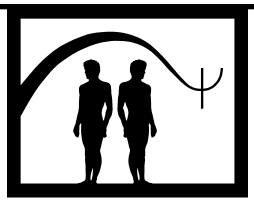

Collaborative Care

Nicholas A. Cummings

University of Nevada, Reno and the Foundation for Behavioral Health

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GLOSSARY

collaboration The practice in which health professionals from two or more disciplines cooperate in the diagnosis, treatment, and disposition of an individual patient.

co-location The collaborative model in which a behavioral health practitioner is actually located and functions within the primary care setting.

disease management The focus of a primary care team on a disease or diseases with the use of integrated programs of care (examples: asthma, depression, diabetes, hypertension, panic and anxiety disorder.)

hallway hand-off The term used for frequent, informal collaboration accorded by behavioral care providers being on co-location with primary care physicians.

integration, horizontal Programs that attempt to provide a general collaborative response to the diverse needs of the primary care population.

integration, vertical Programs that focus on a specific segment of the primary care population.

PCP A primary care provider who is usually a family medical practitioner, an internist, or a pediatrician. In some venues this term is extended to include nurse practitioners.

psychoeducational programs The term given to most vertical programs because they encompass a strong didactic component designed to inform the patient about the disease or condition.

referral The practice by a primary care physician of sending a patient to a specialist for diagnosis or follow-up services within that specialty.

specialist A physician or surgeon other than a primary care physician who has advanced training and standing in a specified area of practice, and is board certified in that field (examples: neurology, psychiatry, radiology, oncology, cardiology, psychology).

team The group of primary care physicians, behavioral health providers, nurse practitioners, and health educators serving the diverse needs of a primary care population (horizontal integration) or those that provide programs that are focused on a segment of that population (vertical integration).

triage The practice of determining the appropriate service, specialty, or community resource for an individual patient or segment of patients.

I. COLLABORATION AS A RANGE OF CONCEPTS

For the most part, collaboration is an occasional or infrequent occurrence. Defined as cooperation regarding the diagnosis and/or treatment of an individual patient

among two or more practitioners from different health fields, such laissez-faire arrangements fall short of today's expectations among those in medicine who advocate a closer working relationship among the various care disciplines. But even if this basic definition is accepted as valid, there is essentially an absence of collaborative care in the way medical practice is currently conducted. In most practices the primary care physician makes a referral to a specialist who then assumes responsibility for that aspect of the patient's care. Interaction with psychologists is usually a referral for psychodiagnostic testing, the results of which go back to the primary care provider (PCP) who makes the final disposition, or the patient is referred for psychotherapy to a separate mental health system. The relationship is usually from physician in independent solo or group practice referring to a mental health specialist also in solo or group practice. Some physicians who refer a patient for psychotherapy ask for occasional feedback, but most do not.

In the current managed health care climate there is considerable discussion accorded the concept of collaboration, but most of the movement toward a meaningful goal is largely lip service. The interest in the subject is usually sparked by psychologists and other mental health professionals who are looking for ways to expand their declining practices. Nonetheless, professional planning meetings will devote some time to the discussion of collaboration, often laughingly described as an unnatural act between two nonconsenting adults. Two organizations, however, were founded to promote collaboration. The first of these is the National Academies of Practice (NAP), founded in 1981 and composed of 10 Academies that are recognized by the federal and state governments for independent, reimbursable practice: Dentistry, Medicine, Nursing, Osteopathic Medicine, Optometry, Pharmacy, Podiatric Medicine, Psychology, Social Work, and Veterinary Medicine. Each Academy is composed of no more than 100 Distinguished Practitioners, chosen because they have received all the honors of their profession and are now prepared to disregard turf in the interest of the national health. The NAP essentially views collaboration as the cooperation among two or more professionals from different disciplines who are in independent, and most often solo practice. It publishes a journal on collaborative care, the *National Academies of Practice Forum.*

A smaller, but more activist organization is the Collaborative Family Healthcare Coalition that was founded recently and publishes *Families, Systems and Health.* It conceptualizes collaboration as the integration of behavioral health into primary care, as will be discussed below.

II. THE TRADITIONAL MODELS OF COLLABORATION

Psychotherapists, and mental health professionals in general, have long worked closely with medical practitioners. Usually the physician has a psychologist or two who are highly regarded and are the recipients of a stream of referrals. Occasionally this informal arrangement results in a physician/psychologist consultation on a difficult or unusual patient, or other forms of informal collaboration. The characteristic of the traditional model, however, is that two independent practitioners come together in a laissez-faire arrangement in the interest of better patient care.

This informal, independent relationship has at times been expanded in some arrangements to include innovative or unusual services. For example, a surgeon may ask that a stressed or fearful patient receive preoperative counseling in the hospital. Some dentists rely on psychotherapists to work with patients who manifest a severe fear of going to the dentist, and many psychologists are cultivating relationships with dentists with the same intensity that they do with physicians. Some psychologists specializing in the diagnosis of attention deficit and attention deficit hyperactivity disorders (ADD/ADHD) actually have regularly scheduled times in which they administer psychological tests in the neurologist's office. In all these arrangements the traditional characteristic prevails in which independent practitioners are collaborating.

Interestingly, some current arrangements between independent medical and psychological practitioners closely approach the integrated models to be discussed below. In one example a group practice of psychologists assigns its members to be on co-location in hospitals, working side by side with physicians on a regular schedule. In others psychologists are similarly assigned to be on co-location in outpatient settings, mimicking full integration except that being from two different entities the behavioral care practitioners lack decision-making authority and equity in the system being serviced.

III. THE TWO INTEGRATION MODELS OF COLLABORATION

The most far-reaching conceptualization of collaboration is that of the *integration* of behavioral health into primary care in a seamless, indistinguishable system. Actually this model encompasses two different models, both of which are compatible within the same setting,

and will be described separately below. These integration models are seen by many authorities to be the health delivery systems of the future, and they are currently being implemented in a number of large health systems in several states. The largest and most aggressive implementation is at Kaiser Permanente with its 2.4 million enrollees in Northern California. Others in varying stages of implementation include the Group Health Cooperative of Puget Sound (Washington), HealthPartners and Allina (both Minnesota), and HealthCare Partners (Southern California). These systems anticipate decreased costs, especially from medical cost offset through integrated behavioral care, as well as increased access, more appropriate care, and greater patient and provider satisfaction, all as value added. If these organizations (or even just one with a winning formula) attain these goals, the health system will move rapidly toward integration.

As previously mentioned, the integration model is really two compatible models. The first is horizontal integration, which seeks to provide a general response to the diverse needs of primary care. It, in itself, is a series of models, beginning with minimal integration and proceeding in intensity. At its simplest form horizontal integration may provide a toll free number where a PCP can obtain consultation on difficult patients on a 24-hour-a-day basis. For health systems that are not prepared for anything comprehensive, this telephone on-call can be plugged in quickly and with a minimum of disruption. Horizontal integration can proceed upward where the PCP can request specific behavioral health consultations to address medication and psychological treatment strategies, triage, treatment compliance, relapse prevention, lifestyle changes, and a multitude of other kinds of consultative services.

The midpoint in the increase of horizontal integration is co-location, where behavioral care providers are in primary care settings working side by side with PCPs. Extensive research has demonstrated the superiority of this model in patient acceptance of the referral for therapy. In the traditional referral model only 40% of those needing behavioral interventions are identified and referred for therapy. Of these, only 10% follow through and seek psychotherapy. Thus, in the usual primary care setting, only 4% of those needing behavioral care receive it. In the co-location model, where the physician walks with the patient a few steps down the hall to the psychologist's office and participates in a three-way 15-minute session (patient, PCP, and psychologist), 85 to 90% of these patients go into psychotherapy. Patient satisfaction is high, and patients seemingly see the referral as within the medical system rather to an outside mental health system with its unfortunate stigma attached.

Physician satisfaction is equally high inasmuch as access to behavioral intervention is immediate, readily accepted by the patient, and effective in its outcome. This and the opportunity to catch a behavioral care provider for consultation in the setting at any time is called the hallway hand-off.

Proceeding upward through the scale of horizontal integration is the formation of teams consisting of PCPs, behavioral care providers, nurse practitioners, and health educators who are given the responsibility for all the health care (direct as well as referral to specialists) for a specified population cohort. In its ultimate form, there is an obliteration of departments of medicine, psychiatry, and nursing, and the team is a semiautonomous unit with its own budget and support staff.

Perhaps the most far-reaching example of this team approach is found in the retooling of the Kaiser Permanente system in Northern California. Its 2.4 million enrollees are being divided into cohorts of 20,000 enrollees, each having its own primary care team of physicians, psychologists, nurse practitioners, and a health educator. Kaiser anticipates achieving the advantages of "small group practice" while retaining the leverage and clout of a huge total enrollment.

The second type of integration, called vertical integration, focuses its programs on specific segments of the primary care population. These are usually segments that account for disproportionate medical costs, often because of psychological problems that accompany them, or because of noncompliance to medical regimen. The most frequent are group programs for arthritis, asthma, diabetes, hypertension, ischemic heart disease, and emphysema, which together account for 40 cents of the health care dollar in the age group of 18 to 55. Other programs focus on psychological problems that also result in high medical utilization. The most important of these is depression, from which at one time or another 40% of primary care patients will suffer. Other psychological group programs are panic and anxiety disorders, including agoraphobia, and pain management. The programs are conducted by the team and will be described in a later section.

The usual vertically integrated programs employ one or two, and at most three programs. A notable exception is found at Kaiser Permanente in San Jose, where over a dozen such program have been used successfully for almost a decade. There the psychologist who heads the Department of Behavioral Medicine works closely with the

head of the Department of Medicine in a joint endeavor that has often been regarded as a model to be emulated.

In a well-integrated primary care system, horizontal and vertical integration are not only compatible, but they are both indispensable. Most programs beginning the path to integration adopt one vertical program, such as depression, and make very hesitant moves toward expanding to additional vertical programs. Horizontal integration seems to proceed even slower, with the infusion of beginning consultation programs between PCPs and behavioral health providers, and a reluctance to proceed to the next step. Two factors are required to proceed on a well-scheduled integration program. The first is the ability to electronically track the financial and other benefits, a capacity most health systems lack. The second is the buy-in of both the medical and administrative leaders to the need for integration. In even the most determined systems, a satisfactory level of buy-in required to proceed appropriately from early to more advanced steps involves a minimum of 1 year.

IV. BARRIERS TO COLLABORATIVE CARE

There are a number of formidable barriers to collaboration, especially as these pertain to the more extensive concept of integration. Some are historic, whereas others are current, and they all involve economic, turf, or training issues. Social policy moves slowly; health care policy moves even more slowly. We are confronted by centuries of tradition, attitudes, beliefs, and biases, and at least one century of modern medicine in which allopathics and the biomedical model have contributed enormously, along with public health, to our longevity, well-being, and quality of life. This very success can mitigate against change. The following are the more apparent barriers to collaboration and integration.

A. Mind–Body Dualism

Descartes, the 16th century philosopher and physician, is regarded as the one who first admonished medicine that the mind and the body are separate. This dualism exists in various forms to this day. The lines of demarcation between separate departments of medicine and psychiatry have spawned a necessary profession known as liaison psychiatry that attempts to bridge the gap between the two specialties. The existence of liaison psychiatry underscores the dualism, and in providing a stop-gap response it perpetuates it.

Reductionism, which posits that disease can best be understood at the molecular level of biology and physiology is, along with the mind-body dualism, at the very heart of the medical culture and the basis for much of its past scientific progress. It disregards research in medical psychology that demonstrates the interplay between the body's tissues and their environment, and that along with genetics, lifestyles are integral to most modern diseases. Long before Descartes, Hippocrates argued that it is more important to know what kind of person has a disease, than what disease a person has.

B. Entrenched Behaviorism

Psychology in the United States has never completely overcome the heritage given it by John B. Watson, who maintained that at birth a child is a blank slate and that the environment can make of a child a genius or a criminal. Biology has not received appropriate attention by American psychology, which has self-opted out of what is now known as the genetic revolution. The ultimate psychosocial model is no more prepared to deal with DNA than the strict biomedical model can explain disease-producing behavior. Integration involves the sharing of turf on both sides of the mind–body dualism.

C. Financial Barriers

1. Not Out of My Budget

Little progress has been made in integrating behavioral and medical health care through arrangements in which money is pooled from either or both of the departmental budgets of medicine and psychiatry. In a few settings where PCPs are having difficulty managing "troublesome" patients who manifest a variety of behavioral problems, medical budgets have been used to cover a limited collaboration. This is usually done to relieve PCPs from being overburdened with these patients. More often, however, collaboration costs are expected to come from the psychiatric budget. Consequently, most collaborative efforts never get beyond the discussion stage because each department is guarding its own strained budget, not recognizing that integrated care yields a medical cost offset that can be shared. (For more information on health care financing, as well as medical cost offset, see "Economic/Policy Issues" in this *Encyclopedia.*)

2. Resistance from the Carve-outs

The delivery of behavioral care through separate companies known as carve-outs has grown to encom-

pass over 150 to 175 million Americans, depending on how populations are counted. Collaboration is problematic, and integration is next to impossible when the primary care system has a different ownership than the behavioral care system. Separate behavioral care delivery is currently a huge industry that pays lip service to "carving-in," because serious consideration to do so lacks financial incentive and may actually reduce profits. This equity separation is the most formidable barrier, as integration (or the carve-in) can only be accomplished by dissolving the ownership of large for-profit companies, something that does not seem probable in the immediate future.

3. Resistance by Specialists

In the usual health care arrangement, the primary care system refers to specialists for care beyond the primary level. With the increases in capitation and risk pools, this means the primary care system can lose money if it overly refers to specialists, since these specialists are usually practitioners outside the primary care system that must still be reimbursed from the primary care system. The trend, therefore, is to do the front-end specialty work (such as minor surgery, as well as less severe gastroenterology, cardiology, pulmonology, and even oncology) right in the primary care setting. Consequently, PCPs are doing more of what previously was referred to specialists, nurse practitioners and physician assistants are doing more of the PCP's work, lesser trained nurses are doing what previously required registered nurses, and so forth. The more primary care includes specialty practice, the fewer are the referrals to specialists. This trend increases with degrees of integration, and with the subsequent loss of turf, specialists understandably oppose integration arrangements and models. Among the most resistant of the specialists are practicing psychotherapists who prefer solo (separate) practice, and whose referrals would decrease in an integrated system.

D. What, More Training?

More than half of all behavioral care is delivered by PCPs who still miss as much as 80% of the patients who could benefit from such services. Clearly, PCPs need much more than the few hours of the lectures in psychiatry that are included in the 4-year medical school curriculum, and psychologists and social workers must be grounded in the biological sciences with further courses in neuroanatomy, neurology, and clinical medicine. Because of the overloaded curriculum in both medical schools and graduate psychology and social work programs, there is strong opposition from academia, necessitating postgraduate training.

E. Primary Care Time Constraints

The average patient appointment with a primary care physician in the United States is 7 minutes. This is the result of the pressure to see more and more patients within the course of a day, leaving the physician no time to listen to the patient's problems beyond the initial complaint. Research has shown that lifestyle problems that may be at the root of the patient's physical disease do not emerge until well after the 7-minute limit. Every clinician fears opening the Pandora's box and seeing the patient dissolve into tears and emotional turmoil while the waiting room is filled with patients with and without appointments. Under current managed care arrangements, there is an even greater pressure on the PCP to see more and more patients.

F. The One-on-One Complex

Traditional health care delivery, whether this be medical or behavioral, is based on a one-on-one relationship and responsibility between doctor and patient. When referral is made it is to a specialist who replicates the one-on-one arrangement. The resistance to changing this to the more team-oriented innovative and integrated therapies is enormous on both the parts of medicine and behavioral health. Arguments for the preservation of the system are couched in terms of the doctor–patient relationship and in confidentiality, regardless of the fact that integrated services have demonstrated that patients readily extend the doctor–patient relationship to the treating team, and are comfortable in trusting the matter of confidentiality to the same team.

V. EXAMPLES OF POPULATION-BASED AND DISEASE-BASED INTEGRATED THERAPIES

Integrated therapies are almost always group programs conducted by primary care teams and serve three functions with varying degrees among the various programs as to which is the primary in a specific model: treatment, management, and prevention. These programs are based on empirically derived protocols and are often called psychoeducational. These can be further described as disease-based programs that will be discussed

first, and population-based programs to be described later. The disease-based programs can be further delineated into those that address physical diseases (e.g., arthritis, asthma, diabetes, emphysema, hypertension, ischemic heart disease) and those that address psychological conditions (e.g., depression, panic/anxiety states, borderline personality disorder, agoraphobia, and multiple phobias).

A. Treatment

The surprising feature of psychoeducational group models is that they can be therapeutic, and for some conditions, more effective than traditional modes. Research indicates that the greatest therapeutic effect is most likely to be with lifestyles that reflect the patient's overscrupulousness: perfectionists, agoraphobics, adult children of alcoholics, and other conditions in which the patient suffers from overbearing neurotic guilt. Lesser therapeutic effect is seen in personality disorders, addicts, and other patients who are rebellious and challenge authority. These patients also manifest chaotic lifestyles and are noncompliant with medical or psychological regimens. Because these patients can also develop depressions, panic attacks, and other psychological conditions, it is important to separate them into their own psychoeducational groups where their chaotic lifestyles and rebelliousness can not only be addressed, but also will be prevented from disrupting the treatment of the nonchaotic patients.

B. Management

In chronic medical conditions such as arthritis, asthma, diabetes, hypertension, and other diseases, the goal is not to cure that which cannot be cured. This does not mean that reduction in pain and morbidity are not in themselves therapeutic; the emphasis, however, is in disease management. It is with these intractable conditions, medical and psychological, that management is important. Patients with physical diseases are taught how to comply with medical regimens; monitor their own condition; reduce stress through relaxation, imagery, and other stress management techniques; and provide a support system for each other. Most so-called Axis II patients can learn impulse control so that they become more manageable and less vulnerable to the consequences of their own emotional lability. Schizophrenics are also incurable, but they can learn independent living as well as techniques to prevent the "crises" that provoke acute exacerbation requiring hospitalization. All management programs have in common the increased coping skills of the various patients represented in the widely differing conditions.

C. Prevention

The remarkable finding is that for appropriate patients assigned to appropriate psychoeducational programs, the demand for more intrusive services is significantly, if not dramatically, diminished. This is true prevention: Services are no longer needed (i.e., the "demand" side in health economics), as contrasted with reducing services as found in most cost containment (i.e., the "supply" side in health economics). Reducing costs by reducing demand is certainly more desirable than rationing care, and is the very essence of both prevention and cost containment. Hospitalization, the costliest health care, can be reduced for patients suffering from chronic medical conditions, schizophrenia, and borderline personalities. The latter characteristically threaten suicide, necessitating hospitalization as a precaution. Further more, patients in these programs learn skills instead of taking pills, thus reducing the skyrocketing cost of pharmacology. The support system replaces the patient's need for frequent emergency room visits, and it has been found that these programs significantly reduce the need and demand for costly, protracted individual psychotherapy.

D. Elements of Psychoeducational Programs

There are a number of elements that psychoeducational programs have in common, although not every protocol will contain each and every one of the following:

An *educational component* from which the patient learns a great deal about the medical or psychological condition, as well as the interplay between one's body and emotions.

Pain management for those populations suffering from chronic pain. This includes help in reducing undue reliance on medication and addressing any problems of iatrogenic addiction.

Relaxation techniques, which include meditation and guided imagery.

Stress management, adjusted to meet the needs of specific conditions and populations.

A support system, which includes not only the group milieu, but also the presence of "veterans" who have been through the program. A useful modification of

this element is the pairing of patients into a "buddy system" that allows them to call each other in time of need.

A self-evaluation component, which not only enables the patient to assess how well he or she is doing psychologically, but also teaches the patient to monitor such critical features as blood pressure, diet, insulin, and other signs important in chronic illness.

Homework is assigned after every session. The homework is carefully designed to move the patient to the next step of self-mastery, and may include desensitization, behavioral exercises, planned encounters with one's relationships or environment, readings, and other assignments that are critical to the well-being of the patient. The homework is never perfunctory. It is always relevant to the condition being treated and well timed to enhance development.

Timing, length, and number of sessions vary from protocol to protocol, reflecting the needs of each population or condition, and in accordance with research and experience.

Treatment of depression for those patients whose severely altered mood is interfering with their ability to participate in the program.

Self-efficacy (after Albert Bandura), refers to the belief that one can perform a specific action or complete a task. Although this involves self-confidence in general, it is the confidence to perform a specific task. Positive changes can be traced to an increase in self-efficacy brought about by a carefully designed protocol that will advance the sense of self-efficacy.

Learned helplessness (after Martin Seligman) is a concept that holds that helplessness is learned and can be unlearned. Some patients with chronic illnesses fall into a state of feeling helpless in the face of their disease. A well-designed protocol will enable a patient to confront and unlearn helplessness.

A sense of coherence (after Anton Antonovsky) is required for a person to make sense out of adversity. Patients with chronic physical or mental illness feel not only that their circumstances do not make sense, but neither does their life. The ability to cope often depends on the presence or absence of this sense of coherence, and the protocol should be designed to enhance it.

Exercise is an essential component of every protocol, and is the feature that is most often neglected by patients. Exercise helps ameliorate depression, raises the sense of self-efficacy, and promotes coping behavior. The patient should be encouraged to plan and implement his or her own exercise regimen and then to stick to it.

Modular formatting enables a protocol to serve different but similar populations and conditions by inserting or substituting condition-specific modules. Well-designed protocols permit and even augment a practice called "mixing and matching."

E. Population-Based Programs

Programs that utilize all or most of the medical and psychological protocols within a specific population do so because that population is often best addressed as a cohort or entity. One of the most successful such programs is the Teenage Clinic at Kaiser Permanente in San Francisco which for several decades has treated adolescents by their parents' consent without the parental presence or control usually found in pediatrics. Teams of pediatricians, behavioral health practitioners, and nurse practitioners have demonstrated that this population-based arrangement significantly reduces teenage pregnancy, drug abuse, and sexually transmitted diseases. These successes are attributed to the opportunity accorded teenagers to discuss issues they fear mentioning to their parents and to a team that includes providers highly trained and experienced in the integration of adolescent psychology and primary care.

Integrated substance abuse programs meld addiction treatment with most or all of the protocols previously described, addressing the nearly universal comorbidity that is characteristic of addicted patients. Integrated substance abuse programs have protocols in food and gambling addictions along with the usual chemical addiction approaches. In this way psychological and medical conditions are treated in an appropriate manner in which the treatment of the substance abuse remains paramount, whereas in the usual primary care setting the primacy of the addiction treatment might well be subordinated.

Because the needs of older adults tend to be so different from those of the general populations, separate Medicare programs are growing in popularity. These patients face higher rates of chronic illness, and even terminal illness for themselves or their spouse than are found in the general population. Marital, occupational, parenting, and other issues common to younger adults are of little importance, while bereavement, loneliness, alienation, and physical/psychological limitations are at the forefront.

VI. THE FUTURE OF PSYCHOTHERAPY AS INTEGRATED PRIMARY BEHAVIORAL CARE

The next frontier in organized health care delivery is the integrated program where behavioral health is an integral part of primary care. As these integrated programs increase in numbers, traditional psychotherapy practice (whether solo or in small groups) will continue to decline while opportunities in health psychology will abound. Several large-scale health care systems are in the process of integrating. The nation's largest HMO has launched a major retooling after which 2.4 million covered lives will be divided into 20,000 person cohorts, each served by integrated teams of primary care physicians, behavioral health providers, nurse practitioners, and health educators. As these programs continue to report medical cost offset savings, more effective care, financial enhancement, and high patient and provider satisfaction, there will be a national acceleration in the integration of health care. Co-location will be the typical arrangement, with behavioral health providers practicing in close collaboration with primary care physicians.

The behavioral health provider of the future will need training quite different from that offered now in most graduate programs. The curriculum of the future will be heavily weighted with courses in medical psychology, behavioral medicine, outcomes research and program planning, finances, and administration. Proficiency in group psychoeducational protocols that are both disease- and population-based will replace the current emphasis on individual psychotherapy. Although psychoeducation will never fully replace individual psychotherapy, experience in currently integrated large-scale programs would predict that the following proportions of the psychotherapist's time will prevail in the not too distant future: 25% individual psychotherapy, 25% time-limited group therapy, and 50% psychoeducational programs. Several health care settings are already reflecting this configuration. Extrapolating this time allocation, taking into account that eight or more patients are seen in groups during the time required to see just one individual patient, 90% or more of patients will be treated in models reflecting group protocols.

VII. SUMMARY

Collaboration refers to a range of concepts, but it always involves cooperation in diagnosis and treatment of an individual patient by two or more practitioners from different fields of health care. For the psychotherapist, its simplest form is an informal arrangement for referral and consultation between a behavioral specialist and a primary care physician or other medical specialist. Each is otherwise independent of the other and each bills the patient or the third party payer separately for the services provided. This traditional concept of collaboration is sometimes expanded to include innovative or unusual services provided by the behavioral care specialist on a regular basis. For example, a surgeon may wish preoperative counseling in the hospital for each patient. Or a neurologist may wish the regular scheduled presence of a psychologist to conduct testing with cases suspected of ADD/ADHD.

There are two integration models of collaboration, known as horizontal and vertical integration, which differ but can be compatible in the same health care delivery system. With true integration, however, the health care system requires successive degrees of intensity as it becomes more comprehensive and complex. Horizontal integration may proceed from a simple 24-hour consultation telephone number available to all physicians, through co-location where the behavioral practitioner works side by side with primary care physicians, to complete integration in which health care is provided by teams of practitioners that include behavioral care practitioners.

Vertical integration focuses its programs on specific segments of the primary care population, and especially for those in which psychological problems are accompanied with high medical costs. These are termed population-based, or disease-based programs. The most frequent group programs are for chronic medical conditions, such as arthritis, asthma, diabetes, hypertension, ischemic heart disease, and emphysema, all of which manifest a strong psychological component often expressed by noncompliance with their medical regimen. Other group programs address essentially psychological programs that complicate the medical system. These include borderline personality disorder, agoraphobia and multiple phobias, panic and anxiety disorder, and pain management. Health care systems utilizing both horizontal and vertical integration are relatively recent, but may be the forerunner of the future in collaborative care.

Barriers to collaborative care are centuries of mind–body dualism reflected in separate departments of medicine and psychiatry (or psychology). From the psychological standpoint, American behaviorism lags behind in the integration of the physical into its psy-

chological theories. It can be said that all specialties, medical as well as psychological, inadvertently preserve the separation by zealously guarding their individual turf. The most formidable barriers, however, are financial. These range in the usual health setting from the not-out-of-my-budget mentality to the prevalence today of behavioral care carve-outs that perpetuate organizational separation.

Population and disease-based integration has developed a number of group programs that have both a psychotherapeutic and a psychoeducational component, and consistently share a number of characteristics in their protocols. These characteristics have all three essential elements: treatment, management and prevention.

See Also the Following Articles

Bioethics ■ Cancer Patients: Psychotherapy ■ Informed Consent ■ Integrative Approaches to Psychotherapy ■ Medically Ill Patient: Psychotherapy ■ Neurobiology

Further Reading

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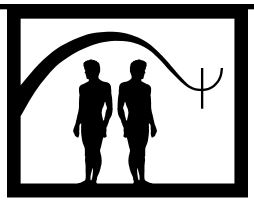

Communication Skills Training

David Reitman and Nichole Jurbergs

Louisiana State University

I. Description of Treatment
II. Theoretical Bases
III. Empirical Studies
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GLOSSARY

feedback Information provided to an individual following a response that is intended to promote the acquisition of behavior.

modeling Action performed by a therapist or coach to illustrate important elements of a response requiring imitation by clients or patients. Feedback and instructions are also used to shape the behavioral repertoire to approximate more closely the actions of the model.

Communication skills training (CST) promotes problem-solving skills by teaching patients to resolve disputes through restructuring their attitudes, adopting and adhering to new rules of social interaction, and clearly expressing and receiving meaning. In CST, therapists frequently combine elements of behavioral, family systems, humanistic, and other approaches to reduce interpersonal problems. Although initially developed in the context of family interaction (e.g., spouse to spouse, or parent to adolescent), in recent years the approach has been found to have broad appeal. For example, recent modifications of CST for persons with developmental disabilities have proven valuable in the treatment of challenging behavior associated with limitations in communicative ability and useful in promoting choice.

I. DESCRIPTION OF TREATMENT

Communication skills are vital for achieving goals through social interaction. CST emphasizes pragmatics, communication in a social context, and can be useful in a wide range of treatment programs for many types of individuals and situations because of a diverse, yet sound conceptual and empirical base.

As it is most commonly known, CST is used to teach problem-solving skills, most frequently to help resolve parent–adolescent and marital conflict. Because of the diversity of programs, it is useful to identify specific operations common to all CST. First, most CST seeks to promote the clear expression and reception of meaning. Effective problem-solving requires minimizing negative communication habits and speeds the process of arriving at mutually favorable solutions. By contrast, emotionally charged accusations, frequent changes of topic, and interruptions frequently impede the promotion of clear communication. CST also attempts to teach the individual how to restructure attitudes (e.g., zero-sum or all or nothing thinking) that may inhibit or derail effective problem-solving. Second, CST trains

families in reflective listening (i.e., relating perceived meaning back to the speaker) in an attempt to enhance the behavioral component of problem-solving. Moreover, ensuring that clients take an active role in trying to understand one another minimizes the likelihood that a "nonparticipant" will seek to undermine solutions. A third dimension of CST focuses attention on the quality of family relations. In general, CST emphasizes a democratic approach to family relations. Issues are raised and clarified through mutual agreement and the rights of all parties are respected in arriving at a solution (i.e., equalization of decision-making power).

An early example of the CST approach is the four-step model introduced by Arthur L. Robin, Sharon L. Foster, and colleagues as a component of their problem-solving communication training (PSCT) for parents and adolescents. During the first of a course of four to six sessions, families are introduced to the model. Specifically, families are told to (1) define the problem concisely without accusations, (2) brainstorm alternative solutions, (3) evaluate solutions by listing their positive and negative consequences and deciding on a mutually satisfactory agreement, and, finally (4) specify the actions required to implement the solution. This training also involves the therapist's provision of feedback, modeling, and behavioral rehearsal (i.e., role-play) to correct negative habits. Families are also taught to self-monitor negative communication patterns such as interruptions, lack of eye contact, and sarcasm, and to replace them with more effective behaviors such as maintaining eye contact, active listening, verification of meaning, appropriate voice tone, and appropriate nonverbal posturing (e.g., leaning slightly forward to indicate interest).

At each session, a specific problem, such as chore completion, curfew obedience, or homework compliance, is discussed. Therapists then help guide families through a structured discussion and intervene when family members stray from the four-step guidelines. Therapist prompts may be in the form of a discussion of the inappropriate behavior, demonstration of more appropriate behavior, or direct feedback about the error. Often, family members are uneven in their mastery of the communications skills and will receive additional feedback and instruction during the sessions. Cognitive restructuring (i.e., challenging or reframing maladaptive thoughts) and planning for the generalization of treatment gains through homework assignments are also common features of PSCT.

Applications of CST to marital and relationship problems have been theoretically diverse and include systems-oriented and social-learning approaches. One of the best known interventions for relationship problems, behavioral marital therapy (BMT), represents an application of reinforcement principles to problems encountered in romantic relationships. Over the years, BMT has been broadened by Neil Jacobson and colleagues to include other features; however, the core of BMT appears to be the promotion of "support-understanding techniques" and problem-solving training. Support-understanding techniques encourage collaboration and positive affect. For example, each partner might first generate a list of behaviors that they would like their partner to perform. Subsequently, each partner agrees to perform three of the actions from their partner's list. Problem-solving techniques are very similar to those described by Robin and Foster.

Couple Communication is a recent example of a systems-oriented program designed by Sherod Miller and Peter A.D. Sherrard to teach important communication skills to couples in conflict. Its three main goals are to help couples communicate more effectively about day-to-day issues, manage and resolve conflicts more effectively, and to help build a more satisfying relationship. The intervention model aims to increase awareness of the relationship, teach skills for communicating more effectively, expand options for enriching the relationship, and increase satisfaction with the relationship itself. Although incorporating many features of more experiential and family-systems therapies (i.e., employing the use of skill mats to promote kinesthetic learning), the program is notable for its systematic incorporation of feedback, coaching, and contracting and shares these features with the model promoted by Robin, Jacobson, and others.

CST can be useful in helping patients with disabilities such as mental retardation or autism to communicate effectively in social settings. Although significant modifications are required to adapt CSTs for the communication impaired and developmentally disabled, Fred P. Orelove and Dick Sobsey have outlined a program to teach basic functional communication to children with severe or multiple disabilities. Before implementing such a program, four decisions must be made: (1) which communication functions would be most useful to the individual, (2) what specific content or messages should be communicated, (3) which form (mode) of communication should be selected—vocal, gestural, or graphic, (4) how each item should be taught. After these decisions have been made, a program of assessing and teaching specific patterns of communication can be implemented based on five fundamental principles: maximization (striving for the greatest increase in appropriate communication), functionality (focusing on social outcomes), individualization (uniquely assessing

each child and what he or she requires), mutuality (aiming at both communication partners and their context assessment and intervention), and normalization (teaching common communication unless there is an undeniable benefit to the individual in teaching different skills). Another program, designed by Laura G. Klinger and Geraldine Dawson, is intended to facilitate social interaction, specifically for children with autism. It comprises two strategy levels and is based on the five general principles outlined by Orelove and Sobsey. Level One involves facilitating attention to people, social contingency, and turn-taking. Level Two targets imitation, early communication, and joint attention skills. These strategies may be implemented by parents, teachers, psychologists, and other developmental specialists.

