of target behaviors.

Even people who argue strongly against the use of punishment via the delivery of aversive stimuli generally acknowledge the procedure's efficacy. They point out, however, that the procedure can produce several harmful side effects, including aggression, undesirable emotional responses (e.g., crying), establishment of the person who delivers the punisher as a conditioned punisher, and general suppression of behavior. Although such effects certainly can occur, reviews of the research literature suggest that punishment is at least as likely to produce positive side effects, such as increases in social behavior, improved affect, and reductions in the problem behavior outside the treatment setting. Nonetheless, negative side effects remain a real concern.

So, too, is the possibility that caregivers may use punishment excessively and inappropriately in treating people with developmental disabilities, and that children who see punishment being used are likely to use punishment themselves. Such effects are documented in the literature, although they do not inevitably occur. Finally, because punishment is generally recognized as restrictive and is considered by many people as intrinsically dehumanizing, efficacy alone does not justify its use. When nonaversive alternatives are available, they are preferable. Although it is clear that such procedures have been used to manage a wide range of problem behaviors in protected populations, there is ongoing debate as to whether effective nonaversive alternatives to punishment via the delivery of an aversive stimulus are always available.

Positive punishment by requiring an individual to engage in nonpreferred activities has been evaluated in a substantial number of studies, most concerned specifically with overcorrection. In brief, such procedures, used alone or in combination with other strategies, have been effective in reducing a substantial range of behaviors emitted by a wide variety of persons in diverse settings. Among the behaviors that have been successfully controlled are self-injury, aggression, stereotypy, disruption, in-class masturbation, oral reading errors, oral spelling errors, writing errors, and failure to make eye

contact. Although positive side effects, including decreased crying and increased smiling and social interactions have been observed in some studies, negative side effects also have been reported. These include aggression, avoidance of the setting in which the procedure is applied, screaming, and stereotypical responding. As noted previously, difficulties can arise in getting a client to perform low-probability behaviors. Moreover, selecting appropriate low-probability behaviors can be difficult in some settings.

Positive punishment by requiring individuals to engage in nonpreferred activities has engendered some controversy but appears to be generally accepted so long as the required behaviors are appropriate and the measures taken to get clients to perform them are humane. Positive punishment by the delivery of aversive stimuli, in contrast, is highly controversial and is best viewed as a treatment of last resort. Nonetheless, various forms of positive punishment are ubiquitous in everyday life and in therapy. They may teach people what not to do and be of value for that reason. But they do not establish appropriate behaviors, and they are unpleasant, and for these reasons many thoughtful people minimize their use.

V. CASE ILLUSTRATION

A study published by Thomas Sajway, Julian Libet, and Stuart Agras in 1974 provides a straightforward example of positive punishment through the delivery of an aversive stimulus. They treated a severely malnourished and dehydrated 6-month-old girl who regurgitated each time she was fed. As they described it, after being given food (e.g., milk in a bottle), she "would open her mouth, elevate and fold her tongue, and vigorously thrust her tongue backward and forward," which caused her to throw up the food she had just ingested. There was no sign of duress during these activities, and physicians could isolate no cause for their occurrence.

To reduce regurgitation, Sajway, Libet, and Agras squirted unsweetened lemon juice into the girl's mouth immediately after the tongue movements occurred. This procedure rapidly reduced regurgitation and, after 12 days of exposure to it, the vigorous tongue movements and regurgitation had totally disappeared. As a result, the girl's weight increased dramatically—by 50% in 2 months—and she became healthy. No untoward effects were observed, and it is no exaggeration to say that exposure to the mild punishment procedure saved the girl's life.

A study published by Richard Foxx and Nate Azrin in 1972 clearly illustrates punishment by requiring a person to emit nonpreferred behaviors. The client in this study was a 50-year-old woman with mental retardation who lived in an institution. Prior to treatment, for over 30 years she regularly (more than 10 times per day) upset furniture and engaged in other destructive acts on her ward. To reduce these destructive and high-probability behaviors, Foxx and Azrin used a restitutional overcorrection procedure in which the woman was required to correct immediately any damage caused by her actions and, in addition, to emit other behaviors that improved the quality of the ward. For instance, if she upset a bed, she was required to set it upright and make up the covers, and also to fluff the pillows on all of the other beds in the ward. (These were low-probability activities for the woman.)

Overcorrection rapidly reduced destructive acts. Within 1 week, fewer than four acts occurred per day. After 11 weeks of overcorrection, the behavior was totally eliminated. No adverse effects of the procedure were noted. Here, a behavioral problem that had existed for over 3 decades was solved by requiring the client to make amends for the damage caused by her inappropriate actions.

VI. SUMMARY

Positive punishment refers to a procedure in which a particular kind of behavior is weakened (decreased in rate) because a stimulus is presented, or the individual is required to engage in nonpreferred activities, as a consequence of that behavior. Positive punishment is effective in reducing a wide range of behaviors, but ethical and practical objections broadly restrict its therapeutic use.

See Also the Following Articles

Aversion Relief ■ Conditioned Reinforcement ■ Extinction ■ Functional Analysis of Behavior ■ Negative Practice ■ Negative Punishment ■ Negative Reinforcement ■ Operant Conditioning ■ Overcorrection ■ Positive Reinforcement ■ Self-Punishment

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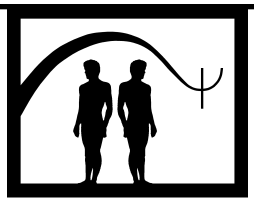

Positive Reinforcement

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GLOSSARY

chaining Reinforcing discrete responses in sequence so that all the behaviors occur as a single cohesive unit.

conditioned reinforcers Stimuli that acquire reinforcing properties through learning.

differential reinforcement of incompatible behavior A procedure in which a desired behavior that is incompatible with an undesired behavior is reinforced. The procedure is used to decrease undesired behavior and simultaneously increase desired behavior.

differential reinforcement of other behavior A procedure in which a reinforcer is delivered when a prespecified period passes without occurrence of an undesired response. The procedure is used to decrease undesired behavior.

primary positive reinforcers Stimuli that have reinforcing capacity in the absence of a special learning history.

prompt A verbal or physical antecedent that indicates to an individual how to respond in order to obtain reinforcement.

shaping Reinforcing successively closer approximations to a terminal, desired response.

Desirable as well as undesirable human behaviors often are operant responses, that is, they primarily are controlled by their consequences. Consequences are events (stimuli) that follow and are produced by a particular behavior. When the consequences of behavior make it more likely that such behavior will occur in a similar future context, or otherwise strengthen the behavior, the consequences are termed reinforcers and the process whereby responding is strengthened is termed reinforcement. Negative reinforcers strengthen behavior when responding removes them from the individual's environment, or prevents their occurrence. Positive reinforcers, in contrast, strengthen behavior when responding leads to their presentation.

Positive reinforcers can be learned (called conditioned or secondary) or unlearned (called unconditioned or primary). Stimuli that serve as primary positive reinforcers typically are of direct biological significance (e.g., food, water). Stimuli that serve as conditioned reinforcers do so because they precede the delivery of other reinforcers, or because of verbal mediation. Because people differ in their learning histories, the stimuli that serve as conditioned reinforcers differ substantially across people.

In a general sense, positive reinforcement comprises all procedures in which operant behavior is strengthened through the response-produced presentation of an object or event. Procedures based on positive reinforcement are useful in treating many kinds of behavioral problems in a wide range of client populations.

Moreover, understanding the role of reinforcement in the genesis and maintenance of inappropriate behavior is critical for understanding human psychopathology and for treating it effectively.

I. DESCRIPTION OF TREATMENT

Troublesome human behaviors generally can be categorized into those that involve the presence of inappropriate responses and those that involve the absence of appropriate responses. Because reinforcement by definition increases, or otherwise strengthens, responding, procedures based on positive reinforcement have an obvious role in treating individuals who fail to emit desired behaviors. To deal with such problems, a clinician typically begins by defining the desired behavior and selecting a measurement system that allows the behavior to be accurately quantified. Goals for performance of the desired behavior also are established at this point.

Next, a determination is made as to whether the absence of desired behavior involves a skill deficit or a performance deficit. In the former case, the client has not learned to perform the response. In the latter case, the client knows how to perform the response, but fails to do so. Often, the reason is that the desired behavior is not consistently reinforced in the client's everyday environment.

In many cases, planned reinforcement is used to treat performance deficiencies. For instance, an adult with mental retardation living in a group home may not regularly dress herself, even though she knows how to perform the task and does so on occasion. Making something valuable to the woman—perhaps tokens that can be exchanged for favored objects and activities—available only if she dresses herself appropriately each morning would in all likelihood lead to consistent self-dressing.

Treating a skill deficit typically begins with a task analysis, which involves breaking a complex behavior into its component parts. Dressing one's self, for example, begins with recognizing and laying out appropriate clothes and ends with fastening the final accouterment in place. Between the beginning and end of this chain of responses are many specific actions that depend on exactly what the person will be wearing. Several different procedures, all involving positive reinforcement, might be used in teaching a person to perform a new behavior, like dressing herself. Among them are shaping, modeling, prompting, chaining, and providing verbal instruction.

In shaping, successively closer approximations to the desired response are reinforced until the target (desired) behavior emerges. To teach a person to pull up a zipper, for instance, one might ask the person to do so then observe their performance. If they grasped the tab and pulled the zipper halfway up, praise (a positive reinforcer) would be provided. On the next trial, however, praise would be withheld until the zipper was pulled more than halfway up. This process would be repeated until the zipper was fully closed. At that point, another response in the self-dressing sequence would be taught.

In prompting, physical or verbal guidance in performing a desired response is provided. If the woman in our example were verbal, the therapist might say, "Keep pulling hard," as the zipper was raised. The therapist might also place a hand over the client's hand and help her to pull the zipper. In modeling, someone performs the target (desired) response while being observed by the individual who is to learn that behavior. Our therapist might operate a zipper one or more times before asking the client to do so.

In chaining, discrete responses are reinforced in sequence to form complex behaviors that eventually occur as a single cohesive unit. The completion of one response provides a cue (i.e., a discriminative stimulus) for performing the next response in the sequence and, eventually, reinforcement is provided only when the chain of responses is complete. By the time the client has learned to dress herself, she might earn praise only at the end of a long and integrated sequence of responses.

Verbal instructions can serve as prompts but also can specify relations among stimuli (events and objects) and responses, thereby changing the function of those stimuli and responses. The therapist might, for instance, tell the client "Your green top and your black slacks really go well together—I love how you look in them." This statement might establish the top and slacks combination as a positive reinforcer, which the client values and will work to get to wear. Absent the therapist's statement, or given another kind of statement, such as "Your green top and your black slacks look crappy together—I hate how you look in them," wearing the top and slacks together would not serve as a positive reinforcer.

In many cases, a behavior that is appropriate in one context is not appropriate in another. Therefore, once new behavior is established under conditions where it is appropriate, steps often must be taken to ensure that it does not generalize to other, inappropriate, contexts. This can be accomplished through differential reinforcement, which entails reinforcing behavior in contexts where the behavior is appropriate, and failing to reinforce that behavior in other contexts. Teaching multiplication tables to a child labeled with a learning disability in mathematics provides a good example of differential

reinforcement at work. The child's saying "ten" is correct, and positively reinforced with praise ("that's right, good") when the child is reacting to "5 × 2 = ____." But that response is incorrect and is followed by corrective feedback that is not reinforcing ("no, that's wrong") when the child is reacting to "3 × 2 = ____." In this fashion, "5 × 2 = ____" is established as a discriminative stimulus for the verbal response "10." Differential reinforcement is used to establish stimulus control such that a particular response appears in the presence of appropriate stimuli, but not in their absence. In verbal humans, descriptions of appropriate stimulus control can sometimes be used as a substitute for actual differential reinforcement.

Positive reinforcement always strengthens the behavior that is reinforced, therefore, it may seem odd that procedures based on positive reinforcement can be used successfully to weaken undesirable behaviors. Two procedures that are frequently used in this way are called differential reinforcement of incompatible behavior (DRI) and differential reinforcement of other behavior (DRO) schedules. The DRI schedule makes use of the fact that some behaviors cannot occur simultaneously, therefore, increasing the rate of occurrence of one of these behaviors by reinforcing it also reduces the rate of occurrence of the other behavior. A client with a phobia cannot, for instance, simultaneously walk toward and avoid a feared object. So, by reinforcing approach responses, one can reduce avoidance responses.

The DRO schedule provides a reinforcer dependent on the passage of a specified period of time during which the behavior to be reduced does not appear; each time the behavior does occur, the interval is reset. If, for example, a DRO 5-min schedule is arranged to reduce self-stimulatory hand flapping by a person with autism, some positive reinforcer (perhaps a point on a counter that later could be exchanged for access to preferred music) would be delivered each time five consecutive minutes passed without a hand flap. This procedure should reduce the frequency of hand flaps relative to the preintervention level. But how can this be a reinforcement effect? The answer is that the unit of behavior that is strengthened is an interval of 5 min or longer without a hand flap. These units increase under the DRO and, as a result, incidents of hand flapping are reduced.

II. THEORETICAL BASES

A great deal is known about positive reinforcement. As discussed in the entry for operant conditioning, B. F. Skinner compared the selection of behavior by its consequences to natural selection and emphasized that both entail processes of variation, selection, and retention. Studies by neuroscientists may reveal the physiological mechanisms through which these processes allow behavior to be strengthened by its consequences. Attempts have also been made to explain at other levels of analysis why certain stimuli are positively reinforcing under certain circumstances. None of these attempts is universally accepted.

Be that as it may, over the past 50 years thousands of studies have documented the importance of positive reinforcement in controlling behavior in nonhumans in laboratory settings, and in humans in laboratory settings, in everyday life, and in clinical applications. Positive reinforcement directly or indirectly plays a crucial role in the production of an incredible variety of human behaviors, both healthy and pathological. The variables that influence positive reinforcement have been studied extensively and clinical applications of positive reinforcement are for the most part based on the resultant knowledge. Put simply, there is unequivocal theoretical support for the clinical application of procedures based on positive reinforcement.

III. APPLICATIONS AND EXCLUSIONS

As noted in the previous section, positive reinforcement can be used in a variety of ways to increase desired behaviors and to arrange for those behaviors to occur only in appropriate contexts. Arranged in other ways, positive reinforcement can be used to reduce or eliminate undesired behavior. Given this breadth of application, positive reinforcement is potentially useful in dealing with the behavioral problems of all clinical populations. Issues of client diversity do not limit the general use of positive reinforcement, which is widely accepted, but particular cultures and individuals may object to specific procedures based on positive reinforcement. Moreover, cultures may vary with respect to the behaviors that they deem acceptable and unacceptable, and in the objects and events that serve as positive reinforcers.

Some individuals object to contrived reinforcement procedures, that is, those that do not occur naturally, as a form of bribery. Bribery is rewarding an individual so that she or he will behave in a corrupt way that benefits the person who delivers the reward. Therapeutic applications of positive reinforcement are intended to benefit the person whose behavior is reinforced, and the behavior that is reinforced is appropriate responding,

not unethical conduct. Positive reinforcement is not equivalent to bribery.

But, even if positive reinforcement is not bribery, certain critics claim that the purpose of using it is to control people's behavior, which to the critics is objectionable. It is true that the sole intent of therapists who use positive reinforcement, or, for that matter, any other psychological or psychiatric intervention, is to improve and in that sense "control" the client's behavior. But the control effected is such that the client's behavior, and as a result the quality of his or her life, improves. Moreover, the targeted changes in behavior characteristically are selected in consultation with the client, if she or he has the capacity to participate meaningfully in such decisions. If positive reinforcement is unacceptable because it controls clients, so are all therapeutic strategies.

Related to the foregoing concern is a third criticism of positive reinforcement, which is an ethical objection to rewarding people for doing "what they should do anyway." For example, Steve Higgins and his colleagues recently have had good success in treating cocaine abusers by paying them to produce drug-free urine samples. Although the procedure is relatively cheap as well as effective, some detractors claim that it is wrong to pay people not to engage in illegal behavior. People who raise this concern typically believe that individuals have the freedom to behave as they choose, and that those who behave inappropriately are ethically flawed and should be punished, not rewarded, for their shortcomings. Although this conception of human behavior has precedent in Western philosophy, theology, and jurisprudence, people who emphasize that much of human behavior is learned see it as little more than "blaming the victim."

A fourth criticism of positive reinforcement, one made popular by Edward Deci, is that the use of extrinsic reinforcers reduces an individual's "intrinsic motivation" to emit appropriate behavior. Such an effect has been demonstrated in a small number of studies in which children performed a task with no systematic reinforcement, then were reinforced for performing the task, and finally were retested with no systematic reinforcement. They worked less hard in the third condition than in the first, which is taken as evidence that extrinsic rewards (or reinforcers) reduced intrinsic motivation. In fact, the "intrinsic" motivation was acquired in large part as a result of prior reinforcement—people learn to do what they are asked to do because, historically, doing so was reinforced. In addition, the overwhelming majority of studies provide no evidence that positive reinforcement reduces people's intrinsic interest in tasks.

If the criticisms of positive reinforcement discussed earlier have little merit, why were they accorded so much space? Only because behavior-change interventions based on positive reinforcement should be used even more widely than they are. Paul Chance makes this point very nicely in an anecdote related in his 1998 book, *First Course in Behavior Analysis:*

> Once, when I was at a PTA meeting, the parents and teachers were discussing the problem of what to do about student misbehavior, which was getting worse and worse each year. The discussion focused on the kinds of punishment to provide for various offenses. They had compiled a list of student offenses and the consequences each offense should have. I made an innocent observation. "No one," I offered, "has said anything about what happens when a student behaves well. What about providing some *positive* consequences for *good* conduct?"
>
> Some parents strongly opposed the idea. "Nobody gave *me* anything for behaving myself when I was in school," said one. But the fact that schools haven't been very good about reinforcing desirable behavior does not mean that they should not do so now. Their schools never used to use computers, but that hasn't kept us from putting them in the schools.

IV. EMPIRICAL STUDIES

A very large clinical literature has documented the efficacy of positive reinforcement, alone and in combination with other strategies, in treating behavior disorders. Because of the size of this literature, and because positive reinforcement plays a role in such a wide range of interventions, it is impossible to provide a simple and meaningful summary of the efficacy of "positive reinforcement procedures." It is, however, the case that procedures based primarily on positive reinforcement have been shown to be effective with a wide range of settings, target behaviors, and client populations.

A good understanding of the principles of operant conditioning is required to design effective positive reinforcement procedures. Although they are rarely reported in the literature, failed attempts at using positive reinforcement are common in the everyday world of education and clinical practice. These attempts fail when the events selected as positive reinforcers do not, in fact, have this function, and when the intervention team cannot control the delivery of events that do serve as reinforcers. They also fail when reinforcement is too delayed or too inconsistent, and when the rules that a person follows regarding the consequences of his or her behavior reduce sensitivity to these consequences. Occasionally, positive reinforcement procedures fail because of

their "side effects," that is, the negative emotional responding, aggression, escape, and avoidance that poorly designed procedures can engender. Although people characteristically enjoy positive reinforcement, such adverse reactions can occur when response requirements are substantial and reinforcers are few.

V. CASE ILLUSTRATION

Positive reinforcement is an equal opportunity employer. In other words, it is responsible for maintaining both appropriate and inappropriate behaviors. When the natural environment fails to provide sources of reinforcement for appropriate behaviors, inappropriate behaviors may emerge through the same mechanisms that govern adaptive behaviors. That is, the same behavioral processes that support appropriate behaviors may engender inappropriate behavior. This is the case in the following example that, although fictitious, is representative of many studies demonstrating the reinforcing properties of social attention in the classroom.

Imagine a second-grade classroom where children are busily filling out their math worksheets. The teacher is going around the room, checking on the children's work and assisting them as they need help. All of a sudden, there is an outburst. One of the children yells, "Give that back to me!" The teacher looks up and quickly becomes exasperated. Once again, Tommy is bothering another child. This time, he took Sarah's pencil. Tommy looks in the direction of the teacher. The teacher says, "Tommy, you give that back to Sarah right away! Get back to work!" A sly grin crosses Tommy's face. He complies, however, giving the pencil to Sarah and turning toward his paper. Tommy then looks at his blank paper. The numbers are almost as foreign to him as the crosses and dashes next to the numbers. He couldn't write the correct answer even if he wanted to.

After about 2 min, Tommy gets out of his seat. The teacher is on him this time. He is barely one step away from his desk when the teacher yells, "Get back in your seat! You know that you are not allowed out of your seat without my permission." Tommy begins to argue. He says, "My pencil is broken and I need to go to the bathroom," whereupon many of the other students snicker audibly. The teacher responds by reciting the rules for Tommy. She then comes over to his desk to make comments about his incomplete school work. In some cases, a scenario like this can last all day long. It is no wonder that teachers reach their frustration limits sometimes. An understanding of the variables controlling Tommy's behavior, however, may help Tommy to get his work done and reduce his class disruptions. It also will probably make the teacher's life easier if she is able to come up with an intervention that weakens or counteracts the primary controlling variable, social attention.

In this case, Tommy's inappropriate behavior is strengthened by teacher attention, which functions as a positive reinforcer. Unfortunately, virtually all of the attention given to Tommy is dependent on inappropriate behavior. In the scenario described earlier, there was not a single instance where social attention followed appropriate behavior. Every instance of inappropriate behavior, in contrast, produced attention. Therefore, we can conclude that Tommy's disruptive behavior is maintained by positive reinforcement in the form of teacher attention, and perhaps peer attention. One common, erroneous assumption is that positive reinforcement is "positive" in an evaluative sense. It is not.

In the case example, if the teacher is reflective or refers to a consultant who is knowledgeable about principles of behavior, she might be able to distribute her attention differently to promote more productive classroom behaviors. For example, she might praise Tommy for attempts to solve problems while ignoring (i.e., arranging extinction for) his inappropriate behaviors. In the process, she will probably discover that Tommy can't do the problems without assistance. Therefore, some additional instruction may be necessary. If she is consistent and if Tommy receives social attention for appropriate behaviors (e.g., numbers written on the page, holding his pencil appropriately) frequently enough to compete with the reinforcing effects of peers' attention for inappropriate behavior, the teacher may witness an increase in appropriate behavior and a decrease in inappropriate behavior.

It will be important for the teacher to keep in mind that Tommy's problem behaviors were strengthened over time and that they may be resistant to extinction for a period. In fact, they may increase briefly if the teacher stops providing social attention for inappropriate behavior. This fact alone is often the reason why adults stop an intervention quickly and conclude, "I tried that but it didn't work."

VI. SUMMARY

Positive reinforcement comprises all procedures in which behavior is strengthened through the response-produced presentation of an object or event. Such procedures can be used to increase desired behavior and to cause it to occur only in appropriate circumstances.

They also can be used to decrease undesired behavior. Thousands of studies document their efficacy with a wide range of clients and target behaviors in many different settings. Although they are not panaceas, positive reinforcement procedures are widely and effectively used by applied behavior analysts and other clinicians.

See Also the Following Articles

Chaining ■ Classical Conditioning ■ Extinction ■ Negative Punishment ■ Negative Reinforcement ■ Operant Conditioning ■ Positive Punishment

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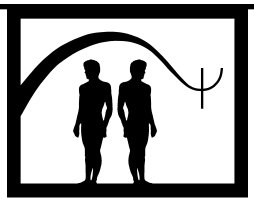

Posttraumatic Stress Disorder

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GLOSSARY

cognitive-behavioral therapies A wide range of programs including anxiety management, exposure treatments, cognitive restructuring, and combinations of these.

cognitive processing therapy A treatment designed especially for female sexual assault victims and uses features of exposure therapy and cognitive therapy.

diagnostic and statistical manual A manual of psychiatric diagnoses and statistics that has been published in multiple editions by the American Psychiatric Press, Inc.

eye-movement desensitization/reprocessing therapy A treatment in which trauma survivors are asked to recall disturbing elements of the trauma while the therapist invokes saccadic eye movements.

exposure therapy A form of therapy that consists of exposure to anxiety-provoking stimuli.

impact of events scale A scale that assesses PTSD symptoms.

stress inoculation training A treatment in which patients learn to manage anxiety that is conditioned at the time of the trauma and then generalized to many situations.

I. INTRODUCTION

The diagnosis of posttraumatic stress disorder (PTSD) was introduced into the *Diagnostic and Statistical Manual (DSM)* as an anxiety disorder in 1980. In the current *DSM* (fourth edition), there are six major diagnostic criteria for PTSD. First, the person must be exposed to a traumatic event in which they experienced or witnessed an event that involved the threat of death or serious injury, and the individual must have experienced significant fear, helplessness, or horror in response to the event. The major symptom criteria are persistent reexperiencing of the event, persistent emotional numbing and avoidance of stimuli associated with the trauma, and persistent arousal symptoms. The duration of the symptoms must be 1 month or more and must cause significant distress or impairment.

Traumatic events occur more often than one might expect. For example, it has been estimated that 7% of the U.S. population is exposed to a major trauma on an annual basis. Lifetime trauma exposure rates in populations are often 50 to 80%. Those who have been exposed to a traumatic event are at risk for developing PTSD and other major psychiatric disorders. Epidemiological studies have found that one-third of women who were sexually assaulted experienced PTSD at some point in their lifetime. Similar rates were found for lifetime PTSD in Vietnam veterans.

A variety of treatments have been used for PTSD. Recent neuroimaging, neurophysiological, and neuroendocrine studies have suggested that PTSD creates biological alterations. These findings have prompted clinicians to investigate the usefulness of pharmacological interventions. However, psychotherapy remains

the primary treatment of most PTSD, particularly acute PTSD. This chapter focuses on psychotherapeutic interventions for PTSD. Work on group psychotherapy and debriefing are less systematic and are not reviewed.

II. PSYCHODYNAMIC THERAPIES

A. Description of Treatment

In their 2000 review, Harold S. Kudler, Arthur S. Blank Jr., and Janice L. Krupnick summarized the theoretical basis and research findings of the use of psychodynamic psychotherapy in the treatment of PTSD. They note that brief psychodynamic therapy, as developed by James Mann, can be particularly useful in work with trauma survivors to explore issues of separation and loss. Mardi Horowitz developed a brief psychodynamic psychotherapy specifically for the treatment of trauma survivors. It is a transference-based, 12-session model that focuses on the ways in which the trauma survivor's preexisting personality style and psychological defenses interact with the traumatic experience to affect relationships especially in the context of the therapeutic relationship. Later, Charles Marmar and Michael Freeman developed a brief treatment based on Horowitz's ideas to manage narcissistic regression in the face of trauma. Also building on Horowitz's work, Daniel Brom, Rolf Kleber, and Peter Defares developed a manual on brief psychodynamic psychotherapy for PTSD. Horowitz recently revised his manual on brief psychodynamic therapies for stress response syndromes. His technique is a multimodal brief approach. In this model, systematic case formulations guide decisions on when to use behavioral techniques, cognitive techniques, and/or supportive and expressive dynamic techniques.

In supportive psychotherapy, which is built on the principles of psychodynamic psychotherapy, the therapist's knowledge of defensive structures and transference informs his or her work with PTSD. The defenses against intrusive withdrawal and arousal are strengthened through education, identification of successful defense operations, and attention to interpersonal withdrawal.

Interpersonal therapy is a time-limited, manualized treatment, which incorporates supportive elements into a psychodynamic approach. Rather than focusing on the transference, the therapist explores the patient's relationship with other people as the avenue to identify distress and interpersonal withdrawal. Work is underway to use interpersonal therapy as a group treatment for women with PTSD following sexual or physical assault/abuse.

B. Theoretical Bases

Josef Breuer and Sigmund Freud, in their 1895 *Studies in Hysteria,* proposed that psychological trauma can create psychiatric illness. They hypothesized that if the traumatic memory could be found and removed, the patient would be cured. Later, Freud speculated that hysterical patients defended against their traumatic memories by maintaining them outside of conscious awareness (repression). Physical and psychological symptoms represented a compromise that partially expressed the memory and also expressed the ego's defense against the memory and the feelings accompanying it. Influenced by World War I, Freud attributed psychological trauma to a breakdown in a psychic stimulus barrier in *Beyond the Pleasure Principle.* Trauma survivors' intrusive and avoidant symptoms (essential features of PTSD) were viewed as biphasic attempts to cope with the trauma. Freud hypothesized that survivors repeated the memories in the hope of mastering them (repetition compulsion). Both world wars compelled many therapists to further develop theoretical models and treatments. Abreactive techniques using sodium amytal and hypnosis were paired with support and psychoeducation to treat combat fatigue. Henry Krystal and Robert Jay Lifton documented that overwhelming life events could result in a kind of "death in life." Krystal developed an information-processing model of trauma that postulated that overwhelming events can disable the psyche's ability to use anxiety as a signal for the mobilization of defense. Once this system is disrupted, anxiety and other affects fail to serve psychic needs. Affect may become muted, overwhelming, or inappropriate. The ego, without its normal signal processing, is virtually defenseless. One possible outcome described was alexithymia (a profound disconnection between words and feelings).

More recent approaches focus on psychodynamic psychotherapy's attempt to understand and work through the meaning of symptoms. Reminders represent meaningful fears. Psychodynamic therapy also focuses on the experience of guilt, shame, and interpersonal avoidance. These feelings usually carry associated memories of early life experiences that have become attached to the recent events. Even events after the traumatic event, such as a diagnosis of cancer, can enter the meaning network and become a primary source of sustaining the PTSD symptoms. Attention to the meaning network and its anxiety, defense and transference patterns can aid in dissecting the symptoms from their sources. Attention to the complex countertransference responses

of the therapist when treating trauma victims is a major theoretical perspective adopted by all psychotherapies of PTSD.

C. Empirical Studies

Empirical studies of psychodynamic psychotherapy of PTSD are few. During 1993–1995, Mardi Horowitz and his colleagues published work that examined the hypothesis that trauma survivors experienced heightened intrusive and avoidant symptoms related to traumatic memories and themes. The brief psychodynamic psychotherapy that was provided was manualized. They found that when a topic linked to the traumatic event was discussed, it was accompanied by intrusion and avoidance, warding off behaviors, stifling of facial emotional expression, emotionality, and fragmentation of important ideas.

In 1997, Susan Roth and Ronald Batson evaluated a year-long psychodynamic treatment of six adult female survivors of childhood incest with PTSD. There was significant clinical improvement in their diagnoses, trauma themes, and PTSD symptoms.

In 1989, Daniel Brom, Rolf Kelber, and Peter Defares compared the efficacy of trauma desensitization, hypnotherapy, and a brief psychodynamic therapy (based on Horowitz's model) in reducing PTSD symptoms of intrusion and avoidance in 112 survivors of associated traumas and wait-list controls. One limitation of the study was that not all subjects met *DSM-III* criteria for PTSD. They found a reduction in symptoms on the Impact of Events Scale (IES) using desensitization that was higher than the improvement in the other treatments, but was not statistically significant.

D. Clinical Studies

In 1988, Jacob Lindy reported on 37 Vietnam combat veterans, who were treated for PTSD that met *DSM-III* diagnostic criteria. The participants' psychological function and combat experience were assessed. These combat veterans were compared to a volunteer sample of Vietnam veterans who were recruited from clinical and nonclinical sources (n = 200). There was no placebo comparison group, and assignment was not randomized. Treatment was manualized and consisted of opening, working through, and termination phases. Twenty-three of the participants completed the treatment. Significant changes were noted on the Psychiatric Evaluation Form (based on clinical ratings made by independent clinicians, on global ratings made by both patients and therapists), and on the Symptom Checklist-90, the Impact of Events scale, and the Cincinnati Stress Response Schedule).

In 1993, Daniel S. Weiss and Charles Marmar described a 12-session, manualized psychodynamic treatment for adult survivors of single traumatic events. Systematic outcome measures were not used. They reported on results in work with over 200 patients.

E. Summary

Psychodynamic psychotherapy remains a major part of the psychotherapy of PTSD, particularly complex chronic PTSD in which meanings of the trauma have been generalized to the individual's past and present. The unique focus of pschodynamic psychotherapy on the complex countertransference experience with PTSD patients has been widely adopted across all psychotherapies. Psychodynamically informed supportive psychotherapy is perhaps the most widely used form of treatment in severe chronic PTSD with multiple comorbid disorders and in which psychopharmacologic agents are important symptom-reducing factors.

III. COGNITIVE-BEHAVIORAL THERAPIES

Cognitive-behavioral therapies (CBT) have been used widely in the treatment of PTSD and are the most rigorously studied to date. CBT encompasses a wide range of programs, including anxiety management, exposure treatments, cognitive restructuring, and combinations of these. Edna Foa has been instrumental in the use of CBT for PTSD and strengthening research methodologies of psychotherapeutic treatment of PTSD.

A. Exposure Therapy

1. Prolonged Imaginal and in Vivo Exposure Therapy

a. Description of Treatment Exposure therapy consists of exposure to anxiety-provoking stimuli. The core feature of all these methods is that the person is confronted by the frightening stimuli until his or her anxiety dissipates. There are a number of different techniques, which vary in terms of whether the stimulus is real or imaginal; whether the length of the exposure is short or long, and how much anxiety the subject experiences during the exposure (e.g., high for flooding, moderate to low for desensitization). Generally, a

hierarchy of anxiety-causing stimuli is developed. Two types of exposures are employed, imaginal and *in vivo*. Imaginal exposure generally consists of the patient talking about the trauma as if it is happening in the present. In contrast, *in vivo* exposure entails the patient confronting situations that are objectively safe, but have been avoided due to fear generalized from the original trauma. For example, if a person were robbed on the subway and continued to avoid it, the goal of exposure would be for the person to ultimately return to the subway. Flooding begins with exposure to the strongest anxiety-provoking item, whereas other systematic desensitization begins with items of low intensity. Exposure therapy is often used in combination with other components such as relaxation training.

b. Theoretical Basis Exposure therapy is based on learning theory. It has been used very successfully in the treatment of phobias. Because PTSD shares features of phobic disorders, it was hypothesized that exposure therapy would be of benefit for PTSD. Elements of PTSD are believed to be conditioned. Using the classical conditioning paradigm, the trauma (unconditional stimulus) is paired with a neutral stimulus, for example darkness. The previously neutral stimulus, darkness, now becomes a conditioned stimulus associated with a conditioned fear response. Operant conditioning maintains the fear as the traumatized individual used avoidance (e.g., not going out after dark) to diminish anxiety and fear. The avoidant behavior, itself, perpetuates the fear and anxiety. By forcing the traumatized individual to face the conditioned stimulus (threat), the patient learns that the conditioned stimulus no longer needs to be avoided.

c. Empirical Studies There have been 12 studies on the use of imaginal and *in vivo* exposure therapy for PTSD, 8 of which meet the most stringent criteria for methodology. Four well-controlled studies and two uncontrolled studies of the use of exposure therapy with Vietnam veterans have been conducted. All found positive results. There have been two well-controlled studies examining the effects of exposure therapy with female rape victims, which also found improvement in symptomatology. In addition, four studies have examined exposure therapy's efficacy for a variety of other traumas.

d. Summary Studies of exposure therapy have demonstrated the strong data supporting efficacy of exposure treatments for PTSD. Imaginal exposure has generally become a part of all psychotherapies as the therapist frequently brings the patient back to the traumatic event to talk, recall, reconstruct, and reexperience in a safe controlled manner the events and their subsequent consequences. It has been important to recognize that a traumatic event is rarely a single moment in time. Therefore, identifying the traumatic event as it extended over time means exposure can be more complex than it may first appear.

2. Eye-Movement Desensitization/ Reprocessing (EMDR)

EMDR, developed by Francine Shapiro in 1995, incorporates elements of imaginal exposure therapy. In this treatment, trauma survivors are asked to recall disturbing elements of the trauma while the therapist moves a finger back and forth in front of the patient's eyes. The resultant saccadic eye movements in conjunction with the disturbing images are hypothesized to result in neural reprocessing of the trauma and symptom resolution. There has been substantial controversy surrounding this treatment, focusing primarily on the theoretical basis regarding the role of eye movements. Research findings have been mixed on its efficacy but have suggested that improvement is more likely due to the exposure therapy elements rather than the eye movements.

3. Systematic Desensitization

a. Description of Treatment Systematic desensitization is a form of exposure therapy developed by Joseph Wolpe in 1958. Based on reciprocal inhibition, it posits that an individual cannot be relaxed and anxious simultaneously. A hierarchy of the patient's fears is developed. In the first part of the therapy, the patient is taught relaxation training. Once proficiency in relaxation is attained, the patient is gradually exposed to the trauma-related items that frighten him or her, starting with the least feared situation object or memory. The patient is instructed to note the onset of anxiety symptoms, and the treatment is paused while the patient initiates relaxation techniques. When the patient has regained a sense of comfort, the exposure resumes. This cycle continues until the patient can tolerate all the stimuli on the fear hierarchy without anxiety.

b. Empirical Studies While there have been six studies of systematic desensitization for the treatment of traumatic stress reactions, however, only the 1989 study by Daniel Brom, Rolf Kleber, and Peter Defares (described earlier) was well controlled.

c. Summary Although several studies have found that systematic desensitization was effective in reducing

trauma-related symptom, the studies suffer methodological problems. Most researchers have moved away from systematic desensitization, preferring exposure therapy. These two approaches have much in common and emphasize the importance of understanding and working with the actual events of the trauma and the cognitive and emotional responses.