Interventions have also been designed based on the premise of teaching communication skills as an alternative to challenging behavior. In their review of functional communication interventions, David P. Wacker and Joe Reichle describe a number of simple and effective programs that involve two common steps. First, factors maintaining problem target behaviors must be identified. Second, the maintaining factors (e.g., rewards) must be made available only when the specified appropriate communicative response is made. These interventions are performed in three general phases: assessment, initial intervention, and expanded intervention aimed at generalizing and maintaining outcomes. V. Mark Durand and colleagues have explored several factors that increase the success of functional communication training in reducing challenging behavior. The four main factors are response match, response mastery, response milieu, and the consequences of the challenging behavior. "Response match" means that the newly trained response should produce the same consequence as the targeted challenging behavior. For example, raising a hand should garner attention in the same way that striking a peer would have prior to training. Other concepts such as "response mastery" and "response milieu" speak to the importance of ensuring that the newly trained functional communication response becomes more efficient in producing changes in individual's environment than the formerly high-frequency problem behavior. Taken together, the diverse applications of CST are impressive in scope.

II. THEORETICAL BASES

Communication skills training has gradually evolved from a treatment approach focused on reducing family conflict to a much broader array of therapies concerned with the resolution of human conflict in areas ranging from the home to business and institutional settings. The initial conceptual underpinnings of CST, however, spring from a humanistic, social-learning perspective suggesting that conflict is often produced by perceived differences in power. As originally conceptualized by Robin and colleagues, PSCT suggests that adolescents initially argue with their parents in a developmentally appropriate quest for independence. Unfortunately, overly "authoritarian" responses from parents sometimes lead to increased conflict. Reacting in a more "democratic" manner, that is, emphasizing mutual solutions and the equalization of decision-making power, replaces negative communication with a social environment more likely to yield solutions to problems arising in parent–child relations. This early form of CST was based on the principles of behavior modification, experimental problem solving, and effective communication.

Behavioral marital therapy emerged most directly from reinforcement and social learning theory. The early BMT notion of behavioral exchange was modeled on behavioral formulations of the marital relationship in terms of contingency contracting and seeking to foster changes in partner behavior. In more recent years, BMT has expanded to incorporate a theoretically diverse number of treatment techniques, including a greater focus on communication and problem-solving skills, and more acceptance-based procedures. The Couple Communication program is based on systems-theory concepts and principles. Viewing a relationship as a "system," and more specifically as a "self-managing–adaptive system," implies that relationships are not static and that the behavior of the partners constitutes the dynamic of their relationship. The Couple Communication program and the concepts and skills taught in the program are designed to enhance the couple's ability to communicate effectively and become their own best problem solvers.

The theoretical justification for employing CST for persons with developmental disabilities is that the difficulties of these individuals are due largely to deficits in social communication, rather than simply speech production. Research in this field has only recently begun to focus on the social–emotional domain rather than on cognitive or linguistic deficits. Functional communication training is derived from learning theory and behavior analysis. Adherents of this perspective argue for the functionality or adaptiveness of the existing problem behavior (for example, self-injury may communicate physical discomfort) and note that when taught an appropriate communicative alternative, such as a gesture to obtain medical care, individuals with developmental

disabilities will often show substantial reductions in self-injury and other forms of problem behavior.

III. EMPIRICAL STUDIES

A large body of research on CST has pointed to its effectiveness in a variety of applications. Robin has conducted a host of studies that demonstrate the versatility of his CST approach with the most recent applications in the context of eating disorders. The effectiveness of his problem-solving communication training program has been established in both hypothetical (analogue) and actual therapy settings during structured treatment programs. Improvements in problem-solving have also been noted outside of training settings. For example, in one study, reductions in parent–adolescent conflict in the home were still evident up to 10 months following therapy. A lack of generalization is sometimes cited as a treatment limitation in other studies and reviews. Evidence of both parent and adolescent satisfaction with the improvements in family interaction has also been noted.

BMT is among the most heavily researched treatment programs of any kind. Findings have suggested that it is superior to no-treatment controls and placebo and equivalent to or more effective than other forms of marital therapy. Although generalization and maintenance of treatment effects and the clinical significance of results have sometimes been a concern, researchers continue to work to improve outcomes. Empirical support for the Couple Communication program is less robust than for BMT, but some evidence of increases in constructive communication skill use, relationship satisfaction, and maintenance of treatment effects have been reported.

V. M. Durand, David Wacker, Brian Iwata, and a host of others have found solid support for the use of functional communication and other behaviorally oriented skills training as a treatment modality for challenging behavior among persons diagnosed with developmental disabilities. The data have been encouraging in the assessment and treatment of problems such as aggression, self-injurious behavior, and stereotyped behavior, as well as other problems associated with autism. Moreover, these studies have been conducted in a variety of settings (e.g., schools, group homes, and vocational settings) and implemented by professionals, paraprofessionals, and family members alike.

IV. SUMMARY

The main elements that unite all the CST programs are the clear expression and reception of meaning, restructuring of inappropriate attitudes (on the part of each member of the interaction unit), and equalization of decision-making power. CST programs typically utilize the above model to reframe disagreements and to generate solutions to recurrent problems that plague the family or relationship partners. There are now a large number of empirical studies that support the efficacy and wide applicability of CST in the family context, including specific applications for problems that intersect the interpersonal sphere such as alcoholism, sexual dysfunction, and depression.

In recent years, CSTs have also been developed for patients with developmental disabilities. Indications are that persons with disabilities and their caretakers also benefit from structured programs that teach persons in the caretaker–patient relationship how to communicate more effectively in the social milieu. Once the strategies for each individual have been developed based on an ideographic assessment, they may be implemented by parents, teachers, and other specialists involved in the individual's care. Communication skills programs may also be used to design more effective interventions for challenging behavior. When implemented, their goal is to replace problem behavior, such as self-injury, with socially appropriate communication. These programs, too, appear to have a high success rate. Although technically difficult to implement and sometimes effortful or unpleasant for participants, it is expected that further development of CST programs will be undertaken with increasingly diverse populations.

See Also the Following Articles

Anger Control Therapy ■ Family Therapy ■ Funtional Communication Training ■ Interpersonal Psychotherapy ■ Language in Psychotherapy ■ Parent–Child Interaction Therapy ■ Psychodynamic Couples Therapy

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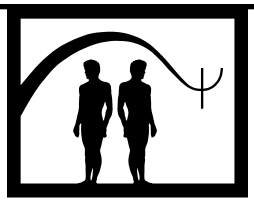

Comorbidity

William M. Klykylo
Wright State University School of Medicine

I. Definition and History of Concept
II. Comorbidity and Substance Abuse
III. Comorbidity in Childhood Disorders
IV. Other Comorbidities
V. Applications of Concept
Further Reading

GLOSSARY

comorbidity The co-occurence of more than one disorder in the same individual.
endocrinopathy A disorder caused by or affecting the endocrine system of the body.
epidemiologic Relating to the study of epidemiology or to the characteristics of a disease or physiologic phenomenon in a population as a whole rather than in individuals.

I. DEFINITION AND HISTORY OF CONCEPT

Comorbidity is defined as the co-occurence of more than one disorder in the same individual. In its broadest sense, comorbidity can include the co-occurrence of medical and psychiatric disorders, such as the dementia associated with organic conditions or the affective changes resulting from endocrinopathies. In psychiatry, comorbidity is generally taken to mean the association of diagnosable psychiatric disorders. Comorbidity is an epidemiologic phenomenon, relating to the characteristics of a population, and the reported comorbidity of certain disorders in a population does not necessarily imply that they will be comorbid in any given individual. However, observations of comorbidity among populations may be extremely useful in informing the therapist's understanding of an individual patient.

The observation of comorbidity between disorders does not in and of itself demonstrate any particular type of relationship between them, least of all causality. Comorbidity can result from many factors. One disorder may represent an early manifestation of another. There may be problems of classification, in which the use of same or similar symptoms define different disorders. Detection artifacts can occur. For example, the presence of one disorder in a patient may make another condition more visible, even though it may be no more common than in a general population. Similarly, the presence of one disorder may influence the observations of clinicians and make them more likely to report the presence of another disorder.

Nonetheless, rates of co-occurrence of psychiatric disorders that are far in excess of what could be expected from chance have repeatedly been reported among many different populations. The recognition of this fact by mental health professionals has been long in coming but represents a major advance in the basic assumption of mental health care. Documentation of comorbidities have likewise led to important advances in our knowledge of mental illness and thereby our ability to provide effective, comprehensive care.

One may speculate as to why the recognition of comorbidity came later to mental health than to some other areas of medicine. Often therapists have found a unitary explanation for their patients' problems to be both of heuristic value and a source of comfort. The psychodynamic concepts of nuclear conflict and infantile neurosis, although valuable in many respects, may have engendered a notion that individuals have one great problem alone. The tendency in some psychotherapeutic schools to value contemporaneous observations of process over a more "medical" model of diagnosis, especially prior to *DSM-III* may have rendered irrelevant the concept of comorbidity, based as it is on diagnosis. The ascendance of the empiric model of *DSM-III* and *-IV* can create an epistemological problem for some therapists, in that many of the plethora of diagnoses contained in the *DSM*s have numerous features in common. This level of detail enhances the utility of *DSM* criteria as discriminators among diagnoses. However, these commonalities can also obscure the differences among conditions and thereby lead clinicians to gloss over cormorbidities. In any case therapists today are much more likely than in the past to recognize that their patients frequently most confront a variety of illnesses and problems. These may often aggravate each other and must be addressed in their multiplicity if the patient is to find meaningful symptomatic relief and functional improvement.

Therapists approach patients with a certain mindset, reflective of particular schools of therapy but also of generally accepted values, such as empathy, professional responsibility, and the importance of a conceptual framework for diagnosis and treatment. Part of this framework for any therapist today must be the possibility of comorbid disorders in any patient. This point of view, like any other assumption, should be used to enrich and amplify one's view of the patient rather than to unnecessarily codify or stereotype that view. Most data on comorbidity is epidemiologic, although each patient has an individual course of life. In addition, the recognition of an additional problem or disorder does not necessarily require that it be treated, especially in today's climate of focused and time-limited psychotherapies. Still, most therapists have a desire to know as much as they can about their patients' life so as to serve both the patients' needs and enhance their own satisfaction.

II. COMORBIDITY AND SUBSTANCE ABUSE

Therapists should be aware of many particular comorbidities that have been documented in psychiatric research. The most extensive documentation of comorbidity involves substance abuse and psychiatric disorders. Alcoholism and other addictions affect 20% of the population at some time in their lives, and this number is greatly increased if one also considers tobacco consumption a form of substance abuse. It is reckoned that at least one third of persons with addictions have some other comorbid Axis I disorder. In the national comorbidity survey reported in 1988, 47% of alcoholics had a comorbid psychiatric diagnosis. This number rises even higher in psychiatric inpatient settings and among the homeless.

Anxiety and affective disorders are the most common mental illnesses other than substance disorders in the general population. Thus, it is not surprising to find a high rate of comorbidity between these conditions and substance abuse. Some authors report a particular association between the primary onset of an anxiety disorder and the subsequent development of alcoholism, but the opposite temporal relationship is also quite possible. Persons with affective disorders often are attracted to substance use and abuse in an attempt to self-medicate. The Epidemiological Catchment Area (ECA) study showed that 30% to 50% of their alcoholic patients had comorbid major depression, although this rate of occurrence decreased substantially with abstinence.

Persons with schizophrenia, especially men, are also more likely than nonill controls to have a comorbid substance abuse problem. Lifetime concurrence in this group of around 50% is frequently reported for alcohol use disorders. In 1990, a report from the Eastern Psychiatric Institute showed that, among schizophrenic patients, 47% abused alcohol, 42% abused cannabis, 25% abused stimulants, and 18% abused hallucinogens. In this population, drug dependence was associated with more hospitalizations and with more psychosocial symptoms.

Other reports have suggested an increased level of comorbidity for substance abuse among adolescents and young adults with attention deficit hyperactivity disorder. This may be particularly marked among patients with associated learning problems, family dysfunction, or social economic distress. Researchers have speculated as to whether this might result from an underlying biobehavioral predisposition, the consequence of an impulsive lifestyle and social and educational failures, or various other combinations of factors.

III. COMORBIDITY IN CHILDHOOD DISORDERS

Comorbidity of psychiatric disorders in children occurs far in excess of chance. In the studies of this

phenomenon that have been conducted in the last 15 years, rates of co-occurrent disorders in participants studied from 40% to 70% are commonly reported. Child adolescent psychiatry disorders are commonly described as externalizing, such as conduct disorder and hyperactivity, and internalizing, such as anxiety and depressive disorders. Researchers have demonstrated an especially high comorbidity within each of these categories but also a very significant comorbidity between these two areas. As early as 1982 Puig–Antich reported a significant association between conduct disorder and depression, and a frequent association between hyperactivity and depression has also been reported. At times this degree of overlap has led observers to question whether or not some of these conditions are actually separate disorders.

The most commonly diagnosed psychiatric disorder in children in the United States is attention deficit hyperactivity disorder (ADHD). Various rates of prevalence from 3% to 10% have been reported. The recognition of this disorder is influenced by many external factors, such as particular family, social, and educational expectations and the availability of mental health services. It is said that this condition is both heavily underdiagnosed and overdiagnosed. It is also frequently misdiagnosed; for example, many children described as having ADHD actually have a primary depression. Nonetheless rigorous studies of children with this condition have repeatedly disclosed the frequent occurrence of comorbid conditions. As many as two thirds of elementary school age children with ADHD have at least one other diagnosable psychiatric disorder. In the Ontario Child Health Study investigators noted that 42% of such children had comorbid conduct disorder, 17.3% had somatization disorder, and 19.3% had the broad category of emotional disorder. Another study conducted by Cohen and his coworkers reported similar findings including 23% of children with overanxious disorder, 24% with separation anxiety, and 13% with major depressive disorder.

Not surprisingly a converse comorbidity is seen among children with disruptive behavior disorders such as conduct disorder and oppositional defiant disorder. Some 50% of these children have mood disorders, and perhaps 20% or more have learning problems or learning disabilities.

Anxiety disorders in children have been traditionally underrecognized. This may be a result of early theoretical notions that regarded anxiety as mainly a symptom of neurosis that could be expected to abate incidentally in the course of psychotherapy. We have learned in recent years that, regardless of its origin, anxiety persists in children as with a life of its own, regardless of its origin. The *DSM-IV* notes the existence of separation anxiety disorder and generalized anxiety disorder in children. Children may also experience social phobia and panic disorder. Obsessive–compulsive disorder (OCD) is one of the anxiety disorders as is posttraumatic stress disorder (PTSD).

All of these disorders, including PTSD, can be comorbid with each other. Clinicians who follow patients over the years meet children who may first present with a separation anxiety disorder, then go on to develop a social phobia and later in life manifest OCD. Many other sequences also occur, and any and all of these conditions can occur simultaneously. It is reported that the majority of children with the specific phobia also have a second anxiety disorder diagnosis. Two thirds of children with anxiety disorders also have depressive disorders, at least at some time in their lives. Seventeen to twenty-two percent of children with a primary anxiety disorder may have ADHD, and a comorbidity with conduct disorder and oppositional defiant disorder has also been observed. Posttraumatic stress disorder in children as well as in adults requires special consideration. This disorder in and of itself has a protean range of symptoms, which may lead the clinician to misattribute symptoms that might be reflective of a concurrent or preexistent second psychiatric disorder. Depression and anxiety disorders are most especially observed in the company of PTSD and may require psychiatric treatment in addition to that being already offered for trauma.

Eating disorders are regrettably common in our appearance-oriented society. It is reported that 75% of female teenagers describe themselves as fat. One to four percent of adolescent and young adult women go onto develop anorexia nervosa or bulimia and perhaps one tenth as many young males. People with anorexia have increased rates of major depressive disorder, dysthymia and OCD. Persons with bulimia also have high rates of anxiety and addictive disorders. In the experience of many clinicians, it is impossible for many patients to recover from their eating disorders without adequate treatment for these comorbid conditions.

IV. OTHER COMORBIDITIES

Any of the comorbidities reported in child and adolescent psychiatric patients may also be seen in adulthood. In addition, the clinician most be mindful of other frequently reported co-current conditions. Patients with schizophrenia often have concurrent

cognitive deficits and affective disorders. Suicidality is common in young males with schizophrenia especially early in their illness.

There is extensive comorbidity among the affective disorders. Many researchers believe this is a manifestation of early appearance of disorders. For example, a patient who has recurrent depressive episodes may go on in time to develop full bipolar illness. More than 40% of patients with major depression can expect to have one or more "nonmood" psychiatric disorders during their lifetimes. These include alcoholism and substance abuse, anxiety disorders, eating disorders, and certain personality disorders such as borderline personality disorder. Affective disorders are often seen in association with somatoform and conversion disorders, although firm numbers for comorbidity are difficult to come by.

Persons with panic disorder have an extremely high rate of comorbidity with other anxiety disorders such as social phobia, generalized anxiety disorder and OCD. They also have a very high rate of substance abuse. Virtually all of these people, who represent 2% to 5% of the general population, have some other associated psychiatric disorder. Social and specific phobias are also reported to be comorbid with other disorders, though this comorbidity seems less than that of panic disorder. The comorbidity of PTSD with many other conditions as reported among children, is also seen in adults.

Sixty-seven percent of persons with primary OCD can expect to have a major depression during their lifetimes, and typically 31% of them at any given time. OCD also has a demonstrated concurrence with Tourette syndrome that probably results from shared neurobiological factors. OCD patients may have a delusional component to their condition, which at times may be so intense as to resemble psychosis and even require antipsychotic medication. It is not certain however as to whether there is any increased occurrence of true psychosis among these patients. Patients with OCD do have a high rate of concurrent anxiety disorders such as social phobia, specific phobia, and panic disorder.

The comorbidity of psychiatric and medical illnesses constitutes a major *raison d'être* for psychiatry as a specialty and is the basis for an entire subspecialty, consult-liaison psychiatry. A comprehensive treatment of this area is beyond the scope of this article. The *DSM-IV* notes that general medical conditions can be responsible for psychotic disorders, anxiety disorders, mood disorders, sexual dysfunction, sleep disorders, catatonia, and personality changes. Medical conditions such as endocrine disorders, infectious diseases, metabolic disorders, malignancies, and neurological injuries and diseases have all been associated with mental illness. Any patient entering psychotherapy should be receiving ongoing primary medical care. A patient with a known medical illness, or whose condition suggests the possibility of medical illness, deserves thorough medical assessment. The reader should consult a comprehensive textbook for further consideration of this area.

V. APPLICATIONS OF CONCEPT

It should be apparent that in many areas of psychiatry comorbidity is the rule rather than the exception. What is the psychotherapist to do with this information? Obviously one must be aware that a patient describing a single unitary problem may have a larger range of problems or disorders. It may be necessary for the therapist to address problems beyond those originally proposed to help the patient. Even if the patient does not wish to pursue treatment for these other areas, the ethical therapist has a responsibility to share his or her observations and to advise the patient of any difficulties the patient might be facing.

Therapists may be inclined at times to omit or minimize their discussion of comorbid factors of patients. This may be out of a desire to avoid discouraging the patient or aggravating a condition. However, in the longer term, the goals of any psychotherapy are better served by honesty accompanied by tact and sensitivity. While some patients may be daunted by an enumeration of comorbid problems, many others will be reassured by a delineation of what exactly they are facing, and may even be encouraged by what progress they have already made in the face of multiple problems.

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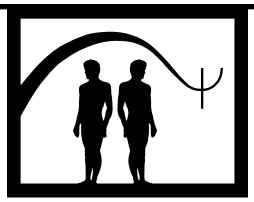

Competing Response Training

Raymond G. Miltenberger
North Dakota State University

I. Description of Treatment
II. Theoretical Bases
III. Applications and Exclusions
IV. Empirical Studies
V. Case Illustration
VI. Summary
Further Reading

GLOSSARY

awareness training A component of competing response training in which the therapist teaches the client to identify each occurrence of the habit behavior or antecedents to the habit behavior.

competing response An incompatible behavior that the client engages in contingent on the occurrence of the habit behavior as part of competing response training.

habit disorder A repetitive behavior that does not typically serve any social function but occurs with sufficient frequency or intensity to cause distress to the client or significant others. Habit disorders include nervous habits such as thumbsucking, nail biting, and hair pulling, tics such as head jerking or facial grimacing, and stuttering which involves word or syllable repetition, prolongation of word sounds, and blocking.

I. DESCRIPTION OF TREATMENT

Competing response training is a treatment procedure used with habit disorders including nervous habits (fingernail biting, thumbsucking, hair pulling, etc.), tics (head jerking, facial grimacing, shoulder jerking, etc.), and stuttering. The essence of competing response training is to teach the client to become aware of each instance of the habit behavior and to engage in an incompatible behavior contingent on the occurrence of the habit or the antecedents to the habit. Competing response training involves two components, awareness training and competing response practice. Awareness training is critical to the use of competing response training because the client must be aware of each occurrence of the habit to effectively use the competing response contingent on the habit.

Competing response training was originally developed as a component of the habit-reversal procedure outlined by Nathan Azrin and Greg Nunn in 1973. The habit-reversal procedure involves a number of treatment components including awareness training, competing response practice, habit control motivation, and generalization training. Azrin and Nunn and other researchers evaluated the effectiveness of habit reversal for a variety of nervous habits, tics, and stuttering. Researchers also demonstrated that competing response training (involving awareness training and competing response practice) was an effective procedure as well. For example, in 1985 Ray Miltenberger, Wayne Fuqua, and Tim McKinley showed that both habit reversal and competing response training were effective in the treatment of motor tics exhibited by children and adults. Other research by Miltenberger and Fuqua in 1985

showed that competing response training was effective for the treatment of nervous habits such as nail biting and hair pulling exhibited by adults. Miltenberger and his colleagues have referred to competing response training as simplified habit reversal because it consists of a subset of the original habit-reversal components.

Competing response training is typically implemented in one or a small number of outpatient treatment sessions. Following an assessment interview, the therapist implements the awareness training procedure and then the competing response practice procedure with the client.

A. Awareness Training

The goal of awareness training is to teach the client to identify each occurrence of the habit and to identify the antecedents or warning signs that the habit behavior is about to occur. A number of procedures are used to achieve this goal.

First, in the response description procedure, the client is asked to describe the habit behavior. The client describes all the behavioral movements involved in the habit behavior and all of the different ways in which the habit behavior may occur. Next, in the response detection procedure, the client is taught to detect each occurrence of the habit behavior in session. The therapist starts by simulating the habit behavior and having the client identify the occurrence of the behavior when exhibited by the therapist. The client then practices identifying each occurrence of the habit that he or she exhibits in the session. Some habit behaviors such as motor and vocal tics or stuttering may naturally occur in session. Other behaviors such as nervous habits (e.g., hair pulling, nail biting) typically do not occur in session. For tics or habits that occur in session, the client is instructed to indicate each time the habit naturally occurs. The client might say "there's one" to identify the occurrence of a motor tic or raise a finger to indicate the occurrence of a vocal tic or stutter. The therapist praises the client for correctly identifying the habit behavior when it occurs. If a habit behavior occurs and the client does not identify it, the therapist points out to the client that the behavior just occurred. This process continues until the client reliably identifies (without prompts) each instance of the habit as it occurs.

For habit behaviors such as nervous habits that do not typically occur in the treatment session, the therapist implements response detection by having the client simulate occurrences of the habit. The client will simulate the movements involved in the habit behavior and then identify the occurrence of the behavior.

After the client has practiced response detection a number of times, the therapist then focuses on detecting the antecedents or warning signs that precede the occurrence of the habit behavior. The therapist first has the client identify the situations or behaviors that precede the occurrence of the habit behavior. For example, a client might touch her hair before hair pulling or inspect his finger nails for rough edges before nail biting. The therapist also has the client identify any thoughts, feelings, or physical sensations that precede the occurrence of the habit. For example, the client might experience a sensation such as tension in a muscle before engaging in a motor tic. If the antecedent is an overt behavior, the therapist has the client simulate the behavior and identify its occurrence. If the antecedent is covert, the therapist has the client imagine its occurrence. Any time the antecedent naturally occurs in the session, the client is instructed to identify its occurrence. The therapist provides praise for correct identification of antecedents in session and prompts the client if the client fails to identify an antecedent that just occurred.

B. Competing Response Practice

The goal of competing response practice is to teach the client to engage in a competing response each time the habit behavior occurs or when an antecedent to the habit behavior occurs. The therapist implements competing response practice after awareness training is completed, and the client can identify each occurrence of the habit or antecedents to the habit.

To begin competing response practice, the client (with the aid of the therapist) chooses one or more competing responses that can be used in situations in which the habit behavior typically occurs. The therapist instructs the client that the competing response should be a behavior that is, (a) physically incompatible with the habit behavior, (b) easy for the client to engage in, and (c) inconspicuous so that the competing response does not draw attention to the client when the client is around others. An example of a competing response for hair pulling or thumbsucking might be to make a fist while holding the hands down at the side. An example of a competing response for a motor tic such as head jerking might be to tense the neck muscles while pulling the chin down slightly toward the chest. The therapist instructs the client to engage in the competing response for about one minute each time the habit behavior occurs or when an antecedent to the habit behavior occurs. After choosing the competing

response(s), the therapist has the client practice use of the competing response contingent on the habit or antecedents to the habit in the session.

If the habit behavior occurs naturally in session (e.g., tics or stuttering), the client practices use of the competing response each time the habit occurs. The therapist praises the client for using the competing response at the appropriate time and prompts the client to use the competing response if the habit occurs but the client fails to use the competing response. This practice continues until the client reliably uses the competing response immediately contingent on the habit. The therapist also has the client practice use of the competing response contingent on the antecedents to the habit. After reviewing the antecedents with the client, the therapist instructs the client to use the competing response each time one of the antecedents occurs. If the antecedents are overt, the therapist will provide praise for correct use of the competing response or prompts to use the competing response if the client did not use it at the correct time. If the antecedents are covert, the therapist cannot provide such feedback but rather praises the client for reports of successful use of the competing response contingent on the covert antecedents.

If the client's habit behavior does not naturally occur in session (e.g., nail biting, hair pulling), the therapist will implement competing response practice as described above as the client simulates the habit behavior and the antecedents to the habit behavior. For example, the client will reach up to her scalp to simulate a hair pulling behavior, stop the behavior, and immediately engage in the competing response. During competing response practice, the client will simulate a variety of ways that the behavior may occur or a variety of situations in which the behavior occurs and implement the competing response. The therapist will have the client practice the competing response in about 10 to 12 simulations of the behavior or antecedents to the behavior. After the competing response practice is completed in the session, the therapist instructs the client to use the competing response outside of the therapy session every time the habit behavior or an antecedent to the habit behavior occurs.

After implementing the awareness training and competing response practice procedures with the client in the initial treatment session, the therapist then conducts a number of followup or booster sessions to evaluate the client's progress using the procedures to control the habit behavior outside of the treatment session. In followup sessions, the therapist will review the procedures and have the client practice the procedures. The therapist will review difficult situations and help the client identify ways to consistently use the competing response in those situations.

II. THEORETICAL BASES

The success of the competing response training procedure depends on consistent use of the competing response contingent on the occurrence of the habit or the antecedents to the habit. The competing response produces reductions in the habit behavior through one or two behavioral processes. Use of the competing response may function as an activity punisher. Thus, the contingent use of the competing response would punish the habit behavior. The other possible explanation for the effectiveness of the competing response in reducing habit behaviors is that the competing response is an alternative behavior that occurs in place of the habit behavior and supplants the habit behavior. The occurrence of the habit or an antecedent to the habit serves as a cue for the client to engage in the competing response as an alternative behavior. The therapist and significant others reinforce the correct use of the behavior. Whether the competing response supplants the habit behavior or punishes the habit behavior is not clear. It is possible that one or both processes are operating to decrease the habit behavior in any particular case.

III. APPLICATIONS AND EXCLUSIONS

Research has shown that competing response training is effective in reducing motor tics such as head shaking, eye blinking, facial tics, shoulder jerking, and head jerking; nervous habits such as nail biting, hair pulling, thumbsucking, chewing on clothes, scratching, and eye rubbing; and stuttering in children and adults. Competing response training has also been used to reduce outbursts of anger during athletic competition and to decrease rumination (regurgitation and rechewing of food) following meals.

Research has also shown that competing response training may not be effective with young children and with individuals with mental retardation. The ineffectiveness of competing response training may be due to the fact that children or individuals with disabilities are less motivated to change their behavior. They may not be distressed by the behavior and, therefore, may not express a desire to stop the habit and may not comply with the treatment procedures.

IV. EMPIRICAL STUDIES

Research by Miltenberger and colleagues has shown that competing response training is effective for a variety of habit disorders. For example, in 1985, Miltenberger, Fuqua, and McKinley showed that both habit reversal and competing response training were effective in decreasing motor tics. In 1985, Miltenberger and Fuqua also showed that competing response training was effective for nervous habits. In 1993, Joel Wagaman, Miltenberger, and Rich Arndorfer showed that competing response training was an effective treatment for stuttering in children. In addition to these studies, other research has demonstrated the effectiveness of competing response training for habits, tics, and stuttering.

Research also suggests that, in some cases, social support procedures or other operant contingencies may be necessary to ensure the effectiveness of competing response training, especially with children. For example, in 1999, Ethan Long and colleagues used differential reinforcement and response cost procedures with children and individuals with mental retardation after competing response training by itself was ineffective in the treatment of thumbsucking, nail biting, and hair pulling. Social support or other reinforcement contingencies may help promote the consistent use of the competing response by the client with the habit disorder. When the competing response is used consistently each time the habit behavior occurs, competing response training is more likely to be effective.

V. CASE ILLUSTRATION

Keith was a 12-year-old male who exhibited two motor tics: a mouth tic in which he pulled back the corners of his mouth, stretched his mouth open, and stuck out his tongue; and an eye-blinking tic involving hard eye blinking. Keith was diagnosed with Tourette's disorder and attention deficit hyperactivity disorder and was receiving sertraline (25 mg) daily. He received competing response training as part of a research project completed by Doug Woods, Ray Miltenberger, and Vicki Lumley in 1996.

The therapist first established a recording plan in which Keith was videotaped for 20 minutes in his home two times a week to evaluate the occurrence of tics before and after treatment. The occurrence or nonoccurrence of both tics was recorded in continuous 10-second intervals, and a percentage of intervals with tic occurrences was calculated for each tic. Competing response training was implemented with Keith for his mouth tic in a one-hour treatment session and two 20-minute booster sessions scheduled one week apart. After improvements were seen in the mouth tic, the same treatment regimen was administered for the eye-blink tic.

The therapist began with awareness training to teach Keith to become aware of each occurrence of the tic. Keith described the movements involved in the tic and demonstrated the tic for the therapist as part of the response description procedure. Keith was not able to identify any antecedents to his tics. As part of the response detection procedure, he then observed himself on videotape and pointed out each occurrence of the tic that he saw on the tape. After identifying occurrences of his tic on tape, Keith practiced identifying each instance of the tic that occurred in the session as he talked with the therapist. The therapist praised him for correctly identifying the occurrence of the tic and pointed out any time a tic occurred that Keith failed to recognize.

After Keith was reliably identifying each occurrence of his tic, the therapist initiated competing response practice. The competing response for Keith's mouth tic involved pursing his lips for one minute. This behavior was chosen because it was incompatible with the tic and was an inconspicuous behavior that Keith could engage in whenever the tic occurred. Keith was instructed to engage in this competing response any time the tic occurred or when he was about to engage in the tic. After describing the competing response and delivering instructions to use it contingent on the tic, the therapist had Keith practice the competing response in the session. Each time that Keith engaged in the tic and then immediately engaged in the competing response, the therapist provided praise. Each time Keith engaged in the tic and failed to use the competing response, the therapist provided a reminder to use the competing response. Competing response practice continued until Keith had correctly identified 10 to 12 instances of the tic in the session with praise from the therapist.

The therapist also instructed Keith's parents to praise him for using his competing response and prompt him to use the competing response if he engaged in a tic and failed to do so. The initial session ended with the therapist instructing Keith to use his competing response contingent on the tic in all situations outside of the session and instructing the parents to provide praise and prompts at appropriate times outside of the session.

In each of the two booster sessions, the therapist reviewed the treatment components with Keith and his parents and had Keith practice the competing response contingent on instances of the tic in session. Keith was encouraged to use the competing response consistently outside of the session and was reminded that consistent

use of the competing response would produce the best results in reducing the frequency of his tic.

After Keith's mouth tic decreased from a baseline mean of 26% of observation intervals to less than 3% following the use of competing response training, the same procedures were implemented with the eye-blink tic. The competing response for the eye-blink tic involved a controlled blink every 3 seconds for a total of 15 seconds. The eye-blink tic occurred in 21% of observation intervals before treatment and was reduced to less than 3% of intervals after treatment.

VI. SUMMARY

Competing response training involves two components of the habit-reversal procedure: awareness training and competing response practice. In one or a small number of outpatient treatment sessions, the client learns to become aware of each occurrence of the habit behavior and to use a competing response contingent on the habit behavior. Competing response training, similar to habit reversal, has been shown to be a successful treatment for a variety of tics, nervous habits, and stuttering in children and adults.

See Also the Following Articles

Forward Chaining ■ Habit Reversal ■ Response Cost

Further Reading

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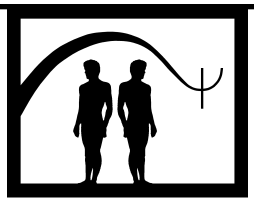

Complaints Management Training

Gudrun Sartory and Karin Elsesser

University of Wuppertal, Germany

I. Description of Complaints Management Training
II. Theoretical Bases
III. Empirical Studies
IV. Summary
Further Reading

GLOSSARY

benzodiazepines Tranquilizers (e.g., diazepam and alprazolam,) with wide-ranging effect on the nervous system. The main sites of action are the limbic system and the cerebellum; they have a calming and muscle relaxant effect.

dyspnea Difficulty in breathing or in catching the breath.

GABA Gamma-amino-butyric-acid, the major inhibitory neurotransmitter system of the brain.

tachycardia Abnormally rapid beating of the heart.

vagal innervation Increasing the vagal (parasympathetic) tone which leads to a decrease in heart rate.

valsalva An eighteenth-century physiologist after whom the vagal innervation technique of exerting pressure on the chest is named.

Complaints management training (CMT) is a cognitive-behavioral intervention for anxiety disorders in which somatic symptoms or complaints are a major source of distress. This entry contains a description of the treatment together with its hypothesized mode of action. Outcome data are presented for panic disorder and withdrawal from long-term tranquilizer use.

I. DESCRIPTION OF COMPLAINTS MANAGEMENT TRAINING

The basic aim of the treatment protocol is to provide a range of techniques that allow patients to manage their specific anxiety-provoking symptoms and thereby promote perceived control over them. The selection of management techniques is tailored to the individual complaints and needs of the patient. Accordingly, one core element of CMT is the continuous self-monitoring and recording of complaints in a diary to serve as a basis for selecting individual treatment techniques. In the following, examples will be cited from panic disorder and benzodiazepine withdrawal, for the treatment has been applied in these two conditions. CMT consists of three steps: (A) assessment of complaints; (B) training phase; and (C) generalization and relapse prevention.

A. Assessment of Complaints

A detailed assessment is carried out into the range of somatic and bodily complaints, their antecedents, and consequences, in addition to the usual diagnostic procedures investigating the nature of the patients' disorder. Scales with lists of symptoms, such as the list of panic symptoms of the DSM-IV edited by the American Psychiatric Association (APA) in 2000 or the Body Sensation Questionnaire from Diane Chambless and co-workers published in 1984 may also be employed. Alternatively, an idiosyncratic list of the patient's

Date	Sept. 01		.....		.....		.....		.....		.....		.....	
Symptom:	**I**	**A**	**I**	**A**	**I**	**A**	**I**	**A**	**I**	**A**	**I**	**A**	**I**	**A**
Dyspnea	6	9												
Tachycardia	8	10												
Perspiration														
Tightness in chest/throat														
Dizziness, imbalance														
Muscle ache or tension														
Trembling/shaking	4	6												
Depersonalization														
Derealization														
Headache	5	3												
Nausea														
Tension, sleep disruption														
Other symptoms:														
restlessness	6	5												

Please indicate intensity (I) of each symptom and anxiety/stress (A) evoked by the symptom from 0 = not at all to 10 = extreme

FIGURE 1 Daily record of complaints: intensity and anxiety.

symptoms can be compiled (as an example, see Figure 1). The list is handed over to patients in the form of a diary. An anxiety rating should be added to the identified symptoms. Before the treatment techniques are selected, patients complete the diary for two weeks to indicate which symptoms are currently occurring and are the most distressing. The patients continue to complete the diary throughout treatment to provide feedback about the relief of symptoms and about changes in the extant symptoms, and thereby the need to change the treatment strategy. During the assessment phase, patients are usually given either relaxation or breathing exercises to be carried out daily in preparation of the following treatment.

B. Training Phase

Before being given training in specific techniques, patients are fully briefed about the impending treatment starting with psychoeducation.

1. Psychoeducation

At first, patients receive extensive psychoeducation as to the nature of their disorder. Depending on their relevance, models of anxiety are presented such as the three components model, the threshold model, and the vicious circle of panic model. If applicable, information about benzodiazepines and their effects, the danger of addiction with long-term use, and a full account of withdrawal symptoms are given. Explanations are supported by graphs, and patients are given a written account of this information because many of them tend to be too anxious to process the information during the session. Within this information explanations are reported for the identified symptoms. It is suggested that the symptoms are normal, harmless, and transient, and eased or counteracted by specific management techniques.

2. Training in Specific Techniques

During the assessment phase, patients carry out exercises in progressive muscle relaxation and breathing

retraining (slow, abdominal breathing with short pauses at the beginning and end of each respiratory cycle). Specific techniques are then chosen on the basis of the complaints indicated in the diary. Frequently employed management skills are shown in Table 1. Techniques are practiced within sessions until patients master them. Practice is first carried out in a relaxed state and afterward, whenever possible, under challenge to produce the symptom. Alternatively, stressful situations, symptoms, or states are imagined and counteracted with the newly learned technique. In some cases, instantaneous feedback of the not otherwise observable physiological changes may support the acquisition of skills. This feedback has been shown to be useful when teaching vagal innervation techniques that aim to control tachycardias.

Vagal innervation techniques offer a direct way to lower heart rate, which can be achieved by massaging the carotid, pressing on one eye during expiration, and using the Valsalva maneuver. The Valsalva technique is preferred by patients and consists of increasing pressure in the chest by tensing abdominal and intracostal muscles after a deep inhalation. It is assumed that these techniques stimulate baroreceptors and thereby lower heart rate. Training of the Valsalva maneuver benefits from being supported by a beat-by-beat heart-rate monitor. Whenever instruments are used to aid the acquisition of skills, patients need to be made familiar with the apparatus and its functioning.

TABLE 1
Frequently Reported Complaints and Employed Management Techniques

Complaints	*Management techniques*
Dyspnea	Slow abdominal breathing
Tachycardia	Valsalva
Perspiration	Cooling of wrists
Tightness in chest and throat	Slow breathing, relaxation, Valsalva
Dizziness, imbalance	Seeking support, e.g., wall or furniture, slow breathing, focusing on visual and acoustic stimuli
Muscle ache, muscle tension	Hot baths, relaxation
Trembling/shaking	Relaxation
Depersonalization (changed bodily perception)	Reality testing: e.g., stamp on the ground, strong grip
Derealization	Focusing on objects at different distances, touching of objects
Headache	Relaxation, massage
Nausea	Fresh air/smelling substances
Tension, sleep disruption	Relaxation

C. Generalization and Relapse Prevention

Patients are instructed to practice the newly learned management techniques between sessions and to record successes and failures for discussion in the following session. Having acquired a management technique, patients are asked to apply it at the first sign of an emerging symptom. Training is then extended to everday life situations that have previously given rise to complaints. To be able to cope with setbacks, patients are instructed as to the incremental nature of the improvement and are told that minor lapses are not indicative of a relapse. Depending on the nature and severity of the disorder, treatment typically takes six to twelve sessions.

II. THEORETICAL BASES

The aim of complaints management training is to convey control over bodily reactions that are anxiety-eliciting. Assuming that elevated anxiety states between attacks are engendered by their unpredictability and uncontrollability, a technique that is perceived as bringing them under control will also reduce fears about the occurrence of further attacks and thereby reduce generalized anxiety states. Together with the ability to change intentionally a physiological function, the fear of its signaled consequences—be they health concerns or the next panic attack—will also attenuate. Two lines of evidence are cited in support of the validity of the complaints management approach. First, acquiring perceived control over feared objects and events often leads to a reduction of anxiety. Second, some anxiety disorders appear to be uniquely sensitive to bodily symptoms.

A. Controllability

Aversive stimuli are considered more unpleasant if they are also uncontrollable. Electric shocks are rated to be more unpleasant if they cannot be changed compared with shocks of equal intensity that could by regulated—although participants did not actually reduce their intensity. Having to listen to a radio program is

more irritating when there is no control over the volume. Finally, monotonous work routines are considered less stressful if rest periods are presumed to be under one's own control. In turn, phobic stimuli or objects are seen to be uncontrollable by phobics, who tend to have no coping reactions at their disposal with which to contain the stimulus or render it harmless.

Conveying control over a fear-inducing stimulus has an anxiety-reducing effect. Giving specific phobics control over the duration of exposure to slides of the phobic object resulted in them being less fearful of the slides than controls who were exposed for the same duration but could not switch off the slides themselves. Being instructed that they can leave the fear-inducing situation made agoraphobics less anxious during exposure, although they did not make use of their privilege.

B. Sensitivity to Bodily Symptoms

Anxiety disorders differ with regard to the target of the fear reaction. Although the focus of the phobic attention and reaction is directed towards objects or situations in the environment, general anxiety states tend to be preoccupied with somatic and social concerns. Panic disorder is uniquely sensitive to bodily changes. Given the massive distress created by a panic attack, bodily symptoms experienced during the attack—and thereby associated with them—are thereafter able to elicit panic attacks. Individuals who suffer from intense anxiety attacks direct their attention to bodily changes that might signal the advent of the next panic attack in an effort to be able to predict, and prepare for, the next attack. This, in turn, also makes them more sensitive to bodily changes.

A similar sensitivity to somatic symptoms is also reported by long-term users of benzodiazepines, particularly during withdrawal from the drug. It is as yet unclear whether the somatic sensitivity is part of panic disorder—a frequent comorbid disorder of benzodiazepine dependence—or whether long-term use of tranquilizers by itself results in heightened somatic sensitivity. Benzodiazepines support the activity of *GABA*, a neurotransmitter with an ubiquitous inhibitory effect in the nervous system. Assuming that prolonged use of the medication leads to a reduction of the brain's own production of inhibitory ligands, tolerance to and withdrawal from the drug can be expected to result in heightened activity of the brain systems that have hitherto been inhibited, thereby inducing somatic complaints. Over time, these have been found to subside with renewed use of the drug, which is probably also the reason why withdrawal is difficult for the majority of patients. As with panic disorder, a technique that is perceived as bringing under control a somatic symptom that is associated with anxiety states can be expected to be anxiety-reducing during drug withdrawal. It is thought that the coping strategies will thus become behavioral alternatives to drug taking.

C. Hypothesized Mechanism of Complaints Management Training

Acquiring perceived control over anxiety-inducing bodily sensations reduces their threatening impact; it relinquishes fears about their meaning and consequences and the occurrence of further attacks, and thereby also reduces generalized anxiety states. Two considerations are important in the choice of techniques:

1. *Specificity:* Unlike anxiety management training in which a generalized anxiety state is counteracted by a similarly generalized relaxation response, complaints management training has been developed to deal with specific somatic responses. Given the specificity of some of the physiological reactions that assume a signaling function in panic disorder, it is necessary to create specific techniques with which to bring physiological reactions under control.
2. *Rapidity of action:* The more rapid the relief from the somatic symptom, the more fear reducing will the employed technique be as it conveys a greater extent of relevant feedback of its success.

III. EMPIRICAL STUDIES

There are two areas in which the principles of complaints management training have so far been applied in treatment: (A) panic disorder and (B) withdrawal from tranquilizer use. Complaints management training is successful in giving rapid relief of panic disorder. Within a few sessions it was more efficacious than breathing retraining. It was also as successful as cognitive restructuring, resulting in some 50% reduction in panic attacks within three sessions. Complaints management training also promotes discontinuation of long-term use of benzodiazepines. It eases withdrawal symptoms and improves depressive mood compared to anxiety management training.

A. Panic Disorder

A number of different techniques have been employed to bring under control somatic responses that are related to panic. The most frequently used technique is respiratory training. David H. Barlow and his associates have termed this approach panic control training. Eleven sessions of a combination of cognitive restructuring with breathing retraining und interoceptive exposure constitute a highly effective treatment in panic disorder. This treatment worked equally well with and without imipramine, a tricyclic antidepressant, and appeared more durable than imipramine alone six months after treatment cessation. Psychological treatments of panic disorder have previously been shown to be more effective than alprazolam, a benzodiazepine.

In 1988, Gudrun Sartory and Deli Olajide compared breathing retraining with Valsalva, a vagal innervation technique, and found a slight advantage of the latter. Both groups received progressive relaxation and the instruction that panic could be brought under control with their respective technique—slow breathing or vagal innervation. The number of weekly panics and somatic symptoms decreased equally in both groups, but the group receiving vagal innervation techniques evidenced less cognitive anxiety and considered panics to be less disruptive than the breathing retraining group. It was thought that vagal innervation techniques conveyed more rapid control over panic and therefore more relevant feedback regarding its efficacy than the breathing technique.

Comparing complaints management training with cognitive restructuring showed that they worked equally well. Initially, both groups received extensive psychoeducation as to the nature of panics, after which one group was trained in control techniques and the other spent the sessions discussing dysfunctional thoughts and attributions. As improvements set in fairly rapidly, it is thought that the initial psychoeducation had in itself a major effect. Explanations as to how panics come about constitute a form of reattribution that is known to be effective.

B. Tranquilizer Withdrawal

Elsesser et al. compared the effect of complaints management training with that of anxiety management training, the treatment that had previously been shown to be effective in facilitating benzodiazepine withdrawal. Immediately after treatment, the abstinence rate was higher in the complaints than in the anxiety management group (Fig. 2*a*), and patients in the former were also less anxious and depressed (Fig. 2*b*). At followup, there was no longer a significant difference between groups in terms of abstinence rate (65%). Complaints management training appears, however, to ease withdrawal and to lower anxiety and depression more rapidly than anxiety management training.

The evaluation of the efficacy of a single-treatment mode presents some difficulty, for treatment trials usually combine a number of approaches in any condition and group. Caution must therefore be exercised when attempting to interpret the outcome of trials in terms of the effect of any single component of treatment. Some of the components are necessary to introduce or convey the techniques and have been found to be in themselves effective. Teaching the technique of slow abdominal breathing is usually embedded in progressive relaxation training, as tense abdominal muscles are likely to prevent slow and easy breathing. A further component is an extensive rationale as to why a particular technique will be helpful for a symptom. This necessitates discussion of the symptoms, including—to a certain extent—their reattribution. This strategy is the mainstay of cognitive restructuring, which is by itself highly effective in the treatment of panic disorder. Furthermore, in order to learn to control a certain physiological response, it has to be elicited in the first place. Exposure to fear-eliciting stimuli also has an anxiety-reducing effect. Studies dismantling the respective effects of the different components have so far not been carried out.

While taking into account these constraints on evaluation, complaints management training can be said to be of use in anxiety disorders with a prominent focus on bodily sensations. This is the case in panic disorder, tranquilizer withdrawal, and conceivably also in somatoform disorders, although there are as yet no formal treatment data available.

IV. SUMMARY

Complaints management training is a cognitive-behavioral intervention for anxiety disorders in which somatic symptoms are a major source of distress. It contains a range of techniques that enable patients to ease bodily symptoms and thereby promote perceived control over them. A detailed assessment is carried out on somatic and bodily complaints with the help of a diary. Patients are given extensive psychoeducation as to the nature of their disorder and are trained in techniques that are chosen on the basis of their spe-

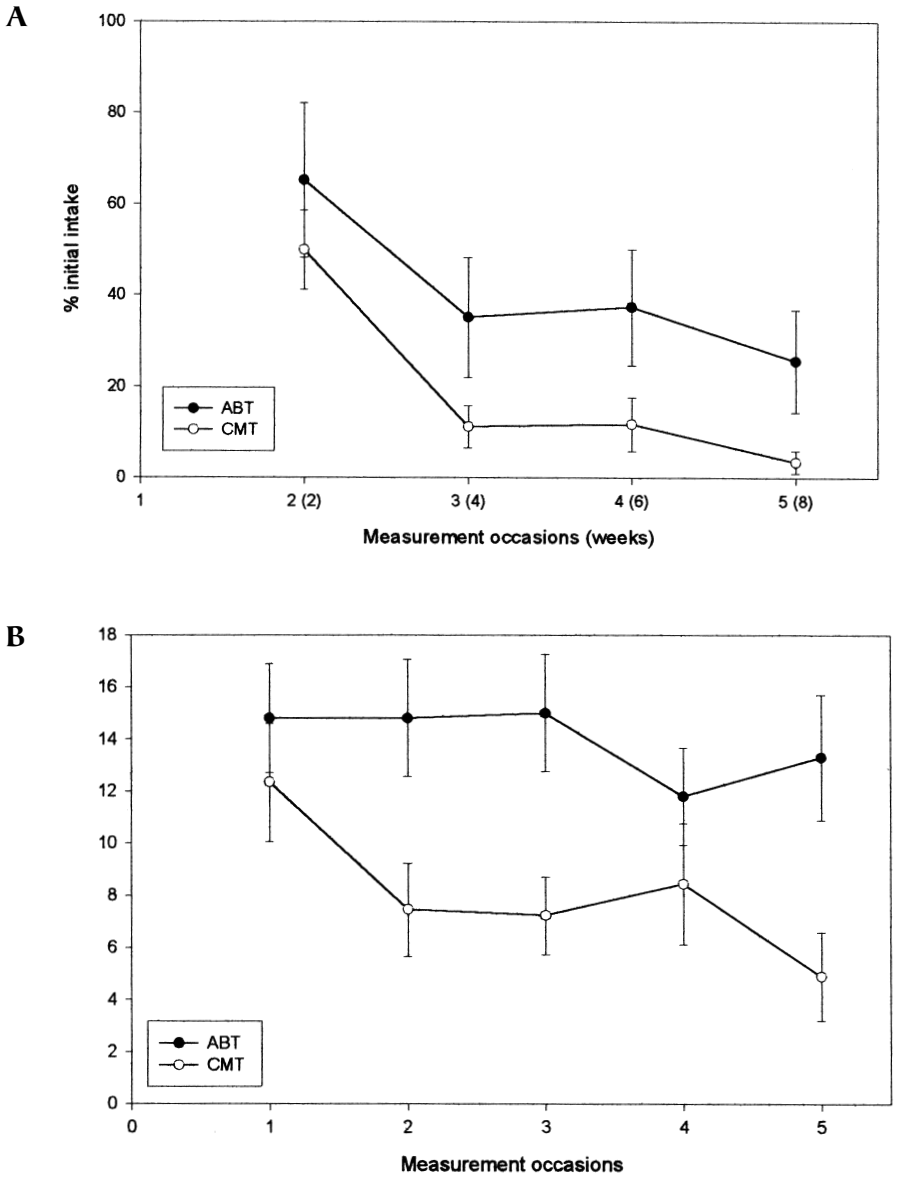

FIGURE 2 Two groups of long-term users of benzodiazepines (BZ) who had previously been unsuccessful in their attempt to withdraw were treated either with anxiety management training (AMT) or complaints management training (CMT). Both groups received nine weekly sessions; measurements took place at two weekly intervals. (A) shows the decrease in BZ consumption and (B) the course of depression ratings in the two groups. [Reprinted from Elsesser et al. (1996) with permission from Elsevier Science].

cific complaints. Frequently used techniques are Valsalva, a vagal innervation method to control tachycardias, breathing retraining for hyperventilation, and relaxation for feelings of tightness and muscle tension. Complaints management training has so far proved successful in panic disorder and as psychological support of benzodiazepine withdrawal. It is thought that perceived control over the anxiety-provoking bodily symptom constitutes the main therapeutic mechanism.

See Also the Following Articles

Anxiety Disorders ■ Anxiety Management Training ■ Behavioral Assessment ■ Cognitive Behavior Therapy ■ Panic Disorder and Agoraphobia

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Conditioned Reinforcement

Ben A. Williams
University of California, San Diego

I. Pavlovian Conditioning as the Basis of Conditioned Reinforcement
II. Laboratory Examples of Conditioned Reinforcement
III. Practical Advantages of Conditioned Reinforcement
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GLOSSARY

higher-order conditioning A form of Pavlovian conditioning in which the unconditioned stimulus (US) is the conditioned stimulus (CS) from previous conditioning.

Pavlovian conditioning Learning that occurs when a stimulus that naturally elicits an unconditioned response (UR) is preceded by an initially neutral stimulus (CS). Because of the association established by the CS–US pairing, the CS elicits a response (CR) related to the UR.

reinforcement The psychological principle that a response followed by a reward will increase in strength; the more immediate the reward, the greater the strength.

A significant number of psychotherapies utilize the principle of reinforcement as the conceptual foundation of their treatments. Reinforcement theory originated in the laboratory with animal subjects, where the rewards used to reinforce the desired behavior have obvious biological value, such as food, water, and sexual activity. But it is also possible to create reinforcers from stimuli that have no initial biological significance by creating a learned association between those stimuli and biological reinforcers. Such reinforcers are labeled conditioned reinforcers (or "secondary reinforcers" in the early experimental literature) to reflect the fact that a learning procedure is necessary for the development of their reinforcement value.

I. PAVLOVIAN CONDITIONING AS THE BASIS OF CONDITIONED REINFORCEMENT

The great majority of reinforcers that control human behavior have little immediate impact on satisfying the biological motives that underlie the reinforcement contingencies commonly studied in the laboratory. People are not born with a tendency to work for money, to like the taste of alcohol or coffee, or to value Porsches over Chevrolets. Such values are learned, according to the current consensus, by the process of *Pavlovian conditioning*. A stimulus paired with a stimulus that has unlearned *reinforcement* value (which Pavlov designated the unconditioned stimulus or US) acquires not only the ability to elicit the responses appropriate to the Pavlovian US but its reinforcing value as well. Thus; a conditioned reinforcer is a Pavlovian conditioned stimulus (CS) that has been paired with a US of positive value. The implication is that variables that govern

Pavlovian conditioning also determine when initially neutral stimuli become conditioned reinforcers.

It is important to recognize that Pavlovian conditioning is not the simple process that it was once supposed. Simple pairing between the CS and US is inadequate for conditioning to occur because the CS must also provide information about the US occurrence that is not available from other sources. Associations between the CS and US may also occur even when they are not directly paired, due to shared associations with a third stimulus. In Pavlov's studies of "second-order conditioning," for example, a bell was first paired with food in the dog's mouth, so that the bell elicited salivation. Then a light was paired with the bell, and the light also elicited salivation without itself being paired with the food. Pavlov also studied higher-order mediated associations but found that the conditioned response was not maintained beyond the third-order level. Pavlov nevertheless believed that mediated associations were of major importance for Pavlovian conditioning of human behavior because language could serve as a "second signaling system" that provided a basis for such mediated associations readily to occur.

Although the present discussion will consider only events that assume positive value because of their conditioning history, it is important to recognize that stimulus events may assume negative value as well, thus serving as conditioned aversive stimuli that may motivate various types of avoidance and escape behavior. Conditioning of aversive properties to initially neutral stimuli, and the behavioral dynamics that result from such conditioning, have played a major role in theories of various forms of neurotic behavior, for example, phobias, and compulsive behavior such as incessant hand-washing. We will confine ourselves to positive conditioned reinforcement, both because of the need to limit the range of discussion and because the scientific investigation of positive conditioned reinforcers and conditioned aversive stimuli has evolved into essentially separate enterprises, as has their application to clinical situations. Nevertheless, it is important to appreciate that similar conceptual issues occur in both arenas.

II. LABORATORY EXAMPLES OF CONDITIONED REINFORCEMENT

A simple example of how conditioned reinforcement has been studied is provided by the report by B. F. Skinner in his first major book, *Behavior of Organisms,* published in 1938. Rats were first trained to approach a food cup at the sound of the pellet dispenser, and then food was removed from the situation when a lever was introduced into the experimental chamber. Lever presses produced the sound of the pellet dispenser but no food. The rate of lever pressing increased over the first 5 to 10 minutes, then decreased, and finally was reduced to near-zero levels after 30 to 45 minutes of training. Approximately 40 to 80 total bar presses occurred over that period of time. Skinner's results are typical of many subsequent studies. The response-contingent presentation of a stimulus previously paired with the primary reward produces some initial level of acquisition, but then loses its ability to maintain the behavior as training continues. Presumably this loss of control over responding reflects the extinction of the conditioned value of the conditioned reinforcer in that its presentation in the absence of the primary reinforcer removes the conditioned value that was originally established by the pairings of the initially neutral stimulus and the primary reward. The rate at which this extinction process occurs thus determines the duration of time over which a conditioned reinforcer will be effective after it is no longer paired with the primary reward.

A more durable method for using conditioned reinforcement is to maintain separately the correlation between the stimulus and primary reward while at the same time making the conditioned reinforcer contingent on a designated response that otherwise is never followed by the unconditioned reward. An example of such a procedure was developed by Dr. J. W. Zimmerman and his colleagues in the 1960s. Pigeons received food delivery randomly distributed in time, but any scheduled food presentation was delayed until 6 seconds had elapsed without a peck to a small illuminated disc, in order to ensure that pecking behavior was not adventitiously followed by food. While the pecking behavior was never followed by food, it did produce conditioned reinforcers, consisting of brief presentations (0.5 sec) of the stimulus complex that ordinarily accompanied food presentation. Because this stimulus complex (a light onset and distinct sound) was paired with the food deliveries that occurred in the absence of pecking, it continued to be paired with the food reward. Consequently, pecking was maintained by the conditioned reinforcer presented in the absence of food, despite the pecking behavior delaying food presentations that otherwise would have occurred. Despite its maladaptive character, pecking behavior was sustained for months of training, as long as the pairings of the stimulus complex and the food were maintained.

III. PRACTICAL ADVANTAGES OF CONDITIONED REINFORCEMENT

Conditioned reinforcers have substantial advantages over primary reinforcers in a significant number of training situations. One problem with using a primary reinforcer is that its consumption may interrupt the stream of behavior that is being trained. For example, in animal acts such as "Shamu the Killer Whale" at Sea World, the primary reward is a quantity of fish presented at the side of the tank. Thus, if only the food reward were used when Shamu executed the various parts of his performance, the continuous stream of behavior would be disrupted by trips to the side of the pool to obtain the food. So instead the training procedure involves presenting auditory signals (usually audible only to the whale) as feedback for the various segments of the performance, which allows the behavior segments to be reinforced without the requirement that the subject procure the reward by approaching the food site.

A similar advantage for conditioned reinforcement contingencies may be seen in even the simplest animal training. When using a food reward to train your dog to roll over, for example, a typical problem is that the dog will quickly discriminate that you are the source of the food and will attend closely to you, often approaching and begging for the food at the expense of the behavior that you are attempting to shape. Although it is possible to extinguish this competing behavior, a more expeditious procedure is first to establish a discriminative contingency such that the food is delivered only after the sound of a clicker, and then to use the clicker as a conditioned reinforcer contingent on the behavior being shaped. The underlying principle is that Pavlovian contingencies may often compete with the operant contingencies, so that a judicious choice of the stimulus signaling reward availability is often necessary to minimize competition from the sign tracking that so often occurs when signals for food are physically localized in the environment.

A further example of the utility of using conditioned reinforcers is when the consumption of the primary reinforcer may be debilitating and therefore can occur only infrequently. One representative experiment is the study of various pharmacological manipulations on the lever-pressing behavior of a male rat that is maintained by access to a receptive female rat. Whenever the female rat has been obtained, the lever pressing that produced her access is typically disrupted for substantial periods of time, so that at most one to three primary reinforcers per day can be presented (because of the inherent difficulties of delivering only small portions of the reward). Thus, the primary reinforcer is presented only after extended periods of bar pressing (e.g., the first bar press after 30 minutes has elapsed). The result is that the amount of maintained behavior is very low, making it difficult to study how the pharmacological variables affect the male rat's performance. However, when presentation of the female is preceded by a 30-second signal, and that signal is presented on its own more frequent schedule, the lever pressing greatly increases in frequency, allowing the drug effects to be assessed more easily.

The most common laboratory usage of conditioned reinforcement involves situations in which the primary contingencies of reinforcement are delayed in their presentation. Delayed reinforcement is much less effective in controlling behavior than is immediate reinforcement, and if the delay is sufficiently long, the animal may be incapable of learning even simple behaviors. For example, if a pigeon is presented a choice between a horizontal and vertical line, with the outcome of the choice presented one minute later (food or no food depending on whether the choice was to the stimulus the experimenter designated as correct), the pigeon will almost always fail to learn the discrimination. However, if differential stimuli are presented during the 60-second delay (e.g., a red light leading to food at the end of the delay versus a green light leading to no food at the end of the delay), the pigeon will learn the line-tilt discrimination almost as rapidly as if food/no food had been presented immediately after the pigeon's choice response. Thus, a major function of conditioned reinforcement is to facilitate control by delayed primary reinforcement.

A third important usage of conditioned reinforcement is in the training of behavioral chains. A common laboratory exercise for beginning psychology students is to train a rat to perform an apparently complex sequence of behavior, including, for example, running through a hoop, pulling a string through a hole, pressing a lever, and then pushing a marble, with the entire sequence required before the rat earns its food reward. The key concept for successfully training such behavior is "backward chaining." The last element of the chain, in this case the marble pushing, is first trained with the food reinforcer; then the presentation of the marble serves as a conditioned reinforcer for training the preceding chain element (the lever press). The presentation of the lever then serves as a conditioned reinforcer for training the string pulling, and the presentation of the string can then be used as a conditioned reinforcer for training the running through the hoop.

Using this procedure, one can establish quite elaborate sequences of behavior, which appear extremely impressive until the observer learns the very simple principles that are involved. Backward chaining is often used in applied settings, especially for severely retarded children learning complex tasks such as feeding themselves or learning to tie a necktie.

After a chain sequence has been established, the pattern by which it extinguishes when food is removed from the situation also reveals an important principle. The element closest to the food extinguishes first, then the penultimate element, and so on. Extinction of a chain thus occurs in the reverse order of how it was learned. This is important because the initial elements of a chain may persist for prolonged periods of time after removal of the primary reinforcer. For example, a rat that has learned a complex maze may quickly run through the initial portions of the maze even after it has learned that no food is now in the goal box, but then gradually slow down its behavior the closer it gets to the goal box, ultimately not even entering it. The persistence of the early links of the chain occurs because the value of the conditioned reinforcer that maintains it must be extinguished before the behavior ceases. In the preceding example, after the rat learns that marble pushing is no longer followed by food, the presentation of the marble loses its conditioned value, which causes the lever pressing to decrease, which in turn causes the presentation of the lever to lose its value, and thus allows extinction of the string-pulling behavior. Each type of extinction takes some amount of time, so that prolonged training after the food has been removed is often necessary before the initial elements of the chain gradually wane. A commonplace example is when a coke machine that someone uses regularly no longer functions, keeping one's money while not delivering a coke. Often the behavior of going to the coke machine will persist even when the act of putting money into the machine does not occur. Thus, the terminal element of the chain has been extinguished due to the experience of losing one's money, but the early elements of the chain will persist until they, too, are extinguished by the arrival at the coke machine losing its value as a conditioned reinforcer.

IV. THEORETICAL ISSUES AND INTERPRETATIONS

The major issue concerning conditioned reinforcement as a theoretical concept is the basis of the facilitation by conditioned reinforcers of delayed primary reinforcement. Professional animal trainers such as those who work at Sea World often describe the stimuli appearing in the delay between the response and the primary reward as "bridging stimuli," which suggests that the function of conditioned reinforcers is to facilitate the association between the animal's response and the delayed reward. That is to say, the intervening stimulus serves as a cognitive mediator that may have no value in itself except as it cues the subsequent delivery of the primary reinforcer. In contrast, the traditional conception of conditioned reinforcement is that conditioned reinforcers do indeed have value because of their Pavlovian association with the primary reinforcer.

For most practical purposes, it makes little difference which of these two interpretations is correct; it is possible that either may be correct depending on the specific training situation. Nevertheless, considerable research has been devoted to developing experimental tests that critically distinguish between then bridging versus conditioned value conceptions of conditioned reinforcement. An illustrative experiment that distinguishes between the two theoretical interpretations of conditioned reinforcement involves the line-tilt discrimination described above. Pigeons chose between vertical and horizontal lines, with the outcome of their choice (food or no food) occurring 60 seconds later. When different colored lights correlated with the outcome were present throughout that 60-second delay (e.g., red after a correct choice and green after an incorrect choice), the discrimination was rapidly learned. Moreover, when the differential colors occurred only for the first few seconds after the choice, and then the last few seconds prior to the outcome, the discrimination was learned as rapidly as if the colors had been present throughout the delay. The critical condition in the experiment, which distinguishes between the bridging versus conditioned value interpretations of conditioned reinforcement, was that which reversed the colors occurring at the beginning versus the end of the delay-of-reinforcement interval. Thus, red occurred immediately after the correct choice for a few seconds, and then green was presented a few seconds prior to the food reward contingent on that correct choice; also, green occurred immediately after the incorrect choice for a few seconds, and then red occurred during the last few seconds of the delay interval but here was not paired with food. The design of the experiment thus pitted the delayed primary reinforcement contingencies against the immediate conditioned reinforcement contingencies. The result was that after a brief period

of random responding all subjects began predominantly choosing the incorrect choice alternative because it was followed immediately by the color that preceded the food at the end of the delay.

Eventually, however, the choice behavior ceased to occur because continuous choice of the incorrect alternative meant that the red color no longer was paired with food and thus lost its conditioned value. But at no time did the animals learn to choose the correct line orientation because the color never paired with food was always immediately contingent on that behavior. The experiment thus demonstrates that the conditioned value of the conditioned reinforcer, not its ability to bridge the delay interval to food, determined its ability to control behavior.

The concept that a conditioned reinforcer has value in its own right provides insight into numerous experimental outcomes that otherwise seem odd or inexplicable. As one example, consider the phenomenon of "contrafreeloading," the finding that animals will engage in operant behavior even when the food reinforcer contingent on the behavior is also freely available in the conditioning chamber itself. Moreover, animals will learn to emit the response even when the free food is available from the outset of training. Such behavior has been observed with several different species, with several different types of reinforcers. The behavior appears paradoxical because it violates the law of least effort, which otherwise has been upheld in many different settings. This paradox disappears, however, when the role of conditioned reinforcement is appreciated. The critical ingredient is the stimulus change contingent on the operant behavior that does not occur during procurement of the free food. Thus, the operant response is followed by the stimulus change plus the food, while the approach to the free food container is followed only by the food. Because the stimulus change is paired with the food, it apparently gains value in its own right, thus making the stimulus plus food combination more valuable than food alone. This interpretation is supported by the finding that when the stimulus change is equated for the two sources of food, preference for free food quickly develops.