B. Cognitive Therapy

1. Description of Treatment

Cognitive therapy was developed in 1976 by Aaron Beck for the treatment of depression and was later applied to the treatment of anxiety. Beck theorized that it is the individual's appraisal or interpretation of an event, rather than the event itself that determines mood states. "Automatic thoughts" are dysfunctional thoughts that interpret events with a negative bias that, in turn, contribute to negative feelings such as anxiety, depression, anger, and shame. In cognitive therapy, patients are taught to identify these automatic thoughts, challenge those that are unhelpful or inaccurate, and replace them with more accurate or beneficial thoughts. For patients with PTSD, it has been postulated that patients see the world as a dangerous place and view themselves as incompetent to navigate it. In order to be successful, treatments for PTSD are believed to need to change these distorted cognitions. Treatment programs are particularly focused on patients' self-concepts and appraisal of safety. A specific form of cognitive therapy, cognitive processing therapy, for sexual assault victims with PTSD has been suggested. This model focuses on correcting dysfunctional cognitions thought to be common in rape victims related to self-esteem, safety, trust, power, and intimacy.

2. Empirical Studies

One well-controlled study found that cognitive therapy, exposure therapy, and the combination of the two were all equally effective but more effective than relaxation therapy for patients who had sustained various traumas. Another study comparing cognitive therapy and systematic desensitization with wait-list controls, found cognitive therapy and systematic desensitization to be equally effective and superior to the wait-list controls. A third study found cognitive therapy to be as effective as exposure therapy in producing improvement relative to pretreatment for survivors of a variety of traumas.

3. Summary

Two controlled studies have demonstrated that cognitive therapy is effective in reducing trauma-related symptoms. Cognitive therapy focuses on the effects of the traumatic event as it spreads through time and across personality dimensions. In general, the cognitive therapies and the psychodynamic therapies often overlap on their goal to alter appraisals although their techniques differ.

C. Cognitive Processing Therapy

1. Description of Treatment

Cognitive process therapy (CPT) has components of exposure therapy and cognitive therapy. Patricia Resick and Monica Schnicke developed CPT specifically for rape-related PTSD. The exposure element consists of developing and reading a detailed history of the rape. This narrative is used to discover "stuck points," elements of the rape that challenge previously held beliefs or are especially difficult to accept. These "stuck points" are then addressed in the cognitive component. The cognitive component teaches patient skills in examining and challenging distorted cognitions, for example, self-blame, and attempts at "undoing" the event.

2. Empirical Studies

In 1992, Resick and Schnicke reported that cognitive processing therapy was effective in reducing PTSD and related symptoms in 19 female sexual assault survivors compared to a wait-list control group. This study was not randomized.

3. Summary

Cognitive processing therapy has only been used with women who have been sexually assaulted. Because it was designed specifically for this population, it requires modification for use in other settings.

D. Anxiety Management Therapies

In contrast to the other therapies described in this chapter, anxiety management therapies do not aim to change underlying beliefs or structures that maintain PTSD. Rather, their goal is to teach patients to manage their symptoms.

1. Stress Inoculation Training

a. Description/Theory In 1974, Donald Meichenbaum developed stress inoculation training (SIT) as an anxiety management treatment. SIT assists patients in learning to manage anxiety that is conditioned at the time of the trauma and then generalizes to many situations. Dean Kilpatrick, Lois Veronen, and Patricia

Resick modified the program to treat victims of sexual assault. Their program included training in muscle relaxation and breathing, education, guided self-dialogue, and thought stopping.

b. Empirical Studies All four studies of stress inoculation training have used women who have been sexually assaulted as subjects. Two studies had excellent methodology whereas two were less well controlled. As noted earlier in this chapter, Edna Foa has performed some of the most rigorous studies in the field. She and her colleagues have found that nine 90-min sessions of stress inoculation training were effective in reducing PTSD. SIT was also found to be as effective as peer counseling in a study by another group. A study comparing SIT with supportive therapy and assertiveness training, found them all to be equally effective.

c. Summary Although stress inoculation training has been shown to be efficacious in treating women who have been sexually assaulted, it is unclear whether this finding can be generalized to other trauma populations. In general, SIT is often seen as a combination of cognitive, behavioral, and relaxation elements.

2. Biofeedback and Relaxation Training

Biofeedback and relaxation therapy have also been used as techniques for managing anxiety for patients with PTSD. In biofeedback, patients learn to control their physiological responses. They learn to decrease muscle tension by watching their electromyographic (EMG) activity change on a monitor. Only one study has examined biofeedback in a controlled design, comparing it to eye-movement desensitization and reprocessing (EMDR) plus milieu and to relaxation therapy plus milieu. Biofeedback was not found to be effective. EMDR in conjunction with milieu therapy was more effective. Another group used a combination of biofeedback and relaxation training to treat six Vietnam veterans with PTSD. They reported symptom improvement on all measures. Biofeedback was also found to be helpful in reducing muscle tension, nightmares, and flashbacks in another group of Vietnam veterans.

IV. SUMMARY

The psychotherapeutic treatment of PTSD is increasingly studied with rigorous methodological designs. No studies have rigorously evaluated combined psychotherapeutic and medication treatments. Across the psychotherapies, there is a developing consensus on the need to attend to the specifics of the traumatic event. The interpersonal experience over time after the event, the meaning of the traumatic event, distortions of interpersonal and emotional perspection that derive from the experience of the trauma and for therapists to be alert to the countertransference issues in these often profoundly terrorized patients. The complex comorbidity often seen in PTSD also means that multiple therapeutic modalities are often needed in treatment.

See Also the Following Articles

Anxiety Disorders: Brief Intensive Group Cognitive Behavior Therapy ■ Biofeedback ■ Cognitive Behavior Therapy ■ Exposure ■ Eye Movement Desensitization and Reprocessing ■ Relaxation Training ■ Self-Control Desensitization ■ Trauma Management Therapy

Further Reading

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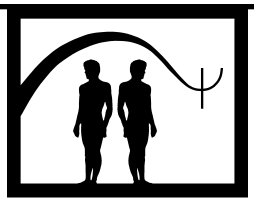

Primary Care Behavioral Pediatrics

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GLOSSARY

Berkson's bias The tendency in clinical research to study clinical populations with compound problems, especially hospitalized populations. The findings from the pertinent study are skewed because of the severity of the study groups.

encopresis Frequent fecal accidents occurring after the age of 5 and not due to an organic condition.

enuresis Frequent urinary accidents occurring after the age of 5 and not due to an organic condition.

incontinence Urinary or fecal incidents that occur in clothing or bedding.

primary care Branch of medicine devoted to prevention and early intervention.

temperament An aspect of a person's behavioral style that is more inherited than learned. Temperamental characteristics involve dispositions toward emotional reactions, mood shifts, and sensitivity to stimulation.

Tourette's syndrome An impulse control disorder involving the habitual emission of vocal sounds and motor movements referred to as tics. The tics sometimes involve obscene gestures or words.

trichotillomania Habitual hair pulling preceded by a mounting urge to pull and accompanied by detectable hair loss.

within series ABAB experimental design An experimental method applied to single subjects wherein the subject is intermittently exposed to treatment and no-treatment conditions. Differences in behavior observed during the varying conditions form the basis for conclusions about the effectiveness of treatment.

Behavioral pediatrics is the branch of pediatrics that addresses child behavior problems that populate the intersection between clinical child psychology, child psychiatry, and pediatric health care. Although problems of importance to behavioral pediatrics occur across all domains of medicine, the field upholds the longstanding tradition in pediatric medicine of emphasizing prevention over treatment or rehabilitation. In the words of Stanford Friedman, an early architect of the field of behavioral pediatrics, "curative and rehabilitative orientation (is) always second best to preventing the disease or defect in the first place…". This chapter focuses on the evaluation and treatment of child behavior problems that initially, and often only, present in primary care. We will refer to this as primary care behavioral pediatrics (PCBP). PCBP is an eclectic field but most practitioners are either primary care pediatricians who take a special interest in the management of behavior problems in their practices or pediatric psychologists whose practice includes close collaboration with their clients' primary care physicians.

I. DESCRIPTION OF PCBP TREATMENT

The term psychotherapy may not be appropriate for PCBP; it is grounded in a context of psychopathology or mental illness and is thus inconsistent with the preventive context of PCBP. Many definitions for psychotherapy exist but the most traditional and widely held involve primarily verbally based, processed-oriented treatment the goal of which is remediation of psychopathology or mental illness. In many cases the behavior problems seen in primary care are not indications of child psychopathology or mental illness. Rather they arise out of problematic interactions between children and their environment. For example, confident, experienced parents with abundant social support may not view their 8-week-old child's crying for 2 to 3 hours a day, which is less than one standard deviation above the expected mean for daily duration of crying for children this age, as a problem. However, less confident, experienced, and supported parents may interpret the same amount of crying in their similarly aged child not only as a serious problem but also as indictment of their parenting skills. These less experienced parents, however, might be unconcerned if the crying averaged only 1 to 2 hours a day (slightly less than the expected mean). Thus it would be inappropriate to assume that the crying, the average daily duration of which is above the mean but well within the range of normal, is an indication of psychological disturbance in the child or skill deficiencies in the parents. Providing health education about the extent to which behaviors such as extended crying are part of the normal variations in a child's life is an important part of PCBP practice and one we will discuss in greater detail later in the chapter.

Having emphasized that many behavior problems seen in PCBP are not reflective of psychopathology, it is also important to note that PCBP acknowledges the existence and importance of child psychopathology. The PCBP view, however, is that although the presence of psychopathology is always accompanied by behavior problems, the reverse is not necessarily true, especially for problems initially presenting in PCBP. Nonetheless, at least some of the problems presenting in PCBP are reflective of psychopathology and thus PCBP practitioners must be able to recognize when children have major disorders and be willing to refer those children to specialists. Moreover, a fundamental reason PCBP is viewed as preventive care is based on the belief that persistence of problematic interactions between children and their environment increases the likelihood that psychopathology will develop. The care provided for problems presenting in PCBP involves two intersected kinds of intervention, supportive counseling and prescriptive behavioral treatment.

A. Supportive Counseling

The primary goals of supportive counseling in PCBP are to provide emotional support and health education. To be effective, practitioners must be able to communicate care and compassion for parents of children exhibiting problem behaviors and an appreciation for the distress and disharmony those problems cause the family. Additionally, practitioners must have informative and persuasive answers for the parents' questions about the problems and a prime function those answers must serve is demystification. Parents want to know why their child is exhibiting the problematic behaviors and typically the answers they obtain on their own are overly pessimistic. Fortunately, many troubling aspects of childhood are actually normal and expected. For example, extended crying in the first 3 months, although stressful, is normal. Incontinence in children younger than 5, although unpleasant, is normal especially for boys. Limit testing, although exasperating, is common throughout early childhood. Separation anxiety spikes between 11 and 14 months, negativism is common in the second and third year, and thumb sucking is prevalent and harmless up to age 4. There are many other examples. The successful PCBP practitioner is knowledgeable about most or all of these and can communicate that knowledge in a respectful, accepting, and compassionate way.

In some cases supportive counseling is sufficient to address the presenting complaints. PCBP practitioners can reassure parents of a child presenting with behavior problems by informing them that the problems are not unusual at their child's age and are likely to resolve within specified age limits. For example, separation anxiety diminishes after 14 months in most children. However, if the problems persist (or emerge) beyond these age limits, substantially worsen, or begin to cause health concerns, supportive counseling is supplemented by prescriptive behavioral treatment recommendations.

B. Prescriptive Behavioral Treatment

When a child behavior problem presents in PCBP, practitioners place it in its appropriate developmental and prognostic context via supportive counseling (as in-

dicated above). If the problem does not involve one of the major psychiatric conditions (e.g., major depression) at the boundary of PCBP, practitioners recommend a series of therapeutic steps to be followed at home (or school) to address the problem. The therapeutic advice typically emphasizes procedure over process and most procedures recommended are derived from the more pragmatic parts of the behavioral sciences, particularly those focused on learning and development. For example, according to Edward Christophersen, another major architect of the field, "Behavioral pediatrics is the application of the principles and procedures of the behavioral sciences to the prevention or resolution of problems encountered in the practice of pediatrics." Prescriptive behavioral treatments are the primary methods PCBP practitioners employ to remedy behavior problems. Treatments that work are valued for their own sake and their importance is not diminished because they are at odds with this or that theory. Efficiency, effectiveness, and acceptance are valued over and above theoretical consistency, precision, and scope. Furthermore, PCBP treatment, although predominantly verbal and thus consistent topographically with traditional child psychotherapy, differs from it in at least two important ways.

First and perhaps most fundamental, parents (or primary caregivers) rather than children are the direct recipients of treatment (i.e., supportive counseling and the recommendations that make up the prescriptive behavioral treatment regimens). Children are, of course, the ultimate recipients of PCBP treatment, regardless of its form and they are often present during its discussion and even participate in its preparation. But the most common vehicle for PCBP treatment is educational and prescriptive advice pertaining to the parent portion of parent–child interactions. Although the comparison is not perfect, it may be helpful to view PCBP treatment as a specialized form of parent training. The critical point, however, is that although child problems are the reason for PCBP treatment, parents are the proximal recipients of the therapeutic advice pertaining to those problems. Thus PCBP treatment is fundamentally different from traditional child psychotherapy wherein the child is the direct recipient of treatment.

Second, because of limitations on time and the emphasis on procedure in pediatric settings, PCBP treatments are often brief and protocol driven. In this respect they differ dramatically from the process-based, time-intensive interventions that characterize traditional child psychotherapy. PCBP treatment, however, is consonant with the increasing emphasis on empirically supported treatment and manualized practice in contemporary psychotherapy. The therapeutic armamentarium of the PCBP practitioners includes a variety of procedures each with abundant empirical support including (but not limited to) time out, contingency management, home-school notes, simple point systems, and various procedures for simple habits, chronic incontinence, bedtime struggles, and feeding problems.

C. More on the Practitioners

Because of the preventive emphasis in PCBP, clinical expertise in the treatment of major psychiatric problems of childhood is not a prerequisite for practitioners in the field. PCBP therapists, however, must have a strong appreciation for the variations commonly seen in normal child development, which then allows them to distinguish behavior problems that are best viewed as interactional from those that represent psychopathology. For example, hair play, twirling, and pulling in toddlers, although potentially problematic and certainly important enough to address in a PCBP visit, is not necessarily reflective of psychopathology or indicative of true trichotillomania. But compulsive hair pulling of long standing in a 12-year-old girl is a much more serious condition, one typically requiring more intensive care than that provided in PCBP. Thumb sucking in preschoolers is more likely a benign source of self-soothing than a malignant sign of oral fixation or regressive personality disorder. But chronic sucking in a school-aged child can be a serious problem and should, at a minimum, be regarded as a threat to optimal social development. Soiling in young children is much more likely to result from constipation than from psychic mechanisms such as resentment, regression, or anal fixation. Yet soiling in older children unaccompanied by constipation is likely to be the result of potentially serious psychogenic variables and unlikely to respond to a procedure-based PCBP treatment. There are many other examples.

Another important qualification for PCBP therapists is working knowledge of the biologic variables that are functionally related to child behavior problems. Many of the behavior problems managed in PCBP have important biologic dimensions (e.g., enuresis, encopresis, recurrent abdominal pain). To be effective, PCBP practitioners must at a minimum have a rudimentary understanding of variables such as bowel and bladder function, sleep physiology, and pain sensation.

Because the child problems that are appropriate for PCBP are diverse, the field is professionally eclectic. Thus primary care physicians (e.g., pediatricians, family

practitioners) can specialize in behavioral pediatrics just as readily as pediatric, school, and clinical child psychologists or psychiatrists. And there are a growing number of specialized training programs for these various types of professionals. The limited emphasis on psychopathology and the eclectic makeup of the field make the PCBP orientation to child behavior problems a novel, perhaps even unusual, but nonetheless important candidate for an encyclopedia on psychotherapy.

Generally PCBP will favor those whose orientation to practice is guided by science more than art, whose claim to expertise is predicated on empiricism more than clinical or ex cathedra authority, and whose methods are typified more by procedure than process. Thus, there are similarities between therapists in PCBP and those in some branches of psychology (e.g., behavior therapy, applied behavior analysis, pediatric psychology) but not those in others (e.g., psychoanalysis, existentialist psychology, human potential psychology).

II. THEORETICAL BASES

Coverage of all the theoretical bases that underlie PCBP is beyond the scope of this chapter. Because of its inherent pragmatism and largely agnostic stance toward most psychological theories, virtually all of the principles of behavior, learning, and development that could be exploited for therapeutic benefit are potentially part of the theoretical base. Rather than providing shallow coverage of a large number of relevant principles, we will more fully cover four basic assumptions that are pertinent to supportive counseling and central to prescriptive behavioral treatment: (1) individual differences and temperament are real and important; (2) effective use of behavior change language is critical to effective management of behavior problems; (3) effective management of behavior problems requires more emphasis on what children do than on what they say; (4) child learning is governed largely by repetition leading to experiential contrast.

A. Individual Differences and Temperament

As emphasized above, the origin of behavioral problems presenting in PCBP usually involves an interaction between child characteristics and environmental variables. Although psychopathology is possible, it is infrequently present. A more accurate and less stigmatic perspective involves child behavior that is safely within the wide range of normal variation in development and/or behavioral style but that is outside of, or at odds with, environmental (e.g., parental) expectations. As stated by Stella Chess and Alexander Thomas, pioneering researchers in the area of individual variation, a good fit between an individual and the environment occurs.

> when the properties of the environment and its expectations and demands are in accord with an organism's own capacities, motivations, and style of behavior. When this consonance between organism and environment is present, optimal development in a progressive direction is possible. "Poorness of fit" involves discrepancies and dissonances between environmental opportunities and demands and the capacities and characteristics of the organism so that distorted development and maladaptive functioning occur.

In other words, misinterpretation of child skill level (i.e., under or over) and misunderstanding of normal individual differences cause discrepancies between what parents expect of a child and what the child can and does do. These discrepancies, in turn, result in problematic parent–child interactions and, pertinent to this chapter, many of the problems presenting in PCBP. For example, overinterpretation of children's cognitive abilities is widespread (and is discussed later in the section on effective use of behavior change language).

Variations in developmental processes can also contribute to the onset of child behavior problems. For example, variations in the development of sleep architecture can contribute to a range of potential bedtime problems such as infant night waking and sleep terrors in toddlers. Variations in child sensitivity to bladder distension, especially during sleep, can contribute to enuresis. Variations in appetite, especially the decreases that often accompany the natural reduction in growth rate during the second year of life, can lead to difficulties at mealtime. These, and many other examples not mentioned, underscore the theoretical assumption of PCBP that the process of development and its variation clearly influences the behavioral concerns likely to be seen in PCBP.

Elevated parental concern also contributes to child behavior problems and when variations in child behavioral style or temperament conflict with parental lifestyles, elevated concern is very likely. For example, a child with a low activity level may concern active athletic parents, but may not be a concern to less active parents. A toddler who is hungry or sleepy at irregular times may concern parents who are committed to a regimented schedule but may not concern parents in a less

tightly scheduled family. The cluster of temperamental characteristics that is most likely to conflict with preferred lifestyles, especially for new parents, includes irregular biologic rhythms, frequent withdrawal from new stimuli, slow adaptation, frequent negative mood, and high intensity responding. This cluster is believed to occur in approximately 10 to 15% of children and its presence significantly increases the probability of parental concern and correspondingly, the probability of reportable behavior problems. But its presence in some children is of minimal concern to parents and correspondingly, the probability of behavior problems is substantially reduced.

The capacity to recognize and describe how variations in child behavioral style and temperament can conflict with parental expectations and lifestyles is a critical component of supportive counseling. Use of this capacity can help parents understand why some of their attempts at management (e.g., those recommended by family, friends, the media) have failed with their child. It can also provide relief for parents who have been on the receiving end of the widespread tendency to view child behavior problems as reflective of poor parenting and/or child psychopathology. The science of temperament helps explain why some obviously caring and talented parents sometimes have difficult children. These explanations and interpretations are necessary but sometimes insufficient for successful outcomes, however, and interventions that improve the interaction between child temperament, family environment, and parent teaching style are sometimes needed.

These interventions usually involve a combination of modifying the learning environment and teaching the child the behaviors necessary for meeting environmental requirements. For example, parents of an inattentive 4-year-old could be taught to use good eye contact and one-step instructions when teaching the child (a modification of the environment) while the child could be taught to follow the one-step instructions. A child who has tantrums when instructed to change activities (e.g., come to dinner) may have a temperamental difficulty of adapting to transitions. Teaching parents to provide warnings for incipient transitions may help their child cope with the changes and comply with the related commands. But the child would still need to be taught that a tantrum is not an acceptable response to an upsetting situation. There are many other examples that underscore the importance role theory and research on individual differences and temperament play in the practice of PCBP.

B. Effective Use of Behavior Change Language

From the earliest stages of human life, language is such a ubiquitous presence that subtle but powerful aspects of its unfolding development are widely missed or at least largely misunderstood. The result is a high likelihood of mismatches between parental assumptions about child knowledge and what the children actually understand. Fortunately, due to developmentally beneficial processes such as modeling, the mismatches are beneficial in many parent–child interactions. But when the interactions involve parental attempts to change child behavior (e.g., discipline), these mismatches can frustrate parental attempts to teach, thwart child efforts to learn, perpetuate established behavior problems, inaugurate new problems, and deteriorate parent–child relations. There are multiple behavior-relevant aspects of child language development and we will cover the two that emerge most frequently in PCBP, the capacity to conserve and instructional control.

1. Conservation

Although many child researchers have demonstrated the incremental nature of language development, perhaps the first, and if not, certainly the most authoritative, was Jean Piaget. Among his many discoveries was the relatively slow development of the child's ability to meaningfully understand abstractions and abstract relations. Piaget's studies and related theories in this regard are too multifaceted and systemized for a full discussion here, but his concept of conservation is sufficiently general to serve as vehicle for our purposes. Conservation is largely synonymous with abstraction; it involves the capacity to conserve a quality of an object or event and meaningfully apply to another object or event. The capacity to do so when objects or events closely resemble each other emerges early but when they do not, when the objects or events are formally or contextually dissimilar, the capacity to conserve emerges late (averaging between 5 and 7 years) and does not fully develop until the teen years.

Piaget (and other investigators) conducted numerous studies that demonstrated the young child's limited capacity to conserve. For example, when asked to hold a pound of lead and a pound of feathers and then asked which weighed more young children usually said the lead. When in the presence of two containers with identical volume capacities but different forms (e.g., one tall and thin the other short and fat) and asked which held more water young children usually said the tall one.

When shown two similar apples, one cut into fourths and one cut into eighths, and asked which they preferred, young children picked the one with eighths ("because there was more apple"). When shown five quarters in a bunch and five quarters in a row and asked which grouping had more quarters children usually said the row. There are many other examples. Those above generally pertain to children younger than 7 years of age. But there are also related tests that have been conducted with older children and they too underscore the difficulty children have in seeing sameness in the presence of manifest topographical or contextual difference.

One example involves the water level task. Typically the test includes four pictures of containers, holding an identical amount of water, arrayed in a row. There are usually several such rows and in each row the containers are positioned at different angles. The angles are different within rows and identical across rows. In each container a line depicts the level of water within. One row accurately depicts what happens to the water level when the angle of the container changes (i.e., the water level remains the same, parallel to the bottom of the container, regardless of the position of the container). In the other rows water levels are inaccurately depicted (e.g., they change with the angle of the container). Tests of the water level task have revealed that even early teens will sometimes fail to identify the row with the accurately depicted water levels. In conclusion, children—especially younger children—have difficulty seeing sameness in objects or events that have substantially different physical or contextual characteristics.

Conservation is important to PCBP because the effectiveness of behavior change language heavily depends on the child's capacity to discern similarity in differing behavioral episodes. No two episodes are completely alike and thus, to learn conduct-relevant relations between combinations of episodes, children must be able to conserve aspects that form the basis of the relevancy. For example, the inception of a disciplinary event often includes a parental attempt to forcefully assert similarities between a current and a previous behavioral episode (e.g., "Isn't that the same thing I warned you about yesterday?" "Didn't your father tell you not to do that last week?"). There are at least two conservation-based assumptions implicit in parental comments of this kind: (1) the child should have been able to see conduct-relevant sameness in the indicated behavioral episodes; and (2) the child can currently see the sameness because the parent has pointed it out verbally. But if conservation is weakly developed, which is true of most children younger than 7 years, there is a good chance both assumptions are incorrect. For example, if children have a difficult time seeing quantitative sameness between five quarters in a row and five quarters in a bunch, it seems safe to say they would have much more difficulty seeing conduct-relevant sameness between something they have just done and something they did hours or even days ago. Furthermore, the test situations with quarters are simple and uniform with the exception of the differing arrangement of the quarters. Behavioral episodes, however, are often very complex and differ in many ways including time frames, persons present, and physical locations.

Additionally, when conducting tests of conservation capacities in the laboratory, investigators exhibit calmness, acceptance, perhaps even gentleness. As much as possible, investigators attempt to expunge any hint of disappointment, judgment, or possible punishment. Most children respond in kind (e.g., by cooperating, trying their best). But in the prototypical disciplinary event, parents demonstratively exhibit disappointment, judgment, and sometimes anger and the possibility of punishment is always implicit and often very explicit. Many (probably most) children respond emotionally (e.g., by crying, yelling, denying). A large scientific literature shows that high levels of emotional arousal substantially diminish cognitive functioning. While in an intensely emotional interaction with their parents, children are probably functioning cognitively at a level much lower than their chronological age. Thus even children who exhibit a developed capacity to conserve in routine situations may be unable to do so in disciplinary situations.

2. Instructional Control

Many child behavior problems involve children failing to do what they are told to do by their parents and many of these failures occur because parental instructions are unclear and/or too complex. Similar to the discussion on conservation, mismatches between parent expectations and child understanding are the central problem. These mismatches are generally the result of parental overestimates of the clarity of their instructions and/or of their children's capacity to follow those instructions. Three decades of research on parent–child interactions and on parent training programs has shown strong correlations between vague instructions and delayed development of child instructional control. A representative (but not exhaustive) list of exemplar vague instructions includes those that are question-based (e.g., "Are you going to put that away?"), indirect (e.g.,

"You know you should really be getting ready for school"), veiled (e.g., "Somebody left the door open"), or multistep (e.g., "Go down stairs, pick up your clothes, sort out the dirty ones, put them in a basket, and bring them here"). It is important to note that instructional control is not necessarily achievable through a focus on clarity alone. Everyday exchanges between parents and children necessarily involve diminished clarity and it is ultimately necessary for children to learn to understand and follow instructions that are vague, offhand, imbedded in other grammatical structures (e.g., questions), or communicated through vocal inflection more than through word arrangement. To become proficient at following instructions in their everyday form, however, children must first have abundant practice at following instructions that are in a clear, simple, direct form. Without this preliminary practice, many children are slow to develop optimal instructional control skills and more likely to exhibit problem behavior as a result.

Two related findings from developmental psychology are among the more ironic and counterintuitive aspects of early child language and they are also directly relevant to the language of behavior change (especially for children between 2 and 4 years of age). The first is that children respond to instructions that involve action onset (i.e., "do" or "start" commands) more readily than to instructions that involve action offset (i.e., "don't" or "stop" commands). The ironic aspect is that parents are much more frequent users of "don't" or "stop" than of "do" or "start" instructions. The counterintuitive aspect is that telling a child to do something (i.e., other than what they are currently doing) can be a more effective way to halt the activity than actually telling them to stop.

The second finding is that young children often respond more to vocally intensified components within an instruction than to its semantic content. For example, when issuing an instruction such as "whatever you do, don't drop that cup" a parent may say the last three words much more intensively than the first four, resulting in a simple instruction, ostensible for the child, to drop the cup, inside of a more complex instruction, intended by the parent, to do the exact opposite. The ironic aspect is that attempts to ensure instructional compliance through selectively placed vocal intensity can result in noncompliance with the instructions issued. The counterintuitive aspect is that this noncompliance actually reflects instructional control, albeit with the instructions understood by the child and not the ones intended by the parent.

In conclusion, mismatches between parental assumptions (and expectancies) about child knowledge and actual child understanding are common, especially in early childhood. These mismatches, reflected in the language used by parents in their interactions with their children, set the occasion for problems especially when the interactions involve parental attempts to modify child behavior. A theoretical assumption of PCBP is that the mismatches play an important part in the inauguration and perpetuation of child behavior problems. A core goal in PCBP is to train parents to use language more effectively, especially when attempting to establish and enforce rules, implement discipline, and manage behavior problems. A major emphasis is placed on use of simple language, but care is taken to explain that use of complex language when the parental goal is not child behavior change is not problematic, that it can be beneficial. For example, modeling new and/or complex language can expedite children's ability to use and understand it. The purpose of behavior change interactions, however, is to teach children to exhibit appropriate behavior in everyday life (e.g., not to leave the house without asking) not to expand their command of complex language. To enhance effectiveness of behavior change language, especially in the early stages of child training, clear, simple, and direct should be the rule not the exception.

C. Emphasis on Doing

Another theoretical assumption of PCBP rests on a distinction between two types of knowing, knowing how to do and knowing how to say (or to specify verbally what is to be done). Although not the first to draw this distinction, the philosopher Gilbert Ryle most effectively brought it widespread attention with publication of his book, *The Concept of Mind* in 1949. The distinction has been drawn in many other ways since then (e.g., cognitive knowing versus behavioral knowing, knowing a rule versus behaving consistent with the rule, theory versus practice). The distinction is the basis for a theoretical assumption of PCBP that has three fundamental components: (1) knowing how to say does not entail knowing how to do; (2) adult attempts to change child behavior typically emphasize saying much more than doing; (3) the combination of 1 and 2 is an important source of child behavior problems.

For example, during toilet training it is routine to ask 2- and 3-year-old children if they have to go to the bathroom. Accurately answering the question can be difficult for such young children. First they must determine whether the question refers merely to a change in location (i.e., just going into the bathroom) or to an act

of elimination. When (more accurately if) the children ascertain that the question involves elimination, an accurate answer requires that they examine their own bodily responses and determine whether their bowel is full and/or their bladder is distended and therefore that an act of elimination is imminent. If imminence is determined, the children then have to decide whether it is in their best interests to say so. Children in the early stages of toilet training are typically in Pampers or Pull-ups, both of which protect them from discomfort that would otherwise result from wetting or soiling themselves. In the absence of a toilet training program that reprograms the natural contingencies, most young children would typically rather eliminate in the Pampers or Pull-ups than stop what they are doing, go into the bathroom, take off their clothes, sit on the toilet, and attempt elimination there.

Thus the difficulty occasioned by the question "do you have to go to the bathroom?" is potentially problematic in at least five ways. First, the question places emphasis on an answer about toileting and not on a toileting action. In other words it calls for children to say, not to do. Second, the developmental limitations of 2- and 3-year-old children, coupled with the contingencies that typically prevail in interactions involving toileting, dramatically decrease the chances of an affirmative answer even when elimination is imminent. Third, nonaffirmative answers in such situations (e.g., child says "no" and has an accident shortly thereafter) set the occasion for punishment (or at least unpleasant parent–child interactions) because such answers make it seem as if the child has misbehaved (e.g., by being dishonest, stubborn, or stupid). Fourth, as a result of punishing exchanges during or following toileting episodes, toileting situations and behavior can acquire aversive properties. Fifth, young children will tend to avoid such situations and behavior in the future, resulting in delayed development of toileting skills.

A focus on doing instead of saying at the beginning of parent–child interactions involving toileting can obviate these problems and expedite training. For example, when timing (i.e., time elapsed since last act of elimination) or child responses (e.g., shifting weight from foot to foot) suggest elimination is imminent, rather than making an inquiry about toileting urge, parents should instead issue a toileting instruction requiring that their child make an attempt to eliminate in the toilet, guide them as they do so, and praise performance and any success achieved. This method removes the focus on saying and places it on forms of doing that are central to toileting. Additionally, by focusing on toileting instructions, this method contributes not just to development of toileting skills, but also to development of instruction control skills in general. Because it is easier for children to follow simple instructions (such as those that accompany successful toilet training programs) than to answer complex questions (such as those about toileting need), a focus on instructions (rather than inquiry) reduces the potential for contention between child and parent during the process.

From a slightly different perspective, the scientific literature on toileting supports the instruction-based approach by showing that children generally do not acquire the ability to succeed with an inquiry-based approach (i.e., respond accurately to questions about whether they have to go and independently conduct the act if they do) until late in their third or early in their fourth year. But the inquiry-based approach is widely used with much younger children resulting in many toileting problems that are ultimately brought to PCBP.

A focus on doing more than saying is also important for other reasons. For example, in many domains of children's lives their ability to say what they should do is learned before their ability to do it. That is, children can often readily say what they are supposed to do (or what they should have done) but lack the actual skill necessary for accomplishing the task. For example, they can easily say they should share their toys and yet not have the slightest inclination to do so because they lack the social and emotional skills that are essential for proficient sharing. Unfortunately, many adults assume that if children can say they should share it means they actually know how. For these adults, the children's subsequent failure to share is much more likely to be interpreted as evidence of a flawed character than of a skill deficit.

That a disparity between saying and doing exists and differential emphasis is more productively placed on doing is no surprise, at least where adults are concerned. Tell-tale examples are legion in everyday life. For example, all golfers know they should keep their head down during the golf swing but many (most) routinely lift their head up. Or more generally, lovers say they should look before they leap, readers say a book should not be judged by its cover, and fools say they should not rush in. Yet lovers often leap, readers frequently judge by the cover, and fools typically rush in all because their knowledge involves a facility for saying far more than it does a capacity for doing what has been said. Many proverbs, aphorisms, and epigrams make similar points and underscore the importance of doing over saying (e.g., "put your money where your mouth is"). The importance of doing over saying also suffuses the marketplace. As an example, the January

2001 issue of *Wired Magazine* included a symposium on marketing in the new millennium in which David Kelley, a prominent participant, said, "If you listen to the customers, they can't tell you anything. You have to *watch* the customer to really learn something. That's how you get at what they think and feel."

The surprise is actually how little this disparity is recognized where children with behavior problems are concerned and how minimally it is incorporated into attempts to modify those problems. As indicated above, children can often readily say what they should or should not do (e.g., not suck their thumb, pick on smaller children, take things without asking) but their ability to exhibit the requisite behaviors often lags far behind their ability to enunciate them. The related mistaken assumptions about what children know results in at least three sources of child behavior problems and corresponding difficulties. The first involves parental teaching efforts undermined by overemphasis on saying and underemphasis on doing, resulting in delayed child learning of behavioral skills (e.g., instructional control) critical to successful home and school life. The second involves the frequency of punitive discipline used with behavior problem children whose ability to say what they are supposed to do greatly exceeds their ability to do it. The third involves a widespread cultural tendency to interpret child behavior problems as a reflection of psychopathology rather than skills deficits. A fundamental assumption of PCBP is that the strength of these sources of problems and complications is substantially reduced when teaching focuses more on child doing than on child saying.

D. Repetition Followed by Experiential Contrast

The final theoretical assumption underlying PCBP that we will discuss involves how children derive meaning from the teeming multitude of events that compose their day-to-day life, how they learn to exhibit appropriate and inappropriate behavior, or more generally, how they learn. A century of research on learning with major contributions by eminent scientists such as John Watson, Edward Thorndike, B.F. Skinner, Albert Bandura, and Sydney Bijou shows that child learning largely results from the emergence of functional relations between what children do, what happened before they did it, and the change or contrast in experience generated by what they have done. The second theoretical assumption underlying PCBP we discussed dealt with antecedents or events occurring before children do things. Antecedents (e.g., instructions, rules) that compose a major portion of child teaching (e.g., by parents) were discussed, and the importance of salience, clarity, and simplicity as well as an emphasis on doing was stressed. The final theoretical assumption involves how children make adaptive (i.e., preferred by parents) connections between these types of antecedent events and what they subsequently do. Specifically, the assumption is that the connections result from repetition of behavior that follows the antecedent events and the changes or contrast in child experience that follows the behavior.

In very general terms, there are four classes or categories of experiential events that establish learning-based connections, two that make repetition of behavior more likely and two that make it less likely. The two classes that make behavior more likely are (1) contact with experientially pleasant or preferred events and (2) avoidance of, or escape from, experientially unpleasant or nonpreferred events. The two classes that make behavior less likely are (1) contact with experientially unpleasant or nonpreferred events and (2) disconnection from, or loss of contact with, pleasant or preferred events. An important corollary of the final assumption is that the number of repetitions necessary for children to make meaningful connections is governed by the amount of the experiential contrast that follows what they do. The more contrast, the fewer repetitions necessary for learning a meaningful relationship between a behavior, its antecedents, and its experiential consequences.

For example, flame or fire is a very salient (and attractive) antecedent event (e.g., the primary purpose of most fireplaces is for viewing fire, not for heating homes) but also very dangerous for children. Very young children who initially encounter fire are typically unaware of its dangers but are enthralled with its beauty and if unsupervised, they will often try to touch it. As a result a very important lesson (i.e., meaningful connection) is instantly learned. The learning results from the presence of fire (antecedent event), behavior that brings the child into contact with fire (touching), and the experiential (unpleasant, nonpreferred) consequences of that contact (being burned). These experiential consequences involve so much contrast (i.e., temperature of the body versus flame) that an instance of one-trial learning generating caution around fire occurs and it typically lasts a lifetime (i.e., the child will be unlikely to deliberately place his or her hand in open flame again). This is not to say that children who have been burned will not be burned again, but as the saying goes "once burned, twice shy." If the temperature of fire were lower, if it were much closer to skin temperature (e.g.,

102°F), many repetitions (and probably some supplemental aversive—disciplinary—consequences) would be necessary to establish a level of caution similar to that generated from flame.