A more general psychological phenomenon for which conditioned reinforcement serves as an explanatory framework is imitation learning. Consider first how talking birds acquire comprehensible vocal behavior. An apparent prerequisite for such vocal behavior is that the bird develop an attachment to its caretaker, so that attributes of the caretaker acquire positive value via their pairings with the primary rewards provided by the caretaker. One of these attributes is the sound of the caretaker's voice, including specific verbal utterances. The bird then increasingly approximates these sounds because the similarity between the bird's own sounds and those of the caretaker cause the bird's own sounds to have positive value as well. Thus, the closer the bird approximates its caretaker's verbal utterances, the greater the degree of conditioned reinforcement contingent on vocalizing. Close matches will eventually occur because that is when conditioned reinforcement is at its maximum.

The foregoing analysis can be extended easily to a considerable amount of human behavior. The most obvious is the development of the phonetic structure of infant babbling, which evolves from including the entire spectrum of sound to being restricted to only those phonemes in the immediate linguistic community. An increasingly pervasive example is provided by the ubiquitous changes in the language patterns of teenagers. To the chagrin of many parents, an epidemic of speech insertions that serve no semantic function has developed: "you know, "like," and so forth. These patterns of verbal behavior have spread to a remarkable degree among teenagers, with the result that they often seem to be speaking in their own idiosyncratic dialect. Informal observations suggest that most are unaware that their speech patterns elicit disdain from the adult linguistic community, and they often are unaware that their speech is in fact deviant from cultural norms. The concept of conditioned reinforcement offers a ready explanation for why such behavior is maintained. Teenagers are reinforced by assuming the characteristics of their peers, characteristics that include speech patterns as well as clothes and social customs such as piercing one's body with various metal adornments. The robustness of the behavior in face of adult censure provides striking confirmation of the power of the conditioned reinforcement value of peer-modeled behavior.

The most pervasive of all applications of conditioned reinforcement is the industry of advertising. John B. Watson, who founded Behaviorism as a distinct school of psychology in 1913, was the first to recognize the enormous power of Pavlovian conditioning as a means of establishing value to commodities that were otherwise neutral. After a very successful academic career, in 1920 he was fired from Johns Hopkins University for his sexual misconduct (an affair with a graduate student, whom he later married). After no other universities would hire him, he assumed a job with a major advertising company in New York. His initial marketing research determined that most consumers were unable to distinguish between different brands of the same product when tested

without knowledge of the product brand being tested. He then speculated that it was primarily the associations that were attached to a product name that gave that product its commercial appeal, and he proceeded to demonstrate experimentally that this was in fact the case. Much of the modern industry of advertising continues to be based on that simple idea.

Numerous laboratory experiments, involving many kinds of animals including humans, have demonstrated that the value of many different commodities, objects, and the like, can be systemically changed by their pairing with primary reinforcers. A significant number of these experiments involved gustatory stimuli (tastes), where initially neutral stimuli were paired either with something pleasant (e.g., milkshake) or aversive (quinine). Later when the same tastes were presented in a neutral medium such as water, tastes previously paired with the pleasant substance were rated as much more desirable or pleasant than tastes initially of the same value but not involved in the training procedure. Conversely, tastes that had been paired with the unpleasant substance were rated as much less desirable than tastes that had not been trained. It should be apparent that conditioning taste preferences plays an important role in much of human appetitive behavior. For example, most people do not initially like the taste of beer but quickly develop a positive value for that taste after only a few pairings of the taste with the alcohol in the beer.

Such "Revaluation" experiments have also been conducted with aesthetic judgments. In a typical experiment, pictures (e.g., travel slides) are divided into the categories of pleasant value, negative value, or neutral, and then different sets of the neutral slides are followed in their presentation by either the positive or the negative stimuli. The result has been that the value of the initially neutral slides is changed in the direction of the stimuli that follow them, as assessed by ratings by the subject after the different types of pairings. These changes have been independent of whether the subject had been aware of the different types of sequences. The fact that the subject is unaware of the change in his or her evaluation of the stimuli is of special importance to the advertising industry in that it allows manipulation of the consumer's attitudes and values without the consumer being aware of that manipulation.

The conditioned value of commercial products due to their pairing with primary reinforcers can also be made durable by using several different kinds of primary reinforcers. Conditioned reinforcers that are associated with several different kinds of primary reinforcer have been labeled "generalized reinforcers" by B. F. Skinner, who assumes that their associations with multiple reinforcers makes them extremely resistant to extinguishing their value. Money is the most obvious example of a generalized conditioned reinforcer.

V. CLINICAL APPLICATIONS OF CONDITIONED REINFORCEMENT

Explicit manipulation of the value of Pavlovian conditioned stimuli, whether positive conditioned reinforcers or conditioned aversive stimuli, plays an important role in various clinical applications. Aversion therapy is the most obvious type of application. Stimuli associated with maladaptive behavior such as smoking or alcoholism have become positive conditioned reinforcers through their pairing with the pharmacological effects of nicotine or alcohol, and thus help maintain the behaviors of smoking or drinking. The goal of aversion therapy is thus to reverse the value of these Pavlovian conditioned stimuli from being positive conditioned reinforcers to being conditioned aversive stimuli. For smoking-related stimuli, the method most commonly used has been the rapid-smoking procedure, whereby the client is encouraged to smoke at a very high rate, thus creating an aversive bodily state that is paired with all of the stimulus properties of smoking. For the aversion therapy treatment of alcoholism, the smell and taste of various alcoholic beverages have been paired with emetic agents that cause nausea and vomiting, in order that these unpleasant bodily states become associated with those alcohol-related stimuli. Such procedures are generally regarded as among the more effective procedures for treating these common addictions.

The role of conditioned reinforcers in maintaining maladaptive behavior is often not fully appreciated. As an example of the practical importance of understanding the dynamics of conditioned reinforcement in clinical settings, consider a recent analysis of the maintenance of smoking behavior and the consequent implications for smoking-cessation treatments. It is now generally acknowledged that the pharmacological reward properties of nicotine are crucial for maintaining smoking behavior, with the result that nicotine replacement, either by nicotine chewing gum or the nicotine skin patch, has become a major therapeutic approach. While a significant improvement in smoking cessation rates, relative to placebo controls, usually

does occur with this approach, the effect is typically small, primarily it seems because nicotine replacement has little impact on the degree of craving for cigarettes, even though it greatly reduces the number of physiological symptoms associated with smoking withdrawal (e.g., nervousness, weight gain). The apparent basis of the persistence of craving in spite of the continued presence of nicotine is that the sensory properties of smoking have acquired hedonic value in their own right, and it is they, not nicotine itself, that are the object of craving. Support for this hypothesis comes from several studies in which various methods of mimicking the sensations of smoking (e.g, inhalation of aerosols of dilute citric acid) have substantially reduced the level of craving, sometimes to a degree comparable to smoking a commercial cigarette. The interpretation of this effect is that the sensory properties of smoking have become conditioned reinforcers that retain their hedonic value even when the subject is in the state of nicotine satiation at the physiological level. The implication is that smoking-cessation treatments must consider the conditioned-reinforcement properties of smoking-related cues as being as important, if not more so, as the primary reward properties of nicotine itself.

The most explicit use of conditioned reinforcement in clinical settings involves token economies in which many different aspects of behavior are monitored and reinforced when appropriate with some type of token that later can be traded for desired commodities. The experimental research on which some applications are based dates to experiments in the 1930s in which chimpanzees were trained to work for poker chips that could be traded for food only after the work session was completed. In the 1960s Teodoro Ayllon and Nathan Azrin, two of the early pioneers in adapting the principles of behavioral psychology to applied settings, administered a token economy in a state psychiatric hospital. Patients received tokens for behaviors such as attending activities on the ward, group meetings, and therapy sessions, and for grooming, making one's bed, showering, engaging in appropriate meal-time behavior, and socially interacting. Tokens could be exchanged for a variety of reinforcers such as cosmetics, candy, cigarettes, and clothing; renting chairs for one's room; ordering items form a mail-order catalog; using a piano or radio; spending time in a lounge; watching television; and having a private room.

Token economies in many other psychiatric settings were developed during the ensuing two decades, and their effects have been systematically compared to the traditional psychiatric treatments under controlled conditions. Such comparisons have shown token economies to be more successful than traditional treatments in reducing bizarre behavior, improving social interaction and communication skills, and developing participation in activities. Perhaps most importantly, these gains have been reflected in the increased number of patients discharged and in their adjustment in the outside community after termination from the program.

Token economies have been used with a variety of populations in numerous types of settings. Among them are the mentally retarded, nursing-home residents, alcoholics, and drug addicts. Perhaps their most common venue has been educational settings, but they have also been used in day-care centers, prisons, and business and industry.

It is important to keep in mind the two important advantages that token economies have over forms of reinforcement contingencies. First, they allow the immediate delivery of a reinforcer in a nonintrusive way that does not disrupt the stream of behavior. For example, if a retarded child is studying diligently at his desk, presenting a token to the child is much less likely to disrupt his behavior than if the reward were a cookie. Second, because many different types of rewards can be paired with tokens, the idiosyncratic variation among peoples' preferences will not be problematic in determining what type of reward will be an effective reinforcer. For example, some children may be insensitive to the reward of social praise, but they are unlikely to be insensitive to all of the various kinds of things that tokens will purchase.

The major issue in using token economies is how to fade out the tokens and replace them with the more usual social contingencies of praise, the value of a job well done, and the like. The specific techniques used in fading out the token contingencies vary widely with the setting in which the token economy has been implemented, and there is a large professional literature about the procedures necessary to prevent the gains established under the token economy from being lost.

VI. SUMMARY

The present brief review has touched on only the major applications of the concept of conditioned reinforcement. Other interesting aspects of human behavior that potentially could be enlightened by the concept are fetishes, daydreaming, and changing tastes in fashion. Such diversity of applications reflects the basic fact of

human nature that the great majority of the events, activities, and commodities that motivate and reinforce human behavior are creations of our learning histories. The basis of that learning is often obscure because the underlying associations with biologically based rewards are mediated by multiple second-order associations, so that no one individual linkage between a conditioned and primary reinforcers seems essential. Nevertheless, when conditioned reinforcement contingencies are explicitly manipulated, they have been shown to be tremendously powerful determinants of human behavior.

See Also the Following Articles

Behavior Therapy: Historical Perspective and Overview ■ Classical Conditioning ■ Covert Positive Reinforcement ■ Negative Reinforcement ■ Operant Conditioning ■ Positive Reinforcement

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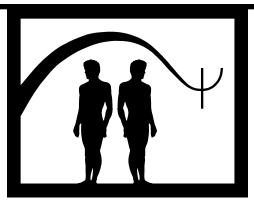

Confidentiality

Norman Andrew Clemens

Case Western Reserve University

I. Introduction
II. Why Confidentiality Is Fundamental to Psychotherapy
III. Ethical Foundations of Confidentiality
IV. Legal Protections of Confidentiality in Psychotherapy
V. Exceptions to the Privilege of Confidentiality
VI. Case Illustrations
VII. Electronic Communications and Confidentiality
VIII. Legislative and Regulatory Developments Affecting Confidentiality
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GLOSSARY

confidentiality Characterizes an understanding between parties in a defined relationship; the necessary ingredient is trust that one party (e.g., a professional or a spouse) will not divulge information about the private life of the other party (e.g., a person using professional services or the other spouse).

privacy An individual person's right to control one's own body, mental life, possessions, and business affairs, with freedom from intrusion, interference, or knowledge on the part of others.

privileged Communication that has special safeguards (e.g., from divulgence or legal action) in a judicial arena or other investigation at law, such as a legislative proceeding. The legal basis of the protection is called a *privilege*.

I. INTRODUCTION

The doctor–patient relationship is the cornerstone of psychotherapy. Fundamental to that relationship is strict adherence to a code of professional ethics. At the heart of these ethical principles is confidentiality. Skills are also vital to psychotherapy, although effective psychotherapy by a beginner can take place in a well-supervised learning situation. However, ethical behavior, including preservation of privacy and confidentiality, is essential from the very outset of all psychotherapy. Confidential communications are protected by law in certain relationships with an attorney, member of the clergy, physician or mental health professional, and husband or wife. In addition, formal ethical codes of the professions govern physicians, attorneys, and the clergy. Rapidly evolving information systems create many new challenges to confidentiality.

II. WHY CONFIDENTIALITY IS FUNDAMENTAL TO PSYCHOTHERAPY

Effective psychotherapy depends on the patient's feeling safe to be completely frank and candid. Such openness does not develop quickly. The patient has to gain trust in the therapist's ethical reliability not to break confidence or to demean or exploit the patient. Frequently the patient is not aware of deeper motives or feelings, except perhaps through a vague sense of anxiety, and only the work of treatment will bring these to light. Patients also may be aware of motives, feelings, thoughts, fantasies, dream material, or actions that cause painful shame and/or guilt. Only in an atmosphere

of trust and confidence can the patient open the door to these intimate mental contents to another person. Frequently patients explicitly ask for reassurance about confidentiality before embarking on a sensitive topic. The material that emerges is often a surprise to the therapist and even the patient.

Psychotherapy modalities vary considerably in how much they facilitate the patient's divulging sensitive material. Psychoanalytically based treatments (psychoanalysis, psychodynamic psychotherapy) employ methods that encourage free association, the patient's freedom to speak whatever comes to mind. Therapists using these treatments anticipate that part of a patient's mental life is hidden even from the patient. Improvement in symptoms, function, and overall quality of life result from emerging self-knowledge and conscious mastery of hitherto unconscious elements from past experiences or current inner conflicts. Psychodynamic treatments are open to exploring unexpected twists and turns in mental life. Structured, short-term psychodynamic treatments may narrow the scope of what will be addressed, but they nonetheless must be prepared for surprises and have a strategy for dealing with them.

Interpersonal psychotherapy focuses more exclusively on the patient's roles and relationships with other people that frequently generate powerful emotions. Disclosure is essential for the patient and the therapist to know what these really are, so that the patient can understand and manage them better. Cognitive-behavioral therapy requires openness on the part of the patient to observe, identify, and work to control or modify automatic thoughts, dominant patterns of thinking, and repetitive, maladaptive behaviors. Strict behavioral therapies, being focused on the patient's actions rather than inner mental life, may involve less disclosure, but behaviors must be known to be treated, including those that induce shame or guilt in the patient. Regardless of the form of treatment, patients expect a confidential atmosphere, which must be maintained. Being unschooled in the fine distinctions between therapeutic methods, patients may expect or wish to talk about sensitive issues regardless of the chosen format. Sometimes the technique and focus of the treatment will have to change as a result of new revelations by the patient.

Patients commonly talk about their relationships in psychotherapy, which means that extensive knowledge of other people's private lives enters into the therapy. The patient must also feel secure that these people and these relationships will not be harmed as a result of disclosures in psychotherapy. It must be in the patient's domain alone, not the therapist's, to take actions that affect others or change the nature of relationships.

Even more, the patient must feel secure that disclosures to a therapist will not damage the patient's life situation in any way. This entails protection from prosecution, investigation, harm in civil proceedings, public shame or humiliation, disruption of personal relationships—let alone any kind of exploitation on the part of the therapist. Only when the patient feels that no harm will come from telling the truth can that person take on the task of facing the unknown, understanding mental processes, dealing with consequences, resolving anger, anxiety, shame or guilt, establishing self-control, and realigning one's inner and outer life. This benefit to the patient, and the consequent benefit to society of access to this valuable treatment method, is the basis of legal and ethical protections of confidentiality in psychotherapy.

III. ETHICAL FOUNDATIONS OF CONFIDENTIALITY

The bedrock of ethics in Western medicine lies in the ancient Hippocratic Oath, written around 400 B.C.E. and recited to this day by physicians as they graduate from medical school. From it come these words about confidentiality:

> Whatsoever I see and hear concerning the life of men, in my attendance on the sick or even apart therefrom, which ought not to be noised abroad, I will keep silence thereon, counting such things to be as holy secrets.

Another fundamental tenet of Western medicine is *Primum non nocere*—first, do no harm. Confidential information revealed to others can, of course, do enormous personal and financial harm.

Confidentiality remains central to the ethical principles of the healing professions today. The American Medical Association's (AMA's) Principles of Medical Ethics, presented in the Preamble as "standards of conduct which define the essentials of honorable behavior for the physician," state that "A physician … shall safeguard patient confidences within the constraints of the law" (Section IV). The American Psychiatric Association (APA) adds to the AMA principles "Annotations Especially Applicable to Psychiatry." The annotation for this section begins,

> Psychiatric records, including even the identification of a person as a patient, must be protected with

> extreme care. Confidentiality is essential to psychiatric treatment. This is based in part on the special nature of psychiatric therapy as well as on the traditional ethical relationship between physician and patient.

Detailed elaboration deals with the many situations in which confidentiality comes into conflict with other societal needs or interests. Among these is the setting itself in which the treatment takes place: A hospital or multidisciplinary clinic where several professionals may work with a patient poses a different challenge than the private office of a solo practitioner. Other professions that practice psychotherapy have similar ethical positions.

IV. LEGAL PROTECTIONS OF CONFIDENTIALITY IN PSYCHOTHERAPY

The laws of every state of the United States protect medical confidentiality, and, as cited by the U.S. Supreme Court in the 1996 decision in *Jaffee v. Redmond,* all states also have statutes establishing some form of psychotherapist–patient privilege in court proceedings. Laws in various jurisdictions safeguard the confidentiality of patient information, but some also specify situations in which it may or must be superceded by other priorities, such as reporting child abuse or imminent threats of violence. In addition, state professional licensing boards have the right to sanction or remove the license of a practitioner who breaches ethical codes, including confidentiality. Psychotherapy of couples, families, or groups pose special issues in regard to legal protections of confidentiality, because other people are in the room with the therapist and the individual identified as a patient in a legal proceeding. Special measures are usually taken to pledge participants to preserve confidentiality in these situations, but there is little case law to establish whether it could be challenged in court.

Ironically in comparison with the states, a privilege protecting confidential psychotherapy information in federal courts was nonexistent until recently. This changed radically in 1996 when the U.S. Supreme Court handed down a decision regarding the admissibility of psychotherapy data as evidence in federal courts in *Jaffee v. Redmond.* Although this decision technically applies only to rules of evidence in the district in which the case arose, it has been highly influential in subsequent decisions in the states as well as federal courts. Its rationale and authority have also been used to advocate for legislation and/or regulation to protect the confidentiality of information obtained during psychotherapy.

Jaffee v. Redmond arose from an incident in which a female police officer shot and killed a man who appeared about to stab another person. The officer subsequently was so distressed that she sought psychotherapy with a social worker. The family of the deceased suspect sued the officer and the city for damages. The psychotherapist refused to testify or divulge the records of her patient, and the case was ultimately appealed to the U.S. Supreme Court. Many professional organizations submitted *amicus curiae* briefs in this case, including the American Psychiatric Association, the American Psychological Association, and a consortium of psychoanalytic organizations.

In a strongly worded decision with only one dissent, the Court ruled in favor of protecting confidentiality of psychotherapy as an absolute privilege on a par with the attorney–client privilege. (Although general exceptions may exist for an absolute privilege, e.g., breach of confidence to prevent imminent bodily harm, the privilege may not be subjected in individual cases to a balancing test against other compelling needs, such as the full disclosure of evidence.) The rationale for the *Jaffee* decision rested on the fact that effective psychotherapy, an important social good, could not take place without the patient's being able to place complete trust in the confidentiality of communications in treatment. In the Supreme Court's words:

> Effective psychotherapy … depends upon an atmosphere of confidence and trust in which the patient is willing to make a frank and complete disclosure of facts, emotions, memories, and fears. Because of the sensitive nature of the problems for which individuals consult psychotherapists, disclosure of confidential communications made during counseling sessions may cause embarrassment or disgrace. For this reason, the mere possibility of disclosure may impede development of the confidential relationship necessary for successful treatment.

The decision clearly affects psychotherapy regardless of the profession of the psychotherapist, specifically in this case a social worker.

Because the *Jaffee* decision of the Supreme Court applies specifically and only to psychotherapy and establishes an absolute privilege, it can be convincingly argued that the decision protects information revealed in psychotherapy more than ordinary health data or even information about especially sensitive conditions,

such as mental illness, addictions, HIV–AIDS or genetic abnormalities.

V. EXCEPTIONS TO THE PRIVILEGE OF CONFIDENTIALITY

In all exceptions to psychotherapist–patient confidentiality the prevailing concern of the psychotherapist must be to limit disclosure as stringently as possible, consistent with the purpose that necessitates disclosure. At times the psychotherapist may be more vigorous than the patient in defense of confidentiality because of potential damage not only to this patient but also to the trust of other people who contemplate entering psychotherapy.

A. Prevention of Harm to the Patient or Others

The most compelling exceptions to the confidentiality of psychotherapy have to do with preventing physical harm to the patient or other people. For example, a psychotherapist could act to hospitalize a patient to prevent imminent suicide or to treat a psychosis in which the patient could do irreparable damage. In most instances this breach of confidentiality would be considered defensible. Some but not all jurisdictions have specific requirements that health professionals warn potential victims of imminent homicidal behavior, and some require reporting of abuse of children and/or elderly people. Judicial precedent also exists in the landmark *Tarasoff* case in California state courts, in which a "duty to protect" potential victims of violence was stated.

The requirement to report child or elder abuse raises dilemmas for psychotherapists in situations where the long-term achievement of understanding and ending the abuse may be derailed by breach of trust and confidence resulting from mandatory reporting to the authorities. Some therapists warn the patient in advance that legal statutes require them to report abuse revealed to them by the patient. The disadvantage of this approach is that the patient may fail to reveal a central, serious problem so that it can be addressed in psychotherapy. Such warnings would be antithetical to the basic rule of psychoanalysis and render it impossible to establish a treatment process. On the other hand, confronting an ongoing, seriously damaging behavior pattern and invoking external restraint to stop guilt-provoking, out-of-control activities may facilitate treatment by challenging denial, limiting discharge through action, and bringing the issues under clearer scrutiny in the treatment situation.

Ethical codes also acknowledge the fact that clinical or legal requirements may force a breach of confidentiality. The AMA Principles of Medical Ethics cited earlier qualified its confidentiality statement by adding the phrase "within the constraints of the law." The APA annotation states that "Psychiatrists at times may find it necessary, in order to protect the patient or the community from imminent danger, to reveal confidential information disclosed by the patient."

B. Disclosure Authorized by the Patient

Patients frequently sign consent forms permitting blanket disclosure of clinical information to process claims for insurance benefits. Such perfunctory consent forms at the outset of a treatment relationship cannot be considered to be informed consent, because the patient does not know the nature of the information to be disclosed, when or to whom disclosure will take place, and what use of it will be made by the recipient of the information. It is essential that the therapist discuss with the patient the full implications and risks of waiving confidentiality for a specific disclosure. One should document the informed consent with the patient's signature, the date, a defined recipient, and often details about what may or may not be divulged and a finite time period during which the authorization is valid.

Authorization is also required for disclosure to another health care professional because of transition to another therapist or concurrent treatment by another clinician, such as a patient in psychotherapy by a social worker who is working with a psychiatrist to manage medications. Therapists may obtain supervision or consultation without the patient's authorization, in which case the supervisor or consultant is fully bound by the constraints of confidentiality.

The rise of managed care, which now covers over 175 million Americans, has raised many issues about confidentiality. Patients and therapists are reluctant to reveal information from psychotherapy to managed care reviewers whose identities and professional qualifications are unknown, and to accept unwanted interference in the therapeutic approach, to obtain approval for payment for therapy. As a result many skilled and experienced psychotherapists refuse to contract with managed care organizations. New government regulations to be discussed later will limit communications

with third-party payers to the minimum necessary to accomplish the essential purpose.

C. Does Limited Disclosure Invalidate Confidentiality?

An important unresolved issue is whether the fact of having made a disclosure for any reason totally invalidates the psychotherapy privilege in subsequent legal proceedings. A New York state court opinion in 2000 took the position that limited disclosure to warn a potential victim of violence did not waive the psychotherapy privilege. Revelation of limited information such as a diagnosis for insurance claim purposes does not invalidate the psychotherapy privilege. To minimize the risk to the privilege it is important to separate a therapist's notations about the specific contents of psychotherapy from administrative information about the broader clinical care of the patient.

D. Disclosure Required Because of Legal Action Initiated by the Patient

When a patient initiates a legal matter in which her medical condition is at issue, she generally waives the privilege of confidentiality of general medical records. The records from all relevant health care providers are likely to be open to the court and to attorneys for both plaintiff and defendant. Common examples are claims for damages for physical or mental harm due to accidents and claims against employers for work-related disability determinations. However, it may still be possible to maintain the privilege of confidentiality of psychotherapy records. Psychotherapists tend to oppose the release of information regarding the contents of psychotherapy, using the arguments associated with *Jaffee v. Redmond*. The resolution of such difficult situations commonly involves review of the records by the presiding judge *in camera* to select for disclosure only information relevant to the case at hand. Strong opposition to exposing the details of psychotherapy is essential to minimize the misuse of records by attorneys for "fishing expeditions" or to harass or embarrass opposing litigants and their relatives or associates.

If the patient initiates malpractice litigation or a complaint to a licensing board against her psychotherapist, the patient's psychotherapy records may be used without authorization in the investigation and adjudication of the matter. Full and fair investigation of an ethics complaint to a professional organization against a psychotherapist necessitates the patient's authorization of access to psychotherapy records and information. Professional colleagues conduct the investigation within the ambit of confidentiality.

E. Law Enforcement

Criminal investigators sometimes seek access to mental health care records to identify potential suspects. Therapists are ethically obligated to resist such unauthorized intrusions into patients' psychotherapy notes by every available legal means. Investigations of health care professionals for possible insurance fraud and abuse or violations of state professional codes may also bring law enforcement officers to a therapist's office demanding to see records. Although legal or ethical violations by a therapist cannot be condoned, establishing due legal process and procedural safeguards to protect patients' private information is an indispensable obligation of all parties to such an investigation.

F. Research

Participation in research studies requires the patient's full and informed, written consent. If the patient is not available to give consent for retrospective studies, the optimal condition is that only information completely devoid of all identifying information may be used, with suitable safeguards to prevent the cross-linking of deidentified data with other identifying databases. Psychotherapy advocates take the position that the preservation of the full confidentiality of psychotherapy must take precedence over potential benefits of research investigation. Institutional review boards commonly scrutinize proposed research for protection of confidentiality but may not be fully cognizant of the special requirements for confidentiality in psychotherapy.

VI. CASE ILLUSTRATIONS

A. Mr. A.

A man in his late 40s in his seventh psychotherapy session, Mr. A. paused and then asked his psychiatrist if everything he said was truly confidential. The psychiatrist replied that within the limits of the law, and with the exception of any emergency involving threat to life and limb, confidentiality would be maintained. The psychiatrist added that she would actively use all legal means to resist any efforts to intrude in any case. Mr. A. then haltingly revealed, with great shame, that

he had disturbing sexual thoughts about his teenaged daughter. They went on to work with the origins of these thoughts in his own early sexual experiences in family life. Both the intensity of the thoughts and the shame about them diminished, and the patient felt comfortable that he could control any such impulses in the future.

If the therapist had responded to this revelation as potential abuse and reported it to the authorities, the patient and his family would have been harmed, and he would not have had the opportunity to master the conflict within himself. The case also highlights the fact that psychotherapy may open doors to discussion of fantasies, dreams, and impulses on which the patient would be highly unlikely to act. An important tenet of psychotherapy, not always understood in everyday life, is that thought is not the same as action. In mental life people may have extreme thoughts and feelings or consider seriously problematic behaviors before deciding on a more reasonable course of action.

B. Mr. B.

A managing partner of a major law firm, Mr. B., brought to psychotherapy complicated, sensitive difficulties involving a number of prominent people in business and politics in his community. He was in the initial stages of his own candidacy for the state legislature. For him to work effectively in psychotherapy to understand his feelings and judiciously manage his delicate role in the situation, he had to be absolutely sure that all information regarding situations, himself, and other persons would remain totally confidential.

C. Mrs. C.

Mrs. C. was involved in an extramarital affair that was not going well. She wanted to preserve and rehabilitate her marriage, but divorce was a possibility. She felt she could only work out her conflicting issues if the affair would remain a secret that would be divulged only by her if at all, after due consideration and not by intrusion into her therapy records.

D. Joe D.

Joe D. is a 19-year-old boy devastated by the loss of his girlfriend to another man. In psychotherapy he ventilated his rage and expressed the wish to use his old truck to push the other man's car off a cliff. By verbalizing fury in this way, he gradually settled down and avoided impulsive, dangerous action. The case illustrates the fact that patients sometimes reveal drastic impulses on which it would be very uncharacteristic for them to act, and that expressing them both relieves pressure and provides opportunities to reinforce self-control. In a psychotherapy record in court such statements could be misinterpreted without consideration of the treatment context in which the therapist evaluated them and concluded that they presented no significant risk of harmful action.

E. Officer Mary Lu Redmond

Mary Lu Redmond, the policewoman defendant in the U.S. Supreme Court case, *Jaffee v. Redmond,* would have been unable to enter psychotherapy to deal with her distress about having killed a man in the course of duty, had she known that what she said could be used in a civil action against her. The U.S. Supreme Court stated that neither the public interest nor equity would be served by denying police officers access to psychotherapeutic care that was available to the rest of the community.

VII. ELECTRONIC COMMUNICATIONS AND CONFIDENTIALITY

Health care records have traditionally been maintained on paper. Electronic communications by fax, e-mail or the Internet now present a much broader risk of instant disclosure to unauthorized entities. Medical records maintained in a computer database may be useful in coordinating care by many different health care providers, but they can potentially be used by insurance companies to deny health, disability, life, or even auto insurance. Insurance carriers maintain a central medical information bureau that underwriters can access. This facilitates discrimination against people with mental illness. Health insurance claims to self-insured employers have sometimes been used to make employment decisions. With growing consolidation of the banking, investment, and insurance industries, records of payments by check to psychotherapists could be revealed to an insurance carrier that is part of the financial organization and be used to deny insurance coverage. Recent revelations regarding FBI access to e-mail communications, without the knowledge of individuals using an Internet service provider, raise serious questions about the use of e-mail for communications with a physician or for long-distance psychotherapy. Studies of methods to deidentify

health care information have demonstrated that the possibilities for cross-linking with widely available databases make it perhaps impossible to remove potentially identifying data without totally corrupting the data and making it unreliable. Privacy advocates in the psychotherapy community caution against the use of electronic means for storing or communicating information regarding psychotherapy without very high standards of protection through encryption, audit trails, and thoroughly erasing records that are no longer active.

VIII. LEGISLATIVE AND REGULATORY DEVELOPMENTS AFFECTING CONFIDENTIALITY

These issues have prompted efforts to establish privacy regulations for electronic communications and databases, both in health care and in the business world. Privacy advocates are staunchly opposed by powerful forces in the insurance industry, financial institutions, public health agencies, medical and demographic research, and electronic communications industries. In 1996 the U.S. Congress appointed the National Committee on Vital and Health Statistics, representing the broad spectrum of interested parties, to investigate the problem and recommend solutions. The committee's report thoroughly discussed the issues and proposed actions that remain controversial. The Congress also set a deadline of 1999 for itself to develop health care privacy legislation, and if it failed to do so, tasked the Department of Health and Human Services (HHS) to develop privacy regulations in the Health Insurance Portability and Accountability Act (HIPAA). Many bills failed to reach enactment in Congress, and in August, 1999, HHS proposed a set of regulations for health care information transmitted by electronic communications. The proposed regulations also devoted attention to preventing unauthorized secondary disclosure to other entities by entities that had received authorized data. After analyzing a record-setting 52,000 comments on the draft regulations, HHS in the Clinton administration promulgated the final HIPAA regulations in December, 2000, to take effect in April, 2003.

The final regulations extend to all medical records, electronic or otherwise, and set national standards without invalidating stricter state statutes. In contrast to the draft regulations, they retain the customary requirement of initial patient consent for the release of medical information for treatment operations and claims processing purposes. They also establish a higher level of authorization required for disclosure of specific information for certain purposes. Patients will be allowed to inspect their general medical record and require corrections or insert comments if they take issue with the information it contains. Employers may not have access to health care records without patient authorization. The lengthy and complex regulations are undergoing extensive analysis by all stakeholders at the time of this writing, so that any interpretations are provisional. Companion regulations of security procedures, such as encryption and audit trails, essential to the successful application of the privacy regulations, remain to be promulgated. Although already published in the Federal Register, the privacy regulations may be subject to modification by Congress or the Bush administration.

Citing *Jaffee v. Redmond,* the HIPAA regulations propose a high level of specific protection for psychotherapy notes. Psychotherapy notes—the psychotherapy part of the identifiable medical record—are singled out from medical records in general for protection from unauthorized disclosure. The regulations apply to individual, group, marital, and family therapy. Authorization for disclosure must not be a required precondition for treatment or insurance eligibility, enrollment, or payment for treatment. However, psychotherapy records may be disclosed without patient authorization for health care oversight (e.g., investigation for fraud or violation of professional licensing codes) or defense of litigation against the therapist. There is also an exception "when needed to avert a serious and imminent threat to health and safety." Notes may be disclosed to coroners or medical examiners to determine the cause of death. "Consent" is required to use notes to "carry out treatment" or for supervision in training. Many other details and ramifications remain unclear.