The power of learning resulting from such extraordinary levels of experiential contrast is revealed by some parents who, after being unsuccessful in using other methods to teach their toddlers to avoid breakable household objects, achieve temporary success warning them that the objects are hot. A child with some experience of being burned and who has learned a connection between that experience and the antecedent event of hearing a parent say "hot" will often avoid, albeit temporarily, objects so described.

Critical to this discussion of learning is the logical necessity of incorporating the obverse of the primary point made above. That is, if behavior followed by high experiential contrast requires few repetitions to result in the learning of meaningful connections, responses followed by low experiential contrast will usually require many repetitions to result in a similar amount of learning. Numerous everyday examples corroborate this second point.

For example, many parents report high rate use of tactics such as nagging, reminding, warning, and threatening when attempting to teach their problem children appropriate behavior. Each of these tactics is a class of topographically similar antecedent events and in most teaching situations the events are repeated multiple times before a parent takes any further action, if indeed any action is taken at all. The reason for the repetition is that the children (who have been repetitiously nagged, reminded, warned, or threatened) have presumably not responded to the parent (i.e., they ignored their parent). Each instance of these parental tactics (e.g., each warning) sets the occasion for a learning trial in which the child actually learns to continue ignoring the parent. This unwanted and unfortunate result occurs for two reasons related to the theoretical assumption we are discussing here. First, the ignoring typically fails to generate the type (unpleasant) and the amount of experiential contrast necessary to reduce the likelihood of ignoring in the future. Second, the ignoring generates a consequential event of the type (avoidance of unpleasant or nonpreferred activity—i.e., whatever the parent wants the child to do or not do) that makes ignoring more likely to be repeated in the future.

Another type of learning trial that strengthens the learning of ignoring parents even further often accompanies the first type. In this second type of trial parents ignore or respond minimally when children actually do what they are told. That is, the tendency to ignore the parent, established by frequent parental warnings with no followup, is made even more likely when the child complies with the parent and still receives no followup. More generally, the learning of inappropriate behavior (e.g., ignoring as described above) is often accompanied by learning trials in which appropriate alternatives (e.g., compliance) are not followed by the type (pleasant, preferred) or the amount of experiential contrast necessary to increase the likelihood of the alternatives. In conclusion, many child behavior problems result from a confluence of learning trials where inappropriate behavior receives more of an experiential payoff for the child than its appropriate alternatives.

Making matters even worse is the devolution in parent teaching tactics that can result from these problematic teaching and learning processes. Many parents, frustrated by the extent to which their instructions and rules are ignored, resort to highly punitive consequences, especially yelling and sometimes even spanking. These consequences produce high levels of experiential contrast and thus readily instigate learning, but their potential benefits are outweighed by several potential risks. For example, children habituate to yelling and spanking quickly so more is gradually needed, an escalatory process that can lead to abusive child treatment. Additionally, frequent use of punishing tactics often creates so much distress for child, parent, and family that the quality of the family environment is usually diminished as a result. The effects of highly punitive tactics on child behavior are also reductive and so they are less likely to teach new skills than they are to increase avoidance and escape. Lastly, the tactics can cause unwanted side effects (e.g., fear, retaliation) that can worsen the parent–child relationship even further. For these reasons, the use of highly punitive consequences are neither recommended nor endorsed in PCBP.

1. The Experience of Nothing

For most disciplinary purposes, an alternative approach to discipline, derived from the fourth theoretical assumption of PCBP (i.e., repetition with contrast) as well other fundamental aspects of human life, is employed instead. Specifically, the approach involves the strategic use of the experience of nothing. Events in which very little stimulation occurs involve the type of experience (unpleasant, nonpreferred) that reduces the probability of behavior that produces it. Faced with the extended experience of nothing, children (and indeed most humans) prefer events that produce something, even if those events involve unpleasantness. Said

slightly differently, most children ultimately prefer negative over nothing. Unfortunately, from a theoretical perspective nothing is hard to define and from an empirical perspective it can be difficult to document. But fortunately, from a procedural perspective experiences involving nothing, not much, or very little can be programmatically arranged, as we will discuss below.

a) Sensory Deprivation The importance of nothing as an experience is predicted on humans as sentient beings whose senses must be stimulated in order to maintain perceptual integrity and ultimately life itself. If one or more sensory modalities are cut off (e.g., through blindness or deafness) the acuity of those that remain increases substantially. It is as if a requisite amount of stimulation is necessary for humans to maintain perceptual health. An illuminating example of the power of the experience of nothing involves enclosure within sensory deprivation chambers. In the chambers persons lie in water the temperature of which is identical to that of the body. There is no light or sound and there is nothing to taste or smell. In other words, in sensory deprivation chambers the stimuli available for differential perception are held to a profound and potentially life-threatening minimum. In the short term, enclosure in the chambers has been associated with such experiences as exhilaration, relaxation, and awareness enhancement. In the long term, however, enclosure in the chambers has been associated with such experiences as hallucination, hyperventilation, and panic. Extended stays (e.g., more than an hour) are thought to be dangerous especially for novices. The point of this discussion is not to review sensory deprivation but rather to use a brief description of it to illuminate a correlate of the fourth theoretical assumption of PCBP. Specifically, programmed (i.e., planned contingent use of) consequences generating the experience of nothing powerfully reduce the likelihood of behaviors that produce those consequences.

We used the deprivation chamber example to reveal a very important dimension of the experience of nothing, the experiences where very little external stimulation occurs. Another equally important dimension is the experience of not being able to do anything about it (e.g., being powerless to provoke a reaction in a parent). In other words, situations in which there is nothing going on and nothing one can do about it are aversive for humans and particularly for children. One feature of the deprivation chamber that makes it tolerable is that the person within can readily terminate the experience and produce some external stimulation. Removing this feature, however, makes the experience highly aversive, one that few persons would willingly seek. There are many other examples that, although less exotic than the deprivation chamber, can be just as reflective of the influence the experience of nothing can have on learning and behavior, for example, parents on the telephone and the use of time out.

b) Parents on the Telephone The influence the experience of nothing can have on learning is often in evidence when young children are alone with a parent who takes an extended telephone call. Escalated child misbehavior and demonstrative child upset are two common results and both can puzzle parents. Viewed from the perspective of our discussion of nothing, however, there is little mystery here. The most treasured source of external stimulation for young children is usually the parent and during telephone calls the parent is mostly psychologically (and physically) unavailable; that is, they provide their child little or nothing. In the unlikely event that children behave appropriately during the call, for example, they sit on the couch and look at picture books, the likely consequence for them will be an extension of the call. When children are behaving appropriately there is no compelling reason for a parent to terminate an activity and attend to them. The unfortunate result for the children, however, is an extended experience of nothing, at least as far as the parent as a source of stimulation is concerned. In other words, appropriate child behavior occurring while a parent is on the telephone usually produces nothing for the child. Extended telephone calls in the presence of a young child, however, are not neutral from a learning perspective. They are learning trials in which appropriate behavior is followed by experiential consequences (i.e., nothing) that are of the type (unpleasant, nonpreferred) that make the behavior less likely to occur in the future.

Making matters worse is that inappropriate child behavior, especially of a highly escalated sort, can and often does terminate parental telephone calls. When this happens, parents are likely to express frustration or anger and possibly even impose some discipline. Despite this quite logical parental approach to the problem, child misbehavior during telephone calls often subsequently increases rather than decreases. Although counterintuitive, from a PCBP perspective this outcome is readily explained. Although the parental response to the child appears to involve unpleasant consequences, these consequences are something (experiential) and from the typical child's perspective as we have argued,

something is better than nothing. Through misbehavior the child is, in effect, able to neutralize both of the dimensions of the experience of nothing that make it aversive. The first (nothing going on) is neutralized as soon as the parent interacts with the child because something begins to happen. The second (nothing the child can do about it) is neutralized by the instrumental quality of the misbehavior (i.e., it causes the parent to respond). More generally and from the perspective of the fourth theoretical assumption of PCBP, attempts to discipline child misbehavior that occurs in the context of nothing (as we have discussed it here) are more likely to increase than decrease the misbehavior. The reason is that when the disciplinary consequences occur, the context of nothing transforms them into the type (preferred) that make the behavior that generated them more likely in the future.

c) Time Out Another example of the role the experience of nothing can play in a child's life is a very common disciplinary procedure called time out. Time out, an abbreviation for Time Out From Positive Reinforcement, established in basic science experiments years ago, has become the most used method for disciplining children in this country, with the possible exception of verbal reprimands. A disclaimer, frequently heard in PCBP, is that time out has been tried and it did not work. The implicit assumption is that what was done in the name of time out closely resembles the procedure developed in the laboratory long ago. Unfortunately, close resemblance is the rare exception rather than the rule. In the laboratory, time out conditions involve what we have been referring to as the experience of nothing. Specifically the subject could not make contact with events that would be reinforcing, rewarding, stimulating, or interesting. In other words for laboratory subjects, a time out meant there was nothing going on, and for a specific period of time, there was nothing they could do about it. This laboratory experience, however, differs dramatically from the typical experience called time out in homes and schools across the country.

During the typical time out children are taken to a specific location, usually a chair, lectured briefly on the nature of their offense, and told they must sit quietly for a certain amount of time. A timer is often placed in the child's visual and/or auditory range so that the youngster can keep track of time passing. Verbal components such as warnings, rationales, and commands are frequently directed at the child. Children in time out are also often allowed to bring favored objects (e.g., teddy bear, book) with them. The location of the time out is often near rich sources of external stimulation such as the television or a picture window. So in terms of the first dimension of the experience of nothing, specifically nothing going on, most time outs often fail.

Also detrimental to the process is the ease with which children can do something about their situation, thereby neutralizing the intended effects of the time out experience. For example, simply calling out, crying out, or coming out of time out (without permission) are very successful means of fully engaging the attention of parents and thereby undermining the effects of time out. Other types of inappropriate behaviors (e.g., profanity, disrobing) also typically engage parental attention. The attention thus engaged is usually negative but, because it is delivered when the child is in time out, resulting in a temporary escape (the instant attention is delivered, time out functionally ends) it is more likely to increase rather than decrease the inappropriate behavior. In other words, negative attention is something and for children in time out, something is usually better than nothing.

Not surprisingly, helping parents to strategically apply the experience of nothing (e.g., time out, planned ignoring) as a disciplinary alternative to raising their hands or voices is an important part of PCBP. Much of this assistance involves helping them eliminate sources of social stimulation (e.g., warnings, criticisms, expressions of parental anger) that often occur while children are in time out. Perhaps even more important is assisting them to see that the experience of nothing is relative phenomenon. If little external stimulation is available for a child (e.g., they are bored because nothing is happening) time out, even when done well, produces little experiential contrast. Needed is an experience, resulting from an act of discipline, that is unpleasant or nonpreferred and that stands out starkly from what was happening before the discipline was imposed. Yelling or spanking can serve this purpose but we have already discussed the problems associated with their use. Time out is much more subtle but it can serve the purpose very well if three conditions are met: (1) sources of social stimulation are eliminated during the time out (as above); (2) the child's inappropriate attempts to terminate time out are ignored outright; and (3) the child's life was generally interesting and fun before time out was imposed. In other words, time out must be devoid of social interaction and must occur in a context called time in.

d) The Role of Time In As indicated, in order for time out to have desired effects, it must represent a change in the experience of the child and if nothing was going on before the time out occurred, and the

child is then put in a situation with nothing going on, not much contrast and thus not much learning occurs. Actually, this principle applies to virtually any form of discipline. For example, if parents usually talk to their children with stern voices and then use a stern verbal reprimand for discipline, the reprimand produces little contrast and thus little possibility of learning. However, if parents usually talk to their children in soothing, affectionate, or emotionally positive ways and then use a stern verbal reprimand, the stark contrast between the typical parent–child interaction and the stern one increases the probability of children learning an important connection between what they have done and the parents' reaction to it. In honor of this principle, PCBP therapists are unlikely to recommend any form of discipline without first recommending ways for parents to increase the positive aspects of their child's daily life. Said slightly differently, PCBP practitioners routinely recommend procedures to increase time in, the functional opposite of time out, wherein multiple sources of preferred external stimulation (e.g., physical affection, parental participation in child activities,) are made available to children as well as a variety of minimally effortful methods accessing those sources.

In conclusion, a large part of PCBP involves provision of procedural advice generally based on developmental and behavioral science and specifically on the four theoretical assumptions we described above. That is, this advice almost always involves some combination of (1) consideration and explanation of child behaviorial style; (2) more effective use of behavior change language; (3) a focus on doing; and (4) the arrangement of teaching circumstances that result in the type and amount of experiential contrast necessary to produce children's learning of appropriate behavior.

III. APPLICATIONS AND EXCLUSIONS

Some children resist most, and most children resist some, key aspects of the socialization and education processes in this culture and a vast number and array of child behavior problems is the result. For example, nutritional and maturational health is predicated on food preferences that include the major food groups and yet some children, whose behavioral style may include slow adaptability and approach to new experience, resist parental attempts to introduce new tastes and textures into the daily diet. Adaptive child performance during the day is dependent on receipt of adequate sleep at night, yet children with slow adaptability or irregularity in sleep cycles may resist parental efforts to establish a reasonable bedtime. Most parents, preschools, and many day care programs require full toilet training during the third year of life, yet many children resist parental training efforts. Success in most life situations requires a reasonable amount of instructional control yet many children resist following important adult instructions. There are many other examples and they generally emerge in situations in which the requirement for adherence to family, school, or societal standards or requirements is not well matched with aspects of the child's behavioral style and/or learning history.

There are also a large number of child problems pertinent to PCBP that do not involve child resistance as much as they do child inability to emit, maintain, reduce, or cease important behavior. Although many of these problems are clinically unremarkable and resolve with time and routine parental efforts, some do not and require professional assistance for complete resolution. Furthermore, some of these problems resemble or, if unresolved, can lead to more serious conditions and thus they require some level of professional assessment prior to intervention. For example, simple tics and other child habits involving repetitive but nonadaptive behavior are common yet difficult for children to stop and highly resistant to routine parental efforts to help. In addition, tics may be an early sign of serious clinical conditions (e.g., Tourette's syndrome). Urinary and/or fecal incontinence is common, even in school-age children, yet without professional help incontinence can become a threat to physical and psychological health. School problems involving excesses or deficits of various behaviors critical to school performance (e.g., attention, activity) are common, stubborn, and absent effective intervention, can lead to serious problems later (e.g., school failure). There are many other examples and they generally emerge in situations requiring inhibition of potentially maladaptive behavior and increased exhibition of adaptive behavior.

The PCBP perspective on types of problems described above is that most are more productively viewed as a skill or performance deficit than as psychopathologies. Nonetheless, the problems are usually serious enough to warrant a professional opinion and sufficiently complex enough to require professional assistance for resolution. Psychopathology, however, is rarely the appropriate interpretive context for the assessment or the assistance warranted by these problems. As indicated, the problems emerge as a function of the friction between child style, preference, and/or skill level and the requirements inherent in socialization and education processes.

This "otherwise normal" perspective, unfortunately, is at odds with the vast majority of psychology and psychiatric literature on child behavior problems, which is focused almost entirely on detection of psychopathology with minimal regard for detection of child health. In fact, very few clinical assessment instruments are even designed to detect behavioral health. Behavior assessment instruments used in clinical research and practice on child behavior ask questions about symptoms or behavior problems and the typical intent is to determine whether a given child has significantly more than children of a similar age in the group used to norm the instrument. In other words, the de facto definition of child behavioral health within clinical child psychology and psychiatry is a composite of symptoms and problems that are below a threshold established for psychopathology, not a composite of healthful behaviors.

Perhaps the best way to view the PCBP approach to behavior problems is as early intervention. By providing parents and families with supportive counseling and prescriptive recommendations sufficient to improve interactions between children and their learning environment, PCBP aims to facilitate adaptive child development and behavior and thus prevent more severe problems in the future. For example, inadequate sleep leads to behavioral deterioration during the day and PCBP advice on how much sleep is needed and how to produce it can prevent these problems. Incontinence poses a number of risks to child health and development and PCBP advice on when and how to start toilet training can eliminate them. Resistance to adult instructions places children at risk for perpetuated conflict with adults. PCBP advice on instructional control can reduce child noncompliance with adult authority. The list of other examples is very long. They typically involve mild to moderate child behavior problems, most of which are responsive to changes in practices by parents (or teachers). Although some of the problems may meet diagnostic criteria for clinical conditions (e.g., enuresis, encopresis, simple phobias) the problems are usually in their early stages and are much more responsive to changes in teaching or training practices than problems that have been chronic for years. Thus even though PCBP provides treatment, the context of care is still characterized as preventive rather than curative or rehabilitative.

In conclusion, PCBP focuses on mild to moderate behavior problems exhibited by children who initially present in primary care. The context of care is one of prevention (preservation of health) much more than it is treatment (restoration of health) or rehabilitation (minimization of illness). Adopting this context, however, does not mean that PCBP denies the possibility of psychopathology or mental illness in children. Rather, the position taken is that children are deemed psychologically well until proven otherwise. Forms of such proof include resistance to PCBP treatment, an initial severe presentation, or incontrovertible assessment-based evidence; if any of these occur, cases are referred to appropriate specialists. PCBP, however, is an appropriate form of care for the vast array and number of child behavior problems presenting initially, and often only, in primary care settings.

IV. EMPIRICAL STUDIES

As emphasized, an important portion of PCBP involves educating parents about childhood and what to expect socially, emotionally, and behaviorally from their children. Thus virtually all child and developmental research is potentially relevant to PCBP. Three categories of this research are particularly relevant, however, the first two because they supply some justification for the well child focus of PCBP and the third because it reveals the size of the empirically supported armamentarium of the PCBP practitioner. The first category involves research on child temperament and individual differences, the second involves research assessing whether mild to moderate child behavior problems necessarily involve psychopathology, and the third involves research on PCBP appropriate treatments (pragmatic, procedure-based, outcome oriented, and time-limited) developed for various mild to moderate child behavior problems.

A. Temperament and Individual Differences

The expanding role of temperament or behavioral style in the professional approach to child behavioral problems is due in no small measure to the work of Stella Chess and Alexander Thomas and their colleagues working on the New York Longitudinal Study. This landmark research identified nine characteristics of temperament: activity level, rhythmicity (regularity of physiologic functions such as sleep, hunger, etc.), adaptability, intensity, mood, approach–withdrawal (to new stimuli), persistence, distractibility, and sensory threshold. There is, however, variation in the opinions of other researchers on the number and nature of the dimensions that compose variations in temperament, with more recent views favoring fewer dimensions.

These differences of opinion notwithstanding, there is consensus that dimensions of temperament do exist, play a significant role in behavioral expression, and are relatively stable over time.

Two other potent influences have contributed to the expanding role of temperament in the theoretical assumptions of PCBP. The first influence involves neonatal assessment of temperament, most notably with the instrument developed by T. Berry Brazelton. Related studies show that long before environmental influences could produce major changes in behavioral responses, substantial differences in behavioral expression exist in newborn children. The second influence involves assessment of temperament across early and later childhood, authoritatively (but not solely) documented in the papers and books authored by William Carey. The evolution of temperament from theory and basic science (e.g., Chess, Thomas) to routine assessment in a hospital setting (e.g., Brazelton) to routine assessment in a private pediatric practice setting (e.g., Carey) has contributed greatly to its current important role in PCBP practice.

B. Testing for Psychopathology

The second category of research is unfortunately small for reasons we have discussed briefly. For example, most of the research conducted on child behavior problems involves attempts to detect psychopathology and failure to do so usually means a failed experiment. As another example, children who do not exhibit psychopathology are much less likely to interest professionals (e.g., clinical child psychologists and psychiatrists) whose careers are focused on the study of it than children who do. Thus essentially healthy children are rarely the focus of clinical research.

There is, however, a small group of child studies whose group data were more reflective of clinical normality than psychopathology, despite presenting problems often interpreted as evidence of an underlying disorder. Examples include studies on children exhibiting problems such as enuresis, encopresis, chronic hair pulling, and thumb sucking. Note that these types of problems are very likely to present in primary care and thus are directly pertinent to this chapter. In these studies, the majority of children studied did not exhibit a sufficient number of clinical symptoms other than the target problem (e.g., enuresis) to justify a label of psychopathology. Rather, with the exception of the presenting problems, the groups appeared to be appropriately located within a spectrum of normality. There were extreme cases within the groups, but they were in a small minority.

Unfortunately for the empirical base of PCBP, however, the extreme case is much more likely to be the source of data for published papers than the routine case. This publication practice, sometimes referred to as selection bias (e.g., Berkson's bias), is typical not just of clinical psychology and psychiatry but also of clinical medicine. A long line of research shows that in any field of clinical science, extreme cases (multiple presenting problems) are more likely to be used for research and teaching than otherwise normal cases (one presenting problem). From the standpoint of professional education, this bias makes sense; the extreme case or the textbook case, as it were, provides a richer source of teaching material than the routine case. Yet the institutionalized practice of basing professional teaching mostly on extreme cases has its limitations. For example, the practice can result in the overinterpretation of routine cases, especially in clinical settings. Additionally, it probably diminishes incentives to study routine cases.

There are three important implications for PCBP to draw from the extant research on child behavior problems. First, a small but growing body of directly relevant research, as well as a long line of indirect study (e.g., on selection bias) supports our assumption that the initial evaluation and treatment of children with mild to moderate behavior problems is appropriate for PCBP. Second, it is incumbent upon PCBP practitioners to ably distinguish between routine and severe cases in order to make appropriate referrals. Third, the historical mainstream emphasis on the search for psychopathology in children with behavior problems and the resulting differential emphasis on extreme cases is a research opportunity for PCBP (e.g., research exploring the spectrum of normality in populations of children with bona fide psychological and behavioral problems is needed).

C. Evaluation of Treatments

The growing research on hair pulling in children is a good bridge from tests of psychopathology to research on treatment of behavioral problems presenting in PCBP. Reviews of the literature on chronic hair pulling or trichotillomania have shown that there is a spectrum of severity and that in many individuals, especially young children (i.e., younger than 10), hair pulling is a relatively simple habit (albeit with potentially serious consequences) similar in function and situational presentation to other simple habits such as thumb sucking. This point is not intended to downplay the seriousness of classic cases of trichotillomania where those afflicted experience frequent powerful urges to pull their own

hair, psychological satisfaction when they do so, and cosmetically significant hair loss. Although effective therapy exists for such cases, its dependence on specialized knowledge and its inherent complexity places it well beyond the bounds of PCBP. Such cases are at the pathologic end of a spectrum of severity in which mild and moderate cases also exist. In fact, as research on trichotillomania evolves, mild and moderate cases may ultimately be classified in other ways, leaving only the more serious cases in the diagnostic category. Regardless, the children in the mild and moderate portions of the spectrum are indeed pulling their own hair and many present with serious hair loss. In support of the position we have taken, multiple published papers have described many cases of child hair pulling that resolved with treatments suitable for use in PCBP. Our case illustration (described below) will describe one of these cases. We used hair pulling for the case illustration because it, perhaps more than any other child problems appropriate for initial evaluation and treatment in PCBP, is believed by most clinicians to be reflective of psychopathology and in need of specialty care. Below we will briefly discuss some of these other problems with particular attention paid to the success of PCBP appropriate treatments that have been used with them.

1. Risky Infant Behavior

Crawling, cruising, and early walking infants explore their worlds with enthusiasm and tenacity. Although essential to healthy development, these explorations often lead to danger (e.g., electrical outlets, fireplaces, swallowable nonedible objects). Informed parents can minimize risks to their infants by "childproofing" their home, but no home is risk free. The parental task remaining after risks have been reduced involves actually teaching children to avoid the dangerous objects and situations that remain. Typical tactics include redirection, stop commands, warnings, threats, and even mild corporal punishment (e.g., slight slap on the hand). Despite use of these tactics, risky infant behavior often continues and sometimes even increases. From the theoretical perspectives of PCBP, this perpetuation of risky behavior is readily explained. Infants explore mostly when they are otherwise not engaged and most of their exploratory behavior produces little adult attention. When the behavior becomes risky, however, adult attention is quickly engaged, redirection and/or mild discipline is employed, and experiential contrast is produced for the infant. But because adult attention is such a powerful incentive for infants, and because the contrast it produces in these instances typically occurs in a context involving little or no social stimulation for infants, it can strengthen rather than weaken the infants' risky tendencies.

An important study, derived from this interpretation, was conducted with teenage mothers who had been reported for abusing their 1-year-old children. In the study, the mothers were taught to use language more effectively (e.g., eliminate threats, reasoning), focus on doing rather than on abstract personality traits (e.g., "you are so stubborn"), establish "time in" (e.g., by increasing physical affection, using more pleasing voice tones, more play times), and to use a brief time out (i.e., a few moments in a playpen) when their child engaged in risky behavior. Risky infant behavior dropped to near zero levels and mother–child interactions improved dramatically. Although some special training was necessary for these mothers, this approach is readily taught to older, more experienced mothers who bring their concerns to primary care.

2. Bedtime Problems

One of the most common presenting problems in PCBP involves resistance to bedtime (e.g., some combination of crying out, calling out, and coming out from the bedroom after bedtime). Several aspects of behavioral style may contribute to this difficulty. Children who are persistent and slow to adapt may resist and prolong the bedtime routine. Children with a low rhythmicity of relevant biologic processes may develop an erratic sleep schedule and not be tired at bedtime. Regardless of origin, bedtime resistance often generates experiential contrast of the type (e.g., contact with the parents) that perpetuates problem behavior.

Several PCBP appropriate treatments have been shown to be effective at curtailing resistance and establishing reasonable bedtimes. They achieve their success by modifying parental responses to achieve a more effective use of language, a focus on doing, an increased child experiential payoff for compliance, and a decreased experiential payoff for resistance. The bluntest form of PCBP treatment for bedtime problems involves ignoring the children altogether after they have gone to bed and extending appreciation for the night thus spent in the morning when they get up. This procedure is controversial because it can produce severe "bursts" of crying, especially in persistent children with slow adaptability to change and these bursts can be very difficult to manage even for confident, experienced parents. A more modulated version of this approach involves graduated ignoring (e.g., ignoring for 5 minutes the first night, 10 the second, and so on). An apparently equally effective

(as indicated by comparative published research) less controversial technique involves establishing pleasant bedtime routines that occur when children comply with bedtime procedures and suspending the procedures when they do not.

A final technique was the subject of a recent scientific report and it is a classic demonstration of PCBP treatment as an early intervention. The technique is called the bedtime pass and it involves providing children with a pass, constructed by the parents, for use as an exchange for one trip out of the bedroom after bedtime. During the trip the children are allowed to make one request of their parents that can be satisfied readily with an action (e.g., request to use the bathroom, have a drink, obtain a hug). Once the action is satisfied, the children surrender the pass and return to bed. The recent report showed the program was highly effective with children who were routinely disruptive at and after bedtime. Additionally, the pass was deemed more acceptable than ignoring or the family bed by groups of pediatricians and parents.

3. Routine Oppositional Behavior in Younger Children (1 to 7 years)

Oppositional behavior in younger children is common. Instructional control is not an inherent trait; it is a learned skill and although children whose behavioral style is marked by easy adaptability, positive mood, and low intensity may learn it with minimal effort on the part of parents or teachers, other children learn it much more slowly. Relevant to the PCBP view, there is a very large literature, including numerous scientific papers and books that derive their message from those papers, on how to teach instructional control skills to younger children. The fundamental method emphasized in this literature involves the tactics we have discussed here. Specifically these include effective use of language, heightened focus on what the children do, increased time in, and imposition of experiential consequences that increase the likelihood of appropriate behavior and decrease the likelihood of inappropriate behavior. Detailed examples of this kind of child training are provided in a selection of books in our recommended reading section.

4. Routine Oppositional Behavior in Older Children (7 to 12 years)

As the social environment of children expands, the potential for direct parental control contracts. Said differently, as children's important social relationships increasingly develop outside their home and family, social influences that compete with parental influence mount and the possibilities for opposition to parental authority increase. As with younger children some of the opposition occurs in the home (e.g., chores undone) but increasingly with age some occurs outside the home (e.g., poor grades, school rules broken, curfew violations). Multiple studies have shown that effectively managing routine opposition in these older children involves the general tactics used with younger children (e.g., effective use of language). The critical difference involves the composition of the experiential consequences used to increase and decrease behaviors of concern. Whereas various forms of time out are usually sufficient for younger children, tactics such as contingent access to family and home resources (television, telephone, bike, etc.) and contingent permission to leave the home are needed, in addition to time out, for success with older children.

For example, an early (1972) study demonstrated that a simple home point system, where points earned or lost contingent upon appropriate and inappropriate behavior were used to "purchase" special privileges, dramatically improved the behavior problems of a group of misbehaving older children. Since then, many studies using similar tactics, although often in a less elaborate form (e.g., without a point system), have been used to successfully reduce opposition to parental authority in older children. Directly pertinent to this chapter is the fact that these methods can be prescribed readily in PCBP sessions.

5. Nocturnal Enuresis

Nocturnal enuresis involves nighttime urinary accidents that occur in children over the age of 5 who do not have a causal organic condition. The National Health Examination Survey estimated that as many as 25% of first-grade boys and 15% of first-grade girls were enuretic and not surprisingly, given its high prevalence, enuresis is one of the most frequent presenting problems in PCBP. Pertinent to this chapter is a voluminous body of scientific evidence showing the effectiveness of the urine alarm, a treatment for enuresis that is entirely consistent with the theoretical assumptions of PCBP and well suited to its practice. The alarm displaces the ineffective use of language (threats, reasoning, etc.) that often accompanies enuresis before it is seen professionally. Bedwetting children cannot be talked, threatened, or reasoned into continence. If they could, enuresis would be much more rare. The alarm is connected to a moisture-sensitive switching system and as little as one drop of urine completes the connection and turns it on. The alarm emits an unpleasant stimulus but the child

can easily turn it off and thus continence-based learning occurs on two fronts. First, accidents produce the alarm (i.e., unpleasant experiential consequence) which reduces their likelihood. Second, turning off the alarm produces pleasant (or at least preferred) experiential consequences (escape from the alarm) that increase the likelihood of waking after or during the accidents. Initially the latency between the onset of urination and the alarm is large but it reduces over time until escape from the alarm segues into avoidance of it altogether (i.e., the latency ultimately decreases to the point where accidents do not occur and the alarm does not go off). This explanation of how the alarm works is accurate but highly simplified. The fundamental point is that the alarm can be used readily in PCBP and it works. The alarm has not just been shown to be effective; it has been shown to be more effective, in terms of continence achieved and relapse avoided, than any other treatment used for enuresis including all other behavioral approaches and a variety of medications.

6. Habit Disorders

Habitual repetitive behaviors are common in young children. For example, between 25% and 50% of children younger than 4 exhibit habitual thumb sucking. Smaller, but substantial, percentages of children exhibit other habitual behaviors such as head banging, body rocking, nose picking, fingernail biting, or hair pulling. These habits are typically benign in young children and the PCBP service offered is usually supportive counseling. But perpetuated (beyond specified age norms) or singularly intense practice of the habits places children at risk and in need of prescriptive behavioral pediatric treatment. A large collection of studies document the effectiveness of treatments, based on assumptions of PCBP (e.g., time in, simplified instruction, targeted consequences), for a broad range of problematic habits in young children (see case illustration below).

Effective treatment of habit problems in older children usually involves more complex approaches and more active participation of the child than treatment for young children. The most outstanding example of such treatment is habit reversal, a habit treatment package based on the assumptions underlying PCBP, suitable for use in PCBP, and more empirically supported for treatment of a broad range of habits (from tics to tantrums) than any other approach described in the literature. In its conventional form, habit reversal is a multicomponent procedure that includes relaxation training, self-monitoring, situations (where habits are likely to occur) review, awareness training, review of consequences (of the habit), social support, and competing response exercises. Although the number of components in habit reversal may make it seem impractical for some PCBP practitioners, especially those whose sessions are short (e.g., pediatricians), streamlined versions have been shown to be just as effective as the full package. For example, a recently published study showed that an abbreviated version of habit reversal, including only brief relaxation and competing response exercises, eliminated habitual mouth biting in a 16-year-old boy. The biting was a long time habit that occurred almost "unconsciously" especially when the boy was nervous or bored. Treatment was delivered in one session and results were produced almost immediately. This study (and many others like it) supplies the empirical basis for our conviction that habit reversal is a valuable part of the PCBP armamentarium.

7. Other Problems

The examples above represent only a small sample of empirically supported treatments for problems presenting in PCBP. Successes with similar treatments (i.e., PCBP appropriate) have been documented for many problems not mentioned, including difficulties with feeding, encopresis, recurrent abdominal pain, other "learned illnesses," early onset anxiety, simple phobias, other mild anxiety problems, attentional problems, and school problems. Collectively the breadth of the problems, and the extent of the evidence showing their successful treatment, supplies a major part of the empirical basis for the rapidly expanding view that PCBP is a highly appropriate and important approach to mild and moderate child behavior problems.

V. CASE ILLUSTRATION

A 3-year-old girl was seen for chronic hair pulling of 1 year's duration. The hair pulling had resulted in abnormal hair loss on the crown of her head (approximately a 13×8 cm patch). The hair pulling occurred mostly during sedentary activities or during the onset to sleep. She did not exhibit other significant behavior problems and was described by her parents as happy, compliant, and highly intelligent. The parents had tried several procedures to stop the hair pulling with no success. These included scolding, reasoning, hats, edible rewards for not pulling, and spanking.

The treatment for hair pulling involved three components: (1) increased nurturing (i.e., time in) was provided by asking each parent to increase physical touching

by 50 touches per day and to play with their daughter at least 10 minutes per day, providing frequent praise and avoiding questions, commands, or criticisms. In addition, the usual bedtime routine was extended by 15 minutes. (2) The child was placed in time out for 3 minutes contingent on observed hair pulling. (3) Response prevention was used to help the child limit her hair pulling. The child agreed to select a pair of loose fitting cotton socks (hand socks) to be placed over her hands if she was observed pulling her hair while in time out. She also wore the hand socks to bed at night. Three days per week one parent observed the child for the presence or absence of hair pulling during 5 high-risk 1-hour time intervals. The percentage of intervals during which hair pulling occurred was recorded for each day.

A within-series withdrawal of treatment (ABAB) experimental design was used to assess the effects of treatment. This design involves periods of no treatment baseline (A) and periods of treatment (B). Experimental effects are determined based on differences between the A and B periods. For example, high levels of the target behavior during the baseline (A) periods contrasted with low levels during the treatment (B) periods are strong evidence that the treatment works (reduces the target behavior). During the initial baseline period in this case, hair pulling occurred in 76% percent of the observation intervals (see Figure 1). During the first treatment period, hair pulling reduced to 22% of intervals. During the second baseline period, hair pulling resumed at the original baseline levels and during the second treatment period it reduced to zero levels, where it stayed. The use of hand socks at bedtime was stopped after 2 months, but the parents continued the use of increased time in. Six months after the study, hair pulling was still at zero levels, and at a 2-year follow-up the child had a full head of hair, approximately 14 inches in length.

This case is a classic demonstration of PCBP, for at least three reasons. First, it involves a behavior problem, chronic hair pulling, that it is routinely viewed as evidence of psychopathology. The evaluation and treatment used here, however, negate this view. The pulling was not accompanied by other problem behavior, responded readily to direct treatment, and did not recur in another form during or after treatment. In other words, the pulling appeared to be a simple habit disorder presenting in an otherwise normal child and an appropriate context of care for such problems is PCBP. Second, the clinical approach involved both forms of PCBP, supportive counseling (e.g., the pulling was placed in its appropriate developmental and prognostic context) and prescriptive treatment. Third, the prescriptive treatment was based on the theoretical assumptions of PCBP. The parents' varbal interactions with their daughter regarding pulling were reduced to a highly simplified and quantitative minimum. The focus of their interactions was directed away from what their child thought, felt, and said about pulling and onto pulling itself (i.e., doing). For example, their repeated attempts to obtain an explanation for the pulling from their daughter or to reason with her about it were terminated. They imposed consequences (time out) for pulling that involved the type of experiential contrast (unpleasant, nonpreferred) that would reduce its likelihood in the future. Lastly, in order to increase the amount of contrast produced by time out, the parents employed various methods to increase the experientially pleasant aspects of their daughter's life (i.e., to increase time in).

VI. SUMMARY

There is a vast number and array of child behavior problems that, although not necessarily representative of true psychopathology, do pose psychological risks for the children who exhibit them and for their families. Almost all of these problems are initially seen in primary care settings and, absent a deterioration sufficiently serious to warrant specialty care, the majority are seen only in primary care. To remedy the problems early and obviate the risks they pose, we propose they be evaluated and treated within pediatric primary care itself via a special branch called primary care behavioral pediatrics. The principal types of therapies used in PCBP are supportive counseling and prescriptive behavioral treatment. Supportive counseling involves placing presenting problems in their appropriate developmental and prognostic context and prescriptive behavioral treatment involves the provision of procedure-based interventions for their remediation. PCBP is a multidisciplinary specialty but its practice is largely confined to psychologists and physicians. Limitations on time and in training, however, may reduce the physician's ability to deliver more complex procedures or to modify treatment in accord with unexpected responses. But because the physician is very likely the first professional to whom behavior problems are reported and because there often are medical considerations in the evaluation of behavior problems, the position of this chapter is that a partnership between physician and psychologist is optimal for practice. A representative sample of problems appropriate for PCBP includes risky infant behavior, oppositional behavior in younger and older children, bedtime problems, incontinence, and various habit disorders. It is important to stress that PCBP is not

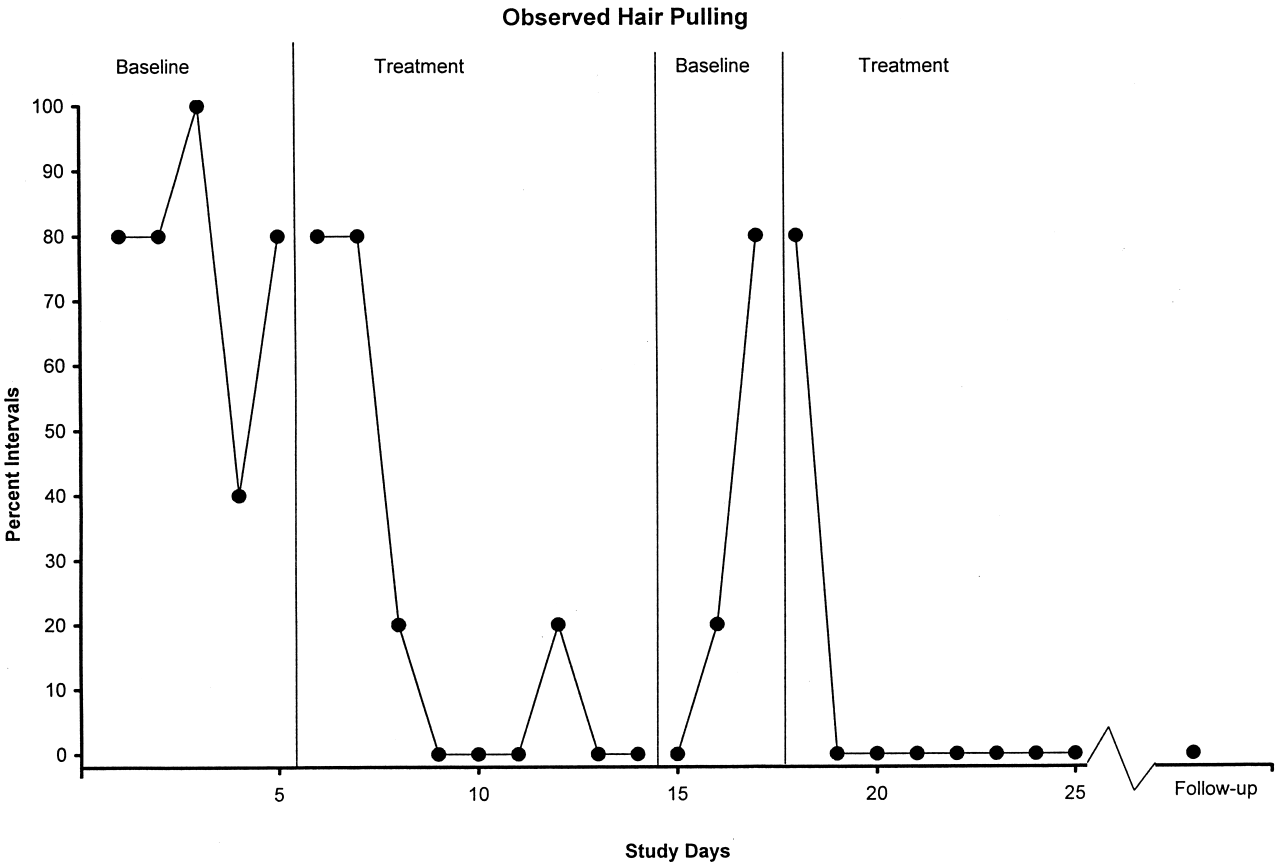

FIGURE 1 This figure shows the effects of treatment on hair pulling. The data points represent the percentage of intervals where hair pulling occurred. During baseline periods treatment was not administered. Reprinted with permission from *Pediatrics* **91**, 944. Copyright 1993, the American Academy of Pediatrics.

a universal approach for behavior problems in childhood. It is rather best viewed as the optimal domain for early intervention. Serious diagnostic conditions such as major depression, suicidal behavior, or delinquency represent boundary conditions for PCBP and should be referred for specialty care as soon as they are identified. Additionally, referral is recommended when presenting problems prove resistant to supportive counseling and prescriptive treatment. Behavioral pediatrics is thus proposed as a supplement to and not a substitute for existing care systems.

See Also the Following Articles

Behavioral Consultation and Therapy ■ Child and Adolescent Psychotherapy: Psychoanalytic Principles ■ Family Therapy ■ Home-Based Reinforcement ■ Nocturnal Enuresis ■ Parent–Child Interaction Therapy ■ Time-Out

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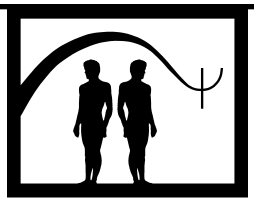

Progressive Relaxation

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GLOSSARY

autonomic nervous system The part of the nervous system that controls involuntary actions of the smooth muscles, heart, and glands. Consists of sympathetic and parasympathetic portions.

psychophysiological Pertaining to the branch of psychology that is concerned with the biological bases of psychological processes.

sympathetic nervous system The part of the autonomic nervous system that inhibits or opposes the effects of the parasympathetic nervous system, as in reducing digestive secretions, speeding up the heart, and contracting blood vessels.

systematic desensitization A behavior therapy technique that is used to reduce or eliminate anxiety. Deep muscle relaxation is paired with imagined scenes or actual anxiety-provoking situations that increase in intensity.

Progressive relaxation represents a group of therapeutic techniques that seek to reduce one of the physiological manifestations of anxiety by teaching a person to be aware of muscle tension and to release quickly that tension. One common system of progressive relaxation involves tensing and releasing various muscle groups until a deeply relaxed state can be accomplished through simply recalling the feeling of relaxed muscles. Progressive relaxation is used with a variety of populations to alleviate a range of complaints including anxiety, depression, and psychophysiological disorders.

I. DESCRIPTION OF TREATMENT

A. The Basic Procedure

Progressive relaxation training should take place in a quiet, dimly lit room with little chance of disruption. The client is seated in a chair that completely supports the body, thus enabling tension and relaxation of all required muscle groups. The client is encouraged to wear loose-fitting clothing to prevent the distraction of uncomfortable attire.

Progressive relaxation training involves teaching the client to tense and relax a series of 16 muscle groups: (a) dominant hand and forearm; (b) dominant biceps; (c) nondominant hand and forearm; (d) nondominant biceps; (e) forehead; (f) upper cheeks and nose; (g) lower cheeks and jaws; (h) neck and throat; (i) chest, shoulders, and upper back; (j) abdominal or stomach region; (k) dominant thigh; (l) dominant calf; (m) dominant foot; (n) nondominant thigh; (o) nondominant calf; and (p) nondominant foot. To begin, the client is

encouraged to focus on the first muscle group and to tense the muscles in that group for a period of 5 to 7 sec. Then the client is instructed to relax the muscle group for 30 to 40 sec. During both tension and relaxation, the therapist helps focus the attention of the client on the muscular experience. Comments such as, "Notice what it is like to have tension/relaxation in these muscles" are useful. The tense–relax sequence then is repeated with the same muscle group, with an increase in relaxation time to 45 to 60 sec. The client is required to attain full muscle relaxation with each muscle group before progressing to the next group. The therapist asks the client to signal complete relaxation by raising a finger of the right hand before continuing to the next muscle group. If the client does not report total relaxation in the specified muscle group, the tense–relax procedure is repeated. To avoid muscle fatigue or pain, repetition should not exceed four or five times.

With the application of the tense–relax sequence to the chest, shoulders, and upper back, breathing cues are added to the instructions. The therapist begins including mild suggestions about breathing into the script (e.g., "Notice your slow and regular breathing"). In addition, the client now is instructed to take a deep breath and hold it during the tension phase and to release the breath during the relaxation phase of each subsequent muscle group.

Upon completion of the entire sequence, the therapist reviews the targeted muscle groups and encourages the client to continue to relax. Then, the client's overall level of relaxation is assessed. Once again, the therapist asks the client to signal when a state of complete relaxation throughout the body has been achieved. If the client does not signal complete relaxation, then the client is asked to signal tension in a muscle group as the therapist lists the possible groups. On the identification of tension, the tense–relax sequence is repeated. The assessment phase is continued until complete relaxation is obtained or until the therapist decides to terminate the training. Prior to concluding the training, the client is allowed to experience complete relaxation for a few moments. At this time, the therapist makes comments that aid the client in remaining focused on the feeling of relaxation. After a few minutes, the therapist may begin the termination process.

The therapist guides the client out of the relaxed state by asking the client to begin moving muscle groups. For example, the therapist may count backwards from 1 to 4, informing the client to move legs and feet at 4, arms and hands at 3, head and neck at 2, and to open the eyes at 1. The client is encouraged to continue feeling relaxed and calm. In addition, the client is prepared for the possibility that he or she may feel dizzy or disoriented on emergence from the state of deep relaxation.

Relaxation is a skill that cannot be perfected without practice. Therefore, the client should be encouraged to practice twice a day for 15 to 20 min. The therapist helps the client identify appropriate times and places to practice progressive relaxation. For best results, the client is asked to practice on a comfortable chair or bed when there is no time pressure and little chance of disruption.

B. Variations on the Basic Procedure

Once the client is able to completely relax the 16 muscle groups, the therapist condenses the progressive relaxation procedure to decrease the amount of time needed to reach a fully relaxed state. Frequently, the initial 16 muscle groups are decreased to 7 muscle groups including: (a) dominant arm; (b) nondominant arm; (c) facial muscles; (d) neck and throat; (e) chest, shoulders, upper back, and abdomen; (f) dominant thigh, calf, and foot; and (g) nondominant thigh, calf, and foot. The procedure can be further reduced to include 4 muscle groups in the tense–relax sequence: (a) arms, hands, and biceps; (b) face and neck; (c) chest, shoulders, back, and abdomen; and (d) thighs, calves, and feet. The client must master each variation both in session and during home practice before progressing to the next version.

Following competence in relaxation through the tense–relax sequence, the client is introduced to relaxation through recall, or muscle relaxation achieved through memory of the relaxed state, without the initial tension. The therapist encourages the client to think about a particular muscle group and then relax by remembering how to release those muscles. After focusing on the relaxed muscle for 35 to 45 sec, the therapist asks the client to signal if the muscle group in question is relaxed. Similar to the basic procedure, the client should achieve complete relaxation in a muscle group prior to proceeding to the next group. Also, the therapist may repeat a muscle group if needed. This new approach is incorporated into the home practice sessions.

When the client becomes proficient at relaxation through recall, the therapist transitions the client into relaxing the entire body by counting from 1 to 10. The therapist first introduces this technique when the client already is in a relaxed state. After relaxing each muscle group through recall, the therapist instructs the client to notice all the muscles in the body continuing to relax as the therapist counts to 10. Once the client has

practiced this approach at home several times, the therapist works with the client toward reaching a relaxed state solely by counting from 1 to 10. Again, the client must practice this skill.

C. Applied Relaxation

The goal of progressive relaxation training is for the client to learn an effective way to reduce muscle tension in daily life. Therefore, the client needs to learn to transfer these skills from the twice-daily practice sessions to routine situations throughout the day. The process of using relaxation skills in specific stressful situations is called "applied relaxation." Applied relaxation training as described by psychologist Douglas Bernstein and colleagues, consists of four components. First, the client learns to monitor tension in the body and notice when the body begins to move away from a relaxed state. Second, the client becomes adept at implementing relaxation responses subsequent to the detection of tension. Next, frequent practice is recommended to improve the skill of the client at deploying relaxation strategies. Last, the client learns several different approaches for reclaiming a relaxed state to optimize the chance of success in a variety of anxiety-provoking situations.

II. THEORETICAL BASES

Several conceptual explanations have been theorized to account for the ability of progressive relaxation to reduce anxiety. Edmund Jacobson's work in the first half of the 20th century represented the first significant attempt to investigate this relationship. In his early studies, Jacobson observed that the subjective state of anxiety was accompanied by a contraction of muscle fibers. In subsequent investigations, he observed that thoughts of physical activity elicited corresponding electrical activity in the expected muscle group. Similarly, absence of thought was associated with negligible electrical activity in the musculature. Using the earlier information, Jacobson theorized that prolonged stress resulted in chronic tension. This chronic tension caused excessive strain on the musculature and a sustained increase in activity in the central nervous system that contributed to a variety of pathological conditions. In Jacobson's view, deep relaxation of the muscles would decrease activity in the central nervous system thus preventing and ameliorating psychological and/or physical distress. In 1938, he developed the tense–release procedure he named progressive relaxation and used it to treat anxious people. By 1962, the therapy was an intensive experience involving 15 muscle groups and extending over 50 hour-long sessions of training.

Around 1950, the inclusion of an abbreviated form of progressive relaxation in a successful treatment for anxiety called systematic desensitization precipitated another wave of empirical scrutiny. Systematic desensitization is a treatment approach that entails imagined or actual contact with the feared stimuli in stages progressing from least stressful to most distressing. At each stage, an individual is encouraged to experience the stimuli until a reduction of anxiety occurs, thus lessening the learned fear. The subjective experience of anxiety is thought to have cognitive, behavioral, and physiological components. When a person experiences anxious arousal, increased activity in all of the components contributes to the amplification and length of the anxious state. Psychologist Joseph Wolpe theorized that muscle relaxation was physiologically incompatible with the experience of anxiety. Therefore, relaxation intervenes in this process by reducing physiological arousal. As such, the presentation of a feared stimulus coupled with a physiological state incompatible with fear could eventually eliminate the conditioned anxiety response.

Additional research has supported this theory. The physiologist Ernst Gellhorn developed the most thorough explanation of the mechanisms by which progressive relaxation affects the autonomic nervous system. Gellhorn theorized that relaxed muscles correspond to a decrease in activity in the autonomic nervous system caused by the lack of feedback information from the skeletal muscles. The physiological aspects of anxiety are activated by the part of the brain that stimulates the sympathetic nervous system, or the reticular system. Gellhorn noticed that a large proportion of the nerve input into the reticular system came from fibers in the skeletal muscles. As such, progressive relaxation reduces autonomic arousal (e.g., decreased heart rate and blood pressure) by reducing input to the reticular system and therefore, the sympathetic nervous system. In addition, nerve fibers also connect the reticular system to the cortex: the area of the brain associated with the feeling of nervousness and increased vigilance. Thus, progressive relaxation may also dampen alertness and cognitive activity. Indeed, the research of psychologist F. J. McGuigan revealed that all thought is associated with muscular activity. Hence, reduction of muscular activity can result in a lessening of cognitive activity.

III. APPLICATIONS AND EXCLUSIONS

A. Applications

Progressive relaxation was developed to reduce tension in clients who have chronic anxiety problems; thus early applications were predominately limited to this population. However, in recent years the range has greatly broadened to include a variety of people who suffer from an extended scope of problems including insomnia, hypertension, tension headache, explosive anger, chronic pain, and depression. In addition, progressive relaxation occasionally is used to aid the therapeutic process. For example, relaxation training may enable a client to discuss a particularly distressing topic. On the other hand, research suggests that progressive relaxation works best when the central difficulty is tension. Progressive relaxation is appropriate for both adults and children, and there is a manual that includes suggested amendments in procedures for children with special needs.

In their 2001 manual, Bernstein and colleagues recommend a pretraining inventory to assess the appropriateness of a client for progressive relaxation training. First, any biological bases for the presenting problem should be ruled out. Second, the therapist should assess the possible risks of relaxation for that client. For example, a client may have an injury that is aggravated by repeated tensing and releasing of a muscle group. Next, if possible, the client should discontinue the use of any muscle-relaxing drugs as they may interfere with the client learning how to control tension and relaxation. Finally, the therapist should consider whether progressive relaxation training is likely to alleviate the client's complaint.

B. Exclusions

There are a few reasons why some clients may not benefit from training in progressive relaxation. However, adjusting some basic procedures can accommodate the limitations of most clients. For example, if a person has an injury that prevents tensing a muscle group, the therapist may instruct only to relax that muscle group thus forgoing the tension phase. Similarly, clients with breathing difficulties (e.g., chronic congestion due to smoking or allergies) may need to sit upright for the training to prevent coughing. Other exclusionary factors are more serious. For example, individuals who lack muscle control will, obviously, not benefit from this intervention. Second, a minority of individuals experience "relaxation-induced anxiety" that may prevent them from gaining any benefit from relaxation training. Relaxation-induced anxiety refers to a variety of symptoms including fear of losing control, increased tension, and increased indications of anxiety that appear to be triggered by relaxation. Third, relaxation approaches are ineffective when skill deficiencies rather than anxiety appear to be the problem. For example, highly test-anxious college students are helped more by instruction in test-taking skills than by relaxation methods. Finally, there are many disorders for which progressive relaxation has been found to be inappropriate (e.g., muscle pain disorder, excessive gastric acid output, tinnitus).

IV. EMPIRICAL STUDIES

Progressive relaxation has been applied to a large variety of physical and psychological complaints. This section reviews the research on those classes of disorders most frequently investigated in connection with relaxation methods. As the original progressive relaxation procedure was designed to counteract anxiety, the majority of the research falls within this topic area. In addition, a considerable amount of research has investigated progressive relaxation as a component in the treatment of depression. Finally, progressive relaxation also is used to help treat psychophysiological disorders such as headache, hypertension, insomnia, and chronic pain.

A. Anxiety Disorders

Progressive relaxation training is an element present in the treatment of almost all anxiety disorders including generalized anxiety disorder, panic disorder, specific phobias, and posttraumatic stress disorder. Progressive relaxation training is often used as an essential component in a more comprehensive treatment package targeting physical, behavioral, and cognitive aspects of anxiety. For example, although progressive relaxation reduces anxiety, the most successful treatment for generalized anxiety disorder is a multicomponent package that includes cognitive, behavioral, and physiological aspects. The empirical literature reveals that individuals with anxiety treated with a treatment package tend to report significantly less anxiety than people given a placebo, drug treatment, nondirective counseling, or no treatment. Similarly, in the treatment of panic disorder, progressive relaxation alleviates panic to a greater extent

than no treatment. However, the therapies with the most empirical support are multicomponent composed of exposure to panic triggers, cognitive therapy, deep breathing, and progressive relaxation.

In the treatment of specific phobias, repeated exposure to the feared stimuli is essential. Contact with the feared object or situation is introduced in stages through systematic desensitization. At each stage, exposure is encouraged until a reduction of anxiety occurs, thus lessening the learned fear. Progressive relaxation has been used for decades as part of systematic desensitization to facilitate the fear reduction process. Indeed, in a few studies, the addition of a relaxation component to exposure has increased the effectiveness thereby demonstrating its validity as a necessary component of treatment.

Research on the treatment of posttraumatic stress disorder reveals that progressive relaxation alone is not a viable treatment. However, the treatment packages that have empirical support all include a relaxation module. In each therapy program, progressive relaxation is used to create a mood state that resists anxiety in a systematic desensitization, flooding, or stress inoculation procedure.

B. Depression

Applying progressive relaxation procedures to depression emerged from the observation that anxiety symptoms often occur along with depression. Moreover, depression can be exacerbated by stress. A few research studies have demonstrated the superior effectiveness of progressive relaxation alone to no treatment in adolescents and adults with mild to moderate depression and in women with postpartum depression. More frequently, research supports the inclusion of a relaxation component in a comprehensive treatment package for depression. One such treatment program has garnered an extensive amount of research endorsement. The Coping with Depression Course was designed by psychologist Peter Lewinsohn and colleagues to aid in the treatment of depressed adults and adolescents. In clinical trials, it has proven to significantly reduce depression scores and the rate of diagnoses in comparison to a wait-list control condition. Moreover, the empirical literature suggests that results are maintained over time. In addition to progressive relaxation training, the Coping with Depression Course is composed of several treatment components including cognitive therapy, social skills training, pleasant events scheduling, self-monitoring, and training in personal goal achievement in a group setting.

C. Behavioral Medicine

In recent years, progressive relaxation increasingly is used to alleviate the effects of stress-related and psychophysiological disorders such as headache, hypertension, insomnia, and chronic pain. Progressive relaxation training is an effective treatment for both tension and migraine headaches. Recent investigations demonstrated that in the treatment of tension headache, relaxation training is more effective at reducing the strength and frequency of headaches than headache monitoring, false biofeedback, medication placebo, and attention placebo. In addition, gains in treating tension headache through progressive relaxation tend to be long-term improvements. Progressive relaxation in combination with thermal biofeedback appears to be a successful treatment for migraines, proving more beneficial than headache monitoring and medication placebo. Component treatments that include progressive relaxation (or applied relaxation) and cognitive therapy also reduce and weaken migraine headaches more than headache monitoring, and at times, placebo conditions.

Early research on the effects of progressive relaxation on hypertension yielded promising results, leading research reviews at that time to conclude that relaxation training was effective in lowering blood pressure. Unfortunately, many of the positive results of these investigations have not been replicated. In fact, few studies continue to support the benefits of progressive relaxation over blood pressure monitoring and placebo. Currently, more attention is being paid to comprehensive treatment packages that include relaxation as a component along with stress management skills and healthy lifestyle behavior training. However, further research should be done to determine whether progressive relaxation is a useful component in the treatment of hypertension.

Insomnia is probably the most common behavioral medicine complaint that progressive relaxation has been applied to treat. Progressive relaxation is considered to be an effective treatment for insomnia. However, combination treatment packages that also include stimulus control and sleep restriction techniques tend to be more effective than relaxation training alone.

Similarly, multicomponent treatments for chronic pain have proven to be more effective than relaxation training alone. The more effective treatment packages for chronic pain are cognitive behavioral in orientation and composed of goal setting, increased activity and/or exercise, pain education, and medication management. These comprehensive treatments generate more

favorable results than no-treatment control, standard physical rehabilitation, and attention placebo conditions. However, the overall effectiveness of progressive relaxation training on the treatment of chronic pain is unclear as the majority of research is based on lower back and joint pain and pain experienced as a result of rheumatoid arthritis.

V. CASE ILLUSTRATION

"Tom" was a 42-year-old male living alone subsequent to a recent divorce. Tom had no history of previous psychiatric treatment, although he did report a serious head trauma when he was a teenager. At the time of referral for depression, Tom was self-employed as a painter and also performed routine maintenance on several houses. Tom presented for treatment on the recommendation of his parents who were concerned about his lingering depression. In the initial interview, Tom stated that he was apprehensive about therapy and was willing to attend only because it relieved his parents' fears. Throughout the session Tom sat rigidly upright and gripped tightly the arms of the chair.

As Tom began to trust the therapist in subsequent assessment sessions, he confided that he had been depressed since his divorce 1 year ago. In addition, he had recently experienced suicidal thoughts in the form of visions of himself jumping off the roof of a house that he was painting. He reported that that he did not want to die, but was terrified that he would "lose control" and jump. He stated that this fear caused him a great deal of anxiety resulting in difficulty sleeping and an inability to concentrate on his work. These initial sessions were extremely difficult for Tom as he maintained his high level of muscle tension and stated that it was anxiety provoking to confide his fears to another person.

As a result of the assessment, the therapist concluded that Tom would benefit from cognitive-behavioral therapy for his depression. However, his high level of anxiety surrounding the therapeutic process was a significant barrier to this process. Therefore, the therapist introduced progressive relaxation training as a coping skill to be used during therapy and at his work. The therapist predicted that after mastering progressive relaxation, Tom would be able to discuss his concerns with less distress and be able to examine more readily his thoughts and behaviors.

Progressive relaxation training followed Bernstein and colleagues' 2001 manual for this purpose. The first four sessions focused on tensing and relaxing 16 major muscle groups. Tom was able to signal deep relaxation during the second training session. The therapist asked Tom to practice the training on his own at least twice a day. Tom reported practicing three times the first week, but increased his practice sessions in the following weeks as he became more familiar with the procedure. In the next two sessions, the therapist concentrated on tensing and relaxing 7 major muscle groups. Tom continued to report deep relaxation during the training sessions. He also appeared visibly more relaxed. He stopped gripping the arms of his chair during session and presented a more relaxed posture. Tom reported that he was less anxious at work and his suicidal thoughts had decreased. In the next few sessions, the therapist continued the tense-and-release training with four muscle groups. Finally, Tom was able to progress to relaxation with recall training and relaxation with counting training. Tom was instructed to continue to practice at least once daily during the continuation of therapy.

Following the progressive relaxation training, Tom obtained slightly lower scores on measures of depression and greatly reduced scores on measures of anxiety. More important, his fears of committing suicide disappeared. Tom was able to discuss his thoughts surrounding his divorce with less distress. He reported continuing the therapeutic process both for his parents and for himself.

VI. SUMMARY

Progressive relaxation refers to a closely related group of procedures designed to reduce muscle tension, one of the physiological symptoms of anxiety. The described technique involves repeated tensing and releasing of a series of muscle groups. The tense–relax process increases awareness of muscle tension and how to alleviate that tension. After a client achieves deep relaxation with the original procedure, the amount of muscle groups is systematically reduced. Once the client attains a state of deep relaxation using the tense–release system, the client then is introduced to a less intensive way to relax. For example, counting from 1 to 10 as the client relaxes the body is often used to encourage relaxation. In this way, the client learns to reach a relaxed state with less investment of time and energy. Learning the basic progressive relaxation skills enables the client to then utilize the skills in stressful situations in daily life. Progressive relaxation may be used with both adults and children and is easily adapted for individuals with special needs. However, relaxation training is not appropriate for people who cannot control their skeletal musculature. Progressive relaxation frequently is used to treat anxiety

disorders, depression, and several psychophysiological complaints. Progressive relaxation is most effective when included in a multicomponent treatment package.

See Also the Following Articles

Applied Relaxation ■ Breathing Retraining ■ Panic Disorder and Agoraphobia ■ Relaxation Training ■ Stretch-Based Relaxation Training ■ Successive Approximations ■ Systematic Desensitization

Further Reading

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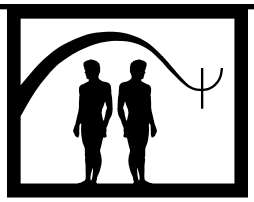

Projective Testing in Psychotherapeutics

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GLOSSARY

diagnostic evaluation report The vehicle for communicating interpretations of test data that illuminates the underlying personality structure, object-relations paradigms, sources of psychological distress, and the framework for understanding defense constellations, as well as providing treatment recommendations and consultation to the referring therapist.

early memories test Procedures to elicit early childhood memories work from the basic assumption that early childhood memories are retrospective narrative creations that reveal aspects of psychological functioning rather than objective truths about the person's life. Narratives are analyzed using a variety of content and structural scoring systems to assess object-relations themes, character styles, depression, and behavioral disorders.

personality assessment Utilizing various instruments, diagnosticians are able to synthesize an understanding of individual's cognitive style, emotional attitudes, and aptitudes, as well as primary defenses and conflicts.

projective techniques A broad array of assessment procedures utilizing ambiguous stimuli and opaque instructions to conceal the nature of the task and the personality structures being assessed. Ambiguity presses the individual to organize responses in terms of personal motivations, perceptions, attitudes, ideas, emotions, problem-solving strategies and core dynamic conflicts.

Rorschach inkblot method Hermann Rorschach's perceptual/projective test consisting of 10 standardized inkblots of varying color and form that are administered to the participant one at a time with the request to describe, "What the inkblot might be." From the free associations and the inquiry of the determinants making up a percept, the examiner applies one of several standardized scoring systems to develop hypotheses relevant to personality traits, perceptual and problem-solving styles, prototypic modes of interpersonal relating, degree of thought, mood, and impulse disturbance. Systems for analysis vary from a-theoretical empirical approaches to psychoanalytically derived systems.

thematic appreception test Conceived by Henry A. Murray as a narrative projective device, the TAT consists of 20 scenic pictorials from which participants are instructed to create narratives about the scenes and human representations. Through the participant's imaginative elaborations, the psychological examiner makes inferences about themes most important in the participant's life. From these themes, psychological datum such as the participant's needs and "press," prototypic relationship paradigms, object relations, and understanding of social causality can be ascertained.

word association methods A series of assessment methods utilizing stimulus words or phrases to elicit immediate associations. Thematic analysis and comparison of participant's responses to normative data allows for discerning complexes and defenses.

I. PROJECTIVE TECHNIQUES AND PSYCHOANALYSIS

The demand for assessment techniques that probe beyond the patient's conscious defenses and resistances could only have developed from clinical and theoretical systems that endeavored to comprehend the obscure layers of personality functioning, and to explore the interplay of conflicts and fantasies in the creation of symptoms. Inherent in the psychoanalytic model is the assumption that superficial layers of personality structure are readily available to consciousness, but to comprehend unconscious motivations, fantasies and complexes require the specialized techniques of free association, dream interpretation, and the analysis of the transference. Projective techniques are the logical application of psychoanalytic theory to assess underlying structures.

Assessment methods specifically designed to tap into hidden complexes and conflicts has a rich history involving luminaries and revolutionaries from the psychoanalytic movement. Carl Jung developed the first projective test with the Word Association Task to uncover hidden complexes and conflicts as an aspect of psychoanalytic investigations. Since Jung's test, numerous sentence completion tasks have sprung from the essential theory that irregularities in response style and repetitive patterns of themes reveal underlying conflicts that the patient would not readily reveal through traditional interview methods. Alfred Adler crafted a technique for analyzing early childhood recollections as a projective test that reveals the individual "lifestyle" and major life themes including self-schemas. Although somewhat outside the mainstream of psychoanalytic discourse, Adler's test is widely used by practitioners of the individual psychology movement. Martin Mayman, an analyst from the Menninger Foundation, drew on modern ego psychology and object-relations theory to develop a highly versatile assessment technique by inquiring into specific early childhood memories. Another class of projective test relies on complex pictures depicting people involved in various interactions to which the participant is pressed to create stories that are then analyzed for structure and content. Tests such as the Thematic Apperception Test rely on the participant's apperception of relationships to project their beliefs and emotional reactions in their stories.

Herman Rorschach, one of the first presidents of the Swiss Psychoanalytic Society, is best known for developing the now-famous inkblot method bearing his name. Rorschach believed his method did not uncover layers of unconscious processes. Rather, he thought of it as an experimental, atheoretical method for assessing personality styles based on the perceptual organization of patient's responses. In his 1921 monograph he made patently clear that the test could not be used to tap into the contents of the subconscious. Thus from its inception, the Rorschach Inkblot Method was considered a perceptual task based on objective scoring criteria of how participants organize the inkblots into images. In this way specific contents were less important than what portions and features of the blot were utilized in the development of the percept. It is now widely acknowledged that Rorschach underestimated the full application of his technique in its ability to reveal aspects of the individual's representational world of self and others. In the last four decades analysts and nonanalytic diagnosticians have broadened the scope of the method from essentially two angles. From an atheoretical stance of a perceptual task, diagnosticians and researchers have developed empirically validated structural variables by correlating them with behaviors and personality constructs. Working from psychoanalytic theory, David Rapaport, Roy Schafer, Steven Applebaum, Sidney Blatt, and Paul Lerner have not only articulated psychoanalytic test theory, they have brought their learning from projective testing to deepen and extend psychoanalysis as a science. Still other analysts have developed specialized psychoanalytic analog scales to assess intrapsychic phenomena such as primitive defenses, object representations, and interpersonal phenomena such as dependency.

Projective techniques encompass a number of methods for measuring personality constructs that makes an all-inclusive definition impossible. Nonetheless, they share some common features and purposes. First, their purpose is to gain insight into the individual personality as a system, rather than assessing one facet or a series of disconnected features. Most tests of this nature rely to some degree on ambiguous stimuli and opaque directions as catalysts for creating data. These tests pressure the examinee to draw on inner resources to respond to visual and verbal stimuli. This forces the examinee to utilize perception, apperception, associative processes, and memory to create responses to the examiner's questions: the more ambiguous the stimuli, the greater freedom to form idiosyncratic responses that reveal aspects of individual personality. A second feature of projective tests is the nature of data analysis—like the examinee's multitude of possible interpretations of the stimulus—the diagnostician interprets data from empirically derived scoring methods, to

more "experiential" analysis that emanates from a well-organized theory of personality.

II. PROJECTIVE TECHNIQUES FOR DIAGNOSTICS AND TREATMENT PLANNING

Testing is generally undertaken to answer questions about puzzling diagnostic possibilities, to determine the presence and form of a personality disorders, and to provide consultation to therapists prior to, or during the course of psychotherapy. The standard method for answering these questions is to select a series of tests that have the greatest potential for answering the referral questions. A second consideration when compiling a battery of tests includes choosing measures that are differentially sensitive to unique manifestations of personality. For example, it is widely held that the TAT and Rorschach tap different levels of "implicit" personality functioning, and that findings from various tests, including self-report measures, provide the opportunity to observe the patient functioning under different circumstances. This data is then integrated into the formulation of the patient's character organization and the understanding of symptoms and defense configurations (Rapaport, Gill, and Schafer wrote the classic text on this topic).

A review of the diagnostic validity of projective tests in assessing symptoms, diagnoses, and prediction of outcomes would require volumes to complete. Rather than a specific review, the following is a brief sample of how projective testing is used in treatment planning and prediction in psychoanalytic treatments.

Early developments in theory-based psychological assessment can be traced to David Rapaport's efforts to interpret projective test responses using psychoanalytic theory of motivation, drives, and defensive structure. The fruits of such a major undertaking were best described by Martin Mayman:

> Rorschach inferences were transposed to a wholly new level of comprehension as Rapaport made a place for them in his psychoanalytic ego psychology and elevated psychological test findings from mundane, descriptive, pragmatically useful statements to a level of interpretation that achieved an incredible heuristic sweep.

Although Rapaport's approach was a considerable advance, a broadening of its scope was necessary to capture the experience and influence of the testing situation and its relation to transference paradigms as they are revealed in the testing situation. Roy Schafer, psychoanalyst and expert diagnostician, wrote the classic treatise on how the testing situation stimulates the expression of underlying dynamic configurations. For Schafer, the constraints of the patient role in being tested is an anxiety-arousing situation that stimulates and exacerbates defensive and transference reactions that can be scrutinized and integrated into the understanding of the patient. This approach brought the prediction of potentially disruptive and useful transference configurations into the scope of diagnostic testing.

Schafer and others were successful in shifting the focus from testing solely to determine analyzability to an approach that emphasizes the assessment of problems that interfere with the establishment of a therapeutic alliance to discover potential therapeutic levers, as well as predicting potential therapeutic stalemates and transference enactments that may not be readily discernible in the course of a standard diagnostic evaluation. The ability to employ new models for predicting transference enactments has become critical, as more patients were referred to treatment with severe character pathology and vulnerability to psychosis and suicide. Such patients create special challenges for therapists and hospital staff because premature terminations, turbulent transference–countertransference struggles and negative therapeutic reactions are more the rule than the exception. Predicting transference enactments are best done through a careful assessment of object relations prior to beginning psychotherapy because the capacity for interpersonal relations depends largely on an individual's internal array of object representations.

The strength of object relations theory when applied to psychological assessment is that it provides an understanding of the complex interactions among self and object representations, defenses, pathological formations, and ego strengths that make up the entire personality. The clinical utility of testing improved dramatically when diagnosticians shifted from more traditional focus on ego structures and impulse-defense configurations framed in abstract terms, to a middle language, grounded in a patient's phenomenology that create meaningful clinical generalizations about a patient. Diagnosticians who craft test reports in this middle language create a textured picture of a patient's character style, their modes of relating and vulnerabilities that alert the therapist to potential pitfalls that may emerge months later during an intensifying transference.

Test data from Rorschach, TAT, and Early Memories protocols are particularly well suited to these newer

modes of data analysis. Psychoanalytic Rorschach scales have been crafted to examine features of self and object representations, generally along a developmental continuum from pathological to healthier and more mature modes of object representation. Two such scales are Sidney Blatt's Concept of the Object scale and Jeffery Urist's Mutuality of Autonomy scale. The former assesses the developmental level of object representations using a variety of projective tests including the Rorschach and the TAT. Utilizing structural variables, Blatt and his colleagues have studied the developmental progression of object representations along more cognitive lines by integrating the theories of Piaget and Werner into the system.

The Mutuality of Autonomy scale was developed for the Rorschach to assess the degree of differentiation of object representations, focusing primarily on the developmental progression of separation individuation from engulfing, fused relations, to highly differentiated self-other representations. Studies have demonstrated that the scale can be reliably scored, has a high degree of construct validity with behavioral ratings, and has been utilized in treatment outcome studies.

Drew Westen's Social Causality and Object Relations scale has been applied to TAT and Early Memories data, as well as interview and psychotherapy process data. Westen's scale assesses both cognitive and affective features of patient's understanding of interpersonal relations and the underlying structures of object representations and the affective quality of those representations. The scale successfully differentiates diagnostic groups and predicts behavioral outcomes such as early termination from treatment. A growing body research attests to its construct and convergent validity.