IX. SUMMARY

Confidentiality is essential to the work of psychotherapy. It is protected both by professional ethical standards and state law. The U.S. Supreme Court decision in *Jaffee v. Redmond* in 1996 established an absolute privilege protecting information from psychotherapy from use as evidence in federal courts. This decision has been influential in the state courts as well as in comprehensive HIPAA privacy regulations that will take effect in 2003. Numerous threats to the privacy of psychotherapy information nonetheless exist in a rapidly expanding environment of information gathering and exchange. They must be addressed by the individual practitioner,

professional organizations, and the public at large through vigorous advocacy efforts.

See Also the Following Articles

Bioethics ■ Documentation ■ Economic and Policy Issues ■ Informed Consent ■ Legal Dimensions of Psychiatry ■ Online or E-therapy

Further Reading

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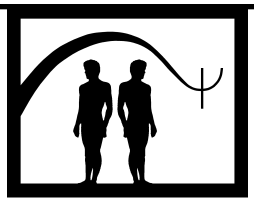

Configurational Analysis

Mardi J. Horowitz

University of California, San Francisco

I. Description of Treatment
II. Research Issues
III. Use of Configurational Analysis
IV. Defining What Changes in Psychotherapy
Further Reading

GLOSSARY

configuration An association of meanings whereby each set of meanings is given a position relative to the other sets.

motives A term that refers to the intrapsychic reasons for explaining why a mental process occurs. A given subsystem of mental processes may contain intrinsic properties that function as motives when that subsystem is activated. There may be motives to do or not to do an act or to perform or not perform a mental function.

person schemas High-order, well-organized views of self and others. Person schemas are psychological meanings that reflect identity, relationships, and potential social activities.

psychodynamic configuration A constellation of motives and person schemas that organize information processing, intentions, and expectations. These configurations include beliefs, wishes, fears, and defensive strategies. A conflictual configuration often involves a *wish,* a *threat* of a dreaded state, and a *defensive posture.* The defense is a way of compromising the wish to avoid its feared consequences.

role-relationship models Inner schemas and scripts that function as cognitive maps for interpersonal emotions and transactions. They can be activated unconsciously as well as consciously. Roles for self in such models contribute to a sense of identity, and the roles of self and other can define a sense of affiliation and attachment.

schemas Usually, unconscious cognitive maps that can serve as organizers in the formation of thought. Schemas influence how motives reach conscious awareness as well as how external stimuli are interpreted. Schemas tend to endure and to change slowly with integration of new information. Small-order schemas can be nested into hierarchies such as configurations of role-relationship models for a particular attachment.

I. DESCRIPTION OF TREATMENT

Configurational analysis is a method of psychological formulation that focuses on cognitive-emotional conflicts and the dynamics of identity and relationship roles. It combines concepts derived from psychodynamic, interpersonal, cognitive-behavioral, and family systems theories. It also integrates ego-psychology, object relations, and self-psychology methods of formulation. Configurational analysis is a simplified, practical, and teachable system based on agreements reached in clinical research.

Configurational analysis is a system that can be used for initial case formulation, case reformulation during treatment, and analysis of what changed after treatment. The steps most repeated in all three operations involve state analysis, control of emotional topics analysis, and person schematic analysis, which clarifies the deeper organization of emotional and conflicted themes by varied views of and beliefs about self and others. These steps can explain recurrent and maladaptive

interpersonal patterns as well as some psychiatric symptoms and syndromes.

The system is an integrated one that combines concepts from various schools of thought. It uses definitions that were developed in a clinical research effort and that combine concepts from psychodynamics (with its varied schools), social systems theory (with its attention to roles and social schemas), and cognitive science (with its connection to neurobiological systems).

By repeating the steps of configurational analysis successively from the perspectives of initial formulation, formulation of therapy process, and formulation of therapy outcome, clinicians can increase specifications of what changed and how that change came about. The result empowers clinicians as their own researchers and can improve their clinical effectiveness, their ability as teachers, and their sense of personal growth.

Configurational analysis begins with an emphasis on what can be observed and reported. The objective phenomena then to be explained may be symptoms or patterns of maladaptive interpersonal behavior. Next, the states of mind in which these phenomena occur are described, including those states with variants. This method of formulation includes paying attention to defensive controls of emotional and relationship expressions. At the level of states, this means attention to degrees of regulation of action and feeling as in undermodulated states (impulsive behavior, intrusive ideas, and floods of emotion), well-modulated states (deliberate expression of emotional intensity), and overmodulated states (rigidity, pretense, or stifling of unwanted experiences).

These states of mind can be examined in terms of wishes, fears, and defenses against expressions in thought and action. That is, a person may desire certain states, dread others, and enter a particular state (such as aloof indifference) as a defensive compromise. An initial *configuration* emerges from such an analysis. This configuration is the relative association of desired, dreaded, and compromise states that occur in a recurrent maladaptive cycle.

This cycle of states may then be further examined for important topics of concern and the defensive control processes that are used to control intense and alarming levels of emotion. In this third of the four steps of configurational analysis (phenomena, states, topics-and-controls, self–other views), the reasons for the repeated maladaptive cycle are partly clarified. This effort at lucidity is continued in the fourth step, which infers self and other views that organize different states of mind. This leads to a configuration of *role-relationship models* and the states in which they do or do not occur. In this approach to formulation, one then integrates the inferences and plans a treatment strategy. These steps of configurational analysis are summarized in Table 1.

The four principal steps of configurational analysis function as a formulation of the initial or current condition of a patient to be treated by psychotherapy. The following paragraphs provide condensed instructions for clinicians who use this method.

Step 1. Phenomena to Be Explained

List symptoms, signs, problems, or specific sets of maladaptive traits. Separate the initial complaints made

TABLE 1
Steps of Configurational Analysis

(Each step can also include social and biological levels as well as past developmental contributors to the current situation.)

1. PROBLEMS
   Select and describe the symptoms, life problems, and/or maladaptive character traits that need to be explained.
2. STATES OF MIND
   Describe states in which the selected phenomena do and do not occur as well as recurrent maladaptive cycles of states. Organize these when possible into configurations of desired states, dreaded states, and compromise states.
3. TOPICS OF CONCERN AND DEFENSIVE CONTROL PROCESSES
   Describe topics of concern during problematic states. Describe how expressions of ideas and emotions are obscured. Infer how avoidant states may function to ward off dreaded, undermodulated states. Describe differences in emotional styles in desired, dreaded, and compromise states. Describe how control shifts lead to a shift in state.
4. IDENTITY AND RELATIONSHIPS
   Describe organizing roles, beliefs, and scripts of expression in each state. Describe wish-fear dilemmas in relation to desired and dreaded role-relationship models. Infer how defensive control processes and compromise role-relationship models ward off dangers. Identify dysfunctional attitudes and how these are involved in maladaptive state cycles.
5. INTEGRATION
   Consider the interactions of problems, states, controls, and role-relationship modes. Plan how to stabilize working states by support, how to counteract defensive avoidances by direction of attention, and how to alter dysfunctional attitudes by interpretation, trials of new behavior, and repetitions.

Source: Horowitz (1997).

by the patient from those reported subsequently. List difficulties the observer recognizes but the patient does not complain of directly. Include both intrusions and omissions from rational consciousness and behavior. Intrusions are episodes of consciousness or action that are unwanted, unbidden, or hard to dispel, such as an impending sense of doom, an unwelcome repetition in memory, images of a traumatic event, or a temper outburst. Omissions include the absence of desired and adaptive experiences or actions, such as inability to become sexually aroused, inability to recollect a loved one, and failure to confront the implications of important situations. Indicate how these symptoms and signs occur in current life outside the session, how they developed in the past, and if and when they were observed directly in the clinical setting.

Step 2. States of Mind

List recurrent states and define them by patterns and discords of verbal and nonverbal behavior, as well as by reports of subjective experiences. Indicate common shifts between states and triggers for entry into undermodulated states. Begin with states that contain the major distressing phenomena described in Step 1. These are often undermodulated states. Next list states that seem more controlled and complete the list with overcontrolled states of mind. The term shimmering state can be used to define states in which mixed and contradictory signs occur (e.g., tearing and stifling sadness). Discuss which states are desired, which are dreaded, and which are defensive compromises that reduce pleasure but prevent the risk of unpleasurable states.

Step 3. Topics of Concern and Defensive Control Processes

Describe unresolved and conflictual topics. These are often the themes associated with repetitive intrusions into and omissions from adaptive trains of thought. Model these themes as constellations of ideas, emotions, and cognitive maneuvers to control emotion such as inhibition of ideas, shifts in topic, and distortions of appraisals.

State why it has been hard for the person to reach a point of resolution, decision, or acceptance on a problematic topic. Relate constellations of memory and fantasy to recent life events, psychosomatic reactions, and social situations. State the degree to which objective reality accords with the subject's subjective beliefs. Identify dysfunctional beliefs. Indicate the subject's stress-induced versus habitual use of defensive operations. Relate different defenses, resistances, or obstacles to the different states of mind noted in Step 2.

Step 4. Identity and Relationships

Extend inferences about dysfunctional beliefs to cover erroneous views of self and others. Develop a role-relationship model for each important state of mind in the state cycle. From these, infer configurations of desired, dreaded, problematic compromise, and quasi-adaptive compromise role-relationship models. When there is sufficient information, reconstruct the development of the dysfunctional beliefs contained in these person schemas. Describe the degree of integration and harmonization of schemas or the lack thereof, as in extreme, irrational, contradictory, or dissociated views of self or others.

Configurations of desired, dreaded, and defensive compromise role-relationship models are the deepest level of inference in this method of formulation. They explain recurrent states. Compromise role-relationship models organize states that avoid the feared consequences embedded in wish–fear dilemmas. These compromise role-relationship models avoid the dilemma of linked desired and dreaded intentions and expectations. Defensive controls can activate such compromise role relationships.

Formulating the patient's defensive styles (Step 3) before formulating their role-relationship models (Step 4) helps the clinician find person schematic beliefs in two ways. First, when heightened defenses are observed, the topics that come up provide a focus for discovering unexpressed beliefs that are conflictual, unresolved, antithetical, or contradictory. Second, by asking how and why increased defensiveness has occurred at this moment, the therapist and patient can learn to counteract otherwise automatic avoidances and distortions. As a result, the patient will be able to express usually warded off ideas and feelings.

For example, consider a patient in psychotherapy for the maladaptive effects on his life from his Narcissistic Personality Disorder. He defensively used externalization of blame by sliding meanings to exaggerate the faults of others and to minimize his own role in disputes. He did this to prevent entry into a dreaded sense of identity inferiority and shame.

Analysis of episodes of blaming others excessively clarified his surface role as a superior righteous person and as a critic who said whether self or other was at fault or was inferior or superior. It also clarified his deeper role as an inferior shamed person.

During psychotherapy, the importance of the critic role in the patient's preconscious thinking was emphasized, and this then heightened his level of self-observation. He was later able to use such heightened self-observation to examine his vulnerability to shame, modify his irrational expectations of devastation from

shame, and so curb his automatic tendency to expressively blame others. This in turn modified his maladaptive interpersonal pattern.

This patient desired to experience a state organized by self as good and strong and others as approving, leading to pride. But he dreaded an opposite state of devastated shame organized by a dreaded role as bad and inferior. In a compromise self-righteous rage state, this patient had a role-relationship model in which he was strong and good, facing a bad adversary, with the sense of a critic allied with himself. He was the admired, heroic avenger doing virtuous battle. When a transition into a problematic mixed state of shame, rage, and anxiety occurred, he shifted to a role-relationship model in which his harm to others was excessive, the adversary was wronged, and he sensed a critic allied with his opponent. Expectations of accusation from the critic role led to a role-relationship model of an inferior and bad self being degraded by a strong and good other, leading into his state of devastated shame.

His mixed state of shame, rage, and anxiety occurred before, sometimes instead of devastated shame. In the mixed state he was anxious as to who was to blame, ashamed at his part, but also angry at the bond established between the sensed critic and his opponent. Clarification required conscious examination of beliefs in each of these recurrent states. Then the source of his vulnerability to share and his defensive externalization of all blame by irrational projections were examined. For example, shifts in blaming characterized his family. Each person in the mother–father–son triad was alternately admired and blamed for problems by the other two. He was periodically allied in distortions and abandoned by extrusions.

II. RESEARCH ISSUES

Following the publication of *States of Mind: Configurational Analysis of Individual Personality*, the method was systematized in empirical research. These investigations evolved definitions of states of mind, defensive control processes, and person schemas that could be agreed upon with the reliability of independent judges. With reliable measures of these constructs, validity was evaluated by seeing how well patterns cohered and associated with other variables. The key elements in configurational analysis—states of mind, defensive control processes, and person schemas—that were found to have reliability and predictive validity were then put together into an updated system presented in *Formulation As a Basis for Planning Psychotherapy Treatment*.

III. USE OF CONFIGURATIONAL ANALYSIS

The psychiatric diagnosis system is based on categories of description rather than categories of etiology. For that reason, it is hard to relate diagnosis to rational psychotherapy plans. An intervening case formulation is needed. Configurational analysis provides a system for such formulations. The steps are few, and the clinician can keep them in mind.

As has already been discussed, the steps start at the surface of observation: signs and symptoms. The next step organizes these and other phenomena into states of mind, maladaptive but recurrent cycles of state shifts, and it stipulates the emotional topics that lead to such shifts. When emotional conflicts are partially identified, it is possible to infer deeper levels of state organization in terms of models (person schematizations), configurations of desired, dreaded, and defensive self-concepts, and role relationships. In each role-relationship model, characteristics, traits, emotions, values, intentions, and expectations of self in relation to an important other are considered. Such configurations help us to understand how people may have multiple and contradictory views.

Aspects of formulation using the configurational analysis method can be discussed with a patient. State analysis is especially close to experience and can enhance self-observation. Change can occur during the process of enhanced awareness, new decisions, and trials of new expressive behaviors in psychotherapy.

In addition to initial case formulation, change can be described using configurational analysis: What phenomena are new and what phenomena have gone? What states of mind have been modified? What new and less defensive modes of awareness and expression have altered a habitual style? What new insights and plans counteract irrational beliefs? Such analyses can answer the question, "what can change" in psychotherapy.

IV. DEFINING WHAT CHANGES IN PSYCHOTHERAPY

The steps of configurational analysis, once learned as a systematic approach to early case formulation, can be applied to the study of process and outcome of therapy. A pathway is indicated as a sequence of 10 steps outlined in this entry. These steps can answer the question, "What changes in psychotherapy, and how does it come about?" The steps repeat the steps of configurational analysis from three perspectives: initial evaluation, therapy process, and treatment outcome.

A. Formulating the Initial Condition

The initial condition is formulated using the four steps already described. The following steps (5–10) are repetitions of steps 1–4 as related to analyzing the therapeutic process and formulating treatment outcomes.

B. Analysis of Therapeutic Process

Step 5. Problems and States of Mind

Review symptom changes that occurred during treatment. Focus on entry into and exit from the states listed in Step 2 as they (a) occur in therapy or are reported for (b) current outside-of-session relationships, and (c) past relationships. Describe the states of the therapist and the therapist and patient as a pair or group. Describe the effect of therapist interventions on states. Include the effects of medication and social situational changes.

Step 6. Topics of Concern and Defensive Control Processes

Describe the effects of the therapist's interventions on key themes and defenses.

Step 7. Identity and Relationships

Discuss the effects of transference, countertransference, therapeutic alliance, separations, and new attachments. Indicate the dilemmas of the therapist. Describe new relationship experiences and reschematization of identity and role-relationship models.

C. Formulation of Treatment Outcome

Step 8. Problems and States of Mind

Describe outcome in terms of changes from pre- to post-therapy (or termination) periods. Include discussion of the effects of external changes, including shifts in family, social, and environmental contexts. Discuss new states and modifications of state cycles.

Step 9. Topics of Concern and Defensive Control Processes

Describe outcome in terms of changes in the topics of concern. Indicate resolutions of conflicts as well as residual problematic themes and continued dysfunctional avoidances or distortions.

Step 10. Identity and Relationships

Describe changes (or persistence) in maladaptive interpersonal behavioral patterns. Infer the changes and developments in person schemas. Include modifications in enduring attitudes, value hierarchies, and personal agendas.

By repeating the steps of configurational analysis successively from the perspectives of initial formulation, formulation of therapy process, and formulation of therapy outcome, clinicians can increase specifications of what changed and how that change came about. The result empowers clinicians as their own researchers and can improve their clinical effectiveness, their ability as teachers, and their sense of personal growth.

See Also the Following Articles

Control Mastery Theory ■ Formulation ■ Psychodynamic Group Psychotherapy ■ Structural Analysis of Social Behavior ■ Supportive-Expressive Dynamic Psychotherapy ■ Time-Limited Dynamic Psychotherapy

Further Reading

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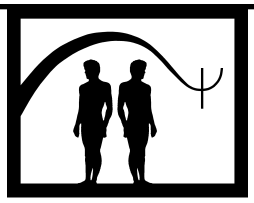

Confrontation

W. W. Meissner

Boston Psychoanalytic Institute and Boston College

I. Meaning of Confrontation
II. Confrontation versus Interpretation
III. Clinical Application
IV. Countertransference and Confrontation
V. Regression
VI. Confrontation and the Therapeutic Alliance
VII. Dealing with Denial
VIII. Narcissism
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Further Reading

GLOSSARY

clarification Technique for gaining clearer understanding of the meaning of a patient's conscious (manifest) behavior and experience.

confrontation Technique of directing a patient's attention to inner experiences or perceptions of outer reality of which he or she is conscious or is about to be made conscious.

countertransference The therapist's unconscious feelings and attitudes toward the patient reflecting his or her earlier experiences with important others.

interpretation Verbalized understanding of meaning, conscious or unconscious, of patient behavior or experience.

introjection Form of internalization that acts as part of self-structure (i.e., self-as-object) and is reflected either consciously or unconsciously in self-representations. They form the basis for projections and are invested in varying degrees with infantile motivations. Aggressive patterns are expressed as either aggressive (hostile, sadistic) or victim (vulnerable, masochistic) introjects, narcissistic patterns as either superior (grandiose) or inferior (devalued) introjects.

parameter (adjective parametric) Technical intervention beyond or in addition to ordinary use of interpretation, confrontation, clarification, or limit-setting.

reality testing Ego function discriminating thought from perception, fantasy from reality.

therapeutic alliance Component of therapeutic relationship facilitating collaboration and cooperation between therapist and patient in the work of therapy.

I. MEANING OF CONFRONTATION

To begin, we should be clear about exactly what we mean by "confrontation," namely a technique designed to draw the patient's attention to certain inner experiences or perceptions of outer reality. Confrontation comes into play typically in an effort to overcome the patient's resistance to acknowledging or recognizing a particular content or connection, and is not meant to force any change in the patient's conduct, attitudes, or decisions. It is therefore intended to change the patient's thinking and not his or her behavior. The distinction from clarification, another useful form of intervention, is often difficult, since they are frequently used in conjunction. Although clarification has the function of making clear or of bringing about recognition, it does so in a more neutral and dispassionate fashion; confrontation adds the note of activity on the part of the therapist, emphasis, even forcefulness. The confrontative element is often carried in subtle ways by the therapist's tone of voice, unusual use of language,

humor, the element of surprise, affective tone, and so on. The therapist can even convey his or her emphasis by way of facial expressions: raising an eyebrow, assuming a quizzical or doubtful look, shaking the head, and so on. Even a shrug can convey to a patient a sufficient connotation to make an effective confrontation. Confrontations are not always or necessarily forceful; they may be subtle, gentle, and inviting as well.

II. CONFRONTATION VERSUS INTERPRETATION

It is customary to distinguish confrontation from interpretation. From one point of view, interpretation involves sharing a hypothesis with the patient along with an invitation to engage in its exploration and understanding; confrontation, however, involves presenting a more unilateral view of what the therapist regards as reality. Confrontation can be regarded as a starting point for bringing to light new problems, associations, or understandings, which become the object for further exploration, whereas interpretation implies more of a closure or resolving of some connection or understanding that had been hitherto obscure or in doubt. Thus, interpretation has the purpose of resolving internal conflicts by bringing unconscious elements to the surface and drawing them within the patient's awareness, whereas confrontation is designed to create conflict where there had previously been none.

Confrontation, as a therapeutic technique, seems to imply that the therapist knows or sees something that the patient does not. Recent debates among analysts have centered around the question of whether and to what degree the analyst can have any privileged knowledge of or access to reality or any better or deeper understanding of motives and their implications than the patient. Some have argued that the therapist can have no special knowledge, or can have no better knowledge of the real than the patient, especially when it comes to knowing or understanding what is going on in the patient's mind. The argument has a certain validity, but would only have convincing effect if it were applied to a caricature of confrontation. When the therapist confronts the patient, his or her assertion does not imply that the therapist is right and the patient is wrong, but the confrontation offers the patient another perspective or directs the patient's attention to something he or she is ignoring or overlooking and thereby opens the way to an alternate consideration and a rethinking or reconsideration of his or her position. One of the benefits of therapy is that the patient's problems are engaged by two heads rather than one.

Even more subtle differences may come into play. There is a difference between accusing the patient of wasting time and observing that the patient is still reacting as if the work with the therapist were doomed to be unproductive. The former renders a judgment and an accusation, and has more the flavor of a confrontation, whereas the latter offers more of a translation. The latter statement is more in the order of a clarification or even an interpretation. The difference has to do with the presence of the therapist in the intervention. The patient's assent to the first intervention necessarily involves accepting both the fact and the confrontative, even authoritative, role of the therapist. Assent to the latter requires only acceptance of the fact, whereas the therapist's role is more in the line of suggesting or clarifying. In a sense, then, confrontation involves a certain forcing of the therapist on the patient, or even an intrusiveness of the therapist, however gentle, calling for or creating a pressure toward internalization of the therapist by the patient. The interaction is not simply the product of the patient's projective imagination, but involves real activity on the part of the therapist, in one or other degree amalgamated with transference elements, but setting the stage for a defensively toned introjection rather than a more selective and secondary process identification.

III. CLINICAL APPLICATION

Confrontation as a therapeutic technique has a more prominent position in the treatment of more primitive or highly resistant patients. Along with clarification, it is the primary channel for dealing with manifest content in the patient's ongoing behavior. Confrontation is a part of the therapy in some degree with all patients, but particularly in regressed patients or in regressive crises with some borderline patients, confrontation is often essential.

Confrontation carries with it the connotations of activity, energy, forcefulness, challenge, and the overcoming of opposition, all of which reflect in some degree the aggressive derivation of confrontation in overcoming an obstacle to therapeutic progress and its degree of deviation from what many would regard as more neutral therapeutic techniques. In the ordinary run of therapy, confrontation is usually employed as a means of overcoming resistances, promoting further therapeutic progress, and as leading to interpretation of the patient's defenses and their underlying motivations. In

the treatment of character disorders, the confrontations with the patient's patterns of characterologic behavior are frequently a necessary step in arriving at the underlying conflicts and their unconscious motivation.

Confrontations are not always benign or merely conflictual, but may also turn out to be dramatic or heroic. We can regard a confrontation as heroic when it becomes an emotionally charged, parametric, manipulative, technical tool demanded by development of an actual or potential situation of impasse and utilized to remobilize a workable therapeutic alliance. An example might include telling a patient that it was no wonder that no one liked him if he behaved in such an unpleasant manner whenever anyone tried to help him. Another example might be confrontation of a somewhat paranoid patient, in which the therapist tells the patient that his premises were wrong and that, if he so wished, he could become paranoid, but another possibility was that he could also accept the therapist's effort to be helpful and that they could choose either to work together or not, but if the patient chose to continue with his paranoid attitudes, he would run the risk of further sickness and hospitalization. Similarly, a therapist may decide to confront a patient enmeshed in a prolonged resistance and therapeutic misalliance that the therapist found necessary to interrupt by telling the patient that he was getting nowhere in the treatment and that he ought to consider some other alternatives besides continuing therapy with him. Only the threat of the loss of the transference object was able to shake the patient's resistance to development of the transference neurosis and lead to further analytic progress. Such confrontations have as their purpose the reconstitution of a disrupted or distorted therapeutic alliance.

Heroic confrontations are called for when the therapy has reached an impasse, when the therapeutic alliance has been or is in danger or disruption, or has reached a point of chronic distortion so that the therapeutic misalliance has frustrated and subverted the work of the therapy. The success of such heroic confrontations depends in large manner on the capacity of both patient and therapist to regain the ground of some workable therapeutic alliance without which therapy is doomed to disruption, stalemate, and failure. An additional note is that confrontation is usually oriented toward reestablishing the patient's sense of the therapeutic role of the therapist and the therapeutic situation, or of some other external reality in the patient's life situation.

Many patients have a remarkable capacity to see the world on their own terms, taking their own psychic reality as the reality. This propensity is particularly marked in borderline patients, who experience the therapist more or less exclusively in transference terms resulting in various forms of therapeutic misalliances. The work of tactful clarification and confrontation with the actuality of the therapeutic situation is often a central and persistent aspect of the therapeutic work with borderline patients, although it is by no means rare in other forms of personality disorder. In general, these patients do not have a stable sense of self based on introjections and identifications derived from experiences with real, responsive, caring, and responsible people in their developmental past. For these patients, actual characteristics of the therapist, whether mediated through the alliance or as aspects of their real personality, may be critical elements in the restructuring of the internal objects necessary for adequate ego functioning. Confrontation of these characteristics in the therapist–patient interaction may be a major aspect of the treatment process.

In therapy with such patients, the use of confrontation implies a shift to a more active, involved, and real interaction with the patient. It also implies a shift to a more supportive orientation, even within the context of a longer-term uncovering and exploratory effort. Particularly in the context of a regressive crisis or of a more chronic regressive stance, when the patient's capacity for therapeutic alliance is tenuous, or when the alliance is disrupted or severely distorted and failures of reality testing become apparent, confrontation may be essential to preserve and continue the therapeutic work.

IV. COUNTERTRANSFERENCE AND CONFRONTATION

Confrontation also involves inherent risks of becoming a vehicle for expression of countertransference. Therapeutic confrontation must not become a vehicle of irritation, frustration, or sadism, but must be offered from a therapeutic perspective and with the therapeutic intention of benefit to the patient as an objective. Confrontation is never far from slipping over into a more controlling, determining, advising, or authoritative, even authoritarian, stance, which easily yields to the influence of countertransference reactions and transference–countertransference interactions. As a cautionary note, therefore, it is important to keep in mind that confrontation always serves a subsidiary function to the overriding focus on exploring, uncovering, and understanding the patient's dynamics and underlying motivations.

It is generally agreed that therapists must exercise caution in the expression of their own feelings, since they

can readily become the vehicle for countertransference influences and will inevitably have a powerful effect on the patient. Any expression of feelings must be carefully monitored, expressed only in terms that are beneficial to the patient, and with thoughtful consideration of the countertransference implications. As some analysts have argued, countertransference enactments are unavoidable, so that when they occur the therapist should try to put them to good use in the therapeutic work. But I would suggest that such enactments cannot be effectively processed to the benefit of the therapy except within the context of the alliance—there is no basis within a transference–countertransference interaction for such a therapeutic perspective. Only when it can be experienced and understood from the perspective of the alliance can such an enactment be turned to therapeutic advantage. Confrontation is therefore primarily a device for directing the patient's attention in a more effective manner to some aspect of his or her mental content or behaviors or to aspects of the patient's interpersonal or enviornmental involvements, especially those occurring in the therapy in relation to the therapist, that otherwise would remain hidden or repressed. Confrontation is useful insofar as it leads toward interpretation or makes the material for interpretation more available. Confrontation can be regarded, therefore, as a routine part of psychoanalytical or psychotherapeutic technique and as necessary for the analysis of resistance.

V. REGRESSION

Although at points of regressive crisis confrontation may be essential, it is also at such points in the therapeutic course that patients are most vulnerable to the misuse of confrontation and the contamination by countertransference. In the treatment of more primitive personality disorder patients, I would emphasize the tenuousness of the therapeutic alliance and the need to utilize confrontation with caution with an eye to building the patient's trust in the therapist's good judgment and constructive intentions. Observing certain restrictions can help to achieve this objective:

1. Assess the reality and related stress in the patient's current life situation. In situations of external stress, particularly when they provoke a regressive reaction in the patient, it does not help to increase the level of stress within the therapy. The therapist's empathy and thoughtful evaluation guides the advisability of confrontation and the need for support at any given point.

2. Avoid breaking down needed defenses: Here again the titration of activity versus passivity, support versus challenge, call for a balancing act that is at times delicate. In regressive states, patients may need to maintain even primitive levels of defense and it becomes therapeutically inadvisable to confront such defenses when there is danger of precipitating a more severe regression. However, there are also times when confrontation is required to pull a patient out of his or her regressive slump, reconstitute the therapeutic alliance, and get the therapy back on course.

3. Avoid overstimulating the patient's wish for closeness. Greater levels of activity and attempts to be supportive can have a secondary effect of creating a closer and more personal contact between therapist and patient, or, in other words, drawing the patient into a more real relation with the therapist and correspondingly diminishing the effectiveness of the alliance. This can be both overstimulating and seductive, and, while it runs the risk of precipitating further defensive retreat or regression, can also have the long-term effect of creating expectations that will make the continued effectiveness of the therapeutic effort down the line more precarious. The patient may have to take flight in defensive panic or rage or act out from the intensity of the feelings that may be precipitated. This can plunge the patient into intense fears of abandonment, loneliness, and fear of his or her own self-destructive impulses and destructiveness.

4. Avoid overstimulating the patient's rage. Confrontation, particularly when it is connected with limit-setting, often has the effect of reestablishing the boundaries between patient and therapist and cause the patient to feel deprived and frustrated. The rage brings with it fears of abandonment and annihilation, which only increase the regressive risks.

5. Avoid confrontation of narcissistic entitlement. We can distinguish between narcissistic entitlement and the more profound and regressive entitlement to survive. Confrontation of the patient's entitlement may have the intention of calling attention to the patient's narcissistic entitlement, but it can easily miss the mark and only threaten the patient on the level of his or her entitlement to survive. Certainly, the periods of regression are hardly the time to challenge any patient's narcissism at whatever level. Narcissism is better dealt with only at points at which the therapeutic alliance is more stable and positive, and then preferably through gradual and progressive techniques of clarification and interpretation. Confrontations of the patient's narcissism are at best risky, even under optimal conditions. There is always risk in such confrontations of precipitating a regressive crisis.

Confrontation may also be called for when some dangerous or self-defeating consequence is involved in

the regressive episode. One young man, who presented with a variety of hysterical and phobic anxieties, began his analysis with a fair amount of precipitant anxiety. Within a short order, he was seized with panic and a terror-stricken fear that the analyst would attack him from behind and stab him in the chest. This created an immediate threat that the analysis would be prematurely and disruptively terminated by this paranoid terror. Without having any idea of what was involved in the patient's panic, the analyst took a relatively strong confrontative position and pointed out that the patient was experiencing terror for reasons that neither he nor the patient were at that point aware, but that, if the patient allowed his fears to dominate, that they were in danger of disrupting the analysis. He insisted that the patient be able to control his fear so that it did not result in self-defeating acting out and that he and the patient try to work together to understand what was happening. The patient quieted down at least to the degree that he was able to remain on the analytic couch, and the ensuing exploration revealed the multiple layers of implication that determined the patient's panic.

The risks of regression are obviously more at issue in patients in the lower-order borderline spectrum, and are correspondingly less of a problem in higher-order patients, and even less so in narcissistic and neurotic levels. In higher-order patients the same issues are alive, but the patient's capacity to enter and maintain an effective therapeutic alliance serves as a buffer both to the underlying regressive potential and the patient's vulnerability to countertransference influences. Nonetheless, the rules of thumb for utilizing confrontation are relevant even for these patients, and are reflective of general norms of tact and consideration in dealing with any patients.

VI. CONFRONTATION AND THE THERAPEUTIC ALLIANCE

An important issue in considering the therapeutic role of confrontation is the relationship between confrontation and the therapeutic alliance. Confrontation can be brought into play in the service of building a therapeutic alliance, but also of salvaging a disrupted alliance or more persistent misalliance. When the therapeutic alliance is intact and operating meaningfully, confrontation usually has little if any place. When the alliance is failing or has been disrupted, however, confrontation may become essential. The alliance includes a degree of meaningful empathic attunement, which guides the therapist's decision whether to confront or not, and also sets the stage for the patient's receptivity and responsiveness to the confronting initiative. In a sense, then, confrontation can be used in the absence of a therapeutic alliance for purposes of establishing or retrieving the alliance. This is possible only if the confrontation on the part of the therapist is brought to bear from the perspective of his or her part in the alliance in an effort to engage the patient and reestablish the interpersonal context of collaborative effort.

Confrontation offered from a position of consistent caring and respect for the patient's autonomy, and generated from a basic concern for maintenance and reinforcement of the therapeutic alliance can have a powerful therapeutic effect. It must be remembered, however, that the confrontation is intended to lead in the direction of further therapeutic work and understanding. Confrontation for confrontation's sake inevitably runs the risk of countertransference contamination. It is more advantageous to try to understand where the patients are, and why they are where they are, than to confront them where they are not. Consequently, confrontations that lead in the direction of further exploring the basis for resistances or of examining the roots of transference distortions are therapeutically helpful. Where they do not, they run the risk of simply reinforcing the transference–countertransference dynamics and may simply lead in the direction of further patient compliance and counterproductive submissiveness.