Early childhood memories have also been utilized to understand crucial aspects of personality functioning. Because of their reconstructive nature, early memories allow patients to express critical life themes in a camouflaged and unconscious way, while revealing their inner object relations, character structure, and prototypic transference enactments. Inner object-relation constellations intrude into the structure and content of early memories, just as they occur repetitively in important interpersonal relationships. This is precisely what makes early memories so revealing of the private inner world, allowing therapists to make informed decisions about therapeutic stance, and timing of interventions in order to facilitate a viable therapeutic alliance. A vast array of studies assessed early memories in treatment planning, determining character organization, and assessing potential transference paradigms.

III. EMPIRICAL EVIDENCE AND THE SCIENTIFIC STATUS OF PROJECTIVES

The fate of projective testing is continuously in question because heated disagreements over the scientific status of projective techniques, most notably the Rorschach Inkblot Method, are consistently engaged in scholarly journals. This article cannot address the scope of this debate but provides some evidence of the utility and empirical validity of the projective techniques, using the Rorschach as the prototype. A brief review is undertaken to examine the accuracy of Rorschach in assessing select disorders, in predicting treatment outcome, and in assessing change during and after intensive psychodynamic treatment.

Research has demonstrated the validity of some, but certainly not all Rorschach indexes in accurate diagnosis. When appropriately formulated, the Rorschach has demonstrated high degrees of validity in measuring specific personality constructs such as interpersonal dependency, ego strength, defense mechanisms, and quality of object relations. In terms of differential diagnosis, specific patterns of Rorschach responses have been correlated with independent diagnosis of schizophrenia; major mood disorders; and antisocial, narcissistic, and borderline personality disorders. Perhaps one of the most important uses of the test is in predicting dangerous behavior during treatment. The Rorschach when appropriately scored and formulated can predict with approximately 75% accuracy which patients will make a lethal suicide attempt within 60 days of the administration of the testing. The Rorschach has also demonstrated that scoring indexes can predict similar levels of accurate prediction of patients who will make a near lethal suicide attempt within 60 days of administration of the test.

Traditional applications of projective testing include their use in clinical settings to predict who will most likely benefit from certain forms of psychological treatment. Anecdotal evidence is far more abundant than scientifically sound studies that support the empirical validation of projective testing in predicting treatment outcome. This is in part due to the fact that most researchers in the field conduct exploratory studies rather than replicating others work. As a result research is not cumulative, making it difficult to summarize the general effectiveness of specific measures in predicting specific outcomes. One stunning exception is the myriad studies of Bruno Klopfer's Rorschach Prognostic

Rating scale (RPRS). In a sophisticated statistical and conceptual analysis, Meyer and Handler analyzed the results of 20 separate studies assessing the validity of the RPRS in predicting treatment outcome. This meta-analysis (involving 752 participants) revealed that the RPRS was highly predictive of subsequent therapy outcome. To examine its predictive power the authors compared the RPRS to other predictor-criterion pairs from various fields including medicine and education. They found the RPRS was a better predictor of psychotherapy outcome than the SAT and GRE scores are at predicting subsequent grade point average. The RPRS as a predictor of psychotherapy outcome was also superior to electrocardiogram stress tests in predicting subsequent cardiac disease. For an enlightening view of how psychological testing compares to medical diagnostic testing, readers will profit from Meyer and colleagues' latest work appearing in the *American Psychologist*.

Steven Applebaum produced two clinically based studies that directly compared inferences based on projective test data to inferences based on traditional interview data. In a small sample of 13 cases, Applebaum found test-based inferences were more accurate than inferences based on interview data. Psychological test-based inferences were most accurate in assessing ego strength, quality of interpersonal relationships, core conflicts, patterns of defense, and transference paradigms. In a second study, 26 additional cases were added to the original 13 to compare interview-based predictions to test-based ones. When psychiatrists and psychological testers disagreed on the predictions, most often testers made correct predictions about the patient's ego strengths, core conflicts, transference paradigms, defense configurations, and the degree of psychological mindedness. The results suggest that projective test data, in the hands of well-trained diagnosticians can be used for making predictions about treatment planning and outcome that is superior to that of clinicans who have clinical data from interviews.

One facet of assessment that has received relatively little attention is the application of projective tests in assessing changes in intrapsychic functioning as an aspect of psychotherapy outcome research. Given that psychoanalytic treatment endeavors to effect structural change, it is remarkable that few researchers have used sensitive measures such as the Rorschach to monitor change. Nonetheless, there are examples of how the Rorschach has been utilized in this manner. Irving Weiner and John Exner, for example, assessed 88 patients prior to starting exploratory dynamic therapy, then retested them on three occasions including at termination. A second group of 88 patients undergoing brief nondynamic psychotherapy were also assessed throughout the course of treatment and at termination. The researchers chose 27 Rorschach variables indicative of patient's ability to manage stress, perceive reality in conventional modes, modulate affective experience, adaptively utilize ideation, be self-reflected, and represent interpersonal relationships.

Results indicated that 24 of the 27 variables were significantly improved for patients in the long-term dynamic therapy, demonstrating progressive improvements at each testing through termination. Short-term patients also made significant improvement but to a lesser extent than patients in psychodynamic treatments. In a similar study Exner and a colleague replicated the first study with 70 patients, 35 in long-term treatment and 35 in brief therapy. The researchers added a fourth testing after termination. They found similar results with one major exception—improvements for patients in long-term treatments were more likely to be sustained, whereas short-term patients did not sustain improvements at follow-up.

In one of the most in-depth and extensive studies of intrapsychic change (involving 90 psychiatric inpatients with serious disturbances. Sidney Blatt and Richard Ford examined the nature of intrapsychic and behavioral change across all patients, while simultaneously assessing differential change in two distinct groups. At 1 year into treatment, the researchers found that the patients as a whole had made significant improvement in externally validated real-world behaviors such as social behavior and symptom expression (assessed from hospital case records). In terms of structural change measured by the Rorschach, they found statistically significant decreases in the degree of thought disorder, with the clearest improvements in the most serious forms of thought disorder frequently found among patients with psychotic disorders. Patients also demonstrated a greater capacity to engage adaptive fantasy and demonstrated a significant improvement in the quality of object representations, both in terms of decrease in their expectations of malevolent interactions and their ability to represent objects as separate and more autonomous.

Blatt and Ford then assessed the possibility that psychodynamic treatment might affect patterns of intrapsychic functioning in different ways depending on the patient's character structure. Blatt and his research group at Yale University had earlier distilled two essential developmental trajectories corresponding to two global character styles, the anaclitic and introjective.

The anaclitic character's actions are organized around defending against vulnerabilities to disruptions in need-gratifying interpersonal relationships. Anaclitic patients are highly dependent people who often experience somatic symptoms and seek solace and care from others including physicians and therapists. By contrast, the introjective character is focused primarily on issues of self-definition, autonomous identity, and self-esteem. Introjective characters often eschew dependent longings for fear they will disrupt efforts to secure autonomy and clarity of identity.

When patients were divided along anaclitic and introjective lines, interesting results emerged. For patients primarily concerned with maintaining need-gratifying relationships, changes were noted in moving from experiencing relationships as malevolent, controlling and fused, to more benign and differentiated. This structural change corresponded to the anaclitic patients' improved social competence and motivation for treatment. For patients with introjective character organizations, the greatest change occurred in decreased thought disorder on the Rorschach, with a corresponding improvement in clinician's assessment of symptoms—most notably, introjective patients demonstrated significant decreases in psychotic symptoms with corresponding improvement in affect modulation. Blatt and Ford's findings support decades of clinical case reports demonstrating that structural change occurs in specific arenas of functioning most related to the patient's psychopathology. An equally, if not more important finding is the fact that psychiatric patients with severe disturbances appear to benefit from intensive psychodynamic treatment. Finally, they demonstrate the way in which projective techniques can be sensitive to subtle changes in patients' intrapsychic processes and can be quantified to study treatment outcome for large groups of patients.

IV. SUMMARY

This article reported on the evidence for specific uses of projective tests in developing an accurate portrait of a patient's personality—their frailties and strengths. The diagnostic facet of projective testing can be integrated into treatment recommendations for specific patients to help the therapist develop a working model of the patient's functioning and to help predict potential transference developments. The scientific status of projective testing was considered in light of recent comparisons between the Rorschach in predicting treatment outcome and the ability of medical diagnostic tests in predicting the development of disorders such as cardiac disease. Finally, the use of projective testing to monitor intrapsychic change illuminates the current and potential uses of projective testing in measuring treatment outcome.

See Also the Following Articles

Behavioral Assessment ■ Manualized Behavior Therapy ■ Neuropsychological Assessment ■ Object Relations Psychotherapy ■ Single Case Methods and Evaluation

Further Reading

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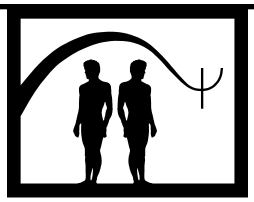

Psychoanalysis and Psychoanalytic Psychotherapy: Technique

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GLOSSARY

abstinence The refrain of the therapist/analyst from gratifying the patient's wishes.

adaptational perspective The perspective that addresses the patient's attempts to adjust and compromise with external reality.

clarification A technical intervention on the analyst's part asking the patient to consider the unconscious intentions of the patient's communications.

confrontation The technical intervention on the part of the analyst in which the analyst brings to the patient's awareness some aspects of feelings, thoughts, or context of which the patient has been unaware.

countertransference The experience of transference by analysts and therapists.

free association The technical instruction from the analyst for the patient to say anything that comes to mind, and to suspend the usual effort to think clearly and coherently and to pass judgement on the appropriateness of the idea.

freely hovering attention A mode of functioning and listening on the part of the analyst in which the analyst is sensitive to symbolic metaphorical communications, and listens in a creative, imaginative frame of mind, attempting to discern the underlying unconscious intentions of the patient's communication.

freely hovering role responsiveness The manner in which the analyst participates in the psychoanalysis, allowing himself or herself to experience the transference, as well as countertransference, forces at play in the relationship.

historical perspective The perspective of psychoanalytic thought that emphasizes the influence of past history on present behavior.

interpretation A technical intervention in which the analyst attempts to assist the patient to understand exactly how and why he thinks, feels, and behaves as he does.

neutrality The stance which the analyst/therapist takes in which he or she does not express personal preferences to the patient and does not ally himself or herself with important dimensions of the patient's conflict.

psychodynamic perspective The emphasis in psychoanalytic theory demonstrating conflict and compromise among various psychological structures to create new behaviors, symptoms, and psychological structures, such as wishes and fantasies.

structural perspective A psychoanalytic view that describes the components of the mind, emphasizing the specific functions and tasks of these components.

topographical perspective A psychoanalytic perspective that emphasizes there are two qualities of mental activity, conscious and unconscious.

transference The tendency to unwittingly construct and create, through an active but unconscious process, the pattern

of imagined and real past relationships with an important person.

I. THE TALKING CURE

Psychoanalysis and psychoanalytic psychotherapy are often referred to as the talking cures. That term emphasizes that psychoanalysts help patients by talking with them and that a conversation is central to what heals the patient. However, although the term *talking cure* captures something very special about psychoanalysis, it is misleading. It fails to stress that at the core of what heals is the relationship between the analyst and the patient, and that their conversation is the way the aspects of that relationship are formed and expressed.

A. Basic Assumptions

An examination of the basic assumptions underlying psychoanalysis and psychoanalytic therapy will further clarify what has just been emphasized. In the past various groups of analysts have come together in more or less official schools, groupings that emphasize somewhat different theoretical perspectives. Today, there is an emphasis on harmonizing those groups, and finding the common ground in the basic assumptions they share. In a recent article, Donna Kline and Stephen Sonnenberg suggested that four basic assumptions were useful in describing contemporary psychoanalysis. These are (1) that the analyst is experienced by the patient as having characteristics of important people from the patient's past, (2) that the patient's actions in and outside the analysis repeat patterns from the patient's past, (3) that some mental activity of all people takes place outside of consciousness, and (4) that people have a wish to understand themselves, to know, and that what is known can lead to changes in the way they think, feel, and act.

It is very important that the analyst is experienced as having characteristics of people from the past. The technical term for this is *transference,* and because it occurs in the relationship between the patient and the analyst, that relationship becomes a living experiment in which the influence of the patient's past on the patient's present life can be explored.

Past patterns are repeated in the present that provide another component of the transference, again making possible an exploration of the effect of the past on the present.

The idea that some portion of mental activity takes place outside consciousness is also of vital importance in psychoanalysis. Certainly, it is that idea which was central when Freud invented psychoanalysis as a method of personal inquiry and healing: Freud reasoned that when an unconscious idea became conscious it could be examined, and if it was unreasonable, placed in a new perspective. For example, consider a person has a powerful unconscious wish to put a business competitor out of business and fails at his own business out of unconscious guilt over that unconscious wish. When the wish becomes conscious the individual in question can thoughtfully decide to abandon the idea/wish, or perhaps to follow through and develop a business plan that is acceptable and does not cause him second thoughts.

The desire to know is an assumption of psychoanalysis that has not always been sufficiently emphasized. If one pauses and gives serious thought to this matter, one must marvel at the human capacity to question and seek answers. Indeed, were it not for that capacity, one might realize there would be no field of psychoanalysis, no discipline that has at its purpose the illumination of the mysteries of what goes on in the human mind.

A corollary of this assumption is that the wish to know allows the patient and the analyst to come together in an alliance, sometimes called a working alliance, sometimes called a therapeutic alliance. It is certainly the case that a journey of deep self-inquiry will have many rough spots, many difficult times, and it is because the patient and the analyst are joined in a mutual commitment to knowing, to learning, that they can form a relationship in which they examine together often emotionally painful aspects of the patient's life. Put another way, it is the mutual wish to know that binds the patient and the analyst together in a relationship in which they both tolerate the frustration and sometimes painful challenge of the analytic journey.

II. ANALYSIS AS A DRAMA

Another useful metaphor in understanding the technique of psychoanalysis and psychoanalytic psychotherapy is that of a dramatic performance. In the treatment relationship the patient is asked to write a play about his life, and to act many of the roles in that play in his relationship with the analyst. For her part, the analyst is asked to give herself over to the playwright patient and psychologically assume various roles assigned by the patient in the course of their analytic relationship. This vivid process is described by

psychoanalysts when they use the technical terms transference and countertransference.

A. The Transference

This term has already been introduced. The reason to discuss this term further in this section is to emphasize that it is the analyst's responsibility to teach the patient that the creation of the transference—the pattern of past relationships with an important figure—derives from the patient. Most often, the patient "creates" the transference out of an active, though unconscious, aspect of repeating a past experience. At times, this has been thought of as part of the wish to correct the past, but this is not a necessary part of the concept of transference. Rather, the pattern of interpersonal relationships laid down by early experience in our biopsychosocial world may give us few options of choice unless we become aware of our patterns of behavior. When the analyst helps the patient understand consciously this old pattern that is awakened (and is creating a drama driven by past experiences rather than present ones), the analyst helps the patient understand his contribution to the present conflict and for the life he lives.

Analysts are trained to both experience and observe the drama the patient constructs in words in the analytic consulting room. The analyst imagines herself in the world the patient creates, places herself in her imagination in the roles the patient describes for those with whom he interacts, and recognizes how in subtle ways similar patterns are created by the patient in the interactions with the analyst or therapist. The products of those reflections by the analyst are the various ideas the analyst conveys to the patient.

To illustrate this point, imagine a patient who feels helpless in all situations with authority figures. The patient will regard the analyst/therapist as an authority figure. The analyst will feel that role assigned to her, and that feeling will help the analyst understand the helplessness the patient feels.

B. The Countertransference

Psychoanalysis is neither an intellectual exercise nor a spectator sport. In the analytic relationship both the analyst and the patient experience the patient's life in an active, vivid way. In that spirit, psychoanalysts have stated that in their professional relationships with their patients they are participant observers, not simply outside observers. Therefore, analysts and therapists also experience transference—called countertransference—to the patient when the patient reminds the analyst of an important figure from the past. The analyst's awareness and attention to countertransference permits the analyst/therapist to have a fuller appreciation of the drama of the patient's life. The analyst does not act on the countertransference but rather uses her awareness of these feelings as further information to inform the understanding of the patient's world.

C. Abstinence and Neutrality: The Design of the Therapeutic Encounter

The analyst is restrained in interaction with the patient to words designed to help the patient learn about himself. In that spirit, the analyst strives to create an environment in which the patient feels safe to experience a part of the drama of his life and be able to observe it in this subtle form. This requires that the patient not be burdened with worry about the realities of the analyst's life, values, or ideas about living. The analyst maintains neutrality, does not express personal preferences to the patient, and provides limited information about his or her own life. A corollary of this is that the analyst maintains anonymity, thereby protecting the patient from knowledge of the analyst's personal style and values. The term abstinence refers to the fact that the analyst avoids gratifying the patient's wishes, whatever those might be—praise or punishment—direction or to be left alone. The analyst's task is to understand and to convey the patterns of interpersonal relating that emerge and reflect the past experience of the patient. This occurs in part because the analyst does not praise or punish or in general fulfill the unspoken wishes of the patient. When the patient's wishes remain unfulfilled, they are felt as obstacles by the patient and become available for examination. The concept of abstinence shares a common border with the concepts of neutrality and anonymity. As a group, these aspects of the analyst's behavior might usefully be seen as the way the analyst provides the context in which the patient can both experience and examine the interpersonal drama of his life and its past origins.

III. CORE TECHNICAL CONCEPTS

Four technical concepts of psychoanalysis and psychoanalytic psychotherapy are important to therapeutic process: free association, the metaphors in the

patient's words, freely hovering attention as a mode of analytic listening, and freely hovering role responsiveness as a mode of establishing the countertransference during analytic listening.

A. Free Association

Psychoanalysts have observed that when people think and say what comes to mind their thoughts reveal a layering. On the topmost layer is rational thought, the kind of thinking that takes place when one performs an intellectual task or has a conversation about a particular topic. However, buried in that conscious rational verbal exchange and thinking are the hints of a parallel layer of thought that occurs simultaneously, outside conscious awareness. In this form of thinking, different rules apply. For example, many different things may be represented by a single symbol, a process sometimes described as condensation, sometimes described as symbolization. We see this same logic in other areas—such as a rebus in which a clock with wings represents "time flies," or when one recalls a vacation at the beach in childhood as a way to remember an entire year of one's life that may include many important but not yet recalled events.

Thus, when the psychoanalyst or psychodynamic psychotherapist listens to her patient, she first instructs the patient to say anything that comes to mind, to suspend the usual effort to think clearly and make sense. When the patient is able to do that, and it is not easy, the unconscious layer of thinking is more apparent, symbols are more apparent, and the analyst can hear somewhat more directly what goes on in the patient's mind outside usual awareness. In fact, this process of free association is always relative and only really becomes free as the patient resolves the conflicts that are the source of his or her pain.

B. The Focus on Metaphor

This core technical concept dovetails with free association. The psychoanalyst believes he or she can best help the patient if the analyst can equip the patient to examine his thoughts, recognize the clues to what is unconscious, examine the unconscious layer of mental activity, and determine how such thinking influences current behavior. Therefore, it is essential for the analyst to listen for the symbolic meaning in what the patient says.

For example, let us imagine that just as thoughts of dogs outside of conscious awareness may represent all four-legged animals, all similarly considered children who want love and praise may represent all adults who feel starved for love and praise. Let us also suppose that the patient in treatment is one such adult. When asked to free associate the patient may return repeatedly, in many forms, to the subject of children who need love and praise. Suppose also that the patient is a pediatrician who gives lectures to parents about the need of children for parental love and praise. Eventually, through noting when and in what context these associations occur, the patient's hints and verbal symbols about children and their need for parental love may be understood as the patient talking about his own need for love and praise when speaking of the children.

The analysis of dreams is a part of psychoanalysis and psychoanalytic psychotherapy. Dreams have been called the royal road to the unconscious, and certainly they often occupy an important place in a clinical psychoanalytic treatment. Dreams are used in the same way as free associations—a source of material to free associate to, as the patient and analyst/therapist listen for the unconscious concerns of the present and the forgotten links to the past. The analyst listens to the patient describe a dream in a search for symbols and for metaphor to educate the patient and facilitate an understanding of the meaning of the thoughts and the way of thinking, and an appreciation of all the mental activity which is outside conscious awareness.

C. Freely Hovering Attention as a Mode of Analytic Listening

As the analyst/therapist listens to the patient's free associations, he or she listens for the patient's unconscious mental activity. In this listening, the analyst is sensitive to the symbolic communications of the patient. This is not a process that is easy, nor ever automatic, no matter how well an analyst/therapist knows the patient. The analyst listens in a creative, imaginative frame of mind, in which layering of meaning and symbols become vivid experiences for the analyst. The analyst has as background the many previous topics that have been discussed by the patient and the context of these and of the present and past life of the patient.

For example, as the patient describes a needy child, the freely hovering analyst may note that a mental image of such a child has come to mind, and that image may change in the analyst's mind's eye into an imaginary mental image of the patient as a young child. The analyst/therapist continues to listen, now no longer freely hovering, but rather reasoning that perhaps the image is related to a subtle communication from the

patient—how the patient phrased something or the empathy in the patient's associations. The analyst then wonders if he or she should ask the patient if he is talking about himself. If the patient responds in the affirmative, a piece of analytic information has been generated, and the patient has shared an experience of making the unconscious conscious.

D. Freely Hovering Role Responsiveness

Much that the analyst learns about the patient comes from being a participant observer in the analytic relationship. Imagine, then, that along with imagining the patient as a needy child, the analyst began to recognize the patient's subtle but demanding requests that the analyst praise him. That request by the patient and experience by the analyst could come in relatively hidden ways. For example, the pediatrician patient, despite having other alternatives, may ask his analyst to change the times of several hours because he must attend several national professional meetings, at which he has been asked to speak about the emotional needs of children. He may say to the analyst that he is available to meet at times he knows are not the usual working hours. For her part, the analyst may sense with great force the patient's request/demand for special treatment, as part of the recognition of what an outstanding pediatrician he is. The analyst practicing abstinence, neutrality, and anonymity, and using a freely hovering role responsiveness that has thus identified an unconscious meaning in this request, will be able to convey to the patient the particular meaning of the patient's associations and actions within the analytic relationship and wonder if the patient is alert to these feelings and wishes. With appropriate analytic inquiry on the part of the analyst, and a willingness to explore his desires on the patient's part, further insight will be gained by the patient of what he originally thought was only a "practical" request.

IV. CORE INTERVENTIONS

A critical part of an understanding of the technique of psychoanalysis and psychoanalytic psychotherapy includes how the therapist speaks to the patient. While the psychoanalyst listens to the wishes and feelings of the patient that are both conscious and out of awareness in order to have a deep understanding of the patient as another human being, the setting of that listening is specifically restrained. In addition, the ways of speaking to the patient are designed to effect change in specific ways. In sum, the analyst tries to speak in a way that enhances the patient's awareness of his own unconscious processes, and more generally of how his mind works, so that the patient can learn to practice effective introspection on his own. There are three technical ways the analyst speaks to the patient that are designed to enhance the capacity for insight: confrontation, clarification, and. interpretation.

A. Confrontation

At times in psychoanalysis, the analyst confronts the patient with information or observations. The term confrontation in this context does not mean a hostile exchange between analyst and patient, but bringing to the patient's awareness some aspect of feelings, thoughts, or context that the patient is not aware of. In keeping with the notion of the therapeutic alliance, the analyst attempts at all times to create a safe atmosphere in which the analysis will take place. This will be described in more detail later. Nevertheless, it is often the case that the analyst points out, in a kind way, that the expectations or ideas of the patient are quite different from what the patient realizes them to be.

For example, returning to our dedicated pediatrician, suppose he asked his analyst to see him on Saturdays, which she normally took off, and when she refused, said he was going to quit his analysis because she obviously did not care about him. In that instance, the analyst would appropriately point out to the patient that he was assuming that she could see him on Saturday and simply chose not to, and that on the basis of that unproven assumption was ready to stop a much needed treatment. This example, by the way, is common; there are many similar instances in which individuals desperately needing psychological help quit treatment without realizing that their actions are being guided by one of the problems for which they are seeking treatment. Thus, the analyst must be prepared to vigorously confront the patient, when necessary.

B. Clarification

There are other times when the analyst must ask the patient to clarify what he has said, or speak to the patient in a way that offers clarification from the analyst's viewpoint. Again, returning to our pediatrician, he might ask his analyst to give up her day off in a way so subtle that he unconsciously hopes she will not recognize that the request comes from him. Unconsciously,

he desires her to feel spontaneously that she should offer to see him on Saturday. Consciously, he may be aware of none of this; not even that he has made an actual request of this kind. Here is a situation in which the patient requires clarification, rather than confrontation. The clarification may involve the analyst asking the patient to consider, in a thoughtful way, what he has said and to wonder if there may have been a subtle request, or a veiled threat if the wished-for offer was not spontaneously forthcoming from the analyst. Alternatively, the clarification may involve the analyst making such an observation to the patient.

C. Interpretation

Often interpretation is seen by analysts as the crown jewel of the methods available to help patients think more effectively about themselves. Interpretation involves telling patients in a convincing way that there is an unconscious process at work in their thinking and, in a complete interpretation, explaining exactly why and how that unconscious process works. In the example we are using, it might involve the analyst telling her patient that he requested sessions on her day off because he wanted to know that she loved and admired him, and that this was a strong desire of his for certain specific reasons that she would elaborate related to specific childhood experiences and needs which she would describe in detail. It is the addition of the developmental explanation of the feelings, wishes, and hopes that makes an interpretation a linking the past with the present in a convincing manner.

Interpretations are designed to help the patient understand exactly how and why he thinks, feels, and behaves as he does, but it is incorrect to think that they are more important than confrontations and clarifications. These three methods of communication are used throughout an analysis, and it is the judicious use of all three modes of communication that is an important skill of the clinical psychoanalyst.

V. PSYCHOANALYTIC PERSPECTIVES ON THE MIND

Psychoanalysis works by enhancing the patient's ability to examine the workings of his mind, especially workings that were previously unconscious. Put another way, psychoanalysis is a method of making the unconscious conscious or what is out of awareness available for the patient to consider and include in decisions and choices. However, there are several perspectives that psychoanalysts use in observing their patients, organizing their ideas about their patients, and which they try to convey to their patients in the belief that these perspectives will help them practice effective introspection during psychoanalysis and afterward on their own. These perspectives include the topographic, the structural, the historical, the psychodynamic, and the adaptational. These are, in effect, the smaller units into which the working of the mind can be divided. By understanding these, the patient has additional tools for introspection.

A. The Topographic Perspective

The topographic perspective emphasizes that there are two qualities of mental activity—conscious and unconscious. Much mental activity, increasingly supported by neurosciences of brain function, takes place outside conscious awareness. Forces pushing thoughts out of awareness appear to be always at work.

B. The Structural Perspective

The structural perspective describes the components of the mind, each of which has specific functions and performs certain tasks. Of course, these components do not really exist but rather are a way to group conceptually certain types of thinking and cognitive processes. For example, Freud described three components, or "structures" in the mind—the ego, the id, and the superego. Roughly, the first is where we do most of our thinking, the second where we do our wishing, and the third where our conscience and goals reside. Knowledge about these systems helps the clinician think more clearly about the patient. In addition, when understood in the specifics of one's life, it can help the patient think more clearly about himself.

Returning to our pediatrician, it is obvious that at the time he is asking his analyst to give up her Saturdays, there are desires (that we consider part of the id) that are very powerful, and ways of thinking (ego functions) that may allow him to implement his desire without it coming into full awareness. The knowledge that he has a mind that performs these different functions simultaneously can be helpful to this analytic patient.

C. The Historical Perspective

The historical perspective focuses on the aspects of mental function that show the influence of past history on present behavior and our attempts to resolve our conflicts and choices. This perspective, also, can be

very helpful for the patient as one of the tools of introspection. It is essential that the analyst teach the patient to appreciate the ongoing nature of transference, and that transference takes place not only within the analysis, but in life outside the treatment setting. When the patient understands the ubiquitous nature of transference and the influence of the past and its important interpersonal relations, he has a perspective that will consistently enhance self-analysis.

D. The Psychodynamic Perspective

The psychodynamic perspective involves an appreciation of the conflicts we experience in our mental life and their path to compromise. From the psychoanalytic view, this means the way the different psychic agencies (structures) clash throughout mental life, and as a result, how much mental activity remains outside conscious awareness. For example, the dynamic perspective traces the evolution and alteration of a wish, a desire, or a hope from childhood and adulthood into being kept unconscious, molded by the ego into a compromise, and subjected to the judgment of the conscience. Returning for a moment to our pediatrician—the patient, thinking dynamically, recognizes his wish to be loved and his anger when love is not available. He recognizes his wish to threaten the person who does not bestow the love he wants, his compromise of lecturing on the need for love by others (young children), and that such lecturing brings him a loved feeling. In addition, he has come to realize that this process was previously outside awareness because such ignorance was more comfortable than knowing. With a new awareness of this complex set of feelings, thoughts, motives, and actions related to problems going back to childhood, the pediatrician may feel empowered to give up the wishes of childhood. The pediatrician recognizes that his previous frustration is replaced with a mature awareness that the disappointments of childhood no longer have the powerful impact they had when he was dependent on his parents for everything at the age of five.

E. The Adaptational Perspective

The adaptational perspective emphasizes how our feelings, thoughts, and behaviors are an adaptation, an adjustment and compromise with what was possible. This is important to the patient because it puts in context the patient's psychological strengths, his assets, and the reality of the world of the past and the present. Indeed, whatever compromises have been made throughout a person's development, part of the reason for them is that they have certain adaptational advantages. To avoid throwing out the baby with the bath water, it is crucial for the patient to have an enduring appreciation of how he came to be, what he was before psychoanalysis, and how he can and should retain the best of himself throughout the process. This includes an appreciation of the strengths of his personality structure, and the useful ways he has learned to use his thoughts and his feelings.

VI. HOW DO PSYCHOANALYSIS AND PSYCHOANALYTIC PSYCHOTHERAPY WORK?

Much has been written about the therapeutic action of these treatments. The goals of treatments include resolution of symptoms but, even more important, an enhanced maturity and ability to introspect and analyze one's mental conflicts on one's own after treatment. An enhanced maturity is indicated by more intimate, responsible, committed relationships. A more effective capacity to engage in self-analysis provides the patient with a tool for the future. Life is not static; human development involves ever new challenges. An effectively psychoanalyzed individual has developed the autonomous capacity to engage in productive self-reflection. What has occurred during a psychoanalysis, as a result of the techniques described, that promotes such personal maturation and self-reflection? These broad goals are reached through the patients obtaining:

1. A working understanding of his history, his psychodynamics, and his adaptational skills.
2. A mind now much more aware of itself than before. His unconscious mental processes are much more accessible to consciousness and, therefore, much more manageable.
3. A set of new and rearranged psychic structures, including an autonomous self-analytic, self-observing function, and a conscience that is both reasonable and appropriate.

VII. THE THERAPEUTIC ACTION OF PSYCHOANALYSIS AND PSYCHOANALYTIC PSYCHOTHERAPY

We have already established that analysis works because it is a relationship in which there is a process of

examination, and that, during that process of examination, the patient changes in many ways. Analysts use the term working through to describe this. The process often takes several years. However, more recently, brief forms of psychodynamic psychotherapy have been introduced that are more focused, often to a single conflict-defense pattern, and rely much more on the patient's ability to carry on significant work after the treatment. For psychoanalysis, many analysts believe that at the start the patient needs to experience the examination as open ended. In this way, the patient is less able to use a special end point as a safe harbor, a place to which he can travel with the belief that once there he will be spared the difficult task of profound introspection. When the open ended treatment is not available, the therapist's and analyst's work must be even more alert to the patient's defensive choice of endings of the treatment or a protective definition of successful outcome.

The relationship with a psychoanalyst and a psychoanalytic therapist is unique in the modern world. Where else in adult life does someone listen to another person with such attention and concern? Such an environment provides the patient with what has been called a corrective emotional experience, an experience of being understood, accepted, held in a safe place, protected by someone with whom the patient can actually share his pain, his worries, his fears. This last activity is known as the analyst's containing function. Good parents of young children perform such a function. It is rarely available outside very close, loving relationships in adult life. Indeed, because most patients who seek analysis have trouble forming such close, loving relationships, the uniqueness to the patient of the analytic situation is evident.

Many analysts believe that the provision of such a safe and understanding environment provides the patient with such a new experience that the memories of the analyst's many functions and interactions can become the organizing psychological force behind the creation of a new psychic structure in the patient. As such, it can be an important, new idea in the patient's mind about what is possible in a human relationship. This new structure in turn permits the patient to develop a new structure of his self, a part of his mind in which his sense of himself is different than it was before. This new self is capable of the many psychological changes and behaviors described in this article because of psychoanalytic treatment. This self structure exists in a new and stable equilibrium, capable of loving itself and others, and working hard to do a good job in a wide range of life activities. In this new structure there are also new and old memories of others, memories that are now also stable, enduring, and either pleasing or relatively tolerable to the patient.

See Also the Following Articles

Confrontation ■ Free Association ■ Interpretation ■ Psychoanalytic Psychotherapy and Psychoanalysis, Overview ■ Research in Psychotherapy ■ Therapeutic Factors ■ Transference ■ Unconscious, The ■ Working Alliance

Further Reading

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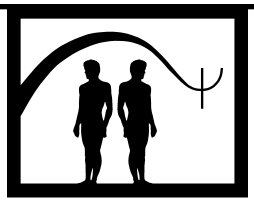

Psychoanalytic Psychotherapy and Psychoanalysis, Overview

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GLOSSARY

analyze To make conscious and to describe the structure, relationships, meanings, significance, and origins of mental phenomena, especially emotional representations.

associations Experiences that come to mind, including memories and fantasies, that link emotionally to the topic under discussion. That topic may be a symptom or a pathological character trait.

cognitive A word for conscious thinking.

cognitive-behavioral therapy The use of conscious focus and will to overcome mental symptoms. The focus is on behavior and conscious thinking.

compromise formation A term used to refer to the result of conflicting forces. The compromise result may be a symptom or personality trait. A compromise formation may also be nonpathological. The difference is whether or not the compromise is adaptive to both the outer world and inner wishes and fears.

conflict The experience of opposed emotional forces causing anxiety and generating symptoms and pathological personality traits.

implicit memory Memory of aspects of experience inherent in, but not obviously part of, the content of events. Usually nonverbal and unconscious.

induction phase of psychoanalysis The first phase of psychoanalysis in which patients are engaging with the treatment process and emotional aspects of their own history start to emerge. The transference relationship to the analyst begins. The focus is on interpretation of resistances to the treatment process and to the transference.

mental representations The content and organization of mental experience. The term refers especially to self and object representations. Psychoanalysis is particularly interested in affect representations.

mental structure The relatively stable and lasting organizations of mental contents and functions.

middle phase of psychoanalytic treatment The phase of treatment when the patient's unconscious dynamic psychology unfolds in consciousness, the transference intensifies and focuses in a transference neurosis, and when interpretation of unconscious conflict and the working through of better compromises is occurring.

neurocognitive rehabilitation A method of teaching education techniques for learning to patients with neurological difficulties in learning.

neurotic A level of intensity of mental illness in which reality testing and emotional control are present.

parameters Noninterpretive techniques in psychoanalysis.

personality Characteristic attitudes and behavioral reaction patterns based on temperament and experience.

personality defenses Personality traits that are used to protect the conscious mind from painful mental experiences.

procedural memory The memory of processes that organize events. A type of implicit memory. Usually unconscious.

procedural rules The rules of organization and use of mental experience.

psychoanalysis A talking treatment method for eliciting and understanding the psychology of unconscious emotional experiences and representations. The method reveals the unconscious structures that organize emotional experience. The word also refers to a theory of human emotional development.

psychoanalytic psychotherapy A talking treatment method of less intensity than psychoanalysis. Usually conducted with the patient sitting up and facing the analyst, the treatment occurs one or two times a week. The goals are less ambitious. The objectives are more limited and focused. The treatment involves many different interventions, not just interpretation of conflict.

psychoanalytic treatment An intensive talking treatment method to understand the emotional conflicts in mental symptoms and personality. The patient lies on a couch with the analyst behind and is seen four or five times per week. The focus of treatment is especially on the emotional relationship with the analyst.

psychopharmacological treatment The use of medications to affect mental illness.

symbolization The representation of mental experience, particularly affect experience, that involve one image or element to refer to and express emotional meaning.

temperament Inborn reaction propensities composed of stimulus sensitivity, latency time, intensity of response, and dominant affect elicited.

termination phase The last phase of psychoanalysis. The transference neurosis resolves. Shifts in personality function and symptom improvement are consolidated. The psychoanalytic process itself is internalized.

transference The transfer of feelings about childhood relationships onto the experience of the relationship with the analyst.

unconscious Mental experiences, particularly emotional experiences, of which a person is not aware.

working through The process of applying insights from psychoanalysis to many different areas and to the working out of new compromise formations.

I. INTRODUCTION

Psychoanalysis is a theory and a method for understanding the development and functions of human psychology, especially the emotions. Psychoanalysis is a theory of human emotional development based on observations and treatment for emotional illness. Psychoanalysis and psychoanalytic therapy are talking treatments in which a person's psychology is explored in order to help the person master emotional conflicts. These conflicts are manifested in mental symptoms, in troubled relationships with others, in work, in love inhibitions and disruptions, in unhappiness, and in poor self-esteem. Through a detailed description of what troubles a person, and all the associations this brings to mind, the elaborate complexity of how the person's mind functions is brought to consciousness.

Psychoanalysis is based on the concept of unconscious mental representations that are built up from childhood. These mental representations of self and others include intense and conflicted emotions. The conflicted emotions involve wishes, associated fears, and attitudes that organize compromises among them. These representations are influenced both by temperament and experience. The representations are linked by association mainly of affect. They are mediated by and encompass the various groups of mental functions. They can be made conscious in an affect-stimulating relationship and changed if they can then be consciously observed and thereby better synthesized in more adaptive ways. The psychoanalyst achieves this goal by becoming the focus of and then analyzing the patient's projections of mental representations and attitudes.

Mental representations and attitudes include conflicted emotions. Emotional conflicts involve simultaneous wishes and fears. An example is envious hatred of, and longing feelings of love for, the same person, or the same type of relationship. The compromise might be avoiding love and having unhappy, longing feelings. If a compromise of distant love is rigid and fixed, the patient's love life will be lonely, sad, and unrequited. Psychoanalysis, tries to understand the conflict and its defensive avoidance so thoroughly that the patient can understand and achieve a new and better compromise that involves an intimate relationship.

The idea that we are not aware of all our feelings, of all the conflicts in our feelings, of the ways we defend against them, and the ways we compromise those feelings in our minds and in our everyday lives, or the rules that organize those compromises, was first thoroughly researched and systematized by Sigmund Freud. He discovered the rules of organization of emotional life in the late 19th century when the physical sciences were beginning to discover the rules of organization of physical matter. Freud's initial training was in physical science and neurology and he brought that intellectual

approach to his study of human psychology and the unconscious.

II. GOALS AND OBJECTIVES OF PSYCHOANALYTIC TREATMENT

The goal of psychoanalysis is the relief of mental symptoms and life stalemates through understanding the contributing conflicted emotional forces involved. The objective is a shift in the compromises of those forces so that symptoms ease, psychological development renews, and life growth progresses. The specific objectives will depend on the particular categories of symptoms and behaviors in each case.

III. INDICATIONS AND CONTRAINDICATIONS

The indications for psychoanalysis are quite broad. Although classically limited to neurotic symptoms and personality disorders, the modern practitioner may attempt this method with a much broader spectrum of patients, either alone or in combination with other treatments.

The majority of patients in psychoanalysis have neurotic symptoms and neurotic personalty disorders. Psychoanalysis is particularly indicated for personality disorders because the illness affects almost all areas of interpersonal functioning and requires a model relationship to use as an example. The doctor–patient relationship in the psychoanalytic setting becomes that model.

Central to the treatment is the analysis of symptoms and of personality defenses. Symptoms are repetitive mental experiences the patient finds unpleasant. Personality defenses are attitudes the person experiences as part of themself, justified and valuable, which are used to protect the person, but at a price. Both symptoms and maladaptive personality traits are stable, psychological structures that encode conflicted feelings and responses from years of emotional feelings. These structures are associated with the memories they originated with and are partly in response to. They therefore encode the developmental history of the emotional life. Their structures involve the symbolization of emotional conflicts in symptoms and in attitudes.

Patients with neurotic symptoms and personality problems have their cognitive and emotional control functions intact. They are therefore able to understand and use a psychological treatment to gain conscious insight into the emotional forces at work in their problems. They have the capacity to apply this information to many different related areas. With insight, they can construct new compromises for the warring emotional forces so that the symptoms and personality traits that are the pathological compromises can change.

However, sicker patients are more and more being treated by this method in conjunction with medications, other treatments, and nonpsychoanalytic technique mixed with psychoanalytic technique. These parameters of treatment are aimed at strengthening cognitive and emotional control functions damaged by severe psychiatric illness. The sickest patients alter their view of reality to fit their conflicted emotional states. These patients cannot function well in psychoanalysis, and may even get worse, unless medications and other parameters of treatment are used. Such combinations can be highly successful.

The major contraindications for psychoanalytic treatment are, therefore, patients who have severe cognitive–integrative function disorders, patients who have extreme emotional control disorders, and patients whose reality testing is gone or severely limited. Of particular concern are those with emotional discontrol problems because they respond to intense emotion with disruptive actions or worsening emotional states. This is a problem in psychoanalysis because the technique is specifically geared to increase available affect for neurotic level patients, especially in the relationship with the therapist.

Relative contraindications are those patients who are not psychologically minded, or cannot use metaphor and meaning to generalize and apply to specific symptoms and concrete behavioral actions. Sometimes these functions can be rehabilitated or taught anew, making a psychological treatment possible.

IV. METHOD

The method of psychoanalysis has two components, the setting and the technique. The setting is an intensive psychotherapeutic setting where the patient is seen four or five times per week. The frequency of sessions is to achieve a persistence in focusing on pathological symptoms and actions and an intensity in the relationship to the analyst. This intensity is usually required for the conscious experience and analysis of unconscious emotional conflicts. The treatment lasts for a number of years, so that the deepest intensity and the deepest possible resolution of emotional conflict can be achieved.

The patient lies down on a couch with the analyst seated behind so that ordinary social interaction can recede and the patient's inner world of long-standing self and object relationships and attitudes can emerge. The frightening aggressive and loving fantasies that are organized in symptoms and personality attitudes can then be analyzed, and their earliest manifestations recovered in memory.

The method needs privacy and confidentiality. Because people are talking about their most intimate fears, wishes, and memories, the treatment cannot work unless the privacy of the analytic setting, and utmost confidentiality about any records of the treatment, is maintained. Breaches of this privacy and confidentiality barrier, whether casual or systematic, destroy the possibility of the treatment.

V. TECHNIQUE

The main technique of psychoanalysis is free association, in which the patient says whatever comes to mind about the symptoms and attitudes. Because associations are organized especially by affect-linked relationships, entering a free association pattern will reveal affect-organized self and object relationships. These patterns have a long developmental history beginning in early childhood. The free association method leads back to these early memories.

The free association method slowly discovers not only the content of thoughts, memories, and fantasies, and not only their historical antecedents in memory, but also their organizing procedural rules. Those procedural rules are crucial aspects of personality attitudes and form the basis of the experience of one's self and other people. The organizational rules of these emotional patterns may be stored in a special memory capacity that cognitive science calls procedural memory, a type of implicit memory. Psychoanalysis enters the procedural memory bank through the free association method.

By saying what comes to mind in free association, new historical information and/or new, previously unconscious, emotional attitudes to the life historical information become conscious. Crucial to this emerging story are the unconscious fantasies organizing attitudes and life history. Dreams and conscious fantasies are clues to this more unconscious material. More emotional and less factual dreams and fantasies show the surface of emotional conflicts, their historical associations, their present triggers, and their personality defenses more clearly. This allows for a more complete understanding of the life history, the emotional history, and their relationship. The influences on the development of the personality slowly become clear. Because of the intimacy of the setting, the intensity of the affect experiences, the pointing to resistances against associations and against the unfolding of affect experiences, the patient reexperiences the full force of affect associations, their memories, and their organizations.

The patient then has an emotional reaction to the listener. In this case, the listener is a psychoanalyst who can describe these reactions to the treatment and to the person of the analyst. These reactions are called transference reactions because they are transferred from formative relationship experiences in the past. When the analyst describes them in detail, the analyst is said to be analyzing the transference.

The transference is a crucial aspect of psychoanalytic technique because it gives the analyst a firsthand view of core emotional reactions in the patient. There is no other way to experience the specificity and the complexity of those emotional reactions because, being unconscious and composed of affect, the patient may not at first have descriptions in conscious language. The transference is the reason that the setting involves the supine position, frequent sessions, interpretation of resistance, and relative abstinence of the analyst. All of these techniques are to foster and catalyze an intense transference reaction that will reveal the deeper layers of personality.

The transference is different than the same old attitudes played out with other people in the patient's life for two reasons. The first reason is that the transference is usually clearer in its content and functions than interactions with people in the patient's present relationships because the associated conflicts become conscious. The second reason is that the conflicts are described in words. Language helps with new syntheses by reorganizing feelings into concepts. Logical sequence, cause and effect, and reality can now enter the new synthesis.

The technique of analyzing the transference allows for the slow emergence and better elaboration of the unconscious, and for understanding and integrating the new material that emerges. It is this emergence from the unconscious and from the past that allows more adaptive compromises in the present. This is what leads to more adaptive real-life relationships and to more emotional satisfaction. The unrealistic wishes, unrealistic fears, and resulting poorly adaptive compromises can now change. The more mature compromises form when patients are better able to see the unrealistic and impossible to satisfy nature of the previous conflicts

and unhappy compromises. New compromises also form because the fears lessen and therefore more of the previously unacceptable wishes can find their expression in new reaction patterns and new attitudes that are both more generous and more realistic. This does involve giving up some of the intensity and unrealistic focus of these wishes but because it also involves giving up uncomfortable, unrealistic fears, new compromises can form that can achieve greater emotional and real-life satisfaction.

Interpretation is another crucial technique. Interpretation is the description by the analyst of what is unconscious, what the conflicts are, what the compromises are, and how they are linked to symptoms and attitudes. Interpretation describes the emotional link between the past and the present. Particularly important is the interpretation of transference, of resistance to transference, and of free association.

VI. INDUCTION PHASE

The treatment can be divided for discussion into three overlapping phases. The first is the induction phase, during which patients are becoming comfortable with the treatment process, and are telling their life history and present illness or unhappy state. Engagement with the treatment process and emotional aspects of their own history start to deepen. The real attributes of the analyst fade from view and patient's fears and wishes about other people begin to be focused on the analyst. In order for this phase to progress and be completed successfully, the analyst must pay attention to, and descriptively analyze, resistances to the analytic process and to treatment. Resistances use personality defenses and therefore are a leading edge of the personality neurosis of the patient. Because this personality neurosis is a primary focus of the psychoanalytic treatment, the resistances elicited by the induction phase form the crucial beginning to the treatment.

VII. MIDDLE PHASE

The middle phase of treatment is when the emotional history starts to progressively unfold. The transference intensifies, consolidates, and focuses intensely on the psychoanalyst. This focusing of the transference on the analyst, and the intense involvement the patient has with that transference, is called the transference neurosis. The transference neurosis provides crucial data about the subtleties of conflicts and compromises basic to the person. The transference neurosis allows the analyst as well as the patient to experience these attitudes, to thereby better understand their contents and their organizations, and to better reconstruct both their origins and present functions.

When the transference neurosis is established, the analyst and the patient are witness to the patient's full range of unique, emotional, personality reactions in a setting where they can be consciously experienced and their elements, conflicts, and troublesome compromise manifestations understood and analyzed.

A defense is an unconscious mechanism that protects the conscious mind from unconscious, conflicted emotional experience. Symptoms express defenses. Aspects of personality function are defensive. Conflicted emotional experience would be even more disruptive and painful than the defense in symptoms or personality. As defenses are analyzed and unraveled, as their functions become more known and more conscious, the underlying, conflicted emotional experiences they protect against emerge more clearly. Because this process is gradual, because each step of uncovering is preceded by a new and more satisfying organization of compromise, the patient can tolerate the uncovering of the deeper layers. A patient's tolerance is one of the factors requiring a long and intense treatment. The analysis of defense and of underlying conflicts allows for the better resolution of unhappy, symptom-generating, and maladaptive attitudes. The conscious mind, seeing the structure and functions more clearly in the course of analysis, and seeing their first origins in childhood, is better able to bring an adult perspective to bear, shifting mental problems in the direction of reality and emotional adaptation in the direction of new, more adaptive, and more satisfying compromises.

The application of insights about emotional conflict applied over and over again to different situations and manifestations, so that new compromises can be applied in all areas of mental life, is called the process of working through. The middle phase of psychoanalysis involves many intense periods of working through as each aspect of conflict is understood, and the insights gained are applied.

Analysis of the transference neurosis and personality defense, and the working through of conflict form together the major and defining aspects of the work of the middle phase. Both the analysis of the transference neurosis and the working through process require constant analysis of resistance defenses against the work. This analysis of resistance and defense is what opens

up the character defenses in order to work them through to better compromises.

VIII. TERMINATION PHASE

The termination phase is the last phase and is also an intense period of the treatment. New data emerge making the life history and emotional history more complete, more understandable, and more useful. New compromises are applied to a range of life situations. Significant shifts in personality functioning and associated symptoms are consolidated. Conclusions to emotional stories and the transference neurosis are arrived at.

Crucial to this phase is the understanding of the full impact of the transference neurosis. In this phase, the analyst once again, as in the beginning, emerges more into the reality experience of the patient. The analyst is now seen more clearly as a person very separate from the projected attitudes and fantasies of the patient. This results in further conviction about the neurosis for the patient and further consolidation of the new, healthier compromises of personality conflict. During this phase, there is an internalizing of the psychoanalytic process itself, so that patients can continue understanding their mental life on their own. Patients are able to do some free association for themselves and to understand the central themes of their personality, dramatized in their fantasies and dreams. They can therefore figure out their new unhappy feelings and the reality triggers causing them, and plan to meet those reality challenges in ways that will be as satisfying as possible.

IX. CASE ILLUSTRATION

A 40-year-old man is in the perilous phase of fighting with his wife in a second marriage after a painful divorce ended his first. He is intensely unhappy and while he blames his second wife, as he did the first, it is he who is unhappy and it is he who cannot help but notice that the fight is the same one that ended his first marriage. He does not want the second one to end.

In consultation with a psychoanalyst, it is apparent in the first session that the same fight has gotten him into trouble at work and has retarded his career. The fight has something to do with who is in control. In analysis, this issue immediately affects his attitude to the analyst and he struggles over every issue, from time to money to the exact wording of interpretations by the analyst. Associations lead to a relationship with his mother in which there was a struggle over dominance. The relationship was filled with anger, recrimination, and humiliation. Years are spent untangling what seems to have been his mother, what seems to have been him, what seems to have been each one's reaction to the other, and how all this is played out now. He gradually comes to see that not every difference of opinion is a contemptuous judgment, not every variation is an attempt to humiliate, and not every suggestion is an attempt to control. He also comes to see that he is exactly like the mother he accuses. His personality gradually mellows, he becomes more flexible, and his career and marriage improve dramatically. Of added benefit is the great improvement in his relationship with his children, a benefit he had not expected because he never noticed it was also infected by his core issues. The transference to the analyst is quite stormy for the first few years and he berates and threatens the analyst with quitting treatment. Much careful confrontation, together with great tact and patience were required so that the analytic relationship could be useful to the patient.

X. TRAINING OF PRACTITIONERS

Becoming a psychoanalyst requires many years of training. The usual background for such a person is advanced training in one of the mental health fields and then psychonalytic training. In the United States, for many years physician psychiatrists dominated the field. In the past 20 years, Ph.D. psychologists have increasingly sought psychoanalytic training. More recently, clinical social workers and others have sought this training. Psychoanalytic training involves 4 to 5 years of classroom work, supervision of patients treated by the student, and a personal psychoanalysis. This intense course of study is necessary to learn the theory, practice the technique, and get enough self-analysis so that personality attitudes of the analyst do not interfere with the work. Another crucial advantage of personal psychoanalysis for the analyst is the ability to use emotional reactions to the patient as information about the patient, rather than only about the analyst. In this way, when one's own personality is well enough known, the analysts themselves can become, and can tolerate becoming, the vehicle of treatment. After many years of training and practice, psychoanalysts may undertake a formal certification process by the American Psychoanalytic Association if they are a graduate of the one of the institutes that comprise that association. On successful

completion, the analyst may call himself or herself a certified psychoanalyst.

XI. PSYCHOANALYTIC PSYCHOTHERAPY

Psychoanalytic psychotherapy is a modified form of psychoanalysis. Its goals are similar in that it tries to achieve relief from mental suffering through a careful understanding of mental functions and contents. Although the goal is the same, the objectives, setting, and technique vary. The objectives are more focused and limited, the setting is once or twice a week with the patient sitting up, and the technique may be very much more active on the part of the therapist.

The indications are generally the same as for psychoanalysis but because the sitting position and active interventions of the therapist often prevent an intense emotional regression, this type of therapy may be better suited to sicker patients whose integrative mental functions cannot yet tolerate a full analysis. In addition, the method may be used when very specific, time-limited objectives are needed by the patient and no personality reconstruction is necessary for those objectives. Some examples of this situation are difficulty in mourning a lost one, panic attacks or social anxiety as isolated symptoms in an otherwise high-functioning person, difficulty adapting to a difficult spouse or boss, or help in understanding a troubled relationship with a child. This kind of therapy is often used in conjunction with medication. Examples are the treatment of depression, panic attacks, or social anxiety situations. The combination is a potent one. The duration of such treatments are weeks to months to a few years. In some situations, generally because of constraints of time or money on the patient's part, such therapy can stretch on for years with the goal of providing a modified psychoanalysis for the treatment of long-standing personality disorders.

The technique generally involves both interpretation of dynamic conflict and support of defenses and of self-esteem. The usual goal is to repair, not reconstruct. However, for those whom the technique is being used as a modified psychoanalysis, interpretation, reconstruction, uncovering, and the intensification of transference and its interpretation are important techniques just as they are in psychoanalysis.

The training of practitioners is difficult for the patient consumer to ascertain because there are few programs specifically teaching dynamic psychotherapy. Psychiatrists may learn dynamic psychotherapy in their residencies. Those who are psychoanalytically trained at psychoanalytic institutes after residency training at least are well grounded in the theory and technique of psychoanalysis, which is then applied to psychodynamic psychotherapy. Psychologists and social workers may get specific training in dynamic psychotherapy during the course of their degree programs. Some get further training in the few psychotherapy training programs that exist or go on for full psychoanalytic training themselves.

XII. COMBINATIONS WITH OTHER TREATMENTS

Psychodynamic psychotherapy and psychoanalysis are sometimes used with other treatments. The combination with medication for the treatment of depression is a very powerful combination because the psychopharmacological treatment treats the physical manifestations and the talking treatment treats the psychological manifestations. This combination is powerful because depression usually involves both components. Each component may catalyze or trigger the other component. A single uncombined treatment may or may not affect the other arm of the illness. Treating them both at the same time achieves a more rapid and more complete relief for more people. Although there is as yet little research proof of this, it is the overwhelming majority opinion among clinicians at this time.

Another combination that is growing in use is couples treatment combined with psychoanalysis or psychodynamic psychotherapy. The marital therapist can observe behavior that might otherwise go unreported in the individual treatments. Similarly, patients can gain insight into aspects of their own conflict that are counterproductive in their relationships. This may help in the more rapid uncovering of psychological conflict and in the more complete working through of its resolutions.

Another combination that is sometimes used is the combination with cognitive–behavioral therapy, which is highly focused on target symptoms such as phobias, panic, social anxiety, and obsessive–compulsive disorder. The combination with psychodynamic psychotherapy and psychoanalysis is especially helpful in two situations. The first is when a rapid resolution of symptoms is mandatory for the comfort of the patient and the progress of the psychodynamic treatment. The other is when the psychodynamic treatment has been going on for a long time without resolution of symptoms because the patient needs hand-on help in the working through and application process.

Another combination growing in importance is concomitant neurocognitive rehabilitation in patients who have severe learning disabilities, especially when those learning disabilities make it hard for them to integrate and apply a psychologically based treatment. Neurocognitive rehabilitation also helps the patient with academic work and with employment problems. Information from the neurocognitive psychologist to the psychoanalyst or psychotherapist can help the therapist understand better what the cognitive problems with the patient are so that the talking treatment can be better targeted, better framed, and more understandable.

XIII. RESEARCH

Research about psychoanalysis has a long history. Outcome studies of efficacy include Wallerstiene's small but intimately detailed study of 42 patients in psychoanalysis, Weber and Bachack's much larger study of outcome at the Columbia University Center for Psychoanalytic Training and Research, the Menninger psychotherapy research project for many years under the directorship of Otto Kernberg, and the largest study to date done by Joan Earle and colleagues at the New York Psychoanalytic Institute. These many studies tend to demonstrate certain conclusions. The first is that the longer and more intense the treatment, the better the result tends to be. The next is that even if patients fail to develop a full psychoanalytic process, and are instead in treatments with major psychotherapy parameters, the outcome in approximately 80% is excellent. What is left to be proved is whether the psychoanalytic process itself, rigidly defined if that is possible, is crucial to the beneficial outcome. My own reading of the data is that psychoanalytic psychotherapy aspects are crucial and the strict psychoanalytic process may or may not be crucial. One would expect this to vary not only because of the difficulty in standardizing psychoanalytic process but also because patients' needs vary according to illness.

Psychodynamic psychotherapy research has been advanced in a major way by Barbara Milrod and Fred Busch, who succeeded in manualizing a psychodynamic method of treating panic disorder and in showing the success of this method. Peter Fonagy and others who are psychoanalytic child researchers have succeeded in showing the excellent outcome of psychoanalytic treatments of children.

In conclusion, research over many years supports the general efficacy of psychoanalysis and psychoanalytic psychotherapy. The current challenges in research are to demonstrate the efficacy of the process, of various applications to different illnesses, of the efficacy of combination treatments, and of the relative efficacy against other treatments.

XIV. SUMMARY

A method is said to be psychoanalytic if it has certain crucial elements of treatment. The elements are the analysis of resistance and defense in the making conscious of unconscious conflicts and their compromises, the use of transference as a vehicle to understanding, some effort to reconstruct past patterns as they influence present functioning, and frequent sessions so that an intensity of treatment is achieved that can reveal these patterns. The goal is the progressive unfolding of personality psychology.

See Also the Following Articles

Cognitive Behavior Therapy ■ History of Psychotherapy ■ Psychoanalysis and Psychoanalytic Psychotherapy: Technique ■ Research in Psychotherapy ■ Therapeutic Factors

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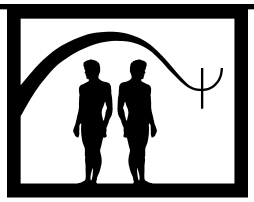

Psychodynamic Couples Therapy

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GLOSSARY

countertransference The way the patient interacts with the therapist which induces feelings in the therapist towards the patient.

intrapsychic defenses Mental strategies developed to contain, and in some instances keep from consciousness, unacceptable wishes and impulses.

object relationships The internalized concepts of self and other that carry with it expectations, sources, type of gratification, and considerations of value.

temperament The biologically-oriented predisposition of a child towards particular ways of behaving, perceiving, and processing information and interactions.

transference The ubiquitous component of all human relations which in psychotherapy refers to how the patients experience the therapist.

Psychodynamic couples treatment involves interventions that incorporate concepts of mental functioning based on psychoanalytic theories. It is an approach that explores how any given couple acts, thinks, and feels, but also the meaning each partner attaches to these experiences. Such exploration is undertaken with the aims of reducing conflict and enhancing intimacy. In this approach, the therapist balances views of what is universally true about intimate relationships with respect for the uniqueness of every partnership between two people.

I. THEORETICAL MODEL

Psychodynamic couples therapists believe that adult behaviors and perceptions in intimate relationships are patterned on the interactions, and the associated feelings and fantasies, of important childhood connections with others, usually most powerfully with parents and siblings. Even under the most favorable circumstances, human development inevitably contains conflict and ambivalence as children struggle with such opposing needs and feelings as closeness and separation, love and hatred, and guilt over forbidden sexual or aggressive wishes. The mental strategies that develop to contain unacceptable wishes and impulses are called intrapsychic defenses, and their many variations and complexities are discussed in psychoanalytic literature. Some defenses are more adaptive than others. Those that allow people to recognize their feelings and take constructive action, for example, work better than those that involve the denial of feelings or self-destructive behaviors. Each

person develops a unique repertoire of compromises between the expression of potentially dangerous (psychologically or otherwise) wishes or impulses and the efforts to contain them with intrapsychic defenses.

Because intrapsychic defenses develop in childhood, they contain irrational conclusions based on childhood reasoning. For example, young children imagine causal associations between unrelated events that occur at the same time. If a 4-year-old girl gets angry at her mother for bringing home a baby brother and then the baby gets seriously ill, the little girl might conclude that her angry feelings and wishes harmed the baby. Because seeing such a bad wish come true is frightening and guilt-provoking, the little girl may then develop intrapsychic defenses to contain her anger, which in turn may cause her to behave in a more inhibited manner. This resolution may persist as the little girl matures without her giving any conscious thought to its origins.

Intrapsychic defenses are well established by adulthood. They operate automatically and mostly unconsciously, but these defenses, and the impulses and wishes they protect against, can in part be indirectly observed through repetitive patterns of behavior and feelings in relationships. Exploration through psychodynamic couples therapy examines these patterns and the associated beliefs and fantasies that the patient uses to explain his or her interpersonal world. So, for example, the woman described earlier might return to the experience of her brother's illness if she seeks to understand in therapy why, when her husband's criticisms make her angry, she silently withdraws (her defense) rather than assert her opposing viewpoints (her aggressive wish).

Psychodynamic exploration also clarifies positive and negative internalized concepts of the self and of others, which are referred to as object relationships. For example, a boy who feels loved and cared for by his mother may have internal images of himself as handsome and appealing, and of his mother as protective and nurturing. By contrast, a little boy who feels his mother takes minimal interest in him and his well-being may have images of himself as unlovable and unworthy, and of his mother as remote and uncaring.

Although this example suggests that these images are created by a simple process, this is not at all the case. Children and parents bring to their interactions unique ways of behaving and experiencing the world, and there is also the matter of the fit between them. A father who is athletic and adventurous may perceive his highly active and mischievous son as great fun, whereas this same little boy could be perceived as a problem child to a quiet and studious father whose primary mode of expressing himself is through conversation. Children create images of themselves that incorporate how they believe they are seen in eyes of people who are important to them. This is affected by the child's temperament as well. So, for example, an easygoing child may both elicit more positive responses and reach more optimistic conclusions than a child with an irritable temperament. Subjective truths are as important as objective facts, and they help explain how two siblings can emerge from the same family with very different perceptions of childhood.

Children depend on their adult caretakers for nurturance, but because they are relatively helpless, they also fear being harmed by them. Young children cope with this contradiction by keeping the good and bad images of their caretakers separate. An example is their fascination with fairy tales that depict the good and bad images of mothers as fairies and witches. These contradictory images are integrated as the child grows and develops greater autonomy and more mature cognitive and emotional capacities. Integration allows for a more realistic view of others so that a range of negative feelings can be tolerated while still maintaining a predominantly positive image of an important person. Children can best accomplish this integration when they feel safe and loved.

Adults enter relationships using these mental structures constructed in childhood. We bring to our search for intimate partners our deepest hopes and fears and our preconceived ideas about how relationships work. We then think and act in ways that encourage a repetition of these expectations or perhaps seem to be an antidote to them. The attraction of one person to another is in large measure based on finding a fit for childhood constructs. When this fit results in the repetition of patterns that lead to excessive conflict, disappointment, or detachment, it can produce the suffering that is often the presenting complaint of a couple seeking treatment.

One of the central ways the psychodynamic therapist learns about the internal constructs a patient uses to guide relationships is by focusing on transference and countertransference. In individual therapy, transference refers to how the patient experiences the therapist. It is partly a response to the real qualities of the therapist and partly the unprovoked projection of expectations onto the therapist that are based on the internal constructs discussed earlier. For example, a man may anticipate that his therapist is going to be incompetent and judgmental because he perceived his father

in that way. He may then doubt the therapist's opinions or perceive them as criticism. The degree of tact, respect, and reassurance the therapist manifests will to some extent enhance or discourage the patient's tendency to perceive the therapist in this manner.

The way the patient interacts with the therapist induces feelings in the latter known as countertransference, which are partly a response to the real qualities and interpersonal behaviors of the patient and partly a manifestation of the therapist's emotional reactions based on internal constructs from his own past. Psychodynamic therapists are trained to examine their countertransference feelings in such a way that they can use them constructively to help patients. For example, rather than respond to a patient's disdain by being offended or arguing to the contrary, the therapist seeks to understand what he can learn about how the patient approaches relationships. By examining the patient's transference feelings and the therapist's countertransference feelings, the therapist gains critical information about a patient's wishes, intrapsychic defenses, and object relationships. The therapist can then use this information to help the patient reconsider childhood assumptions and develop more adaptive adult strategies.

Most psychodynamically trained therapists learned their skills conducting individual therapy, which is by far the most commonly practiced form of psychodynamic treatment. However, with a shift in perspective, these same psychodynamic principles can be applied to couples interventions.

Transference is not a phenomenon unique to the process of therapy. Rather it is a ubiquitous component of human relationships. Each member of the couple is enacting models of the self and others that only partly correspond to the partner's reality. Thus, in effect, each member of the couple both projects expectations onto the partner (transference) and responds to the partner's projected expectations (countertransference). Negative transference and countertransference feelings can interact with one another in a vicious circle, each setting off the other in a spiral that can cause considerable pain and despair. A man who experienced his mother as inept and now reacts to his wife in the same way can easily elicit the wife's preexisting insecurities about her own abilities. The wife might respond by avoiding tasks in the marriage that could provoke her husband's criticism, which in turn confirms the husband's belief in his wife's ineptitude. Recognizing and exploring these cycles creates possibilities for profound change by allowing the couple to form more realistic and empathic views of one another, by separating the present relationship from past experience, and by creating clearer boundaries between what each person thinks and feels.

Psychodynamic couples therapy moves along much more rapidly than individual psychodynamic treatment. This is primarily because individual therapy brings together two strangers—the patient and the therapist—who develop a relationship over time. When a husband tells his individual therapist about a fight with his wife, the therapist hears only half the story. He does not know how the wife actually behaved, or how she perceived her husband's actions. In fact the individual therapist can best understand the whole story of how the patient relates to others from the experience of how the patient relates to him. Here the therapist is the partner in the relationship, and he knows how he felt and behaved in the interaction. He is learning firsthand about the patient's approach to others by observing and responding to the patient's transference and the therapist's countertransference. This takes time and unfolds with the development of the patient–therapist relationship.

By contrast, in couples therapy the couple brings an already existing intense relationship into the therapeutic process. By directly observing, for example, the hundreds of verbal and nonverbal exchanges that occur in only a few minutes of a couple's typical argument, the therapist begins to see how the wishes, disappointments, inhibitions, and preconceived ideas each member of the couple brings to the relationship play out between them.

The presence of three people in the session also greatly increases the complexity of what the therapist must attend to, including the interactions of the members of the couple with each other and the interaction of each of them with the therapist. This requires the therapist's intense and constant concentration because even a momentary lapse can result in a loss of crucial information. There is also a greater need to control what happens in the room lest the couple simply repeat destructive interactions or pull the therapist into their conflicts without achieving any therapeutic goals. This requires the therapist to make rapid decisions about interventions using less information than that upon which individual therapy interventions are usually based. Some dynamic therapists feel ill at ease with these requirements, whereas others find couples therapy lively and engaging, a remarkable opportunity to have a profound effect on the well-being of others in a relatively brief period of time.

Although Sigmund Freud laid the groundwork for the psychodynamic approach, many subsequent psychoanalytic clinicians and theorists have contributed

substantial modifications to the original theories. Others have made an attempt to integrate these theories with new discoveries about the biology of the brain and the development of the mind. The skilled therapist uses a range of interventions within an overall framework based on psychodynamic principles and tailored to the particular couple's needs. So, for example, the therapist might employ behavioral interventions to improve a couple's skills in the areas of communication and negotiation, or he might refer a member of the couple who weeps throughout the session for an assessment of whether she would benefit from antidepressant medication. There is no single technique that provides an answer to every issue that arises. Skilled couples therapists know when to augment their primary approach with other strategies that are either more effective or more efficient but that do not undermine the framework of the overall treatment.

The psychodynamic therapist is interested both in what is universal and what is unique about people. She understands that just as no two people are the same, so it is that no two couples are the same. It follows that there are no simple formulas, instructions, or remedies for how couples should live their lives. Although the therapist uses her own emotional responses as a tool for understanding a couple's experiences, she has deep respect for the fact that her perspective is also unique to her own past and she avoids imposing her personal solutions on the couple. The psychodynamic therapist respects the couple's autonomy. With the exception of life-endangering situations, the therapist understands that only the couple can reach conclusions about the viability of their relationship, and that they are the ones who must live with the consequences of a decision to stay together or separate. The psychodynamic therapist also believes that all theories are only approximations of the truth, and that the couple's truth is more important than the therapist's theories. She is humbled by the knowledge that beneath every layer of truth is yet another layer. Each member of a couple selects what to reveal, and, however great a couple's willingness to be open, some truths will remain unconscious and therefore unavailable. An awareness of the enormous complexity of people and the irrational forces that influence them contributes to the depth and flexibility of the psychodynamic approach.

Because in most states anyone can hang up a shingle claiming to be a couples therapist, even with no training at all, complaints about the simple-mindedness and lack of success of couples treatment are commonplace, and such experience often leads to a jaundiced view of all couples treatment. Moreover, books and workshops abound that offer to teach couples how to have a more fulfilling relationship. Although these offerings may present meaningful opportunities for self-improvement, they are to be distinguished from psychodynamic couples therapy, which avoids one-size-fits-all solutions and involves a highly individualized assessment and treatment plan.

II. PRESENTING COMPLAINT

Sometimes a couple will present following an event that crystallizes a long-standing pattern of difficulties. Among the most dramatic of these precipitants are the revelation of an affair or an uncharacteristic act of physical violence. Couples may present because one member has given the other an ultimatum—for example, to marry or break up, to have a baby or divorce. Prenuptial agreements are sometimes experienced as ultimatums as well. Meeting with divorce lawyers prior to marriage may be economically sound, but it is a painful way to begin a marriage. Disappointment in the partner based on the perception of being emotionally and sometimes physically abandoned at a critical time of need, such as during job loss, infertility treatment, or an episode of serious illness may be the presenting complaint. Chronic feelings of anger are prominent in almost all these situations, and a reduction of sexual interest is common.

III. ASSESSMENT

Assessment begins with an evaluation of the presenting complaint. In obtaining this information, the therapist needs to convey the following complex set of concepts: that no two members of a couple see a story in the same way; that the therapist is more interested in subjective truth than objective fact; that the therapist listens for the purpose of understanding and not assigning blame; that the difference between the two stories that emerge will be useful to the therapeutic process; and that each member of the couple has the final say about his or her feelings or intentions. The therapist is in effect making an important intervention by creating an environment in which it is relatively safe to look at areas of disagreement and in the process clarify how each member of the couple may be projecting feelings or motivations onto the partner that create inaccurate perceptions of who the partner is. In the process, members of the couple can learn to separate past perceptions (e.g., "My father never took an interest in what I had to say.") and present reality (e.g., "I pres-

ent my opinions in such an angry way that my partner finds it difficult to listen sympathetically.").

Elucidation of the presenting complaint leads naturally to inquiring about other areas essential for the therapist's understanding. These include the story of the relationship; the factors that attracted them; the history of their difficulties; their sexual functioning; the birth or adoption of children; the presence of any serious physical or mental illness in either of the partners or a child; and prior experience with individual or couples therapy. The couple's relationship then needs to be put into the context of each partner's family dynamics and, unless the couple is uncomfortable with discussing it, an understanding of previous important couples relationships. Religious and cultural factors also need to be taken into account For example, the marriage of a Japanese-born businessman to a musician of Irish extraction raised in the Midwest presents enormous complexity with regard to the differences in assumptions, patterns of communication, and expectations each brings to the relationship.

The assessment allows the therapist to begin to answer the following questions: Why is the couple presenting now? What has drawn them together or kept them apart? What is each member of the couple seeking from therapy? To what extent are their goals compatible? How does this relationship repeat patterns each partner learned in childhood? How does the couple function at their best and at their worst? To what extent is their anger and disappointment with one another balanced by a reserve of good feelings? What skills does each partner possess in communicating, negotiating, and empathizing with the other?

Maladaptive patterns of behavior are often passed from one generation to another. For example, a man who becomes verbally abusive or physically violent with his wife will often have experienced similar abuse as a child, and in turn risks raising a new generation of children who engage in such behavior. This man's maladaptive patterns are accompanied by painful internal constructs of a victimized, revenge-seeking self in relationship to undeserving and untrustworthy others. The roles of victim and perpetrator are intertwined.

One essential area of assessment that is often overlooked in couples treatment is the presence of major untreated psychiatric illness, most often depression, manic-depressive illness, anxiety disorders, and addictive disorders (e.g., alcohol, drugs, gambling). Each can place enormous stress on a relationship. For example, the irritability and pessimism of depression, the aggressive behavior seen in mania, the need for constant reassurance induced by anxiety disorders, and the loss of impulse control associated with addiction are each associated with interpersonal difficulties that can have a severe negative impact on how the couple functions. Personality disorders may also be present, and the therapist needs to assess what aspects can be addressed in the couples treatment and what difficulties are best handled by referral for individual therapy.

Consider a young woman who marries a middle-aged divorced man with two preadolescent sons from a previous marriage. Things go relatively smoothly until she gets pregnant, gives birth to a healthy baby girl, but then develops a severe episode of postpartum depression. She becomes withdrawn and irritable and expresses increasing annoyance with her stepsons. They feel rejected and displaced by the new baby, and become progressively more angry and defiant. This in turn reminds the new mom of her unhappy childhood experiences following her own parents' divorce and the subsequent emotionally distant relationship she developed with her father's new wife. She is frightened at finding herself in the position of becoming the evil stepmother. Although there are many psychodynamic issues for the couples therapist to explore, it is essential to consider the contribution that this woman's untreated depression is making to the deteriorating family situation and her inability to repair it.