Nonetheless, confrontation along with clarification may have an important role to play in any therapy, especially early in the course of the therapy. Interpretation is not possible or useful until the patient has developed some degree of at least a working alliance. To the extent that the therapist's interpretations are offered while the patient is caught up in the vicissitudes of projective distortions and negative transference reactions, they will be heard as either threatening or accusatory, or in an idealizing transference situation as unempathic reinforcements of the patient's views. Consequently, a relative focus on the patient's daily life experience and persistent gentle and gradual confrontation and clarification can lead not only to establishing a better alliance but can also gradually clarify and delineate the pathological patterns of interaction that the patient generates both within the therapeutic interaction with the therapist and with important objects outside of the therapy. Success with many patients, even difficult patients, is a function of the accuracy, empathy, and timeliness of the therapist's gentle and thoughtful confrontations, which both open the way for later interpretations and to a degree help to draw out the transference. Gentle confrontation and clarification of the patient's feelings about the therapist can open the way to dealing with therapeutic alliance issues and further catalyzing transference reactions.

VII. DEALING WITH DENIAL

One of the specific contexts in which confrontation is often required is when denial becomes a prominent factor in the patient's resistance. Denial, as with other defensive mechanisms, can operate at all levels of intensity, but can function at a relatively massive level even to the point where the patient becomes unaware of any inner feelings or impulses. When such denial affects the assessment of potentially threatening or dangerous consequences of a course of action, or has become sufficiently embedded so that therapeutic progress is stalemated, confrontation may be the only resource in the therapist's armamentarium that will enable him or her to break through the patient's denial. The element of unmasking denial is inherent in all forms of true confrontation, not as an attack on the patient's vulnerability, but that in whatever fashion confrontation is implemented, it is directed against the defense with the aim of unmasking and coming to grips with the patient's protected vulnerability.

The confrontation of denial may be spread over a considerable period of time, rather than being focused at a single point of time. One young man experienced occasional episodes of total immobilization, as if he were in a trancelike state in which he had great difficulty in following what has happening in his immediate environment and was unable to respond or react in any comfortable manner. Gentle questioning on my part, a subtle insistence that his experience must be connected with a mental process reflecting something significant in his life experience, gradually began to shift the ground and enabled him to slowly come in contact with the underlying affect. Sometimes days after the event, he would begin to experience some feeling of anger or irritation, or on rare occasions he would be suddenly overwhelmed with a burst of intense rage that he was completely at a loss to connect with any stimulus or context in the immediate situation.

The rage underlying these experiences was nearly psychotic in proportion and terrified him, presumably because of a previous psychotic breakdown, in which the intensity of his rage had welled up with overwhelming and traumatic effect. Gradually, the patient began to experience rage attacks that he found overwhelming at the time of their occurrence, but in therapy was able to reflect on and explore what he had been experiencing and gradually to connect his intense feelings with the traumatic experiences of his difficult and traumatic relationship with his parents. When it became clear to me that rage was at the root of his disturbing experiences, and that the level of his protective denial prevented any easy access to these feelings, I continued to use a confrontational approach so that whenever any of these episodes came into focus I was not slow to suggest that what underlay the patient's experience was his anger and rage, and that our therapeutic task was to find out what his anger was about. The effort I am describing took place over a period of years of intensive psychotherapy. Consequently, confrontation is not always limited to a specific here-and-now intervention, but may involve a process that extends over continual periods of time.

VIII. NARCISSISM

Another difficult area in which confrontation can at times play a significant role is in dealing with the patient's narcissism. One context occurs when patient and analyst are caught up in a narcissistic alliance based on the patient's narcissistic expectations, gratifications, and fantasies, which impedes progress toward a more meaningful and effective therapeutic alliance. Gentle confrontation with the patient's narcissistic expectations and fantasies within the limits of his or her narcissistic vulnerability is a possible vehicle for addressing the distortions in the alliance and helping the patient to gain a better foothold for the therapeutic work. As previously noted, the decision whether to confront or not, rests in part on an assessment of the degree to which the patient is using the narcissistic alliance for defensive or resistive purposes, as opposed to the extent to which the narcissistic alliance may be the best the patient can do at that point in time and must be tolerated as necessary for maintaining any therapeutic relationship whatever. In the latter instance, confrontation may not be the best tactic, and the therapist might better wait until some degree of therapeutic alliance has evolved, or until enough of the components of the narcissistic transference are available for interpretation.

Other aspects of the patient's narcissism have to do with narcissistic entitlements and the need for engaging with and ultimately working through the underlying components of shame and inferiority. These dynamics and the underlying structural components can be described in terms of narcissistic superior and inferior introjective configurations. Keeping in mind the distinction between narcissistic entitlement and the entitlement to survive, it is nonetheless at times essential to confront the patient's entitlements. When these are expressed in the form of provocative behavior, it is useful to point out the patient's entitled attitudes, and even to focus on their impact on the therapist. The patient

may be outraged at this challenge to his or her self-proclaimed "rights," but such confrontation may be the only path toward further exploration and understanding. The patient may respond by foregoing any provocative behavior and adopting a more compliant facade out of fear of abandonment and loss of the therapist, but these maneuvers and the misalliances they reflect can also be confronted, leading to further exploration and analysis. Whether such confrontations are made with essentially neutral affect or with a tinge of irritation is a matter of clinical judgment, and involves questions related to the amount of self-disclosure that will be therapeutically useful on one hand and the degree of countertransference contamination on the other. If the therapist's irritation is not completely suppressed, it may bear fruit in letting the patient know that his or her infantile entitlement can evoke hostility from the important others in the patient's life.

Although excessive entitlements reflect the dynamics of the superior narcissistic introject, the inferior narcissistic introject may also play out its brand of entitlement in a form of restricted entitlement in which patients play out their inferiority, fail to stand up for themselves, or allow others to take advantage of them. This behavior also requires confrontation, but this can run the risk of inflicting a narcissistic injury in that it calls attention to the patient's inadequacy and failings. This too, however, can open the way to further exploration and meaningful resolution of the underlying fears and impediments. The art of confrontation of a patient's narcissism lies in dosing and timing, and maintaining a positive and respectful view of the patient. Confrontations tend to inflict narcissistic injuries on patients, and the therapist must keep in mind that these toxic effects must be administered in tolerable doses, so that untoward side effects are not created. The process is a form of gradual desensitization, which slowly increases the titration of confrontation and its immediacy and directness within the limits of the patient's tolerance and the mitigation of his or her narcissistic vulnerability.

The therapeutic task in the treatment of narcissism lies in making contact with, articulating, and gradually analyzing the inferior side of the patient's narcissism, particularly the sense of inferiority and shame, which pervades the inner world of all narcissistic patients, whether the inferior aspect of the patient's narcissistic introjects is relatively conscious or not. In narcissistic patients, the underlying sense of shame often gives rise to projections, which take the form of expecting humiliation or criticism, experiencing the otherwise benign reaction of others as forms of humiliation or criticism, and other forms of ridicule, scorn, contempt and rejection from important others including the therapist. Analysis of these components of the patient's inner world cannot proceed unless these elements have been drawn into conscious awareness to some degree. Confrontation can often usefully accomplish this objective. Only when the patient is aware of this dimension of his or her inner life is it possible to seek further for explanation and understanding.

IX. SUMMARY

This discussion of confrontation can be summarized in the following guidelines for the use of confrontation:

1. Confrontation draws upon empathy, but empathy does not mean that we share an identity or an ideology with the patient.
2. Countertransference distortions are likely when we find ourselves angry, disappointed, exasperated, gratified, especially frustrated, jealous, or in some other way imposing our individual imperatives upon confrontations.
3. Confrontations can be contaminated by fantasies of being the magic healer, rescuer, shaman, sage, or parent, because this may not be the level of need and communication on which the patient is operating.
4. Confrontation consists of mutually self-corrective activities. It is not intended to be a directive or a prohibition for the patient. We seek forebearance, not compliance, firmness, not coercion from the patient. We cannot offer options; we can only help someone to use the options he or she has.
5. Efforts to understand too much are suspicious indications of countertransference ambition. We cannot respond to every demand and confront every defense. Denial cannot be eliminated completely, because strategic denial may be a requirement for the patient is keep on living.
6. A tendency to overemphasize technique or, conversely, to discourage thoughtful reflection as "cerebral" are signs of countertransference distortions.
7. Confrontations are more effective in a context of trust. Trust means only that we have a common field of acceptance. Although it is feasible to have a mutual alliance at the outset, trust is always conditional.
8. Words are not magic, nor must confrontations be followed by signs of conspicuous change. Confrontations are only special vehicles of communication that seek an opening at a point of contact with protected vulnerability.
9. On the whole, confrontations are only statements about the other person's existence, not hypotheses about

his or her status as a scientific object. We respond to his or her separate reality and cannot, therefore, be too punctilious about the longitudinal truth of what we say.

10. We can generalize; we can be precise. But it is essential that we also be contemporaneous.

See Also the Following Articles

Anger Control Therapy ■ Clarification ■ Countertransference ■ Interpretation ■ Patient Variables: Anaclitic and Introjective Dimensions ■ Reality Therapy ■ Resistance

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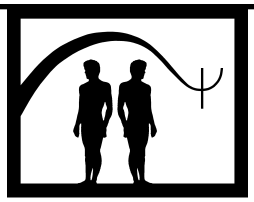

Contingency Management

Christopher A. Kearney and Jennifer Vecchio

University of Nevada, Las Vegas

I. Definition
II. Types of Consequences
III. Initial Steps to Contingency Management
IV. Types of Contingency Management
V. Parameters of Contingency Management
VI. Potential Problems of Contingency Management
VII. Target Groups for Contingency Management
VIII. Sample Case
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GLOSSARY

contingency contracting Distribution of rewards and punishments for a behavior via a written contract constructed between two or more parties.

contingency management A therapeutic procedure involving the modification of behavior via the control or manipulation of consequences (contingencies) to the behavior.

differential reinforcement of other or incompatiable behavior Rewarding general behavior other than an undesirable behavior or rewarding specific behavior that is antagonistic to an undersirable behavior.

extinction Removal of a positive stimulus that decreases the frequency of a behavior.

negative reinforcement Removal of a negative stimulus that increases the frequency of a behavior.

positive reinforcement Application of a positive stimulus that increases the frequency of a behavior.

Premack's principle Reinforcing a target behavior by awarding some privilege to engage in a more desired behavior afterward.

punishment Application of a negative stimulus that decreases the frequency of a behavior.

shaping Reinforcing successive approximations of a desired response until that behavior is fully achieved.

time-out Extinction of undesirable behavior by removing attention-based reinforcers for that behavior.

token economy with response cost Establishment of primary and secondary reinforcers contingent upon the presence of a desired behavior or absence of an undesired behavior.

I. DEFINITION

Contingency management refers generally to the modification of behavior via the control or manipulation of consequences (contingencies) to the behavior. In essence, some control is sought over what follows a certain behavior to increase or decrease the frequency or other characteristics (e.g., intensity) of that behavior. Contingency management involves a collection of therapeutic techniques derived from Skinnerian principles of reinforcement. In addition, practitioners of contingency management often enlist those who surround a particular client to distribute consequences, but contingency management may involve the client himself or herself as well.

II. TYPES OF CONSEQUENCES

Consequences that follow a particular behavior can often be categorized as positive or negative. In addition,

such consequences may be given or taken away. A positive consequence that is given refers to positive reinforcement and generally serves to increase the frequency of a behavior. Examples include providing bonus incentives for workers or rewarding a child for extra chores via a new privilege. A positive consequence that is taken away is a form of extinction and generally serves to decrease the frequency of a behavior. Examples include hanging up the telephone on an obscene caller or depriving a child of attention as he or she throws a temper tantrum. In each case, the perpetrator is denied access to reward (e.g., arousal, attention), which should lessen the frequency of the behavior in the future. Extinction may involve the absence of negative consequences as well, according to Tryon in 1996.

A negative consequence that is given refers to punishment and generally serves to decrease the frequency of a behavior. A common example is spanking a child for recklessly running into the street. Finally, a negative consequence that is taken away refers to negative reinforcement and generally serves to increase the frequency of a behavior. Examples include wearing deodorant to ward off complaints from others and avoiding an anxiety-provoking situation (e.g., driving across a bridge) to lessen anxiety as one leaves the situation. Contingency management generally involves manipulating these consequences, both positive and negative, to modify a particular behavior.

Specific types of consequences used in contingency management include tangible and intangible stimuli. Positive tangible consequences include such things as food, money, toys, and privileges, whereas negative tangible consequences include such things as pain or physical discomfort. Positive intangible consequences include such things as attention, sympathy, and social support, whereas negative intangible consequences include such things as emotional deprivation, lack of conversation, or failure to help.

III. INITIAL STEPS TO CONTINGENCY MANAGEMENT

A contingency management approach to therapy begins with selecting and carefully defining the behaviors to be changed as well as rewards, penalties, and punishments. In doing so, input should be sought from the person who is displaying the behavior of interest as well as those who often surround the person and/or who have significant influence on him or her. Input may be solicited directly via interview or more indirectly via questionnaire, videotaping, or analogue observation in an office setting. In the case of a child, for example, input may be derived from the child, parents, teachers, siblings, peers, dating partners, grandparents, group leaders, or relevant others. For adults, relevant others generally include a spouse, children, friends, relatives, and business associates, among others.

Targeted behaviors should also be clearly defined. In the case of a child who throws temper tantrums, for example, specific targeted misbehaviors might include crying, throwing an object, hitting someone, screaming, or refusing to move. In the case of an adult with alcoholism, specific targeted misbehaviors might include missing work days, showing up unannounced at a friend's house, or driving while drunk. Each of these behaviors can be easily observed and recorded. Vague descriptions of targeted behaviors, such as aggression or lack of respect for others, should be avoided. Other criteria for targeted behaviors include feasibility and desirability. Targeted behaviors should be practical, make sense to those involved, and be within a client's value system.

IV. TYPES OF CONTINGENCY MANAGEMENT

Several treatment techniques come under the general rubric of contingency management, including token economy with response cost, contingency contracting, shaping, differential reinforcement of other or incompatible behavior, time-out, and procedures based on Premack's principle. Each is discussed briefly next.

A. Token Economy with Response Cost

A token economy involves the establishment of primary and secondary reinforcers contingent upon the presence of a desired behavior and/or the absence of an undesired behavior. Specifically, a system is set up such that a behavior is linked to the receipt of tokens, points, or some other stimulus to compensate a person for engaging in or not engaging in a behavior. In doing so, some form of compensation is given immediately following the desired behavior. Accumulation of these stimuli (i.e., tokens, points) is later exchanged for primary and usually tangible reinforcers that the person enjoys (e.g., food, access to toys, privileges, release from chores). Failure to accumulate a specified number of points usually means a failure to receive the reward, or the token economy can be structured so that different

accumulations of tokens or points lead to different levels of reinforcement. For example, a large amount of accrued tokens could be rewarded with 10 hours of release time from an inpatient unit, whereas a smaller amount of accrued tokens could be rewarded with 5 hours of release time.

Token economies are often supplemented with a response cost procedure whereby a person loses tokens or points for some specified misbehavior (e.g., noncompliance, stealing, screaming). In this scenario, the person is fined for the misbehavior by losing some, but not necessarily all, of their accumulated tokens or points. This procedure thus penalizes misbehavior and provides immediate feedback to the person about the inappropriateness of his or her behavior. For example, running down the hallway at school could be penalized by asking the offending child to hand over three tokens. Response cost is typically used to curb behavioral excesses.

Token economies have been used successfully in many areas, but are most common to classrooms and institutional settings. Classroom token economies are often used to address academic behaviors such as handing in assignments or completing projects, disruptive behaviors such as getting out of one's seat or inappropriate talking, and organizational behaviors such as studying and keeping one's desk neat. Institutional token economies are common to inpatient units and residential facilities for persons with disabilities. These token economies are often used to improve daily living and social skills, attendance at therapy sessions, and self-destructive and other behaviors.

B. Contingency Contracting

Contingency contracting involves the distribution of rewards, penalties, and punishments via a written contract constructed between two or more parties. Contracting is often used in family therapy as a vehicle for problem-solving, but is also an excellent way of providing rewards, penalties, and punishments in a structured and agreed-on format. After a specific behavior (e.g., curfew) is defined as the presenting problem, each party (e.g., parent and adolescent) develops parameters to indicate how they would like the behavior defined and what consequences may follow its presence or absence. In the case of curfew, each party may eventually decide that 9:30 p.m. curfew on weeknights and 11:00 p.m. curfew on weekends is desirable. Both parties may then agree that adherence to this curfew time will be rewarded via continued allowance, whereas broken curfew will be met with grounding and suspension of allowance.

Contracting usually requires that each party negotiate behaviors of interest as well as acceptable consequences. Contracting typically begins with a mildly problematic behavior that is easily defined and amenable to placement in a contract. This is done to give the conflicting parties practice at the contracting process and to experience success in problem-solving. Subsequent contracts gradually become more detailed and complex, and may involve multiple behaviors and consequences. For example, a teenager may agree to attend school, adhere to curfew, and complete homework in exchange for visits with friends, money, and special privileges. Failure to complete these tasks may result in loss of these reinforcers or assignment of other punishers such as chores. Many contracts are also designed so that basic behaviors are not directly reinforced. For example, many parents object to paying their children to go to school, a task they should be doing anyway. To address this, a contract may specify that a child must attend school to earn the opportunity to complete chores at home for which he or she is paid (i.e., a two-part reinforcement contingency). Of course, each contract should reflect that family's value system.

Contracts are often used with parents and children but can also be used for other clinical populations. For example, a person with substance abuse can contract with co-workers to attend work sober, a person with schizophrenia can contract with a therapist to maintain medication use, and a person with depression can contract with friends to increase attendance at social events. Contracting is also preferable in chaotic situations where increased structure for problem-solving and consequence administration is desired.

C. Shaping

Shaping refers to reinforcing successive approximations of a desired behavior until that behavior is gradually achieved. General examples include learning to play a musical instrument or playing a sport such as golf. In these activities, small, gradual steps must be taken toward the final goal. In many clinical populations, asking a client to reach a certain goal is untenable because of some interfering behavior such as fear, withdrawal, noncompliance, or lack of skill. Therefore, smaller steps toward the overall goal are designed to facilitate progress. A common example is approach toward a feared stimulus such as a dog. A person phobic of dogs will not simply walk up to a canine and pet it; instead, gradual steps toward the dog must be taken without fear. Shaping also involves the distribution of

rewards, penalties, and punishments for completing or failing to complete each step.

Gradual approach without fear is a common example of shaping, but many other examples are available. For children with school refusal behavior, for example, shaping often involves requiring a child to attend one class/hour per day and gradually increasing the number of classes/hours attended over time. For persons with depression, shaping could involve asking a client to make two calls a week to friends, and subsequently increasing his or her number of social contacts. For couples with sexual dysfunction, shaping could involve reconstructing the sexual repertoire so that only certain areas of the body are initially touched; as therapy progresses, more intimate contact is allowed and reinforced. Shaping generally involves only those steps that resemble the final overall goal (e.g., active social interactions).

D. Differential Reinforcement of Other or Incompatible Behavior

Differential reinforcement of other behavior (DRO) refers to rewarding behavior other than a specified undesirable behavior. A child with autism, for example, may be given a reward during any 5-minute interval during which he or she plays with no aggressive behavior. In related fashion, an adult may be rewarded for interacting with others and not avoiding an anxiety-provoking situation. Differential reinforcement of incompatible behavior is similar to DRO, but involves rewarding a behavior that is specifically antagonistic to, or not able to be done physically at the same time as, an undesirable behavior. For example, a child may be rewarded for folding his or her hands on a desk, a behavior incompatible with hair pulling. Or, an adult in a group home for persons with schizophrenia may be rewarded for doing a chore in the home, a behavior incompatible with running away.

E. Time-Out

Time-out involves the extinction of undesirable behavior by removing positive reinforcers for that behavior. Time-out is most commonly used for children, and often involves isolating a child for misbehavior to deprive that child of attention from others. A child who is disruptive in class, for example, can be sent to another room alone so that reinforcing peer attention is denied. In-school suspension is sometimes used in this regard. Or, a parent may choose to ignore a child for having a temper tantrum to deny the child the benefit of parental attention. Time-out is also used as a punishment in that the isolating setting should be a boring one devoid of fun.

Several caveats to time-out are often ignored and can lead to problems with the technique. First, time-out will only work for those whose misbehavior is attention-seeking in nature. If a child is disruptive in class to escape an aversive assignment, for example, then time-out serves more as a reward. Similarly, for children with autism, time-out is often more a negatively reinforcing event than a punishing one. Second, time-out is generally more effective if the person knows why he or she is being placed in time-out. Children, for example, should be informed before and after time-out as to why time-out occurred. Finally, time-out should not be linked with a stoppage of the required task before time-out. If a child was picking up toys prior to a tantrum and subsequent time-out, then he or she should return to the task following time-out.

Time-out may be used for other populations as well. For example, a person with schizophrenia on an inpatient unit may be placed in his or her room for aggressive behavior, an adolescent in a group home may be placed in time-out for yelling at another resident, and a couple who engages in heated arguments can agree to place themselves in temporary time-out to ease passions and prevent an abusive situation from taking place. As such, time-out can serve as a preventative measure as well as a mechanism for depriving reinforcement for a misbehavior.

F. Premack's Principle

Premack's principle (or the differential probability hypothesis) refers to reinforcing a target behavior by awarding some privilege to engage in a more desired behavior afterward. For example, a child may be told that he or she can have dessert after eating his or her vegetables, or be told that he or she can play baseball after completing a certain chore. The more highly desirable behavior is used to entice a person to engage in a usually productive, albeit less enjoyable, activity. Typically, Premack's principle is used by parents in addressing their children, and therapists often build this principle into their parent-training regimens. Premack's principle is used loosely in other clinical settings as well. For example, a person who successfully loses weight may then be allowed to shop for new clothes.

Premack's principle is often extended in parent-training programs to encourage appropriate child behavior and discourage inappropriate behavior. For example, parents may establish a set of house rules that

carry rewards if followed and punishments if not. The establishment of this consequence system is often linked to other areas of parent training such as modifying parental commands, setting up daily routines, and increasing supervision of the child.

V. PARAMETERS OF CONTINGENCY MANAGEMENT

No matter what contingency management procedure is used in a therapeutic setting, one must still decide on certain parameters for its use. One parameter is who actually distributes the rewards, penalties, and punishments. Generally speaking, those closest to a person and/or those who have the most influence over the person's behavior should be considered. For children, this almost always involves parents, but also teachers, older siblings, grandparents, dating partners, and peers. For adults, this almost always involves a spouse, but also friends, children, co-workers, and other relatives. In addition, rewards, penalties, and punishments may be given by the client himself or herself. For example, a person with depression who successfully modifies an irrational thought can be taught or encouraged to praise oneself for doing so.

Another parameter to be considered is where contingencies should be distributed. Generally speaking, the contingencies should apply closely to the setting in which the misbehavior occurs. For example, if a child is disruptive at school, some consequences should be given there. Likewise, for an adult with depression who is moping at home, consequences may be given there. This allows for more immediacy of rewards, penalties, and punishments, which is crucial to the success of contingency management. This does not preclude, however, the use of consequences in other settings. A child disruptive at school, for example, should also face consequences from his or her parents at home that night.

Another parameter to be considered in contingency management is whether consequences should be given in an individual or group format. In an individual format, the identified person solely receives rewards or punishments. A person who successfully attends a shopping mall and withstands a panic attack without fleeing, for example, could be praised by a spouse at that time. However, a group format may be used to increase help or peer pressure to change behavior. For example, a classroom of children could be told that if everyone turns in five math homework assignments that week, the class will have a party on Friday. However, if even one person fails to do so, no party will take place. The idea here is to increase peer support, tutoring, and other factors that will increase the likelihood that all children, with a particular focus on one or two, will complete their work. The potential downside, of course, is coercion or negative feelings toward one who does not reach the goal. Therefore, it is best to use this approach in a more cooperative environment. Another example is to penalize a group of people for the misbehavior of one person. In this situation, the same goal and caveats apply.

Group contingencies can be modified so that rewards, penalties, and/or punishments are applied to individuals who successfully or unsuccessfully attain a certain goal. In this situation, the group may know that an individual is up for a reward and assist him or her to get it, or may know that the entire group is up for a reward if the individual is successful. Here, the group is not necessarily penalized for an individual's failure to reach a certain goal. To enhance the cost-effectiveness of group contingencies, a lottery system may be established. In this system, group members are told that they are eligible for a prize drawing if they reach a certain goal (e.g., treatment completion). Eligible members then participate in a lottery that rewards one or more persons but not necessarily everyone who is eligible.

VI. POTENTIAL PROBLEMS OF CONTINGENCY MANAGEMENT

Aside from the caveats to group contingency management just presented, other potential problems should be noted by therapists. One of the biggest threats to the success of contingency management procedures is inconsistent application of the rewards, penalities, and punishments. Several scenarios for this apply to parents and children. First, it is often difficult for parents, who may have had a long history of reflexively attending to their child's misbehavior, to break free from that pattern and respond only to appropriate behavior. Second, parents who have little history of rewarding their children, who emphasize punishment instead, may require time to correctly implement a positive reinforcement system. Third, a mother and father may inconsistently apply contingencies or some third party (e.g., grandparent) may sabotage the process. Fourth, parents may implement contingency management procedures at first but then relapse to old patterns of behavior or for some reason delay the administration of consequences. In these cases, it is best

for the therapist to explore the reasons for treatment noncompliance or failure and perhaps simplify the procedures or target fewer behaviors.

Another threat to contingency management is poor preparation for generalization of treatment effects. The positive effects of contingency management tend to fade over time and especially once the procedures are discontinued. Continued use of the procedures or, if not feasible, some type of intermittent reinforcement or booster session, is recommended. In addition, it should be reemphasized that contingency management is not usually conducted as a sole treatment technique, but combined with other behavioral methods to enhance therapeutic outcome.

Other potential problems to contingency management are more generic. For example, a common problem is that the consequences are not salient enough for an identified client. In this case, rewards, penalties, and/or punishments may need to be intensified or modified to better fit the preferences of the person. Another problem is delay in the immediacy of the consequences. Preferably, consequences should be delivered very soon after appropriate or inappropriate behavior. Finally, contingency management procedures will work best if cooperation from all relevant parties is present. This is most crucial to children with behavior problems, as parents, teachers, and others should be in frequent contact so that different types of behavior can be well-defined and addressed consistently.

VII. TARGET GROUPS FOR CONTINGENCY MANAGEMENT

Contingency management procedures have been used successfully for a number of clinical populations, most notably for children and persons with pain, substance abuse, or pervasive developmental disability. With respect to children, the most common use of contingency management has been with youth with disruptive behavior, especially attention deficit hyperactivity and conduct/oppositional defiant disorder. In this population, contingency management procedures have been shown to produce short-term improvements in academic productivity and accuracy as well as disruptive behavior. In most cases, home-based and school-based contingency management are utilized simultaneously. Contingency management has also been used for children with internalizing problems such as fear, anxiety disorders, and selective mutism. In this population, children are rewarded for successfully engaging in exposure-based tasks. In addition, contingency management is often used to address problems of physical functioning such as enuresis and encopresis. Most often, children with these disorders are rewarded for instances of dryness and required to engage in cleanliness practices as a deterrent to soiling.

With respect to persons with pain, contingency management is often combined with other behavioral procedures to address those whose overt pain behavior persists beyond the normal healing process. Contingency management is typically targeted toward behaviors such as verbal pain behavior (e.g., complaints, crying), nonverbal pain behavior (e.g., limping, grimacing), level of activity (e.g., excessive resting), and inappropriate use of medication. In this situation, significant others are encouraged to lessen sympathy, attention, and support whenever the targeted person engages in these maladaptive behaviors. In addition, positive reinforcement should be given whenever the person is active, using medication appropriately, and focusing on life events other than pain.

Various researchers have also used contingency management procedures to address persons with substance abuse. In this population, contigency management has been used to help improve treatment session attendance, abstinence, appropriate medication use, accurate predictions of drug screens, and relapse prevention. Common reinforcers include take-home doses of medication, money, clinic privileges, vouchers for services, employment, housing, and reimbursement of fees. However, the effectiveness of contingency management for this population is subject to factors such as type of drug abused, type and immediacy of reinforcement, frequency of drug screens, patient diversity, and acceptance of the program.

For persons with pervasive developmental disabilites, contingency management is used to reduce maladaptive behaviors and increase adaptive behaviors. Common maladaptive behaviors of focus include self-injury, aggression, inappropriate vocalizations and verbalizations, improper sexual activity, and excessive self-stimulation. Common adaptive behaviors of focus include daily living skills (e.g., eating, dressing, toileting, washing), social interactions, and treatment compliance.

Contingency management procedures have been used for other clinical groups as well. For example, they have been used successfully to address persons with polydipsia, irritable bowel syndrome, vomiting, depression, marital problems, delusional verbalization, bedtime disruptions, pacifier use, and violent behavior. In addition, contingency management has been used to increase adaptive behaviors such as oral hygiene, appropriate eating, cooperation, productivity, homework, writing, and exercise.

VIII. SAMPLE CASE

Following is a sample case of a child with school refusal behavior whose treatment plan included parent training in contingency management. Derek was a 10-year-old boy referred to an outpatient clinic for recent difficulties attending school. Since the beginning of the academic year, Derek had displayed intermittent problems going to school, sometimes throwing temper tantrums in the morning in an effort to stay home with his mother and younger sister during the day. These problems were manageable to some extent in the beginning, but had escalated in the past 3 weeks to the point where Derek's parents could no longer get him to school. Attempts on their part to get him to go to school were met with screaming, crying, refusal to move, clinging, and locking himself in the bedroom or car. In addition, on two recent occasions when Derek did attend school, he left during the day to return home.

A thorough assessment indicated that Derek was not anxious about school and did not have any academic or social problems there. Indeed, Derek's teachers indicated that he was a good student when in class. The assessment also ruled out any medical conditions that might explain Derek's behavior. Instead, the assessment revealed that Derek had a long history of attention-seeking misbehavior, beginning with temper tantrums when he was a young child. These misbehaviors had grown in intensity over the years and had now extended to school refusal behavior. The problem was exacerbated by the fact that Derek's father had to go to work early in the morning, leaving Derek's mother to contend with her son. During the day when not at home, Derek enjoyed several amenities, including running errands with his mother, playing video games, and riding his bicycle. The situation was further problematic in that the school had recently threatened to charge Derek's parents with educational neglect.

To address these misbehaviors, Derek's parents were trained in various aspects of contingency management in addition to adjusting parental commands and setting routines during the morning, day, and evening. Parental commands were modified to be more succinct, straightforward, and devoid of lecturing or asking questions. Three target behaviors were then chosen to be the focus of contingency management. These behaviors included, in order of severity, screaming, refusal to move, and locking himself in a room or car. Consequences were first set up to target screaming: If Derek engaged in any screaming in the morning, he would lose privileges during the day and be required to sit on the edge of his bed during school hours. His nighttime routine would also be restricted to the house (i.e., no play time with friends). If he did not scream in the morning, especially following commands to go to school, then he would complete chores and schoolwork during the day and be allowed to see his friends for an hour at night.

In addition to this consequence system, Derek's parents were instructed not to pay any physical or verbal attention to their son when he engaged in inappropriate behavior (unless severe injury was being risked). Instead, they were encouraged to smile and speak to him only when he was preparing for school (e.g., getting dressed without complaint), completing schoolwork, or otherwise acting appropriately. This took some practice, as both parents had been used to interacting with Derek primarily when he misbehaved. However, following several days of intervention, Derek's screaming did subside.

The next misbehavior was more severe: refusal to move in the morning. A consequence system was established such that, if Derek refused to move in the morning (e.g., would not get out of bed, dress, eat breakfast, or go to the car), he would be completely grounded for the day, be required to complete schoolwork, and lose allowance. However, if he successfully prepared for school, got in the car, and allowed his mother to drive him to school before returning home, he would be allowed to see his friends 2 hours per day at night. Although school attendance was not yet required at this point, it was made clear to Derek that that would be the next step. Following some tantrums the next day and implementation of the contingencies, Derek's behavior in this regard gradually improved.

Finally, Derek was required to do all of the above in addition to entering the school building and attending class. All parties had reported that Derek would go to class without any problem once there, so getting him there was the primary goal at this point. Similar consequences applied to his refusal and willingness to attend school, and procedures were designed so that both of Derek's parents would be available to take him to school. On the first 2 days of the intervention, Derek refused to attend school and even ran out of the house once to be with friends. However, he was found and restricted to his room for the rest of the day. During the next 2 days, Derek made it to school but refused to enter the school building. Again, consequences were issued. On the following day, Derek did attend school for the entire day, and school personnel increased their supervision of him to prevent any escape. Derek was subsequently rewarded for his attendance via play time

with friends at night, choice of an activity with the family, and praise from his parents. Although intermittent success going to school was seen during the next few days, Derek eventually returned to full-time school attendance within 2 weeks. Derek's parents reported that the consequence system would be continued and extended into other areas of noncompliance.

IX. SUMMARY

Contingency management is a commonly used therapuetic technique that has been administered successfully to treat various clinical problems. The technique is based on Skinnerian laws of reinforcement, or that consequences to a behavior serve to shape the frequency and other characteristics of that behavior. Examples include token economy with response cost, contracting, shaping, differential reinforcement of other or incompatible behavior, time-out, and use of Premack's principle. Although commonly used with parents and children, contingency management has also been applied to various adult populations. Advantages of contingency management include its portability, easy-to-understand nature, wide applicability, and naturalness. Threats to contingency management include inconsistent application and lack of salience of consequences, factors that should be monitored closely by therapists.