The therapist also needs to appreciate what she is not likely to hear about in couples sessions: secrets that one partner wishes to keep from the other (e.g., an extramarital affair); hidden agendas (e.g., a plan to hide financial assets in the event of a divorce); full disclosure of each partner's feelings toward the other; and the type of intimate self-revelation that is the focus of individual psychodynamic treatment. Meeting with each member of the couple alone has the advantage of providing some additional information, and the potential disadvantage of burdening the therapist with secrets that the couple may not be prepared to confront. Whether or not the therapist elects to meet with each partner separately, she remains humbly aware that there are deep unconscious forces at work, that these will remain in place throughout the therapy, and that there is much that the therapist and even the members of the couple cannot understand.

Obtaining information from a couple stirs up strong feelings that need to be addressed, and thus the assessment process is also the beginning of the treatment.

IV. TREATMENT PLAN

Many couples enter therapy reluctantly, believing this admission of failure to solve problems on their own is the first step to separation or divorce. Not uncommonly,

one partner has pressured the other to come to the initial session. A couple in angry conflict may fear that this form of passion is the only force that binds them. Often each partner puts the responsibility for problems on the other, and there is an almost universal desire to effect a change in one's partner rather than in oneself. Other common themes at the beginning of treatment include the wish to be understood without having to put feelings or requests into words, and the belief that one's own inner despair could be quelled by a more responsive partner.

The initial phase of couples treatment is the creation of a safe therapeutic environment in which discussion of painful issues does not cause further harm. This involves setting limits to destructive behaviors such as name-calling, shouting, interrupting, and other forms of angry interaction that serve no useful purpose. In their place, the therapist helps the couple use such strategies as identifying specific issues (e.g., "So you feel rejected when he comes home late every night."); adhering to the topic rather than engaging in global warfare (e.g., "Let's stay focused on the arguments you're having about the kids' bedtime rather than all the past failures to discipline them."); achieving useful goals (e.g., "Do you think that calling him a whining wimp will get you what you want?"); not invoking absent third parties (e.g., "Since your mother isn't here to concur that your wife is neglectful, let's focus on your own opinions."); and distinguishing past grievances from future hopes (e.g., "You're both bitter about the past, but perhaps there's enough good feeling between you to work on handling things differently from here on.").

The presence of physical violence is in a category of its own because it is unsafe to conduct couples treatment in this situation without setting very clear limits to what is acceptable behavior. The therapist's failure to do so can result in an escalation of violence. Consider the case of a lawyer who enters therapy after neighbors called the police in response to his wife's cries for help during a physical altercation. The husband accedes to his wife's demand to see a couples therapist because he is fearful that further police action could result in his being disbarred, but he believes his actions were amply justified by his wife's provocations. Both members of the couple act as if the husband has two different personalities: the good and caring one, and the out-of-control one. The therapist must indicate his belief that there is no provocation that justifies violence, that the threat of disbarment reflects a societal judgment that physically abusing a spouse is unacceptable under any circumstance, and that the husband has a single personality whose good and caring side must take responsibility for his angry and destructive side. It is essential as well to work with the wife on removing herself and her children from the situation (e.g., keeping clothes in the car, having a place to go to) when she observes the warning signs of impending violence. Exploring the feelings and barriers that might prevent her from taking such protective measures must be part of this process.

All sophisticated couples therapists use strategies for creating a safe environment regardless of theoretical orientation. When the psychodynamic couples therapist employs them, she maintains awareness of the powerful but unidentified intrapsychic forces each member of the couple brings to the joint creation of their repetitive pattern of painful and seemingly self-defeating behaviors. She knows that in childhood when each member of the couple developed the strategies they now use, these approaches were a way of coping with distressing feelings and creating some sense of safety. She has respect for the role of these strategies in maintaining each partner's emotional well-being, and is careful not to make matters worse.

The therapist's approach is then guided by her understanding of how much is at stake in making any changes. This is true whether she makes behavioral suggestions (e.g., "Let's work on how you'll carve out a time of the day to talk to one another without interruptions."); or addresses the underlying psychological problems (e.g., "I guess when your father died and left you alone to deal with your alcoholic mother, it felt like you should just learn to manage on your own and not have to depend on anyone.").

The goals of couples therapy depend on the motivation, capacities, and focus of the couple. They include such diverse possibilities as reducing conflict; improving communication; enhancing empathy and support; promoting trust; creating more effective teamwork; enhancing the depth of relatedness in such areas as self-revelation and sexual intimacy; using humor and pleasurable activities more effectively; improving relationships with extended family; and initiating appropriate treatment for coexisting psychiatric disorders. Because fewer conventional structures are in place and because discrimination exists, gay and lesbian couples, and sometimes interracial couples, may need to make a more conscious effort to integrate themselves into one another's families and work lives.

Although it raises cost and reimbursement issues, longer couples sessions are often more effective than shorter ones because they allow for greater closure of the topic under discussion. This reduces the likelihood

that the couple will leave the office with feelings that they cannot successfully manage between sessions. The amount of time a couple needs to work on a particular goal can vary enormously from a few sessions to a lengthy treatment. Also, couples may be ready to focus on different issues at different times, and it is best to be open to the possibility of couples returning following an initial course of therapy. Decisions about how much collaboration to have with individual therapists, if present, and distinguishing between goals best met in couples therapy rather than individual therapy, are also important components of the treatment plan.

V. EMPIRICAL STUDIES

There is a substantial number of studies examining the outcome of a variety of models of marital therapy. However, most do not meet the current research standards for demonstrating the effectiveness of a treatment (e.g., random assignment, a control group comparison, use of questionnaires that have been shown to be reliable and valid, detailed protocols for administering and observing the intervention), and few of the studies test the outcomes of psychodynamic couples therapy. On the positive side, the direction of the findings taken as a whole suggests that marital therapy is effective and is more likely than individual therapy to solve marital problems.

VI. CONCLUSIONS

Psychodynamic couples therapy uses in-depth models of psychological functioning both within and between people to enhance intimacy and reduce conflict and suffering. This treatment works best when it takes advantage of the entire array of interventions known to improve couples functioning. This includes the diagnosis and treatment of psychiatric disorders present in either member of the couple and the use of cognitive and behavioral strategies as necessary to improve communication and interpersonal skills. The skilled psychodynamic couples therapist does not offer simple formulas, but rather assists each couple in finding solutions that are responsive to their unique needs and hopes.

See Also the Following Articles

Behavioral Marital Therapy ■ Couples Therapy: Insight Oriented ■ Family Therapy ■ Psychodynamic Group Psychotherapy ■ Spouse-Aided Therapy ■ Supportive-Expressive Dynamic Psychotherapy

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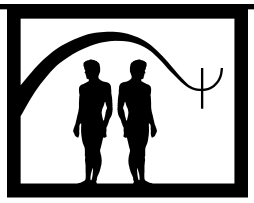

Psychodynamic Group Psychotherapy

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GLOSSARY

countertransference Broadly defined, the emotional and behavioral response of the therapist stimulated by the therapeutic encounter.

group cohesion (cohesiveness) A property of the group in which the members are committed to the aims and work of the group, and from the satisfaction of being a member. Moreover, the properties of the group influence the members, creating a reciprocal experience in which individuals influence the group and the group influences the individual. The influences may be "positive" or "negative." This is akin to "the therapeutic alliance" in dyadic therapy.

identification An unconscious process in which the participant (patient) takes on parts or aspects of another. By taking on aspects of another, the individual changes by altering perceptions, behaviors, or affects.

norms Unwritten "rules," either conscious or unconscious, which evolve during the therapeutic process that regulate members' "behaviors." The behaviors may be either what is expected or what is sanctioned.

partial hospital A treatment setting that patients attend for portions of a day, evening, or night. Partial hospitals represent an alternative to full hospitalization.

personality disorder A constellation of inflexible and maladaptive personality traits that result in significant functional impairment or subjective distress.

posttraumatic stress disorder (PTSD) A set of symptoms that develop after a person sees, is involved in, or hears of an "extreme traumatic stressor." The symptoms must last more than 1 month. People reexperience the event in dreams or daily events. They attempt to avoid any stimulus that will reawaken the event. They may respond with numbness or hyperarousal.

psychosis The term is not precise, but is taken to mean grossly impaired in reality testing. It may be considered synonymous with major impairment of social and personal functioning.

repetition compulsion A person's tendency to repeat intrapsychic conflicts that have resulted from past traumatic experiences.

resistance Patients' difficulties in effectively collaborating in their therapy (They are late, forget to pay bills, miss sessions, unable to verbally participate). The source of these phenomena are thought to be unconscious.

transference A set of expectations, beliefs, or emotional responses displaced from prior experiences (often parents) to individuals in the present (often a therapist).

I. DESCRIPTION OF TREATMENT

Psychodynamic group psychotherapy is a treatment modality in which a specified number of individuals, who have been appropriately interviewed and prepared for the treatment, gather together at a regular day and time for treatment of their psychological problems. The groups may be of predetermined or indeterminate duration. They may have a fixed membership or be open to additional individuals, as space permits. Members,

through examination of their in-group behaviors, learn about unconscious processes arising from prior experiences that distort present relationships with peers, authority, or with their relationship to the whole group (transferences). They become familiar with resistances and defenses against the emergence of unconscious processes, through manifestations in their relationships, slips (of the tongue), dreams, and fantasies as they emerge in the group process. Examination of the in-group process and dynamics are a primary, but not exclusive, focus of attention in members gaining insight into both conscious and unconscious aspects of themselves as they strive to understand and change their psychological problems.

A. Planning a Psychodynamic Psychotherapy Group

An essential element in the conduct of psychodynamic group psychotherapy is careful planning. Clinicians must determine the potential for finding sufficient individuals (6 to 10) who would benefit from and are willing to enter group treatment. They need to carefully plan for the space and time commitment involved in conducting this therapeutic modality, and they need to properly prepare members for participating in the group. A private practice setting differs from one in a clinic in which administrative and systems issues require particular attention.

The group format should be specified. One option is an ongoing, open-ended group, in which, as individuals leave, they are replaced. Another option is a time-limited group, which is usually defined as a predetermined number of sessions Generally, time-limited groups are closed for new admissions once they begin.

In composing treatment groups, consideration of ethnicity, age, gender, education, diagnosis, or degree of patients' psychological (functional) impairment should be taken into account. Groups may be heterogeneous as to these elements, but too great a disparity across these various dimensions would likely interfere with effective group treatment. Although each individual is unique, a degree of commonality along one or more of these dimensions is important in order to provide for linkages and identification(s) among members

Time-limited groups are often composed for a specific commonality (eating disorders, bereavement, reactions to a medical illness, victims of a disaster, including posttraumatic stress disorder) with the expectation that the commonality will enable the members to more readily identify with one another and facilitate sharing.

B. Therapeutic Factors

The therapeutic elements in group treatment arise from interactions among the members and with the leader. In addition, the image individuals develop of the group contributes to treatment outcome. The working theory posits that individuals will repeat their dysfunctional ways of experiencing and interacting (repetition compulsion) in the group setting, thereby providing a window into the person's conscious and unconscious emotional and cognitive processes. Individuals will experience the leader or other members as they have important individuals in their past (transference).

Insight into a person's unconscious emotional life as exemplified through their transferences has been the traditional cornerstone of the therapeutic action of dynamic group treatment. However, insight alone has never been sufficient explanation for a positive treatment effect. The value of the therapeutic relationship has always been appreciated as important, but only recently has it been differentiated from "nonspecific" or supportive categories. Cognitive elements, such as sharing of information or learning about an illness, have also been seen as useful.

Irvin Yalom, in 1975, working primarily in a framework of interpersonal relationships, listed 12 "therapeutic factors" that he believed were central to the mutative action of group psychotherapy. A cornerstone of this perspective was the potential for mutative impact from others' feedback as problematic transactions emerged in the course of the interaction. Yalom also emphasized group cohesion as a necessary, but insufficient, group element in effecting change. Group cohesion broadly defined as the commitment of the members to the aims and the work of the group, is a property of the entire group. Interpersonal influence (feedback) was most effective when a group was cohesive.

In 1997, Roy MacKenzie regrouped and modified Yalom's factors into four categories. The factors included in Yalom's formulation are indicated in bold:

1. *Supportive:* a sense of belonging to the group, which includes acceptance, **altruism**, **hope**, and **universality** (we are all human). **Group cohesion** is subsumed in this category.
2. *Self-revelation:* self-disclosure and **catharsis.** This included cognitive and affective dimensions.
3. *Learning:* **education**, guidance, **modeling**, and **vicarious learning** (observing how others interact and seeing similar aspects in one's self).
4. *Psychological work:* **interpersonal learning** and insight.

Psychological work is conceptualized as individuals' examine and learn about wishes, fears, hopes, and motivations that emerge in the manner they interact with others. Such work optimally takes place when the person feels supported, understood, and has revealed significant emotional aspects of her- or himself.

C. Recruiting and Preparing Members

Prior to recruiting members, clinicians need to attend to the composition and to an appropriate framework for the group. To form a group with the potential for achieving cohesion and a working atmosphere, the membership should not be too diverse along the dimensions of age, culture, socioeconomic background, or psychological awareness. Members should have a similar degree of psychological awareness as expressed in recognition of their inner emotional motivations or in their contributions to dysfunctional relationships. An individual might be excluded from a particular group, for example, on the basis of profession (a university professor with blue-collar workers), or age (a 65-year-old person with individuals in their twenties). Some exclusionary criteria based on traditional stereotypes are not valid if other aspects of the individual are basis for commonality (persons of color, if they have a similar occupation or common interests with others). However, using the theory of group process and dynamics described in the succeeding sections, modified psychodynamic groups can be formed with persons with persistent mentally illness or those with personality disorders who have significant deficits or absence of self-reflective capacities.

Fees for the sessions should be predetermined. Availability of appropriate space where members can sit in a circle with an unobstructed view of one another is necessary. In private practice settings adequate space may only be available in a waiting room, and under such circumstances, the clinician needs to assure privacy. Generally, groups are held in the evening after working hours. In the planning, clinicians must be aware of the extra time that is involved for administrative tasks (i.e., record keeping, patient contacts, or completing insurance forms). In clinics, arranging for a group requires collaboration with various levels of the administrative structure to assure collaboration with the clinician's needs in conducting a group in contrast to conducting dyadic treatment.

Any individual suitable for dynamically oriented psychotherapy is a prospective candidate for group treatment. However, most persons seeking psychotherapy request individual treatment. Thus, clinicians find it necessary to recruit and conduct careful preparatory interviews to determine an individual's motivation and psychological capacities to participate in group therapy. Clinicians also provide information regarding the treatment format.

Members may be recruited from the therapist's own practice. This has an advantage of both parties knowing each other and having worked together. Often therapists have insufficient prospects to begin or maintain an adequate group census. Other practitioners, or the clinician's usual referral sources, should be informed of the planning for a group to obtain additional candidates. In clinic settings, collaboration with persons in charge of admissions (intake), conferences reviewing patients' treatment, or in managing transfer from one clinician to another (often in the context of a therapist departing the clinic) provide additional referrals. Educational presentations serve to inform others of this treatment modality, as do flyers announcing the formation of a group. This latter method, however, seldom produces many referrals, but functions to remind others of the presence of a group that is seeking members.

Criteria for selecting individuals who would benefit from group treatment are linked to the therapist's goals for the group. Three basic criteria are: (1) an individual's motivation to work on his or her problems, (2) an ability to trust and share inner feelings, and (3) a capacity to examine one's inner states of mind and bodily responses.

General exclusionary criteria include persons (1) who show great reluctance or do not wish to join, (2) have mental retardation, (3) in a relational crises (i.e., divorce, death, loss of job), (4) in acute emotional reaction (i.e., a major depression or a psychosis), or (5) certain persons with certain personality characteristics (i.e., antisocial tendencies, limited frustration tolerance, or inability to maintain confidentiality). An additional consideration is individuals' life circumstances that prevent them from regular attendance (i.e., businesspersons, entertainers, or professional athletes who travel). None of these criteria are absolutes. Persons in crises may become good candidates when they recover. Insufficient data exist to define who should be excluded, because the attributes of the therapist and the characteristics of the specific group membership may be such that a particular individual may benefit from a particular group.

Candidates should be individually interviewed to determine their suitability for group treatment. The tasks of preparatory interviews as outlined by J. Scott Rutan and Walter Stone, include:

1. Obtaining a history and gaining a preliminary understanding of the person's problem(s).
2. Forming a relationship with the patient.
3. Setting treatment goals.
4. Providing information about the group.
5. Exploring initial anxieties about joining the group.
6. Gaining acceptance of the group agreement.

Interviews are not solely focused on determining a clinical diagnosis. They are conducted to learn, also, about an individual's prior role functioning in groups. Participation in the family, school, work, church, and recreational activities are almost universal group experiences. Therapists should inquire if individuals assumed leader or follower roles? Do they keep to task or have conflict with authority? Are they active or passive? Do they speak up or are they listeners? Can they keep secrets? The history and examination of role behavior alerts clinicians and patients to aspects of future group behaviors. Such an interview focus helps patients more clearly specify treatment goals. Furthermore, clinicians' interest in trying to understand the nature of their patients' problems in the various settings increases the likelihood of individuals negotiating the initial anxiety of entering and successfully remaining in the group.

Patients' treatment goals should be as specific as possible. These are usually formulated in interpersonal terms such as, "I need to understand why I become so angry at x," or "I seem to always get into relationships in which I am taken advantage of"; or "I cannot maintain a loving relationship with a man (woman)."

Information should be provided about the group. Usually this includes where the group meets, the time and duration of the sessions, gender composition, and if it will be an open or closed group. For ongoing groups, goals may be stated, "The group will provide members an opportunity to examine relationships both inside and outside the meetings." An additional explanation might include that a person's relational problem will emerge in the interactions among members and with the leader, and in this respect the group will be a microcosm of one's extra-group world. Learning about oneself in the group can be used in one's daily life.

Prospective members are informed that the group will be composed of persons who have no known prior relationships with each other. This leads into exploration of patients' initial anxieties about entering a group and further discussion of their ways of managing those feelings. Preparation serves to help patients work with their feelings and also provides an additional indication of the therapist's interest in the patient, further strengthening their alliance.

The group agreement (contract) is a central element in the preparation process and serves as a structure for the treatment. The elements include agreement to

1. Be present each week on time and remain throughout the entire meeting.
2. Work actively on the problems that brought you to the group, remain in the group until those problems are resolved, and provide sufficient time to say goodbye.
3. Put feelings into words, not actions.
4. Use the relationships in the group therapeutically, not socially.
5. Be responsible for your fee.
6. Protect the names and identities of your fellow members (confidentiality).

Each element can never be entirely fulfilled. Yet the agreement provides a structure and an indication of what behaviors are useful in the pursuit of treatment. The agreement alludes to patient safety, both physical and emotional. Proscribed actions include physical behavior and verbal attacks that are also considered actions. The ambiguous instruction to use groups therapeutically, not socially, leads to a discussion of extra-group contacts among members. They are asked to discuss in the group all salient contacts between them that take place outside of the meeting, as a means of learning more about themselves.

Fee arrangements should be explicit. The author distributes statements in the group at the initial meeting of each month for payment by the end of the month. If problems arise about payments, they should be discussed openly in the group. (This proves to be a very difficult assignment because money is not readily discussed in the American culture.) Groups cannot function without confidentiality, and it must be emphasized to the members. Members are not prohibited from speaking with others about the meeting, but they are instructed to do so in a fashion that no one can be identified. Members are reminded that confidentiality cannot be guaranteed, and each person is responsible to protect the information that is shared.

Failures to abide by the agreement provide opportunities to examine the reason and meaning of the particular behavior. It is easy to ignore members' slight tardiness or their delinquency in paying fees. Therapists need to overcome their own resistance to addressing such "violations" and help members to do the same.

The group agreement is incomplete without also informing members of the therapist's obligations. Therapists need to tell members about how they will use information gathered outside of the sessions, and how they will participate in the meetings. The former includes information from diagnostic or regularly scheduled (individual, family) therapeutic sessions, phone calls, chance meetings, or contact with other therapists. Moreover, patients should be told what information will be provided to insurance companies or of its use by the therapist in her or his professional capacity (i.e. writings or lectures). Finally, the therapist explains that he or she will try to help members understand themselves in their interactions in the group and in their lives. The members set the agenda. The therapist will intervene when a comment might be helpful.

D. The Therapist's Role

The clinician has the major initial responsibility for creating a group atmosphere that can be therapeutically useful to the members. The clinician must maintain a balance between understanding individuals, subgroups, and the whole group and be able to utilize that understanding for members' benefit.

Leaders need to initially establish boundaries between the group and the outside world, among members, and between themselves and the members. The concept of boundaries includes the time, place, and duration of the meetings (when do the session begin and end; where and when do we meet). The agreement is the first step in this process, because it defines aspects of the relationships among the members, and members with the therapist and with the group. For example, an external boundary is represented by selecting or excluding participants or by the emphasis on confidentiality. An internal boundary is exemplified by the element in the agreement to put feelings into words and not into action.

Clinicians help members begin to relate to one another in the here and now of the group. Yvonne Agazarian, in 1997, emphasized this process by pointing out similarities among pairs or subgroups. Such linking reduces members' sense of alienation. The therapist may identify a common group theme, which generally includes an assumption that silent members are participating, although they are not speaking. Moreover, not everyone has to be in agreement, because some members may favor a certain notion and others may "fight it," but all are reacting to it.

Therapists also have a responsibility in monitoring and, if necessary, helping members' contain or express their emotions, whichever is salient. Expression of intense emotions is inevitable. When feelings threaten to disrupt, rather than advance, therapy, the clinician must step in to prevent injury to an individual or to the group. Judgment is necessary in this task, and no rules are possible other than the general principle that safety is paramount.

The therapist also monitors and, when appropriate, comments on the unfolding group process, with the goal of alerting members to particular behaviors or interactions (confrontations) or of understanding unconscious elements in the transactions (insight). Many narratives seem only to describe events outside the meeting. However, they may be (displaced) communications or metaphors for unexpressed relationships or emotions within the group. Explaining these two levels (internal or external to the group) may lead to patients' insight into aspects of themselves.

Traditional theory elevates "insight" to a privileged place in helping patients. Insight may refer to understanding in the here and now of the meeting, to relationships in one's daily life or in the past. Interpretations provide insight into the transferences with linkages between "behavior" or feelings in the group, examples from the patient's current life, and from the patient's past. Interpretations illustrate the repetitious quality of patients' responses and their propensity to transport the past into the present. In the group, multiple opportunities for transferences are available with others representing parents, siblings, teachers, or other emotionally significant persons in the patient's life. The treatment setting opens transferences to examination and to understanding (insight). With insight the person can change.

Advances in theory have focused on the function of the relationships and interactions as significant in helping patients change their experience of others—this is often labeled a "corrective emotional experience," which means that people in the present respond differently than those in the past who have injured or traumatized a particular individual. A significant element in the therapist's task is to monitor the group atmosphere and try to form a setting in which such experiences can take place. The "relational experience" in itself is understood as mutative. Therapists, through their predictability, dependability, and reliability, contribute to the mutative impact of the treatment.

The focus of the therapist's activities is conceptualized by J. Scott Rutan and Walter Stone as encompassing two dimensions: role and focus:

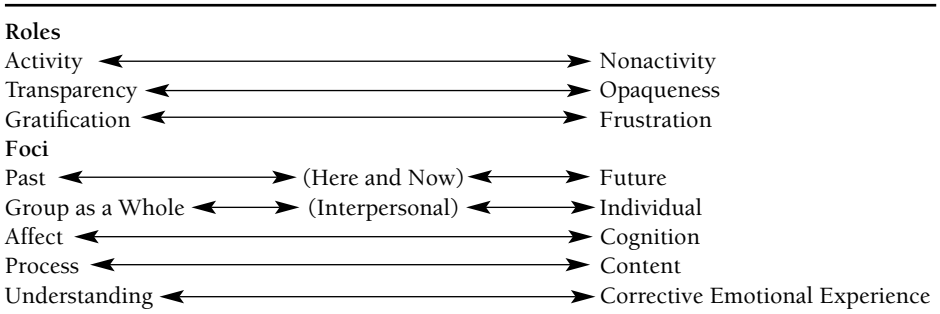

FIGURE 1 Roles and foci for the group therapist. Reproduced with permission from Rutan and Stone (2001). *Psychodynamic Group Psychotherapy,* 3rd ed. New York: Guilford Press.

1. Role

Role function addresses the leader's manner of engaging in the treatment. Each of the three dimensions is on a continuum. Clinicians may show considerable variation where they would be classified along theoretical or clinical places on a continuum. For instance, some clinicians might be active and gratifying during the initial meetings as a way of containing anxiety and creating a warm and accepting group atmosphere. Other clinicians might choose to remain inactive and opaque. They would view their position of nongratification of the "typical" leader role as creating anxiety that would help the members expose prior maladaptive relational patterns (transferences). It is unlikely that any therapist who rigidly adheres to one or another position on these continua would be therapeutically effective.

2. Focus

Leadership foci describe clinicians' stance regarding which aspects of the leadership will command their attention. No single dimension is the sole focus, nor is a single point along the continuum. For example, initially, individuals may not feel safe examining in-group feelings, and they resort to discussing events outside the meeting. The therapist may sense that such discussions promotes cohesion and identifications among members. At a later time, the therapists, hearing a similar discussion, may suggest that the discussion is a metaphor for transactions in the here and now of the group. Nevertheless, no matter which focus leaders choose, unanticipated responses are inevitable because many levels of individual and group experiences are simultaneously touched on. A comment to an individual about his or her behavior in the current transactions may reverberate to members' current life, their past, or imagined future.

E. The Group Process

Viewed from a perspective of a living organism, groups, somewhat akin to individuals, traverse developmental stages. These stages are not fixed or invariant but are subject to the capacities of the membership and the ability of the leader.

Like embarking on any enterprise, individuals enter a group needing to determine the nature of the task and of the emotional relations with peers and the therapist. The task in a psychodynamic group is to learn about and alter dysfunctional relationships and one's inner emotional responses. The therapist usually minimizes ordinary instructions in how to achieve these goals and leads by following—that is the clinician does not introduce topics or provide agendas but follows the members' lead and attempts to understand and convey understandings in a usable manner. This strategy of removing the "ordinary" expectable instructions creates a setting in which transferences, resistances, and unconscious processes are more available for examination.

The basic outline of group development was proposed by Warren Bennis and Herbert Shepard in 1956. An assumption of group developmental schema is that many of these processes are not conscious, yet they significantly affect an individual's emotions and behaviors. Knowledge of these processes serves to inform clinicians of influential elements that are outside of ordinary awareness.

1. The Formative Phase

On entering a group, members have two tasks—to determine how the group can be used to achieve their personal goals and to determine what is emotionally safe. With the leader providing only a bare outline of how to proceed, members naturally employ their usual

strategies to obtain answers on how to proceed. Under the pressure evoked by meeting and having to reveal shameful or guilty aspects of themselves to unknown others, patients utilize previously learned strategies to manage the stressful situation. In the main, such strategies are unconsciously determined, having been arrived at during childhood, but are no longer adaptive. This process is termed *regression*. In this anxiety-laden context, members may cautiously reveal aspects of themselves while simultaneously assessing their emotional safety. Moreover, they invariably have an eye on the leader to determine if their behavior meets with approval, a reaction that suggests "childlike" dependency.

Members, through their interactions, unconsciously develop "rules" (norms) that will protect themselves from being emotionally injured. Norms serve as powerful restraints on the members, but simultaneously they function to protect members from overstimulation and intense discomfort. As these unconscious norms become established they partially replace the therapist, because they serve as rules. Under these circumstances the leader no longer has the same salience for dependency.

Members can benefit from this stage by studying how they respond to new situations. They can learn about their emotional adaptations (defenses) at an interpersonal and internal (unconscious) level, both in relation to authority and to peers. They may feel better because they have shared some of their problems (catharsis), discovered that they are not alone (universality), and they have been respectfully listened to. These represent relational elements inherent to group treatment.

2. The Reactive Phase

Similar to the manner in which children interpret rules rigidly, initial group norms often are experienced (unconsciously) as tyrannical, constricting, and impersonal. In response, clients begin to free themselves and assert their individuality. They may begin to argue or fight, and members' commitment to the group is tested. At times the group may feel on the verge of disintegration because of the tension. The process unfolds as if participants are saying, "I am an individual with my own feelings and responses, and I will not be controlled by the group." Thus the members' task is to find ways of remaining an individual in the group and simultaneously forgo a portion of their individuality. This is a difficult period because the process evokes powerful feelings, which may, for some, seem foreign and aversive. Members may threaten or actually drop out. During this phase, the therapist may lose confidence and may seriously question the value of the enterprise.

In most instances the group and the members survive, discovering that they can manage intense feelings they had not handled previously. They learn to recognize differences, and they learn about the use of their own and others "power."

3. The Mature Phase

This phase is characterized by clients being able to engage in deeply emotional interchanges and self-expression, with others recognizing the significance of what is being transacted and not interfering with the discourse. Members learn to explore their relationships, including their manner of handling conflict and affection within the group, and apply the new knowledge to their lives outside in a more mature and productive fashion. Not only do participants explore their interactions with others, they examine the personal meanings, as it may be contributing to both their life in the present and in the past. This is not a search for "absolute truth," but an attempt to examine patterns of behavior and feelings that have created ways of experiencing and interacting that continue from childhood into the present. The ongoing process allows members to experience their repetitious ways of handling relationships and to explore new ways of relating.

The therapist is no longer the only expert, as members learn that they can powerfully and effectively interact with others. This provides a sense of personal competence and efficacy, which is not present in dyadic therapy.

4. The Termination Phase

In ongoing groups clients enter and depart. Optimally, individuals do not leave abruptly. Rather, they provide sufficient time to say goodbye to others with whom they have formed meaningful relationships. Members usually have the opportunity to see others depart, and they familiarize themselves with a variety of responses to leaving. Their own departure, however, is much more personal. Often, under the stress, the departing person regresses to former behaviors. This provides an opportunity for "one more" chance to learn about oneself. No participant leaves entirely "cured." Group membership provides real relationships as well as transference experiences.

Termination is not easy, as members experience envy, resentment, sadness, and pleasure. Memories of other meaningful losses (separations or deaths) are stimulated. Some may try to convince the departing patient that he or she is not ready to leave, so that they will not have to face the departure. Others push to condense the termination period and diminish their associated affects.

Therapists are not immune to similar emotions. As they do with all phases of treatment, clinicians need to monitor their own emotional states (countertransferences [see later]) to help the group and the departing member experience, to the best of their ability, their departure.

F. Treatment Factors That Affect the Process

1. Cotherapy

Some groups are led by two therapists, which provides clinicians opportunities to share the therapeutic responsibility and to observe and learn from one another in direct action. Cotherapy is often used in training settings. The format requires that the clinicians spend time addressing the process and exploring their areas of agreement and difference.

For patients, the format provides two authority figures, often experienced as parents, with one being experienced as father and the other as mother. It creates an environment similar to a family, with members' associations to the positives and negatives of their family. They can observe how differences and inevitable conflict are managed by the therapists, which may serve as a corrective emotional experience to what was experienced in the family of origin.

Drawbacks to the model are the deemed inefficiency (two persons working where one may do) and the extra time involved in the clinicians addressing their relationship as the process unfolds. Assets of the model include its use in training, an opportunity to work directly with another colleague, and to hear differing perspectives about the conduct of treatment.

2. Combined Therapy

Some patients simultaneously participate in both individual and group treatment. Individual treatment may be either with the group therapist or another clinician. The advantages of such formats are that patients can address emergent problems in private, where there is more individual time for exploration than is available in the group. When the same clinician is therapist in both formats, patterns in the group can be linked to behaviors in the individual treatment, even if the patient does not observe them. Moreover, problems emerging in the dyadic treatment may be brought to the group for further elucidation. This is usually a responsibility of the patient, and not of the therapist.

Almost without exception, patients reveal in the group that they are participating in combined therapy. This information is examined like any other process element. Other members' common responses are of envy and wishes for special relationships. Opposite concerns suggest that the patient is more ill and requires extra treatment. Many clinicians endorse combined therapy as a very powerful treatment approach.

G. Certain Difficulties in the Treatment Process

1. Countertransference

In the modern therapeutic era, therapists' emotional responses in the treatment situation are examined as potential information about the therapeutic process. These responses may be in the form of the clinician's emotional states or behaviors that may be conscious or unconscious. Historically, countertransference was seen as an impediment to treatment due to the therapist's unconscious responses. Currently, therapists examine their emotional responses, fantasies, dreams, and interactions as sources of information about themselves and their patients. This expanded notion of countertransference separates clinicians' responses into those that can be useful in understanding either the individuals or the process from behaviors that may interfere with the treatment.

In group treatment therapists may respond to experiences from their past as stimulated by an individual, subgroups or the group-as-a-whole process. Mistakes and misunderstandings are inevitable. They may arise from a "reasonable" response to the emotions in the present or from the clinician's past. Interventions that are well intentioned may be heard, understood, or experienced by members in unintended or aversive fashion. Remaining alert to these possibilities enables the clinician to detect processes that may have been derailed.

2. Group Safety

For any treatment modality to function effectively, participants must have confidence in the safety of the situation. The agreement establishes a basic element—no physical contact. Patients who are unable to control themselves may not be able to continue in the group and may be asked to leave temporarily or permanently. In addition to physical actions, patients may threaten others verbally—an action that on a continuing basis is not compatible with group treatment.

3. Extra-Group Contacts

Members almost universally have contact with one another outside the treatment setting. This may naturally occur in the waiting room before the meeting or

when leaving together at the end of a session. Ordinarily, this is not problematic. Not infrequently, though, patients will attempt to manage feelings emerging in the group by meeting with others. Sexual liaisons take place rarely. All salient contacts need to be openly discussed in the therapy, where patients can learn about themselves (see group agreement). Persistence of any emotionally laden extra-group contacts sets up destructive subgroups (i.e., there are secrets) and may be incompatible with an effectively functioning group.

4. Excessive Premature Terminations or Dropouts

Patients leave the group prior to completing treatment for a variety of reasons. Within the first 12 weeks, in almost every new group one or two members are likely to stop treatment, sometimes without notification. Reasons for dropping out may include fears that hearing others emotions may be harmful, or life changes interfere with regular attendance (these changes are sometimes are unconsciously "arranged" because of emotional responses).

To provide stability, replacements should be added to the group. If an excessive number of patients drop out, the viability of the group may be in doubt. Most groups do not function effectively with four or less members.

H. Other Populations

Groups described in this section are conducted with basic psychodynamic principles. Characteristically, patients have limitations in their ability to examine unconscious processes. This limitation does not obviate the unconscious processes that contribute to group dynamics. In these circumstances, treatment focuses more extensively on support, stabilization, and reintegration that in part arises from the supportive elements intrinsic to group dynamics. Examination of unconscious processes is limited, concordant with patients' limited capacities. Such groups represent the application of psychodynamics in an expanded range of setting and populations.

Psychodynamically informed groups have been shown to be useful in inpatient or in partial (day) hospitals. In these settings, patients may meet daily in dynamically oriented groups as an intrinsic element in a broader range of therapeutic activities. The increased meeting frequency serves as support and enables individuals to expose deeper layers of their personality. The results of this treatment have been encouraging for difficult patients who do not respond to more usual outpatient therapy.

Groups for victims of a common trauma or for individuals experiencing grief have been found to be effective in relieving individuals of the resultant acute and sometimes chronic symptoms. Such groups are generally time limited, and the dynamic theory often focuses on the termination issue, which may more specifically reexpose the experience of loss or death.

Psychodynamically informed groups benefit persons with chronic mental illness. Patients with diagnosis of schizophrenia, bipolar disorder, other persistent major illness, or severe personality disorders represent the greatest number of individuals in this category. These individuals are generally not seen as amenable to "insight," but they can benefit significantly from the slower developing, attenuated relationships. As described by Walter Stone in 1996, groups form in which some individuals attend regularly (core members) and others intermittently (peripheral members). Over time the group develops a workable degree of cohesion, and patients gradually develop trusting relationships. Members of these groups often do not thoroughly examine intragroup relationships and thus have limited potential for insight into their here-and-now transactions. Rather members achieve their benefits primarily through supportive, self-revelation and learning factors.

II. THEORETICAL BASES

Psychodynamic group psychotherapy arises from two theoretical bases: social psychology and psychoanalytic theory.

A. Social Psychology

Social psychology addresses the interaction between the social environment and the individual. Kurt Lewin, who developed field theory, conceives of a group not as a sum of its parts, instead groups form as a system that arises from interacting individuals. In turn, the system affects members' behavior and feelings. Groups have goals, roles, norms, boundaries, and develop cohesion, and evolve over time.

Psychodynamic groups have goals of improved individual functioning. Roles define the functions necessary to accomplish the task. The schema suggested by Roy MacKenzie posits four group roles: task, social, divergent, and cautionary. The task role, primarily cognitive, helps define what has to be done to accomplish goals. The social role attends to members' feelings. The divergent role challenges authority and questions normative

views. The cautionary role hides feelings and thoughts. These roles are omnipresent and represent group, not solely individual, functions. Potentially any person could fill each role.

Norms are the conscious and unconscious rules of behavior that influence and regulate the members and the nature of the interactions (i.e., conscious: we should all be on time; unconscious: we will not express anger here). External boundaries define the time, place, and proper information to bring to the group (i.e., one is to tell about onself). Internal boundaries also define aspects of relationships among members (i.e., feelings are verbalized, not acted on or levels of communication: conscious/unconscious).

Over time, groups will "develop," as initially described by Warren Bennis and Herbert Shepard. As members resolve conflicts concerning authority and intimacy, roles become distributed and flexible; norms change, and exchanges are freer in the service of achieving goals of individual development and maturation. This is a sociopsychological process seen as somewhat akin to individual psychological development.

B. Psychoanalytic Theory

Sigmund Freud was the founder of psychoanalytic theory of the human personality. Basic theoretical tenets include individuals' behavior is influenced by unconscious processes, (which may be glimpsed through dreams and "mistakes," like slips of the tongue); individuals are in conflict with efforts to satisfy their instincts (aggressive or erotic), and their own or societal standards. Symptoms are a result of such conflicts. Individuals will transfer their childhood instinctual lives, often expressed as wishes and hopes, to persons in their current life (transference). They will be resistant to directly examining or acknowledging aspects of themselves (resistance) because of perceived danger associated with past childhood experiences or from their own internal prohibitions. They will repeatedly try to master these early conflicts (repetition compulsion) that will emerge in their present relationships. Psychoanalytic/dynamic theory attempts to help individuals understand the meaning of their behaviors or emotions, thereby freeing the person from unconscious forces.

Modifications of original Freudian theory have placed greater emphasis on wishes for relationships, rather than as gratifications of instincts. Moreover, more attention has been directed toward the role of culture in determining one's behavior.

Patients will exhibit repetitious patterns of behavior directed toward the therapist, peers, or to their image of the "group." The group then becomes a microcosm of their behavior in the external world, with allies, enemies, saviors, or as objects (others or the whole group) of affection or hate (transferences). Members learn about their unconscious motivations or wishes for relationships through their interactions (transferences) that emerge through their repetitious behaviors and emotional responses. This new knowledge will then be available for members to make changes as they are made conscious and examined in the group interactions.

III. EMPIRICAL STUDIES

Treatment efficacy of group psychotherapy has been explored for more than four decades. This has been a most problematic area of research because of the multiple elements contributing to treatment outcome. Nevertheless, meta-analytic reviews of group therapy have shown that group treatment is more effective than no treatment and has equivalent efficacy with individual therapy. These findings, however, need to be appreciated as generalizations, because most of the studies have been with cognitive behavioral treatments. Those with psychodynamic orientation have been limited by a lack of specificity along general demographic dimensions, including age, gender, diagnostic description of the patient populations, and duration of treatment.

Moreover, efficacy studies of group psychotherapy have emphasized individual patient outcome and underemphasize group outcome, that is some groups (therapist–client composition) appear to be more efficacious than others. Insufficient emphasis has been placed on assessing the contribution to outcome of leader behaviors, member-to-member interactions, or the group as a whole setting. In 1999, The National Advisory Mental Health Council's Clinical Treatment and Services research workgroup, concerned with fundamental flaws in present research designs, proposed much broader guidelines in hopes of learning more about the subtle factors of relationship and personality in the therapeutic venture.

Nevertheless, certain consistent findings have emerged that inform group therapy outcome. Patients are generally reluctant to enter into group treatment. Individuals assigned to group treatment are less likely to appear for their initial group meeting than persons assigned to individual treatment. Persons of lower social class and of color are more likely to drop out.

Groups that have a greater number of dropouts are less likely to have good outcomes than those with more stable membership. Individuals who successfully complete their group treatment are likely to credit their benefit to peer interactions, rather than their interactions with the therapist.

Studies of homogeneous populations have been few. Recently, however, reports of patients with borderline personality treated in partial hospital settings have shown improvement as reported by Canadian researchers, Anthony Joyce, Mary McCallum, and William Piper in 1999 and by the Norwegian research team including Theresa Wilberg, Sigmund Karterud, Oyrind Urmes, and colleagues in 1998. Individuals in these studies were treated with a variety group formats daily in a partial hospital for 16 to 18 weeks. The major emphasis was psychodynamically oriented group treatment. The Wilberg *et al.* study included a 30-month continued outpatient group treatment. Those participating in the continuing treatment had better outcomes than those who did not. The methodology did not include random assignment and therefore requires replication. These studies represent a focus on more homogenous populations with methodologies that include direct verification of therapists' behavior, thereby controlling for some of the variability.

Despite the overall limitations, research into the efficacy and the process variables that may contribute to the outcome of psychodynamic group psychotherapy remains promising.

IV. SUMMARY

Psychodynamic group psychotherapy is a treatment modality in which a small group of individuals (6–10) meet at a regularly scheduled time and place to address and seek to improve their emotional functioning. The theoretical bases for the treatment derive from social psychology and from psychoanalytic theory. Groups require careful preparation that includes setting goals for the group, recruiting, and preparing prospective members.

Therapists are responsible for creating a structure that facilitates open-ended discussion in which individuals can freely express themselves and examine the unfolding relationships among them, with the leader, and with the image of the group. In the therapeutic process members will, through repetition compulsion, recreate difficulties that brought them to therapy. Through the relationships and interpretations, participants will learn about their emotional responses and dysfunctional behaviors. The group provides a setting in which they may experiment with new behaviors before attempting them outside. Through the repeated opportunities to see, understand, and alter their behaviors and feelings, patients will mature and gain the capacity for greater intimacy and satisfying relationships and societal roles.

See Also the Following Articles

Anxiety Disorders: Brief Intensive Group Cognitive Behavior Therapy ■ Behavioral Group Therapy ■ Cognitive Behavior Group Therapy ■ Group Psychotherapy ■ Individual Psychotherapy ■ Posttraumatic Stress Disorder ■ Psychodynamic Couples Psychotherapy ■ Self-Help Groups

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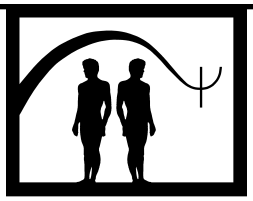

Psychogenic Voice Disorders: Treatment

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GLOSSARY

aphonia Loss of voice.
breathiness Audible flow of air during phonation.
dysphonia Abnormal voice quality, heard as hoarseness, breathiness, or harshness.
conversion aphonia Voice loss in the absence of physical factors.
conversion dysphonia Voice disorder characterized by hoarseness, breathiness, or harshness that appears in the absence of physical factors.
harshness Phonation that has sudden onsets of phonation along with pitch and intensity abnormalities.
hoarseness Aperiodic vibration pattern of phonation, breathiness, pitch breaks, low pitch, and episodes of aphonia.
hyperfunctional Excessive function due to behavioral misuse or abuse.
laryngeal massage Therapeutic technique used to relax the musculature surrounding the larynx.
muscle tension dysphonia Voice disorder caused by excess muscle tension in the larynx.
mutational falsetto Voice disorder associated with a high-pitched phonation without structural abnormalities.
phonation Vibrations of the vocal folds creating voice.
puberphonia Voice of an adolescent.
psychogenic Referring to a voice that has psychological origins.

The human voice conveys a wide range of emotions, feelings, attitudes, and affections. It is a dynamic, complex mechanism that is central to verbal communication and is so individualized that for all practical purposes, no two voices are alike. A person's voice may be aesthetically displeasing or may convey a particular personality or emotional state. It is possible to hear a tremulous voice when a person faces fear or danger, an aphonic or dysphonic voice when someone endures extreme emotional stress, or an abnormal vocal pitch in which a man may sound like a woman or a woman like a child. Thus, the human voice has an extremely wide range of pitch, loudness, flexibility, and qualities, but the boundaries between normal and abnormal are not clearly defined. In 1990, Arnold Aronson defined a voice disorder as one that differs in terms of pitch, loudness, quality, or flexibility from the voices of other individuals of similar age, gender, and/or cultural group. However, there is no universal agreement of when either a normal or an abnormal voice exists.

There are a number of reasons why a person's voice might sound abnormal. Some voice problems can result from behavioral or hyperfunctional misuse of the vocal mechanism, abnormal medical and physical conditions, and psychological stress. Given the focus of this book, this article is limited to a discussion of the symptoms and treatments for three types of psychologically based voice disorders. These include *(a)* conversion reactions resulting in aphonia and dysphonia, *(b)* mutational falsetto or puberphonia, and *(c)* muscle tension

dysphonia. These voice problems as commonly referred to as "psychogenic" voice problems because the disorder emerges from abnormal psychological factors in the presence of a physically normal voice.

I. DESCRIPTION OF TREATMENT

Before the treatment for these three psychogenic voice disorders is described, it is necessary to discuss some general features of patients with these types of voice disorders. In light of the strong connection between emotions and vocal behaviors, it is not surprising that emotional conflicts and stress change the way the voice sounds and functions. In 2000, Daniel Boone and Stephen McFarlane noted that increased emotionality or stress will cause significant perceptual changes in the voice because people will: *(a)* produce shorter and more shallow breathing patterns, and *(b)* increase the tension of the vocal folds and neck musculature, creating an elevation of the larynx in the neck. The vocal symptoms resulting from these physiological changes can range from compete aphonia to varying degrees of dysphonia characterized by hoarseness, breathiness, and abnormally high-pitched phonation.

Because emotions and vocal performance as so closely related, effective therapy for psychogenic voice disorders requires attention to the entire profile of the person rather than the simple remediation of the vocal symptoms. Therefore, most voice therapy involves a multidisciplinary team approach. Key team members include a speech-language pathologist, an otolaryngologist, a neurologist, and/or a psychologist. The speech-language pathologist and otolaryngologist are the primary members of the team and work collaboratively to rule out the presence of organic laryngeal disease, systemic illnesses, and any form of vocal fold movement disorder. A neurologist is called on to evaluate the voice disorder from a neurological perspective while a psychologist may provide important follow-up support to voice therapy when it is apparent that the voice problem is an expression of significant psychological difficulties.

One of the hallmark features of all psychogenic voice disorders is that the voice sounds abnormal yet the person doesn't have any form of organic laryngeal pathology or disease. In other words, the voice appears normal on visual inspection but is perceptually different from other normal voices. In most cases, the cause of the disorder can be traced to some form of life stress or to personality disorder. Interestingly, normal movement of the vocal folds usually occurs during a variety of vegetative laryngeal maneuvers such as quiet breathing, coughing, throat clearing, and laughing. Disordered vocal symptoms appear once the verbal communication is initiated.

The following is a description of voice therapy for conversion reactions, mutational falsetto, and muscle tension dysphonia.

A. Conversion Reactions: Aphonic and Dysphonic Voices

People who suddenly display hoarseness or lose the ability to phonate are thought to be suffering from a conversion reaction. These patients believe their voice problem is due to a physical or medically related disorder when, in fact, the problem is related to behavioral reposturing of their larynx due to unresolved interpersonal conflicts. They are unaware that they have translated an emotionally based communication problem into a physical voice problem. Typically, the voice symptoms are triggered by colds, flu, or a short period of laryngitis. Consequently, the person believes the vocal symptoms are a result of an upper respiratory infection rather than an unresolved emotional conflict that is related to communicating feelings toward others. The client's voice is characterized by aphonia, high-pitched squeaks, or varying degrees of hoarseness.

Treatment for this type of voice disorder involves the cooperation of the otolaryngologist and the speech-language pathologist. A patient needs to be reassured by both professionals that the larynx appears and functions normally. In 1995, Moya Andrews pointed out that it is important for the speech-language pathologist to build a positive relationship with the patient to help the patient discuss the main source of emotional conflict and stress. This should set the stage for having the patient accept the notion that the vocal condition is due to some type of emotional conflict. Once this issue is discussed, the speech-language pathologist explains to the patient how emotional stress and tension can interfere with the voluntary control of the voice. Next, the clinician should attempt to elicit a better-sounding voice pressing in, up, or down on the larynx while the patient sustains a vowel sound. Laryngeal massage, which involves using the fingers in a circular motion to reduce tension in the neck musculature around the larynx, is attempted also to help restore normal voicing. It is common to have the patient produce a significantly improved sounding voice during a cough, while clearing the throat, laughing, and shouting. If the voice improves dramatically during these involuntary forms of

phonation, the problem is clearly a conversion reaction. A clinician can facilitate a normal sounding voice through the use of these vegetative vocal gestures. For example, the clinician can have the patient cough but then say a sustained vowel sound immediately after the cough. By extending the vocal sound of the cough into a sustained vowel gives the patient an auditory image of a normal sounding voice and also shows the patient that a normal sounding voice is possible. Therapy continues with having the patient recite the days of the week, counting, or simple oral reading. Gradually, the person should be asked to maintain the voice during a conversation with the clinician. If this occurs, then the patient can be encouraged to talk about the underlying emotional stress or conflicts that precipitated the aphonic or dysphonic voice. Follow-up therapy sessions might be needed to ensure that a normal sounding voice is maintained. In those cases in which the patient is unable to maintain voicing, referral to a psychologist or psychiatrist is recommended.

B. Mutational Falsetto (Puberphonia)

The second major type of psychogenic voice disorder is mutational falsetto, which is sometimes called puberphonia. This voice disorder is most commonly found in young adolescents, but it can also occur in adults. The main vocal symptom of this disorder is an abnormally high-pitched voice for either the male or female even though the voice has undergone its normal postpuberty changes. In other words, the patient has a mature larynx but for some psychosocial reason rejects the normal, lower-pitched voice. Typically, the mutational falsetto voice patient exhibits an elevated larynx, tightly stretched vocal folds creating a thin vibratory mass, and a shallow breathing pattern.

In 1995, Andrews pointed out that treatment of this disorder begins with medical confirmation that laryngeal maturation has occurred and that a laryngeal web or other structural deviations in the larynx have been ruled out. If there are no concerns about the physical condition of the larynx, the clinician can elicit a lower-pitched voice in the following ways. First, the clinician can use laryngeal massage to decrease extrinsic and intrinsic laryngeal muscle tension, adjust head position, and attempt to pull the larynx down to a lower neck position. Gradually, the fingers move down to the thyroid cartilage and thyroid notch where the larynx is gently moved into a lowered position. Some patients will resist the lowering of the larynx, but a clinician should be persistent and apply considerable force in pulling the larynx down to a more typical resting posture. Massage helps loosen tense musculature and stretches the laryngeal musculature, which contributes to a relaxed vocal mechanism. At the time the clinician is pulling the larynx down, the patient is instructed to cough, sustain a prolonged vowel sound, or repeatedly produce an abrupt onset of phonation. The patient also will produce a lower-pitched voice if a deeper breath is taken prior to phonation. In 1990, Aronson noted that the shift from a high- to a low-pitched voice will be sudden when the voice is produced forcefully and aggressively.

Once a lower-pitched voice is achieved, the clinician should have the patient habituate the lower pitch sound through repeated vowel productions using an abrupt or sudden onset of phonation. Eventually, the lower-pitched voice will become more consistent as the patient moves from vowel productions to words, and then phrases to spontaneous conversation. The speech-language pathologist will encourage the patient to use the lower-pitched voice because it is the most desirable and acceptable voice. Usually, only a few therapy sessions are sufficient to achieve a consistent, normal-sounding voice. At times, the patient rejects the lower-pitched voice because of the difficulty accepting the new vocal image. In those cases, it may be necessary to refer the patient for psychotherapy. Usually, patients return to therapy once they have accepted and become accustomed to the idea of the lower-pitch voice.

C. Muscle Tension Dysphonia

This type of voice disorder was first described by Murry Morrison, Hamish Nichol, and Linda Rammage in 1986. It is usually seen in young to middle-age adults who have difficulty coping with stress or use their voice in stressful situations. There is palpable muscle tension around the larynx, and during phonation, the suprahyoid musculature becomes tight. One of the main features of the disorder is that during indirect laryngoscopic exam, there is a visible space between the vocal folds in the posterior portion of the vocal folds during phonation. This posterior gap in the vocal folds contributes to the perception of a breathy voice and, to some degree, a harsh voice quality. Patients with muscle tension dysphonia usually complain that their voice is weak, lacks appropriate loudness, and tires easily.

Treatment for this type of pyschogenic voice disorder typically involves larygneal massage and a technique

called "yawn-sigh." The yawn-sigh technique involves having a patient pretend to yawn, which creates an open vocal tract and helps the neck musculature to relax so that a lowered laryngeal position is obtained. When the patient exhales after the yawn, the patient is encouraged to create a gentle and brief phonation (i.e., a sigh) at the end of the yawn. Repeated practice of this technique may facilitate an improved voice quality. However, if this technique is ineffective in producing a better-sounding voice, a clinician will want to perform laryngeal massage and manual repositioning of the larynx, combined with simple vocalizations as done with conversion reactions and mutational falsetto patients. As stated earlier, the patient is asked to produce a sustained vowel sound while the laryngeal massage is taking place. A clearer voice quality and slightly lower pitch indicate that excessive muscle tension around the larynx is subsiding and/or the larynx is pulled down or the thyroid cartilage is gently squeezed. Once a better voice is achieved, the patient should practice using the voice in gradually more complex speech contexts. Patients can be taught how to massage their larynx and move it into a lowered position. In addition, the clinician explains the connection between emotional stress and its impact on increasing muscle tension levels in the neck as well as the direct effect muscle tension has on changing voice quality.

II. THEORETICAL BASES

In 2000, Boone and McFarlane stated that the most accurate theory that explains the mechanics of phonation is the myoelastic-aerodynamic theory of phonation developed in the late 1960s. The basic notions of this theory are that intrinsic vocal fold muscle contractions create elastic movements of the vocal folds, which interact with aerodynamic components. Specifically, airflow expelled from the lungs generates air pressure (aerodynamics) below the vocal folds as exhalation for speech begins. At the same time this aerodynamic process is initiated, there is simultaneous adduction of the vocal folds through contractions of the vocal fold adductor musculature. The vocal folds vibrate in response to the airflow passing between the vocal folds, separating the folds. The elasticity of the vocal fold mass brings the folds back toward the midline, and the vibratory process is repeated. The pitch of the voice and the flexibility of vocal fold movement are directly dependent on the mass, length, and internal tension of the vocal fold musculature.

In addition, the contribution of the epithelial covering and underlying lamina propria of the vocal folds (i.e., mucosa) cannot be ignored as an important component to vocal fold vibrations. Complex movements of the vocal fold cover create a mucosal wave that moves laterally across the superior surface of the each vocal fold at typical conversational pitch and loudness levels. Any type of voice disorder can be explained in terms of disruptions in any one or more components of the myoelastic-aerodynamic theory of voice production and alterations in mucosal wave activity. As stated earlier, changes in the internal position and tension levels of the larynx as well as changes in the airflow and air pressure characteristics of phonation can lead to abnormal voice qualities in psychogenic voice disorders.

III. EMPIRICAL STUDIES

Research confirming the effectiveness of the therapy approaches for psychogenic voice disorders are lacking. Perhaps the major reason for this is that most clinicians are able to achieve a normal or close-to-normal sounding voice within one or two therapy sessions. Moreover, clinicians may not have a sufficient number of these types of cases to warrant publication of the results of their clinical treatment. Our clinical results show that approximately 90% of the psychogenic patients we treat exit our clinics with normal-sounding voices. Relapse can occur but one or two treatment session(s) is usually sufficient to have the patient's voice return to normal.

The studies that are available indirectly address the effectiveness of the techniques used to treat psychogenic voice disorders. As discussed in the treatment section, laryngeal massage and repositioning of the larynx are used with all three psychogenic voice disorders described in this article. In 1993, Nelson Roy and Herbert Leeper showed that laryngeal massage was effective in improving the voices of 17 patients with voice problems that had no organic involvement.

In another study in 1998, Louis Luguna, Charles Healey, Debra Hope described the successful remediation of a patient with a voice disorder secondary to social phobia. At the outset of therapy, the patient was diagnosed with muscle tension dysphonia. The patient's voice was characterized by a combination of dysphonia, vocal tremors, and occasional spasmodic closure of the vocal folds. Treatment was successful in reducing the abnormal vocal symptoms and social phobia.

IV. SUMMARY

Psychogenic voice disorders represent a small portion of patients with voice disorders that a speech-language pathologist treats. However, the large majority of patients are capable of achieving a normal-sounding voice in a treatment session or two. This is possible because the voice disorder is not related to any organic involvement. Elevated levels of muscle tension in and around the larynx, a heightened posture of the larynx, and poor respiratory support for phonation can result in a voice problem ranging from complete aphonia to varying degrees of dysphonia. High-pitched, tense voices are always seen within the subgroup of the population with voice disorders. Treatment for psychogenic voice disorders involves convincing the patient that the problem is related to a functional misuse of the larynx. Through laryngeal massage and manual repositioning of the larynx while the patient produces simple vocalizations such as sustained vowels, coughing, or clearing the throat, a normal voice can quickly be established. Treatment for these types of voice disorders is effective when proper diagnosis and management are provided by a speech-language pathologist.

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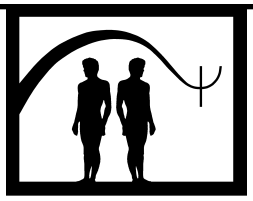

Psychopharmacology: Combined Treatment

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GLOSSARY

combined treatment The simultaneous prescription of psychotherapy and pharmacotherapy in the treatment of a patient's mental illness.

integrative treatment The provision of pharmacotherapy and psychotherapy by the same clinician.

psychopharmacology The treatment of mental illness with classes of medications that include the following

1. ***Anxiolytics***—compounds that possess antianxiety effects to relieve emotional tension.
2. ***Antidepressants***—agents from a number of different classes used primarily to relieve depression although often useful in treating other symptoms.
   a. ***Monoamine oxidase inhibitors***—medications that inhibit the degradation of monoamine oxidase in the brain thereby elevating levels of available biogenic amines.
   b. ***Tricyclic antidepressants***—compounds that increase the availability of multiple neurotransmitters, (e.g., norepinephrine) in the brain.
   c. ***Selective serotonin reuptake inhibitors***—medications that promote greater synaptic availability of the neurotransmitter serotonin.
3. ***Hypnotics***—different classes of compounds (e.g., benzodiazepines) used to induce sleep.
4. ***Mood stabilizers***—multiple types of medications that reduce or prevent mood lability and associated symptoms in affective disorders (e.g., bipolar disorder).
5. ***Antipsychotics***—different classes of medications that target many types of malfunctioning neurotransmitter systems such as the dopamine system and relieve and prevent symptoms of psychoses.

sequential treatment The addition of psychotropic medication to psychotherapeutic treatment or psychotherapy to pharmacotherapy when a monotherapy is unsuccessful in alleviating symptoms of a patient's mental disorder.

split treatment The primary treatment of a patient by a psychotherapist in collaboration most often with a psychiatrist who is responsible for the management of medication.

I. DESCRIPTION OF TREATMENT

Throughout the last 10 years, managed behavioral health care has demanded an increasing accountability of mental health professionals to demonstrate both effectiveness and cost effectiveness in the treatments they provide. Because cost containment is the primary objective of managed care systems, the delivery of least expensive treatments has been paramount. This demand has resulted in a significant shift in the treatment models of patients or clients with mental illness toward therapies

that are less costly and time intensive. However, the use of combined treatment, that is the employment of both psychotherapy and medication in the treatment of mental disorders, has been a preoccupation of modern psychiatry for more than 40 years and is becoming standard for many mental disorders and psychological problems. In the case of the physician mental health professional, managed care has, in general, preferred a model wherein psychotherapy is provided by a nonphysician mental health provider, and the physician, usually a psychiatrist, becomes responsible for the initiation and ongoing management of pharmacotherapy. For nonphysician mental health professionals, they have become increasingly obligated to adhere to guidelines that mandate a specific treatment for a specific disorder that frequently requires the use of medication. This type of treatment has been referred to most often as split or collaborative treatment. Managed care has undoubtedly refocused professional attention on collaborative care.

Although there is sparse data to support either the effectiveness or cost effectiveness of split treatment in naturalistic settings, nevertheless it has become a common practice. There are however a small number of studies that have suggested the possibility of reduced costs when medication and psychotherapy are provided by the psychiatrist under the auspices of a managed care arrangement.

The use of medication with psychotherapy is limited by neither the type of disorder nor the theoretical model of psychotherapy employed. Indeed in the case of interpersonal psychotherapy (IPT) medication issues where appropriate are routinely presented as a significant component in the treatment process from the start. Part of the appeal of this type of psychotherapy is the direct attempt to provide treatment in a situation that closely resembles the traditional nonpsychiatric doctor–patient relationship thereby reducing the stigma often associated with the need for mental health services. Similarly, the integration of psychotherapy and medication, when indicated, often characterizes cognitive-behavioral as well as psychoanalytically oriented psychotherapies.

II. THEORETICAL BASES

The prominence of a biologically based psychiatry within the last 40 years was in no small part facilitated by the substantial development of new compounds to treat mental disorders. Initially there was resistance to the introduction in psychotherapy of psychotropic medications. Some expressed concern that psychotropics irreparably altered the treatment relationship and dampened symptoms to such a degree that patients were no longer motivated to undergo psychotherapy. Others claimed that the introduction of medication encouraged a passive, dependent stance and perhaps the potential for magical thinking and symptom substitution. Still others claimed a lowering of the patient's self-esteem as a result of viewing himself or herself as being more ill and requiring some external agent to function. Some therapists feared that using medication raised unnecessary fears in patients that they were somehow less interesting to treat.

On the other hand, there may be benefits of employing medication within the psychotherapeutic relationship. These include:

- Patient self-esteem may be enhanced through symptom reduction.
- Greater safety and therefore increased expression of emotions by patients.
- Greater patient accessibility to psychotherapy through enhanced cognition, verbalization, and abreaction.
- Improvement in autonomous ego functions such as thought, attention, concentration, and memory permitting greater ego strength for verbal treatment.
- Reduction of stigma in help seeking through a positive placebo effect.
- Evocation of feelings and fantasies about receiving medication and the accompanying side effects that provide useful insights about the patient's personality and psychological state.
- Creation of an avenue to explore countertransference feelings around medication side effects or dose changes.
- Provision of a transitional connection between patient and therapist at times of unanticipated interruptions in treatment.
- Demonstration of patient conflicts about success when medication provides improvement.

Conversely, patient compliance or adherence to prescribed medication is a daunting problem for all physicians regardless of specialty. Some studies have found that nearly one-half of all patients prescribed a medication do not follow the prescription. Very often adding psychotherapy to a medication-based treatment program brings significant improvement in this problem because it establishes a format to explore noncompliance issues. In this respect, it is important to remember that effective treatment with pharmacological agents

requires a solid therapeutic alliance as is the case when psychotherapy alone is provided. Helpful psychiatric treatment is based on correct diagnosis, however making a correct psychiatric diagnosis without a productive doctor–patient relationship does not assure that patients will take their medications.

Regardless of theoretical persuasion, therapists know that the prescription of medication has significance for each patient in psychotherapy. If the psychological meaning of taking medication can be understood, it can provide a useful resource for the psychotherapist. This is true for either a treatment plan in which a psychiatrist is both prescribing medication and providing psychotherapy or in those instances when a physician is directing the pharmacotherapy and a nonphysician mental health professional is responsible for the psychotherapeutic component.

Medications may have positive and negative meanings for patients. For some, the prescription of medication is a positive reflection that the professional or professionals are interested in and acknowledge the patient's emotional pain and discomfort. Other patients may feel that the introduction of medication into a psychotherapy can be a reflection of the therapist's disinterest or discomfort with the patient's plight. For most patients, medication is viewed as a trustworthy and effective intervention, yet for the suspicious patient medication may be experienced as toxic, hurtful, and an attempt on the part of the physician to control the patient. Similarly, although most patients view medications as relatively safe interventions, others attribute psychological significance to even the most benign side effects. Because for many psychotropics, improvement in symptoms does not occur for 2 to 3 weeks or longer, some patients view the gradual onset of action as a sign that the psychiatrist is inept and or uncaring and that the nonphysician collaborator is not to be trusted because of the questionable referral. For those who have difficulty following the medication regimen, the psychotherapist is obligated to explore the possible reasons. Is it a matter of the patient's denial, incompetency, lack of motivation, the presence of an recognized comorbid disorder, or might this nonadherence be a true reflection of a poor therapeutic alliance? Regardless of diagnosis, for some with a mental disorder, poor adherence may be a representation of an unstable, inconsistent, or chaotic lifestyle.

Despite the substantial scientific evidence demonstrating (alone and in combination) the efficacy of psychopharmacology and psychotherapy for many disorders, cognitive neuroscience does not offer a unified theory explicating the precise mechanisms about the interactions between the two types of treatment. Medications, by and large, are conceptualized in terms of their ability to enhance the capacity of the biological system to respond, experience, and integrate information. Psychotherapies address these issues as well, but fundamentally they are concerned with meaning. Different psychotherapies, of course, utilize different approaches at discovering and modifying the meaningfulness of certain events, feelings, conflicts, wishes, and fears. There is a growing knowledge, for example, about the neurobiology of psychotherapy that has described on the molecular and structural levels how learning and memory may bring about change in psychotherapy. Integrated neuroscience promises that someday what we call the mind will be explained from a biological point of view, at this point in time however, the clinician must juggle two conceptual approaches to understanding human behavior in illness and in health.

III. CLINICAL CHALLENGES IN USING PSYCHOTHERAPY AND PHARMACOTHERAPY

When a psychiatrist is providing both psychotherapy and pharmacotherapy there are some specific challenges to the delivery of effective combined treatment. These include:

- *The adoption of an overview to the patient that encompasses and integrates both biological and psychosocial domains.* This may require the clinician to adopt a more directive and educational manner of relating when discussing medication concerns, and perhaps, in the case of a psychoanalytically oriented psychotherapist, becoming more active than usual in this portion of the visit.
- *The establishment of a system for addressing medication issues with the patient.* The clinician may decide to raise medication issues at the start or very end of the session. In the former case, medication concerns are sure to be covered, and important and helpful material about the therapist–patient relationship may be introduced and explored throughout the entire visit. However, some therapists object to the physician setting the initial agenda for the meeting and favor permitting the patient to begin each session with whatever is most pressing. Others feel that by electing to discuss medication at the very end of a meetting, there is the possibility of premature closure of a significant discussion. Regardless of which approach is selected, it is vital to establish consis-

tency. Deviation from the traditional approach is often helpful in identifying potential countertransference events. For example, when a medication discussion is introduced by the clinician atypically in the middle of a session, it is often an indicator of some discomfort.

• *The development of a systematic format for addressing side effects, requests for changes in medication dose and type, and requests for discontinuation of pharmacotherapy.* In the first case, complaints about side effects may be an important manifestation of patient resistance to psychotherapy. If in the middle of a well-established insight-oriented psychotherapy, the psychiatrist considers raising the possibility of medication, this may be an indication of increasing frustration with the patient's lack of progress.

• *Acquiring a particular sensitivity to termination issues*. It is not uncommon for patients in some types of therapies to experience a recurrence of symptoms at the end stage of treatment. The clinician should not assume that such events require additional or reintroduction of medication. Invariably, this phenomenon is a reflection of the patient's conflicts about the end of the therapeutic relationship and requires appropriate exploration.

Professionals working in collaborative or split treatments face quite different challenges. These treatment relationships may consist of a nonphysician mental health professional and a psychiatrist, a primary care physician and a psychotherapist, and a psychoanalyst or psychiatrist and psychopharmacologist to name but a few formats. The practice of collaborative treatment is by no means rare and two-thirds of practicing psychiatrists have reported prescribing medication for patients in psychotherapy with other professionals. However, the greatest challenge in providing quality collaborative care is assuring adequate communication. This includes communication between the patient and each of the professionals but especially between the psychotherapist and physician.

The amount of time that is required to establish an effective relationship between two providers in a split treatment is by no means insubstantial. However failure to delineate many aspects of the collaborative relationship at the outset is undoubtedly the primary reason for poor patient outcome. First, cooperative treatment implies equal respect for the responsibilities and contributions of each provider. There is no place for ideological or professional tensions in the provision of effective split treatment. Second, the patient must be educated about the unique aspects of entering this type of treatment relationship. These include consent for the professionals to communicate frequently about the patient's progress, difficulties, and medication side effects. Confidentiality is defined differently in this type of treatment relationship, and patients must be aware that information from either professional will be discussed routinely and particularly at times of change or crisis in the treatment.

Informed consent in collaborative treatment should outline clearly the benefits and risks of each type of treatment component as well as explore the patient's expectations of the combined treatment. Organizational guidelines in the field of psychiatry suggest that there should be documentation of each party's responsibilities and that this information has been conveyed to the patient. This includes the need for periodic assessment of the treatment process. It is helpful to prepare a document that explains responsibility in times of emergencies, need for hospitalization, vacation coverage, and a method and frequency of collaboration that is not limited to times of crisis. In this regard, many professionals have begun to rely on electronic mail or fax to keep their collaborators up-to-date. Others prefer face-to-face meetings or telephone conversations.

Consistent communication between the treating professionals serves other purposes beyond legal concerns. Because transference is universal regardless of treatment modality, the introduction of a second professional may often provide some unique challenges. Depending on a patient's psychological problems, a three-person system may activate significant unresolved conflicts and unexpressed expectations about the treatment team. On the other hand, the propensity for splitting is high in some types of patients especially those with particular personality disorders. Idealization of the physician because he or she prescribes medication whereas the psychotherapist does not is common. Similarly, some patients experience a quick medication visit as being reflective of the disinterest of the physician, and the therapist is then held in much higher regard. Negative comments about either professional may serve as important indicators of the patient's problems and characterological style and require that their psychological importance be understood and explored with them within the treatment. Under no circumstances, except in cases of ethical misconduct or malpractice, should either professional collude with the patient to criticize another collaborator. Persistent negativity about one provider should be discussed within the collaborative relationship to decide how best to address this issue.

As noted previously, the suggestion to seek a pharmacological consultation invariably raises relevant patient concerns about the meaning of the current treatment relationship as well as the prognosis. How consideration

for medication consultation is introduced has great influence on the patient's ability to follow through with the recommendation. The nonphysician professional should be clear for the reasons for referral. Is it a request for a second opinion about the patient's problems and suitability for psychotherapeutic treatment alone, a request for assistance in controlling disruptive symptoms, or even concern about the potential for an unmerited lawsuit.

IV. APPLICATIONS AND EXCLUSIONS

As will be reviewed shortly, the empirical evidence for employing combined treatment is growing. This is true across the spectrum of mental disorders from the most disabling to those disorders that are often associated with higher levels of functioning and coping. There appear to be no patient populations for which combined treatment is contraindicated although the usual culturally based reservations about psychotherapy or the taking of medication are always relevant. Beyond cultural considerations, the nonphysician professional must be aware that for some patients, medication is not an acceptable form of treatment and that a significant number of patients depending on their disorder will not respond to medication regardless of the type and duration of treatment.

There may be some clinical indications when combined treatment by a psychiatrist may be advantageous although there is no scientific evidence to support these assumptions. These might include those patients with highly complex medical conditions; cluster B personality disorders that have a history of significant self-harm and have experienced the need for frequent hospitalizations; and for those individuals with severe anorexia nervosa who require intensive medical care. Some, but not all, noncompliant patients with severe Axis I disorders such as schizophrenia and bipolar disorder may be candidates for this type of care as well.

V. EMPIRICAL STUDIES

A. Mood Disorders

With respect to combined treatment, unipolar nonpsychotic depression or major depression has been the most extensively studied disorder. Recent randomized controlled studies have provided the best evidence of the efficacy of psychotherapy and pharmacotherapy in the treatment of mood disorders. In a study of approximately 200 elderly patients with recurrent nonpsychotic major depression, interpersonal psychotherapy (IPT) in combination with a tricyclic antidepressant was found to be more effective than either medication or psychotherapy alone. More specifically, those receiving the combined treatment has a recurrence of 20% compared to 43% in those patients with medication alone, and 64% of those treated exclusively with psychotherapy. Those patients receiving only placebo in a typical medication clinic program had a recurrence rate of 90%.

The largest meta-analysis of approximately 600 subjects with nonpsychotic unipolar depression has established that combined psychotherapy and pharmacotherapy was more effective than psychotherapy alone. This study examined patients treated with either cognitive-behavior therapy (CBT) or IPT and compared them to those who were treated with IPT and medication. Combined treatment produced better outcome and also shorter time to recovery. However in patients with less severe depression, psychotherapy alone was equivalent to combined treatment.

A very recent study, the largest randomized controlled trial to date, demonstrated that medication and psychotherapy is clearly superior to either monotherapy. This study of nearly 700 patients found that psychotherapy and a newer antidepressant (nefazadone) provided greater relief than either treatment intervention by itself. This study used a manualized cognitive behavioral treatment called cognitive behavioral analysis system of psychotherapy (CBASP). Study participants receiving integrative treatment had an 85% response rate compared to 55% of those taking medication alone and 52% of participants being treated with psychotherapy alone.

European researchers were able to demonstrate the cost effectiveness of adding psychodynamic psychotherapy in outpatients with depression being treated pharmacologically. The addition of the psychotherapy resulted in fewer hospital days at the end of treatment as well as at 1-year follow-up. In addition to lower direct costs from hospitalization, combined treatment was also associated with less indirect costs for sick days.

As many as 40% of adolescents with chronic depression fail to respond to an initial trial with either a selective seratonin reputake inhibitor (SSRI) or psychotherapy. Some of these so called treatment-resistant teenagers may have comorbid disorders such as attention-deficit-hyperactivity disorder (ADHD), bipolar disorder, and/or substance abuse. However, in adolescents