See Also the Following Articles

Behavioral Contracting ■ Extinction ■ Negative Reinforcement ■ Positive Reinforcement ■ Punishment ■ Time-Out ■ Token Economy

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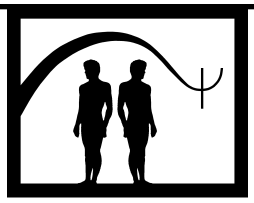

Controlled Drinking

Harold Rosenberg

Bowling Green State University

I. Definition, Prevalence, and Stability of Controlled Drinking
II. Specific Interventions to Teach Moderate Drinking
III. Modes of Controlled Drinking Training
IV. Social Support for Moderate Drinking
V. Theoretical Bases
VI. Applications and Exclusions
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GLOSSARY

behavioral self-control training Clients are taught to set drink limits, self-monitor their drinking, and employ coping skills to exercise control over when, where, why, and how much they drink.

controlled drinking Nonabstinent outcome by persons who have had drinking problems, often defined in terms of limited quantity and frequency of drinking, lack of negative drinking-related consequences, and subjective sense of mastery or control over drinking.

cue exposure Therapy procedure in which client is repeatedly exposed to stimuli that elicit craving to drink so that person learns to resist urges to continue drinking in the presence of alcohol and other drinking cues.

harm reduction Broadly defined, refers to policies and interventions designed to reduce, minimize, or eliminate unhealthy outcomes that might result from continuing to engage in high-risk drinking and drug-taking.

problem drinker General term used to refer to persons who abuse alcohol or are physiologically dependent on alcohol; also sometimes used to mean nondependent alcohol abusers.

standard drink Serving of an alcoholic beverage containing approximately 0.5 ounce of ethanol (e.g., 12 ounces of 4% beer, 4 to 5 ounces of 10 to 12% table wine, 1 to 1.5 ounces of 40 to 50% distilled spirits).

I. DEFINITION, PREVALENCE, AND STABILITY OF CONTROLLED DRINKING

The term *controlled drinking* is used to describe nonabstinence outcomes—that is, moderate or non-problem drinking—by persons who have abused or have been dependent on alcohol. Definitions of controlled drinking typically include some limit on the quantity of alcohol consumed per day; for example, consumption of no more than 3 to 5 "standard drinks" per day (1 standard drink = 0.5 ounce of ethanol). Similarly, the British Department of Health recommends that men limit their consumption to no more than 4 "units" per day and that women limit their consumption to no more than 3 "units" per day (1 unit = 8 grams of ethanol). In addition to limits on quantity consumed per day, some definitions of controlled drinking prescribe limits on the number of drinking days per week and limits on the speed with which one

consumes each drink (e.g., no more than one unit or standard drink per hour).

Controlled drinking is also typically defined by the reduction or absence of harmful drinking-related consequences. These include drinking-related health problems (e.g., significantly elevated liver enzymes, pancreatitis), legal problems (e.g., arrests for public intoxication, driving under the influence), occupational problems (e.g., missed work, poor performance, lost jobs due to drinking), and social and familial problems (e.g., drinking-related loss of friends, separation or divorce).

Controlled drinking also may be defined in terms of the drinker's subjective sense of control, but this is more difficult to assess than quantity consumed and consequences experienced. Although people without drinking problems occasionally experience urges or cravings for a drink, and persons without drinking problems occasionally drink more than they intend, the non-problem drinker typically experiences a sense that he or she is choosing when and how much to drink. Adapting Bandura's concept of self-efficacy, the definition of controlled drinking by problem drinkers could include the realistic belief that one can engage in self-control behaviors to create a moderate drinking outcome.

These three components of controlled drinking provide researchers, clinicians, and clients specific guidelines to evaluate the degree to which a problem drinker is moderating his or her drinking; however, problem drinkers need not fulfill all three components to reduce their drinking problem and improve their psychosocial functioning. As is the case with anxiety, mood, and other behavior disorders, improvement of drinking problems is not an all-or-none outcome.

Some clients and clinicians find the term "controlled drinking" an ambiguous and provocative one. It is ambiguous in the sense that all problem drinkers could be said to be "controlling" their drinking in the sense that they almost always exercise some choice regarding where, when, what, how much, and with whom they drink, even when their drinking is excessive and results in harmful consequences. It is provocative in the sense that some models of "alcoholism" assert that controlled, moderate, harm-free drinking is impossible once problem drinkers have manifested abuse or dependence.

Both treatment outcome studies and investigations of spontaneous remission or natural recovery have demonstrated that controlled drinking occurs in a meaningful subset of persons diagnosed with alcohol abuse and dependence. The likelihood of controlled drinking appears to differ depending on the severity of the population studied, but even in studies of chronic, dependent drinkers, 10 to 15% have met study criteria for controlled drinking at follow-up. What is perhaps especially discouraging is the finding that abstinence by dependent drinkers appears to be no more frequent than is controlled or moderate drinking. The majority of alcohol-dependent patients experience relapse episodes or return to continuous problem drinking, and it is difficult to be optimistic about long-term, continuous abstinence or moderate drinking by dependent drinkers.

Is moderate drinking more or less stable an outcome than abstinence? The empirical evidence on this question is mixed, with some studies showing relapse more often following controlled drinking, some showing relapse more often following abstinence, and some showing no difference. Stability of any drinking pattern should not be taken for granted and many problem drinkers alternate among periods of abstinence, moderation, and excessive drinking. The stability of *both* moderate drinking and abstinence are probably influenced by multiple factors, including clients' psychological characteristics (e.g., psychological adjustment, impulsivity), drinking history, beliefs or expectations about drinking and abstinence, social support for abstinence versus moderate drinking, participation in abstinence-oriented or controlled drinking training, and the frequency of and ability to cope with transient intrapersonal and environmental stress.

II. SPECIFIC INTERVENTIONS TO TEACH MODERATE DRINKING

A. Basic Alcohol Education

To help set the foundation for later interventions—such as building motivation to restrain drinking, setting drink limits, and self-monitoring—clients are taught how alcohol is absorbed and metabolized, its effect on the central nervous system, beverage equivalencies, and the correlation between blood alcohol level and behavioral impairment. Basic alcohol education can be provided using pamphlets and book chapters on the topic or the therapist can provide basic alcohol education during an early session in the course of therapy.

B. Assessing and Building Readiness to Change

Despite cultural and clinical lore to the contrary, many problem drinkers are well aware of their excessive drinking and its consequences. To label as "denial"

the ambivalence that many problem drinkers (and people with other problems) feel about changing a cardinal feature of their behavior is simplistic and often inaccurate. Awareness alone, however, does not resolve ambivalence. Cultural mores that devalue expressions of personal "weakness," and clinical interviewers who adopt an insensitive, disrespectful, and confrontational style, make it difficult for clients to verbalize—to family, friends and therapist—the disappointment, guilt, or shame they feel about their failed attempts to alter their problem drinking.

History-taking during assessment often reveals that a client's excessive drinking serves one or more psychological functions, while concurrently impairing the client's functioning in other life areas. Although the reinforcing properties of heavy drinking may appear intermittent and unclear to the therapist, they are powerful to the client and may overshadow the short- and long-term punishing effects of such drinking. Furthermore, as much as clients may recognize the disadvantages of their drinking, they are also afraid of the physiological and psychological consequences of quitting or reducing their alcohol consumption, many of which they have experienced during previous voluntary or unintentional periods of abstinence.

Therefore, to assess the client's readiness to change, and to help build the client's motivation for what may be a difficult process of initiating and maintaining a change in one's drinking, the therapist can use empathy and reflective listening to explore the client's ambivalence and to uncover and reinforce commitment to change. Motivation may also be assessed and strengthened by having the client list the advantages and disadvantages of both continuing to drink and of reducing or quitting drinking. Paper-and-pencil measures of readiness to change and useful guides to motivational interviewing are available to help the clinician undertake this intervention.

C. Goal Setting

The therapist provides guidance as the client sets (and periodically reviews) explicit, healthy limits on the maximum number of standard drinks or alcohol units he or she will consume per day and the maximum number of drinking days per week. In addition to setting this regular daily limit (for example, no more than 3 standard drinks per day and no more than 5 days of drinking per week), clients may be encouraged to consider limiting the number of drinks per hour and allowing themselves "special days" on which they may exceed the regular limit (for example, up to 4 or 5 standard drinks once per month at a party).

Some therapists recommend that clients set themselves an initial 4-week period of abstinence—to reduce their tolerance, recover from any minor impairment in liver function, and demonstrate self-control—before they undertake moderate drinking. Alternatively, some therapists have clients reduce their daily limits over several weeks, "stepping-down" the daily limits over time to reach the client's ultimate drinking limit, without an intervening period of abstinence. Further research may determine whether an initial period of abstinence is generally more or less productive of successful controlled drinking than stair-step decreases to moderation. In the absence of an unequivocal answer, and in light of individual differences in clients' drinking histories, health statuses, and goal preferences, therapists may prefer to negotiate this issue with clients on a case-by-case basis.

D. Self-Monitoring

The drinker records, usually on a preprinted paper form, relevant aspects of his or her drinking, including, for example, urges to drink, number of drinks consumed, type of beverage consumed, and where and with whom the drinking occurred. Some therapists design the self-monitoring form in collaboration with the client; others present the client with copies of a preprinted form. In either case, the value of self-monitoring should be described to or elicited from the client, and the client should be encouraged to monitor every drink (and/or urge to drink), as soon as it is consumed (or experienced).

In addition to paper-and-pencil recording, self-monitoring could also employ other technologies, such as audio-recording and miniature personal computers, to record the selected drinking information. Similarly to its use with a wide variety of behavior problems, self-monitoring serves both as an assessment tool, because it provides the client and clinician with data about the target behavior, and as an intervention, because some clients will reactively decrease their consumption as a function of self-monitoring reactivity.

E. Change Drinking Pattern

The client is encouraged to change the manner and situations in which he or she drinks, in part to interrupt long-standing drinking habits that have led to excess. For example, the client could switch from undiluted

spirits to diluted drinks or beer; the client could wait at least 30 minutes between each drink and/or substitute nonalcoholic beverages between each alcoholic drink; and the client could delay the onset of drinking until the middle or late evening. The manner in which the client consumes each drink can also be modified, for example, by sipping rather than gulping drinks and by setting down one's glass between sips.

Using the self-monitoring data and client recollection of past drinking situations, the therapist can also help the client brainstorm ways to avoid high-probability situations for excessive drinking (or plan to exercise vigilance in those situations). Other ways to change the manner and situations in which one drinks include engaging in nondrinking activities (games, sports) while drinking, avoiding participation in round-buying (or skipping rounds to stay within one's limit), and restricting drinking to meals. The client can also be encouraged to appreciate the effects and benefits of moderate drinking. For example, the client can be encouraged to drink to enjoy the taste and initial feeling of intoxication, rather than to fit in with a group of heavy drinkers, to cope with depression or anger, or to postpone dealing with problems.

F. Social Skills Training

Research on self-reported reasons for relapse indicates that many clients drink excessively to cope with social pressure, negative emotions, stress resulting from daily hassles, and major life events. Therefore, specific skill training has been employed to help clients cope with challenges to their drinking goals, whether abstinence or moderate drinking. These skills include assertive drink refusal, progressive muscle relaxation, and problem-solving.

G. Contingency Contracting

Contingency contracts, which specify the relationship between performance of a target behavior and its consequences, have been used with problem drinkers to reinforce both abstinence and moderate drinking. Although behavioral contracts can take a variety of forms, there are several basic elements of most behavior contracts. These include a clear and detailed description of a client's drinking limits (including, for example, the inter-drink interval, number of abstinent days per week, definition and frequency of special drink days); a time limit for attaining the drinking goal (or approximations to the final goal); specific and immediate positive reinforcements for maintenance of the drinking limits; and self-monitoring or some other method of observation, measurement, and recording of the target behavior.

Contracts may also include punishments (e.g., loss of money or valued object) for failure to meet contractual obligations. The contract should also include an explicit date for renegotiation and all relevant parties should sign the contract, assuming it is written. It is not uncommon for the therapist to have a role in the monitoring of contract compliance and delivery of reinforcements. As therapy proceeds, it is best to find ways to transfer these tasks to others in the client's natural environment. Empirical evidence does not consistently favor the effectiveness of mutually authored contracts over therapist-authored contracts, but some clients will prefer the former and coauthored contracts probably engage the client more fully in the contracting process.

H. Making Use of Found Time

The client may have some difficulty filling the time once taken up with heavy, prolonged drinking and its aftermath. To avoid boredom, and to help support a moderate drinking habit, the client can be encouraged to take up new (and increase existing) recreational activities to take the place of drinking. The therapist can guide the client as he or she considers a wide range of athletic, intellectual, social, political, religious, musical, and other activities he or she might want to sample. The client can also be encouraged to consider what functions heavy drinking had served, and what nondrinking activities might also accomplish those goals (e.g., other ways of mixing with people without spending long periods of time in bars).

I. Challenging Unrealistic Alcohol Outcome Expectancies

Alcohol expectancies are the beliefs one holds about the positive/desirable and negative/undesirable outcomes of drinking. For example, some people believe that drinking alcohol will make it easier for them to meet new people; that drinking helps them perform better sexually; that drinking will result in difficulty thinking clearly or speaking clearly. Such beliefs result from observing the outcomes of drinking by others (both *in vivo* and portrayed in popular culture) and by recalling (and anticipating) effects from one's own past drinking. Beliefs about the outcomes of drinking also appear to be contextual, depending on, for example, how much one anticipates drinking and what type of alcohol one will drink.

Using interview and any one of several paper-and-pencil self-report inventories, therapists and clients can learn the content and strength of the client's alcohol outcome expectancies. Clients are guided to examine which of their expectancies are realistic, and which exaggerate the benefits or minimize the harms of excessive drinking. Unrealistically positive outcomes that the client associates with excessive drinking can be challenged; alternate ways to achieve positive outcomes can be explored; and undesirable outcomes expected as a result of immoderate drinking can be reinforced.

J. Cue Exposure Therapy (CET)

Another cognitive-behavioral intervention—cue exposure with response prevention—has been used to help clients who want to control their drinking, as well as those who want to abstain. The assumption underlying CET is that a variety of cues have been associated over time with craving for and excessive consumption of alcohol. As a result, cues paired with withdrawal and relief drinking can come to elicit a conditioned desire or craving when the experienced drinker is in the presence of those cues. These cues include, for example, seeing or imagining one's favorite alcohol beverage, experiencing certain emotional states, being in the presence of other problem drinkers, and attending social events such as parties. Locations where one buys or consumes alcohol, illicit drug use and cigarette smoking, and, of course, consumption of an alcoholic beverage, may also trigger craving and excessive drinking.

CET is based on the idea that repeated exposure to these cues—without engaging in the conditioned response of perseverative drinking—can break the connection between experience of these cues, the strong desire or craving to drink, and relapse drinking. For clients with a moderate drinking goal, CET helps the client learn to resist urges to continue drinking in the presence of alcohol and other drinking cues *after* having consumed one or more alcoholic drinks.

CET with a moderate drinking goal (CET-MDG) involves repeated sessions during which the client is exposed to cues designed to elicit desire for additional alcohol after the client has consumed a priming dose of one or more drinks. In addition to the sight and smell of one's favorite beverage, cues can include photos or videos portraying other people drinking, verbal descriptions of likely drinking situations, and role-plays designed to provoke emotions that elicit craving. Each CET-MDG session typically involves two or three "cue exposure episodes," with repeated assessment of craving, intoxication or self-efficacy, often combined with practice of coping skills to deal with one's desire to continue drinking. CET continues until the client reports that exposure to cues no longer provokes meaningful cravings. Throughout the therapy, clients are encouraged to engage and work through their cravings, instead of fearing, avoiding, or giving in to cravings.

Although the therapy takes place initially in the clinical setting, the client can be instructed to engage in self-guided cue exposure sessions in between sessions to build self-efficacy and promote generalization to the natural environment. Another way to facilitate generalization is to follow successful clinic-based sessions with therapist-guided cue exposure sessions in real-life settings. For example, clients could be escorted to a bar or restaurant where they typically drink excessively. Similarly to the clinic-based sessions, after consuming the priming dose of alcohol, the client would be asked to imagine experiencing emotions or interacting with persons who might provoke craving. As in the clinic, craving and self-efficacy would be measured periodically during the *in vivo* cue exposure session and the therapist and client would review how the client responded to cue exposure.

During the course of CET-MDG, the client learns that the desire to continue drinking, even after one has had a priming dose (that is, a moderate amount of alcohol), will dissipate with the passage of time (habituation) and the employment of various coping skills. Although cue exposure is based on classical conditioning, and presumably works by gradual extinction or deconditioning of craving, cue exposure may also work by increasing a client's self-efficacy. That is, CET-MDG may also increase a client's belief that he or she can successfully and repeatedly resist the temptation or craving to continue drinking past one's limits, even after consuming one or more drinks. For some clients, this realization is a powerful therapeutic experience.

III. MODES OF CONTROLLED DRINKING TRAINING

Behavioral self-control training and cue exposure therapy may be delivered using both individual therapy and group therapy. In addition, there are self-help pamphlets and books that have been written for clients (and therapists) to employ as guides to moderate drinking. For those clients who are comfortable with personal computers, there is software that teaches clients behavioral self-control techniques to modify their drinking.

IV. SOCIAL SUPPORT FOR MODERATE DRINKING

It seems reasonable to assume that family and friends serve as models for both controlled and uncontrolled drinking, and the therapist should assess whether their drinking habits will serve as a model for moderate drinking by the client. Also, because friends, family members, employers, probation officers, and others may believe that abstinence is the only achievable outcome for the client, clinicians should assess how supportive significant others will be of a controlled drinking goal by the client. These persons may benefit from education by the therapist regarding the prevalence of controlled drinking and the advantages of a trial of behavioral self-control training and cue exposure therapy for clients who want to moderate their drinking.

Social support may also be provided by other former problem-drinkers who are moderating their drinking. For example, mutual help groups for problem drinkers who want to moderate their drinking have been formed in the United States (Moderation Management; website address: http://www.moderation.org). Therapists might also consider facilitating postdischarge support groups for clients who have participated in controlled drinking training programs.

V. THEORETICAL BASES

Most controlled drinking interventions described above are based on teaching and reinforcing behavioral self-control. That is, the client is taught new skills and encouraged to employ existing skills to exercise control over when, where, why, and how much he or she drinks alcohol. The vast majority of outcome studies assessing the effectiveness of controlled drinking training have evaluated interventions based on principles of operant, associative, and observational learning. It is important to note, however, that cognitive-behavioral therapies are frequently used to help clients achieve abstinence, and that psychodynamic, humanistic, and other therapeutic approaches may be employed to help clients who want to moderate their drinking.

VI. APPLICATIONS AND EXCLUSIONS

Although some problem drinkers want to and will be able to drink moderately, many clinicians wonder if it is worth offering controlled drinking training. Shouldn't clients always be told to abstain, both for their mental and physical health? Although abstinence might seem the easier and safer goal choice for those who abuse or are dependent on alcohol, there are several advantages of offering moderation as an outcome goal and moderation training as an intervention for persons with drinking problems.

A. Advantages of Offering Controlled Drinking in Treatment

First, moderation training may be viewed as one form of harm reduction. Harm reduction, broadly defined, refers to interventions designed to reduce, minimize, or eliminate unhealthy outcomes that might result from continuing to engage in high-risk behaviors. For example, controlled drinking by high-risk and incipient problem drinkers may arrest or reduce a pattern of drinking that would result in negative consequences later in life. It may also benefit heavy drinkers who might not otherwise go on to develop drinking problems, but who would still benefit from reducing their consumption.

Second, there is a growing body of evidence indicating potential health benefits of moderate drinking. Controlled drinking may also facilitate client participation in social, familial, and occupational situations and activities in which alcohol is consumed in moderation, both for its taste and its effects on conviviality. Even if only a subset of those with drinking problems are able to moderate their drinking, a history of alcohol abuse or dependence need not automatically preclude every problem drinker from enjoying the benefits of moderate consumption of alcohol.

Third, some outcome studies suggest that younger, male patients may be less likely to relapse, or more likely to experience healthy psychological and social functioning, if they are moderating their drinking rather than abstaining. Just as abstinence is a more stable and functional outcome for some problem drinkers, controlled drinking appears to be a more stable or functional outcome for others. Excessive drinking often leads to poor health and poor psychosocial adjustment, but that does not mean abstinence is the exclusive or automatic route to good health and adjustment.

Fourth, an abstinence-only requirement may reduce the attractiveness of psychotherapy for many alcohol-dependent and alcohol-abusing persons. A therapist who is open to discussion of nonabstinence outcome goals may be more likely to motivate change by problem drinkers who are ambivalent about the prospect of

life-long abstinence and who would otherwise not seek or stay in therapy. In addition, controlled drinking has advantages as an intermediate step on the way to abstinence for clients who might decide to abstain after successfully (or unsuccessfully) attempting to moderate their drinking.

A related advantage is that open discussion of controlled drinking, as either an intermediate or final outcome goal, acknowledges the reality that the ultimate decision to aim for abstinence or moderate drinking rests with the client. A clinician can provide helpful guidance as the client wrestles with this decision, but it is unrealistic to think that clients automatically accept treatment goals imposed on them by psychotherapists, probation officers, physicians, AA sponsors, or family members. Contrary to clinical lore about the necessity of accepting abstinence as the first step in recovery, some researchers have found that patients' acceptance or rejection of abstinence-only beliefs is not related to drinking outcome. The insistence by some service providers that clients accept abstinence as a condition of treatment may not be necessary for treatment success.

Finally, the client who selects his or her drinking outcome goal may be more likely to engage in therapy than the client who believes that an abstinence or moderate drinking goal has been imposed by someone else. For those health care professionals who have limited experience negotiating outcome goals with clients, William Miller and Stephen Rollnick published a book in 1991 on motivational interviewing techniques that are designed to promote change without countertherapeutic confrontation.

As any clinician who conducts controlled drinking therapy will readily acknowledge, some problem drinkers—based on their drinking history, previous treatment experience, health status, and so on—are best counseled to consider abstinence rather than controlled drinking. However, encouraging abstinence based on a client's individual situation seems likely to foster a different working relationship than demanding abstinence as a condition of therapy. Even for those clients for whom abstinence seems a healthier short-term or final outcome goal, moderate drinking is an improvement over the excessive, unhealthy drinking that led to treatment.

B. Who Is an Appropriate Candidate for Moderate Drinking?

It appears that a subset of problem drinkers control their drinking, either through their own efforts or with training in behavioral self-control skills. Furthermore, controlled drinking does not inevitably result in relapse, and perhaps no more so than does abstinence. Therefore, the important question faced by both clinicians and problem drinkers is not, "Does controlled drinking occur?," but rather, "For which problem drinkers is controlled drinking an appropriate goal?" Reviews of patient characteristics associated with controlled drinking, abstinence, and relapse have concluded that several variables hold promise as predictors of moderate drinking, including severity of dependence, "alcoholic" self-concept or identity, and psychological and social functioning.

1. Severity of Dependence

This characteristic has received considerable attention as a factor that differentiates good candidates for controlled drinking from poor candidates. Specifically, some investigations have found moderate drinking more likely if the problem drinker has a history of relatively few signs and symptoms of dependence. However, other studies have reported that severity of dependence was not associated with outcome or found outcome associated with certain aspects of severity (e.g., presence of liver disease), but not others (e.g., duration of problem drinking).

The inconsistency with which severity of dependence predicts outcome across studies may be a function of how severity is measured. Future research may reveal that some measures of dependence (e.g., number of withdrawal symptoms, duration of drinking, negative consequences) predict controlled drinking better than do others. Also, even though the likelihood of moderate drinking may decline as severity of dependence increases, there may be a range of severity within which the likelihood of controlled drinking remains relatively constant. A subset of even the most severely dependent drinkers may be able to moderate their drinking as a function of other personal and environmental factors.

2. Alcoholic Identity

This characteristic, which has also been summarized using the term "persuasion," reflects the self-conceptualization of the problem drinker. Specifically, patients' selection of controlled drinking as their outcome goal, their beliefs and expectations of control, and their rejection of the label "alcoholic" appear to be associated with moderate drinking. Nonetheless, the number of problem drinkers who want to moderate their drinking (and the number who want to abstain) is larger than the number who will achieve their desired outcome. In addition, we

are faced with the challenge of distinguishing problem drinkers whose selection of controlled drinking (or abstinence) as an outcome goal is reasonably attainable from those whose choice is unrealistic. Furthermore, severity of dependence and self-conceptualization may be correlated in a substantial subset of problem drinkers. Subjective expectancy of being able to control one's drinking, and one's willingness to adopt an identity as "alcoholic," are probably correlated with one's history of tolerance and withdrawal and the experience of negative alcohol-related consequences that are considered indications of dependence.

3. Psychological and Social Functioning

In light of research showing that premorbid functioning predicts outcome in a variety of psychological disorders, it is not surprising that pretreatment psychological and social functioning also predict outcome in persons with alcohol problems. Specifically, psychological adjustment and better social functioning (e.g., intact family, social support, employment) are correlated with moderate drinking after discharge from alcoholism treatment. Social and psychological stability may contribute to outcome independently of severity of dependence and alcoholic identity, but we should consider the possibility that psychosocial functioning probably influences, and is influenced by, a problem drinker's drinking history, goal choice, and identity.

4. Demographic Variables and Family History Variables

Based on the current evidence, education and race are not consistently correlated with outcome, although there is some support for the prospect that younger drinkers (and perhaps older drinkers who have "burned out") may be appropriate candidates for controlled drinking. Also, some investigations that have included both genders found a larger proportion of those controlling their drinking during follow-up were women, and more research may reveal the biological, psychological, and social aspects of gender that influence drinking outcome. Although there has been considerable attention to the hypothesis that a predisposition to alcoholism is inherited, family history of drinking problems does not appear to be a consistently reliable predictor of which clients will moderate their drinking and which will abstain.

5. Integrating Multiple Predictors

An integrative model to predict treatment outcome published by G. Elal-Lawrence and colleagues in 1986 may serve as a useful guide to assessing a client's candidacy for controlled drinking therapy. This model posits that it is the congruent or incongruent interrelationship among cognitive, behavioral, and physiological characteristics that predicts controlled drinking, abstinence, or relapse. Specifically, controlled drinking would be more likely if a problem drinker does not hold an abstinence-only ideology, believes he or she can control his or her drinking, and is in good physiological health. Abstinence would be more likely if the problem drinker holds an abstinence ideology, believes he or she can abstain from drinking, and is physiologically healthy. The model predicts relapse will result when the problem drinker has a poor physiological history (i.e., greater severity of dependence) and does not expect to be able to abstain, but believes that abstinence is the only appropriate outcome goal.

The model is a useful addition to the literature on predictors of outcome because it integrates multiple variables into meaningful dimensions, rather than simply counting the number of characteristics associated with controlled drinking or abstinence. It also explains why relapsers, abstainers, and moderate drinkers appear similar on some variables while differing on others: it is not any one client characteristic that is predictive, but the congruence–incongruence of one's drinking identity, one's outcome expectancies, and one's severity of dependence that is predictive. In addition to assessing these client characteristics, the clinician and client should also consider posttreatment environment and skills for coping with stressful life events as predictors of drinking outcome over time.

Although moderate drinking has been associated with lower severity of dependence, rejection of an alcoholic identity, selection and expectation of controlled drinking as an outcome goal, psychosocial stability, and a supportive posttreatment environment (and perhaps youth and female gender), these results should not be interpreted as indicating that every problem drinker who possesses these characteristics will be able to control his or her drinking. Nor should one assume that a problem drinker must possess all of the predictive characteristics to moderate one's drinking successfully. There is still considerable need for research on how to best match clients to specific therapies and specific environments to help them achieve specific drinking outcomes.

C. Acceptance of Controlled Drinking

As noted earlier, controlled drinking training is controversial in some countries and its application may be

limited by institutional treatment philosophy and setting. For example, abstinence is the predominant outcome goal prescribed for alcoholics and problem drinkers in American alcoholism treatment programs. A survey of American alcohol treatment agencies found that controlled drinking was considered unacceptable for clients in almost every responding residential program (including inpatient detoxification and rehabilitation services as well as halfway houses). However, almost one-half of the responding outpatient programs reported moderate drinking as appropriate for a minority of their clientele (e.g., drunk driving offenders).

Canadian alcohol treatment programs typically report somewhat more acceptance of controlled drinking than their geographic neighbor. A nationwide survey employing a random sample of Canadian alcohol treatment services found that about 40% of responding agencies endorsed controlled drinking as an acceptable goal for their clientele. Furthermore, one-third of the respondents working in agencies that did not offer controlled drinking reported moderate drinking as acceptable for clients in other services or for their own clients after they left the agency. Acceptance rates vary by type of service, with those programs treating more severely dependent clients (e.g., inpatient programs, community residential services, and halfway houses) rejecting controlled drinking as an outcome goal more frequently than outpatient services.

Unlike the United States, national surveys of Western European and Australian services have found widespread acceptance and application of controlled drinking as an outcome goal for problem drinkers. For example, two surveys of British alcohol treatment agencies revealed that about three-fourths of services found controlled drinking acceptable. Norwegian alcohol treatment centers are even more accepting of controlled drinking; 90% of respondents reported allowing outpatient clients to choose between abstinence and moderate drinking and 59% reported allowing inpatients a choice between outcome goals. Controlled drinking is also widely acceptable in Australia, with almost three-fourths of surveyed agencies in New South Wales accepting controlled drinking as an appropriate goal for some proportion of clients. Similarly to the results of surveys in the United States, United Kingdom, and Canada, acceptance varied by type of service in the Australian study. The vast majority of community-based services and alcohol treatment units endorsed controlled drinking, but none of the private services and only about one-fourth of residential services reported controlled drinking as acceptable.

VII. EMPIRICAL STUDIES

Empirical evaluations of controlled drinking training began to be published in the early 1970s. Over the past three decades, investigators have conducted studies using single case experimental designs and group designs to assess the effect of different components of behavioral self-control training and, to a lesser extent, cue exposure therapy, in a variety of outpatient and inpatient settings with both alcohol abusing and more severely dependent drinkers. Although the results of any one study may be discounted based on concerns about the quality of treatment, definition of the subject population, and validity of dependent measures and follow-up procedures, the effectiveness of cognitive-behavior therapy to help clients moderate their drinking has been demonstrated repeatedly.

Although not without their own disadvantages, meta-analytic reviews offer an alternative to critiques of individual investigations and narrative reviews because meta-analysis averages effect sizes across outcome studies that have employed different dependent measures. Furthermore, meta-analysis can be used to assess the association of outcome with client and study characteristics. In 2000, Glenn Walters conducted just such a meta-analysis to evaluate the efficacy of behavioral self-control training (BSCT) for problem drinkers.

Following a literature search to gather potentially relevant studies for review, Walters selected 17 studies published between 1973 and 1997 in which the investigators had compared BSCT to either a no-treatment control or otherwise treated comparison group. The combined effect size across all studies, dependent measures, follow-up periods, and types of drinking problem was .33, indicating a statistically significant and clinically meaningful relationship between this form of therapy and improved functioning.

Analyses of effect sizes by type of comparison group revealed that BSCT was superior to no-treatment controls and to other non-BSCT interventions for controlled drinking; BSCT was equally effective in achieving improvements in drinking and functioning as were abstinence-oriented interventions. Effect sizes did not differ significantly by type of outcome variable (that is, alcohol consumption versus drinking-related problems), by severity of client drinking (that is, alcohol abuse versus alcohol dependence), or by length of follow-up (that is, less than 1 year versus 1 year or longer). On this basis, Walters concluded that behavioral self-control training has been, on average, as effective as abstinence-oriented interventions and more

effective than non-BSCT interventions to reduce alcohol consumption and drinking-related problems over meaningful follow-up periods in a wide range of problem drinkers.

Cue exposure therapy with a moderation goal has been subjected to considerably less extensive evaluation, but initial research is very promising. For example, a recent study compared BSCT to CET-MDG using a short-term (6 sessions), outpatient, group therapy format (three or four clients with one therapist) with non-dependent, but seriously abusive, drinkers. Clients in the CET-MDG condition consumed a priming dose of 2 or 3 standard drinks (depending on gender), followed by in-session cue exposure and intersession homework of self-directed cue exposure in progressively more challenging situations. Both treatments showed improvements in perceived control, dependence symptoms, and quantity/frequency consumed, but the CET participants reported more improvement on the quantity and frequency measures than the BSCT participants.

VIII. CASE ILLUSTRATION

J.T. was a 21-year-old, male, never-married university student who was referred to an outpatient psychology clinic for assessment of his drinking following a conviction for DUI. By his report, J. typically drank at a student-oriented tavern near campus (although occasionally also in his dorm room) and his average consumption was two or three 15-ounce mugs of beer on Wednesdays, and six 15-ounce mugs of beer on Thursday, Friday, and Saturday nights. Self-monitoring during the initial weeks of therapy were consistent with this report, and also revealed that he occasionally drank as many as 15 standard drinks (beer and distilled spirits) on some evenings. Although the DUI conviction led to his referral, he readily acknowledged concern about his occasional inability to stop drinking once he had begun and he expressed a fear that he was on his way toward becoming a "serious alcoholic."

J.'s responses on the Michigan Alcoholism Screening Test (MAST) indicated he had experienced meaningful negative consequences from drinking, even though his total MAST score (14) was considerably lower than most problem drinkers seen in residential settings. His motivations for drinking were social companionship and enjoyment of the "buzz" of intoxication, but he was more likely to drink if he was feeling frustrated after an argument with his ex-girlfriend, a hectic week, or conflicts with family or friends. His parents were currently occasional social drinkers, but one of J.'s siblings had had a drinking problem while attending college, and he considered two of his grandparents and several aunts and uncles to be "alcoholics."

During the assessment, J. stated that he desired a goal of controlled drinking rather than abstinence. His age (young adult), abusive (but not dependent) drinking history, lack of commitment to abstinence, and social stability suggested that he was a good candidate for a controlled drinking goal. Discussing with his therapist the advantages of explicit limit-setting, J. decided to moderate his drinking to not more than two or three drinks per night, and not more than three drinking episodes per week. Other therapy goals included increased self-confidence and self-esteem, increased assertiveness, and decreased reliance on alcohol as a coping skill to deal with interpersonal problems.

As both an outcome evaluation and therapeutic intervention, J.T. was asked to self-monitor his drinking, which continued throughout treatment. The self-monitoring initially included type and amount of alcohol consumed per day, drinking context (e.g., time of day, drinking location, companions), and consequences of drinking (both desirable and undesirable). Later in therapy, the self-monitoring form was revised to include recording of his drinking urges and accompanying thoughts and feelings, in addition to amount and type of alcohol consumed.

Initially, several additional components of BSCT (basic alcohol education, goal setting, functional analysis of drinking behavior, generation of coping strategies to be employed in high-risk drinking situations) were employed to help him moderate his drinking. Although the quantity consumed per drinking day decreased compared to baseline, neither J. nor his therapist was satisfied with the impact of these techniques on his drinking. Following an explanation of the rationale and procedure of CET with a moderation goal, J. agreed to a trial of CET. Sessions increased to twice per week for the next 5 weeks: One session each week was devoted to cue exposure and the other session was devoted to working on J.'s non–drinking-related difficulties. (During and following CET, self-esteem, relationship issues, and assertiveness were addressed using a supportive, rational-emotive therapy–based, problem-solving approach. Specifically, the therapist and client engaged in role-play, therapist-guided imagery, and discussion to dispute his unrealistic beliefs.)

The first two CET sessions were conducted in the psychology clinic. The sessions began by having J. drink a priming dose of alcohol (12-ounce can of his favorite

beer consumed in a glass mug), followed by formalized blocks of exposure to visual, tactile, and olfactory cues for drinking (i.e., he opened another 12-ounce can of his favorite beer, poured it into the glass mug, and followed instructions to hold the glass, look at the beer, smell the beer, and imagine how tasty it would be to drink it). The therapist also prompted him to rate his degree of intoxication and craving on a periodic basis.

The next three cue exposure sessions were conducted *in vivo* at J.T.'s favorite tavern. The client and therapist met at the clinic, walked to the tavern, and J.purchased the priming dose (15-ounce mug of his preferred beer). He then made a baseline rating of his desire for a drink and drank the priming dose over a period of approximately 15 minutes. Fifteen minutes after he finished the priming dose, a second mug of beer was purchased and placed in front of the client. He was asked to make the three standard ratings (desire, intoxication, and ability to resist a drink), but formalized blocks of visual, tactile, and olfactory cues were not used in the *in vivo* sessions. Instead, the client and the therapist discussed how delightful it would be to consume the second beer and how wasteful it would be to leave the beer unconsumed. Every several minutes, J. was asked to rate his desire for the beer, his degree of intoxication and his perceived ability to resist consuming the beer. In between ratings, J. and the therapist discussed ways he could cope with cravings.

Self-monitoring data during the CET phase and post-CET counseling phase of therapy revealed that the number of days each week on which he exceeded his drinking goal decreased meaningfully compared to both pretreatment and the initial, pre-CET period of therapy. However, there were occasional days on which he exceeded his goal, sometimes by two or three beers and sometimes by twice that many standard drinks. Qualitative data mirrored the self-monitoring record and revealed a notable change in J.T.'s identity: "[I've] realized I'm not the alcoholic I thought I was turning into, and I've been good about controlling it. There has been more than a couple of times that it has gotten out of hand, but for the most part there are other times that it could have gotten out of hand … but didn't." When asked what components of therapy he found most helpful, he noted, "[Most useful for me was] probably the self-monitoring, you know, writing stuff down. And the cue exposure stuff we [did] … especially going to [the *in vivo* bar] a couple of times. I think that's helped a lot … just realizing I can go there and control it. You know, I had this mindset that once I got in there I wouldn't be able to stop once I started, you know, if I had one … I'd have 10." Ten months following termination, a follow-up interview revealed continued maintenance of moderate drinking, absence of negative consequences from drinking, and a psychological sense of mastery over his drinking.

IX. SUMMARY

The definition of controlled drinking may comprise three components: limits on the quantity, frequency, and rate of consumption; lack of negative drinking-related consequences; and a sense of self-efficacy about controlling one's drinking. Although controlled drinking—and abstinence—are relatively infrequent outcomes by more severely dependent drinkers, controlled drinking is apparently common by problem drinkers at the lower end of the severity continuum. Moderate drinking also has been associated with rejection of an alcoholic identity, selection and expectation of controlled drinking as an outcome goal, psychosocial stability, and a supportive posttreatment environment. However, given the instability of drinking patterns in many problem drinkers, and conflicting indicators in some clients, models that propose an interaction among drinking history, health, and cognitive and environmental factors may prove more useful in conceptualizing and predicting drinking over time. Despite the clinical advantages of offering controlled drinking to problem drinkers, and the empirical support for behavioral self-control training and cue exposure therapy to help some problem drinkers moderate their consumption, many alcohol treatment services in the United States and Canada do not offer controlled drinking training or accept controlled drinking as an outcome goal. The acceptance of controlled drinking as an outcome goal is considerably more widespread in Norway, Australia, and the United Kingdom.

See Also the Following Articles

Addictions in Special Populations: Treatment ■ Behavioral Weight Control Therapies ■ Contingency Management ■ Matching Patients to Alcoholism Treatment ■ Self-Control Therapy ■ Substance Dependence: Psychotherapy

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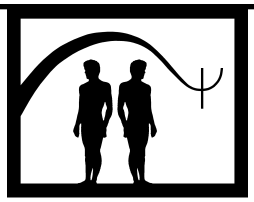

Control-Mastery Theory

Joseph Weiss

San Francisco Psychotherapy Research Group, San Francisco Psychoanalytic Institute, and University of California, San Francisco

I. Introduction to the Theory
II. Theoretical Bases
III. The Therapeutic Process
IV. The Therapist's Approach
V. Empirical Studies (Including Studies of the Patient's Plan Formulation)
VI. Summary
Further Reading

GLOSSARY

anti-plan intervention An anti-plan intervention (including an interpretation), is an intervention that may impede patients in their efforts to carry out their unconscious plans. For example, a person who is working to become more independent may be set back by the interpretation that he or she is afraid of his or her dependency (see unconscious plan).

pathogenic belief A belief that is in varying degrees unconscious and that underlies the patients' problems. It warns persons suffering from it that if they attempt to solve their problems, they will endanger themselves or others. For example, persons may be impeded in their quest for success by the pathogenic belief that if they are successful they may hurt others.

pro-plan intervention An intervention (including an interpretation) that patients may use in their efforts to carry out their unconscious plan. For example, patients who want to be successful but believe that their success will hurt others may be helped by the interpretation that they are holding themselves back lest they hurt others.

survivor guilt The kind of guilt felt by persons who believe they have surpassed others by obtaining more of the good things of life than others. Pathogenic beliefs are often concerned with survivor guilt toward parents and siblings.

unconscious plan The patients' unconscious plan (which in some cases may be partially conscious) specifies where patients want to go in their therapy. The unconscious plan is usually broad, loosely organized, and opportunistic. It is not a blueprint. It takes account of the therapist's personality and of changing life circumstances. An example is a person's planning to overcome his or her fear of rejection so that he or she may develop closer ties to others.

unconscious test An experimental action, ordinarily verbal, that the patient produces in relation to the therapist. The patient's purpose is to disprove his or her pathogenic beliefs. Patients hope that the therapist will pass their tests and so help them to disprove these beliefs. For example, patients who believe that they will be rejected may threaten to stop treatment, hoping unconsciously that the therapist will indicate or imply that the patient should continue.

I. INTRODUCTION TO THE THEORY

Control-mastery theory is a theory of the mind, psychopathology, and psychotherapy. It was introduced by Joseph Weiss, and was investigated empirically and developed by Weiss, Harold Sampson, and the San Francisco Psychotherapy Research Group (formerly the Mount Zion Psychotherapy Research Group).

Control-mastery theory assumes that patients are highly motivated, both consciously and unconsciously, to solve their problems, to rid themselves of symptoms, and to seek highly adaptive and important goals, such

as a sense of well-being, a satisfying relationship, or a meaningful career. Patients are in conflict about wanting to accomplish these things. This is because they suffer from pathogenic beliefs that tell them that by moving toward their goals they will endanger themselves or others. Throughout therapy, patients work with the therapist to change these beliefs and to reach their forbidden goals. They work to disprove their pathogenic beliefs by testing them in relation to the therapist, hoping that the therapist will pass their tests. In addition, patients use therapist interventions and interpretations to realize that their pathogenic beliefs are false, and a poor guide to behavior. The therapist's task is to help patients in their efforts to disprove their pathogenic beliefs and to move toward their goals.

II. THEORETICAL BASES

As our research and the research of academic psychologists have demonstrated, people perform many of the same functions unconsciously that they perform consciously. They unconsciously assess reality, think, and make and carry out decisions and plans. They unconsciously ward off mental contents, such as memories, motives, affects, and ideas, as long as they consider them dangerous. They unconsciously permit such contents to become conscious when they unconsciously decide that they may safely experience them.

Patients develop the pathogenic beliefs, which underlie their psychopathology, usually in early childhood, through traumatic experiences with parents and siblings. These beliefs, which are about reality and morality, may be extremely powerful. This is because for the infant and young child, parents are absolute authorities whom the infant or the young children needs in order to survive. Young children are highly motivated to maintain their all-important attachments to their parents. In order to do this they must believe their parents' teachings are valid, and that the ways their parents treat them are appropriate. For example, a young boy, who experienced himself as neglected by his parents, developed the pathogenic belief that he would and should be neglected, not only by his parents, but also by others.

The strength of children's attachments to their parents, and of the pathogenic beliefs acquired in their relations to their parents, is shown by the observation that adults, who in therapy are attempting to give up their pathogenic beliefs, often feel disloyal to their parents. If adult patients believe they have surpassed their parents by giving up the maladaptive beliefs and behaviors that they learned from their parents, and by acquiring more of the good things of life than their parents, they are likely to experience survivor guilt (surpassing guilt) to their parents.

III. THE THERAPEUTIC PROCESS

The therapeutic process is the process by which patients work with their therapists to change their pathogenic beliefs and to pursue the goals forbidden by these beliefs. Patients test their pathogenic beliefs by trial actions (usually verbal) that according to their beliefs should affect the therapist in a particular way. They hope that the therapist will not react as the beliefs predict. If the therapist does not, they may take a small step toward disproving the beliefs. If patients experience the therapist as passing their tests, they will feel safer with the therapist, and they will immediately change in the following ways:

1. They will become less anxious.
2. They will become bolder.
3. They will become more insightful.

Patients in therapy work in accordance with a simple unconscious plan that tells them which problems to tackle and which ones to defer. In making their plans, patients are concerned with many things, especially with avoiding danger. For example, a female patient who unconsciously believed that she had to comply with male authorities lest she hurt them, felt endangered by her therapy with a male therapist. She feared that she would have to accept poor interpretations or follow bad advice. Her plan for the opening days of therapy was to reassure herself against this danger. She tested her belief that she would hurt the therapist if she disagreed with him. First she tested indirectly, then progressively more directly. The therapist passed her tests; he was not upset, and after about 6 months' time the patient had largely overcome her fear of complying with the therapist, and so became relatively comfortable and cooperative.

IV. THE THERAPIST'S APPROACH

The therapist's task is to help patients disprove their pathogenic beliefs and move toward their goals. The therapist's attempts to accomplish this are case-specific. They depend on the therapist's assessments of the

patient's particular beliefs and goals, and the patient's ways of testing his or her pathogenic beliefs. For example, if a patient's primary pathogenic belief is that he or she will be rejected, the therapist might be helpful if he or she is friendly and accepting. If the patient's primary pathogenic belief is that he or she will be intruded upon, or possessed by the therapist, the therapist may be helpful by being unintrusive.

V. EMPIRICAL STUDIES (INCLUDING STUDIES OF THE PATIENT'S PLAN FORMULATION)

The San Francisco Psychotherapy Research Group (formerly the Mount Zion Psychotherapy Research Group) was founded in 1972 by Harold Sampson and Joseph Weiss to investigate and develop the control-mastery theory by formal empirical research methods. A number of our studies were carried out on the transcripts of the analysis of Mrs. C, which had been recorded and transcribed for research purposes. Several of these studies were designed to test our assumption that patients unconsciously control the coming forth of unconscious mental contents, bringing them to consciousness when they unconsciously decide that they may safely do so.

In one such study, Suzanne Gassner, using as data the transcripts of the first hundred sessions of Mrs. C's analysis, tested our hypothesis against two alternative hypotheses. According to one alternative, the patient brings forth repressed unconscious contents when the contents (in this case impulses) are frustrated, and so intensified to the point that they push through the patients' defenses to consciousness. According to the other alternative, the patient brings forth repressed contents when they are disguised to the point that they escape the forces of repression. The three hypotheses may be tested against one another because they make different predictions about what patients feel, while previously repressed contents that have not been interpreted are becoming conscious.

According to our hypothesis, patients have overcome their anxiety about the repressed contents before they come forth and so will not feel particularly anxious while they are emerging. Moreover, because they have overcome their anxiety about the contents, they will not need to defend themselves against experiencing them as they are coming forth, and so will experience them fully. According to the hypothesis that the contents come forth by pushing through the defenses, the patient will come in conflict with them, and so feel increased anxiety while they are coming forth. According to the hypothesis that they come forth because they are disguised (or isolated) the person will not feel anxious about them as they are emerging, and because they are disguised, will not experience them fully.

Gassner located a number of mental contents that had been repressed in the first 10 sessions of Mrs. C's analysis, but which came forth spontaneously (without being interpreted) after session 40. She then had judges, by use of rating scales, measure the patient's degree of anxiety, and her level of experiencing, in the segments in which the contents were emerging. Her findings strongly support our hypothesis. The patient was not anxious in these segments (by one measure, she was significantly less anxious than in random segments). Moreover, her level of experiencing in these segments was significantly higher than in random segments.

Another research study was designed to test our hypotheses about the patient's unconscious testing of the therapist, and was carried out by George Silberschatz, using the transcripts of the first 100 sessions of Mrs. C's analysis. From our study of Mrs. C, we had assumed that Mrs. C unconsciously made demands on the analyst so as to assure herself that she could not push him around. We assumed that she would be relieved when the analyst did not yield to her demands. Another group of investigators assumed that Mrs. C unconsciously made demands on the therapist in order to satisfy certain unconscious impulses. They assumed that Mrs. C would become more tense and anxious when the analyst did not yield to her demands. Silberschatz, whose research design was considered satisfactory to both groups of investigators, demonstrated that when the analyst responded to Mrs. C's demands by not yielding to them, Mrs. C became less tense and anxious than before the analyst's response. Silberschatz' findings were statistically significant. These findings strongly support our assumption that the patient is unconsciously testing the analyst by her demands, rather than unconsciously seeking the gratification of unconscious impulses.

Another series of investigations was carried out by our group to test the hypothesis that patients benefit from any intervention, including any interpretation that they can use in their efforts to disprove their pathogenic beliefs and to pursue the goals forbidden by them. We assumed that after a pro-plan intervention, the patients' pathogenic beliefs are temporarily weakened. Therefore, we hypothesized that since patients maintain their repressions in obedience to their pathogenic beliefs, that after a pro-plan intervention, patients

would become a little more insightful, and a little less inhibited. We assumed, too, that anti-plan interventions would not help the patient, or might even set the patient back.

The first step we took in preparation for studying the effects of pro-plan and anti-plan interventions was carried out by Joseph Caston, in 1986. It was to demonstrate that independent judges could agree reliably on a formulation of the patient's plan. Caston broke down the patient's plan formulation into four components: (1) the patient's goals, (2) the obstructions (pathogenic beliefs) that impede patients in the pursuit of their goals, (3) the tests the patient might perform in their efforts to disprove their pathogenic beliefs, and (4) the insights patients could use in their efforts to disprove their pathogenic beliefs.

Caston gave independent judges extensive lists of goals, pathogenic beliefs, tests, and insights, along with the condensed transcripts of the first 10 sessions of Mrs. C's analysis. The judges were asked to read the transcripts, and then to rate the items in each category for their pertinence to the patient's plan. Caston found that the judges did agree on a plan formulation, and that their agreement was statistically significant.

Caston used his plan formulation to evaluate Mrs. C's responses to pro-plan and anti-plan interventions. Caston tested the hypothesis that the patient would respond immediately to pro-plan interventions by becoming bolder and more insightful, and that she would respond negatively to anti-plan interpretations by becoming less insightful, and less bold. Caston found strong confirmation of this hypothesis in his pilot study; however in the replication study he found that the hypothesis held for pro-plan interventions, but not for anti-plan interventions. Apparently Mrs. C responded favorably to pro-plan interventions but was not set back by anti-plan interventions.

In a study of the last 100 sessions of Mrs. C's analysis, Marshall Bush and Suzanne Gassner in 1986 tested the hypothesis that Mrs. C would demonstrate an immediate beneficial effect when offered pro-plan interventions, but that she would be set back by anti-plan interventions. They found strong statistical support for this hypothesis.

Our research group also studied the immediate effects of pro-plan and anti-plan interpretations in brief psychotherapies. Polly Fretter, Jessica Broitman, and Lynn Davilla studied three 16-session psychotherapies to determine whether pro-plan interpretations had a beneficial effect. They used a new version of Caston's method of obtaining a plan formulation that had been developed by John Curtis and George Silberschatz. In addition, unlike Caston, they did not study the effect of all interventions, but only of interpretations (that is, interventions designed to provide insight).

Fretter showed that following a pro-plan interpretation, the patient was less defensive, and so developed a statistically higher level of experiencing. Broitman demonstrated that after a pro-plan interpretation, the patient became more insightful, as measured by a generic insight scale. Her finding was statistically significant. Davilla, whose findings were statistically significant, demonstrated that the patient, following a pro-plan interpretation, moved toward his or her goals as defined in the patient's plan formulation.

Our group also studied the long-term (as opposed to the immediate) effect of pro-plan interventions. In the three cases investigated by Fretter, Broitman, and Davilla, it was demonstrated that the patient who was offered the highest percentage of pro-plan interpretations did the best, as measured by a series of outcome measures, administered 6 months after the termination of treatment. The patient who received the second highest proportion did the second best, and the patient who received the lowest percentage did the worst.

We also investigated the immediate effect of pro-plan interpretations on the patient's pulse rate, skin conductance, and body movement, in three brief psychotherapies (these are not the same therapies studied by Fretter, Broitman, and Davilla). Nnamdi Pole demonstrated that pro-plan interpretations had an immediate effect on the patient's pulse rate: the pulse rate decreased. His research also showed that the patient sometimes responded very rapidly to pro-plan interpretations: The patient's pulse rate would sometimes fall before the therapist finished an interpretation, and before the patient consciously acknowledged the validity of the interpretation.

Our research group has also studied brief psychotherapies to test the hypothesis that a patient shows an immediate favorable reaction when the therapist passes her tests. Curtis and Silberschatz, in the study of two brief psychotherapies, demonstrated that immediately after a passed test, the patient showed a higher level of experiencing than before the passed test. In another study, Tom Kelly demonstrated that the patient responded to a passed test by an immediate decrease in tension, as measured by a voice stress measure. In a study of one patient, Jerry Linsner showed that after a passed test the patient demonstrated an increase in pro-plan insight as defined in the patient's plan formulation. In a study of three patients, Jack Bugas demonstrated that after a passed test

the patient demonstrated a greater capacity to exert control over regressive behavior.

In our clinical work we observed that pathogenic beliefs are often concerned with survivor guilt. Lynn O'Connor and Jack Berry conducted a series of investigations concerning the role of survivor guilt in psychopathology. These studies were conducted by means of a new pencil-and-paper questionnaire, the Interpersonal Guilt Questionnaire (IGQ), developed by O'Connor and others to measure survivor guilt and several other forms of guilt. The investigations, which were statistically significant, demonstrated that survivor guilt is highly correlated with feelings of shame, and also with feelings of fraudulence and pessimism. It correlates with a tendency to be submissive, and it is high in persons suffering from depression. It is high in recovering addicts and children of alcoholics. It predicted recidivism in a group of women on probation in Massachusetts.

VI. SUMMARY

The control-mastery theory assumes that patients' problems stem from grim, frightening, unconscious, maladaptive beliefs. These beliefs, here called "pathogenic," impede the patient's functioning, and prevent the patient from pursuing highly adaptive goals. Patients suffer from these beliefs, and are highly motivated both to disprove them and to pursue the goals forbidden by them. The patient works throughout therapy in accordance with an unconscious plan to accomplish these things. The therapist's basic task, which follows from the above, is to help patients to disprove their pathogenic beliefs and to pursue their goals. The theory has been supported by numerous formal quantitative research studies.

See Also the Following Articles

Character Pathology ■ Psychoanalytic Psychotherapy and Psychoanalysis, Overview ■ Thought Stopping ■ Unconscious, The

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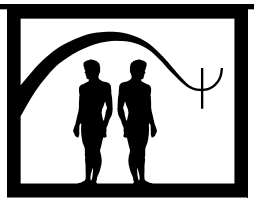

Corrective Emotional Experience

Deborah Fried

Yale University

I. Introduction
II. Definition, History, and Contemporary Uses of the Corrective Emotional Experience
III. Therapeutic Alliance, Corrective Emotional Experience, and the Outcome of Psychotherapy
IV. Summary
Further Reading

GLOSSARY

defenses A person's habitual ways of protecting herself or himself against uncomfortable thoughts and feelings.

expressive therapy Therapy aiming to uncover unconscious thoughts, beliefs, and feelings; often stirring up anxiety as new mental content is discovered.

intrapsychic Within one person's mind, not between people.

psychoanalytic Pertaining to the school of thought that values understanding the unconscious mind (e.g., via expressive therapy and psychoanalysis).

supportive therapy Therapy geared at lowering anxiety, helping a patient feel better without necessarily understanding new things about himself or herself.

transference The patient's thoughts, feelings, and beliefs about the therapist that are derived from the relationships the patient had with earlier important relationships such as parents.

I. INTRODUCTION

In 1946, Franz Alexander wrote of the "corrective emotional experience" as the essential helping factor in psychotherapy. The corrective emotional experience (CEE) refers to the "reexposure of the patient, under more favorable circumstances, to the emotional situations which he could not handle in the past." The reexposure is undertaken in psychotherapy via a reparative relationship with the therapist. Although considered by some to be a mainstay of psychotherapy, the CEE has had a very negative reputation in some circles, notably psychoanalytic ones. This has been perhaps because of some of Alexander's specific practices with the CEE, such as active role-playing in the analytic session. Contemporary studies of the elements of change and cure in psychotherapy suggest that a fresh look at the notion of the CEE reveals an important tool for the therapist. In this article, I will further define the term and put it in historical and contemporary contexts. I will describe the relationship between the CEE and the therapeutic alliance, which is the most robust predictor of good outcomes in psychotherapy.

II. DEFINITION, HISTORY, AND CONTEMPORARY USES OF THE CORRECTIVE EMOTIONAL EXPERIENCE

A. Franz Alexander's Definition

Alexander considered the basic principle of psychotherapy to be the patients' reexperiencing of formerly traumatic situations in the context of a

therapeutic relationship with a new partner, the therapist, who generates an atmosphere of tolerance and equanimity. Given the new relationship, the patient relives problematic events from the past and develops new ways to respond. The prototype for this reexperiencing was Jean Valjean, the hardened criminal in Victor Hugo's "Les Miserables." Alexander uses "reexperiencing" loosely, in that the therapeutic factor was the difference between the initial experiences and those with the therapist, in this case, a bishop.

1. Jean Valjean as the Patient

Jean Valjean was described as an ex-convict who experienced only cruelty in the world until he was startled by the kindness of a bishop he had been robbing. He discovers the effect of this encounter when he meets a little boy who dropped a coin. The ex-convict stepped on the coin, refusing to let the boy retrieve it. The boy ran off, and overcome with remorse, Valjean frantically attempted to find him, return the money, and thereby redeem himself. He did not find the boy but was, as Alexander quoted Hugo, able to start "a colossal and final struggle … between his wickedness and that man's [the bishop's] goodness."

Alexander noted that the commonplace kindness of the bishop to a nasty ex-convict would not normally deserve our attention, but that the episode with the boy and Hugo's ensuing psychological explanation of Valjean's conversion were a prescient observation about the effects of psychotherapy. The catalyst to the criminal's change was the overwhelming nature of the bishop's generosity. Such generosity threw the criminal's expectations of people's responses into total disarray. Alexander noted that the emotional balance established by the criminal was based on his cruelty in response to his repeated experiences of the cruelty of the world he lived in. When the bishop broke that rule, Valjean experienced "the most formidable assault by which he had yet been shaken." In this state, he mistreated the little boy as if to reestablish the familiar patterns of cruelty by which he had organized his world. But the experience with the bishop so challenged that pattern that he no longer saw the world this way.

Alexander clarifies that a single experience of this sort could not "undo the cumulative effects of lifelong maltreatment" unless the criminal originally had a decent conscience in the first place, one that was later severely tarnished by years of hardship. The originally intact conscience rendered the criminal a good candidate for the very brief "psychotherapy," this experience with the bishop and the little boy.

2. The Role of the Therapist

Alexander specifies that the main job of the therapist is to offer a response to the patient that is utterly unlike the response expected from an authoritative person. Thus, the patient has a repeated opportunity to face, under more favorable circumstances, emotional experiences that were previously intolerable but can now be dealt with in a different manner. He noted that a patient's intellectual understanding of his problems would be insufficient to their cure, that the feelings stirred up in the therapeutic relationship were a mainstay that enables a patient to change.

Alexander described several steps to the process of treating emotional conflict. First, the future patient experiences a number of problematic events, emotionally distressing to the point of being traumatic. The patient comes to expect trouble, especially from significant others around him. The therapist now steps in with a different attitude than the patient expected, and the patient is surprised. The bishop was kind to the man who was robbing him. In being treated better than he deserved, the criminal's armour was chinked—he could no longer perceive people as deserving his meanness, and so began a transformation of his character, an apocryphal tale used by Alexander to describe this new concept, the corrective emotional experience.

Alexander emphasized that the therapist is not neutral, but always maintains a helpful attitude. He also noted that the reactions of the therapist should often not be spontaneous, lest they repeat the parents' problematic reactions to the budding patient, for example, "with impatience or solicitude which caused the neurosis" in the first place. Alexander was referring to patients' tendency to elicit from those around them characteristic responses. The job of the therapist is to know when to respond unspontaneously, to disconfirm the patient's expectations, no matter how tenaciously the patient pulls for them.

B. Reactions to the CEE

Several problems with the CEE concept have discouraged its use over the decades. Four specific problems will be discussed: Alexander's use of medications in the sessions, the lack of applicability of the CEE to all kinds of patients, the use of role-playing to create the CEE in the therapy, and the history of a disdainful attitude toward supportive techniques, as the CEE has generally although erroneously been described.

1. "Narcosynthesis"

Alexander suggested that drug-induced states of mind could be ideal for the CEE to unfold in therapy. Under narcotic treatment, patients could relive in fantasy the past dangers that they had been unable to master. With the therapist present, the patient's anxiety would be reduced and the patient could become better able to face the previously intolerable situation. Today, in session, use of medications in this way, "narcosynthesis," is rare, although "reliving" the past with the therapist is a viable strategy for some clinicians, as discussed below.

Writing in the 1940s, Alexander had far less available to him in the way of a pharmacopoeia. Currently, disorders of mood and thought, with symptoms such as mood instability, psychosis, anxiety, and depression are usually addressed with medications. Any current discussion of the CEE makes most sense with the proper use of medications in mind, because no relationship between therapist and patient can begin until the symptoms are manageable. Ironically, although Alexander's use of insession medications has little following, the general use of medicines is ubiquitous and psychotherapy can often progress only because of their effects.

2. The Problem of Applying the CEE

Detailed review of past experiences is often a way psychotherapy begins. How such review is used subsequently in the treatment varies with patient and clinician. There is controversy about the efficacy of this method for the treatment of some disorders, given the potential risks that an attempted CEE could bring. For some patients with posttraumatic stress disorder, symptoms can worsen after reexposure to past traumas. In contrast, some recent research by Edna Foa and others shows that it can be very helpful when a patient therapeutically reexperiences past trauma. The astute clinician carefully follows the patient's state of mind in sessions and knows when reviewing certain material would be likely to help the patient.

3. The Problem of Role-Playing

Alexander was in line with some current psychoanalytic thinking in his emphasis on the patient's relationship with the therapist as the curative factor in the therapy. He ran afoul of psychoanalytic communities with his approach to the patient via role-playing in psychotherapy. Alexander (and his followers) would attempt to revisit traumatic interpersonal events in a patient's life by taking the role of the previously traumatizing other (e.g., parent, teacher, boss) and enacting scenarios designed to counter these early pathogenic experiences. In the therapeutic setting, the therapist would facilitate reality testing and so enable the patient to feel and respond differently than in the past. The goal was to allow the patient to have the new experience in the safety of the therapist's office and apply the learning outside the office in his daily life. These psychotherapies were brief in duration, a number of months, and part of the mission was to use role-playing in order to shorten therapies that were growing increasingly unwieldy in their multiyear duration.

Psychoanalysts continue to criticize role-playing as a manipulation of the transference, forcing the patient to notice the "goodness" of the therapist contrasted with the "badness" of previously hurtful others. Howard Levine, writing an annotated list of essential reading in psychoanalytic psychotherapy in 1995, called this play acting the *bete noire* of psychoanalysis, and noted that role-playing contrasted with standard psychoanalytic thoughts of how therapy produces change. Role-playing can be seen as putting the patient in an artificial position, having to respond to the therapist's theatrics rather than reaching greater awareness about his or her own mental life in the context of the relationship with the therapist.

4. The Problem of CEE as a Supportive Technique

Different kinds of psychotherapies have different aims, which can be described on a supportive–expressive continuum. Supportive techniques shore up a patient's defenses; expressive techniques analyze defenses and uncover unconscious material. Support in psychotherapy serves to decrease a patients' anxiety, helps patients feel better about past actions and events, and enables patients to appreciate their skills in adapting to events around them. In psychoanalytic terms, what is supported is the patient's ego function. The patient is not necessarily helped to understand more about his or her unconscious mind via supportive techniques (but is only able to do so when adequately supported). An example of a supportive comment is: "You seemed to have worked very hard to finish that project and yet the professor crushed you with his comments about it" rather than the relatively unsupportive but more exploratory "How do you understand the professor's response to your work?" This is relatively unsupportive, but not absolutely; while there is support in the therapist's attention to and wondering about the story the patient tells, this is an example of expressive technique,

aimed to uncover more than what the patient already knows, thinks and feels.

The generally supportive experience of being accepted is a main feature of the corrective emotional experience, but the emphasis on support was another strike against the CEE. Historically, although not universally, support has been considered a risky if not poor psychoanalytic technique, undermining the possibility for patients to further their understanding of what had been previously unconscious. Anxiety can be a motivator for further self-exploration. When patients are feeling supported, they can relinquish the anxious mood but perhaps also any interest in understanding what they feel and why and how they create trouble in their life. When the goal of treatment is to allay a symptom such as anxiety rather than foster deeper understanding, support is a predominant tool. In psychoanalytic endeavors, anxiety is considered an ally to the therapeutic mission when it motivates the patient to think in new ways and uncover new mental material. As Alexander's use of Jean Valjean as a case example demonstrates, the CEE is both supportive and expressive. In this case, a seemingly supportive move by the bishop was actually experienced as quite anxiety producing for the thief. The thief's capacity for remorse, introspection, and reparative attempts evolved only after his perceptions of the world were shaken, after the bishop startled him with persistent kindness. The thief and the bishop exemplify naturally corrective experiences of life with other people, consistent with Alexander's note that the CEE need not take place only in the relationship with the therapist; there are opportunities for corrective experiences within the relationships of the daily life of the patient.

Given these problems with and misunderstandings about the CEE, it is little wonder that it has not always been considered a useful construct. Thoughtful appraisal of how Alexander defined and used the CEE brings us to the next consideration: how the CEE can be used within the context of the therapeutic alliance.

III. THERAPEUTIC ALLIANCE, CORRECTIVE EMOTIONAL EXPERIENCE, AND THE OUTCOME OF PSYCHOTHERAPY

A. The Therapeutic Alliance

1. Definition of the Therapeutic Alliance

The therapeutic alliance is the connection between patient and therapist, the mutual agreement to work together on tasks related to the patient's well-being. The alliance is a joint sense of mission, collaboration, trust in the other, and hope. With such an alliance, the patient expects the therapist will understand him, tolerate him, and help him understand himself better and then feel better, now and in the future.

The feeling of being understood, cared about, and cared for is an important emotional state in which to embark on psychotherapy, a *sine qua non* for most patients to even begin considering candid revelation to an utter stranger, the therapist. To feel allied with another person can itself be corrective. When the match between therapist and patient is successful, a surprising, impressive amount of work can be accomplished. It is no surprise then that the single factor in psychotherapy that explains the outcome of the psychotherapy has been repeatedly demonstrated to be the therapeutic alliance.

2. The Therapeutic Alliance and Psychotherapy Outcome Studies

Psychotherapy is difficult to study. Psychotherapy outcome studies show that psychotherapy does work: patients, family members, therapists, and neutral research judges agree, based on a generous variety of measures such as symptom checklists, mental health rating scales, and measures of ability to function at home and at work. The one element common to the successful psychotherapies is the therapeutic alliance. The repeated showing of the alliance as the main predictor of good outcome leads scholars and clinicians to consider the alliance the "quintessential" aspect of all psychotherapies.

B. The CEE as a Tool for the Therapist Who Has a Therapeutic Alliance with the Patient

Psychotherapy takes place only in the context of an adequate therapeutic alliance. In this circumstance, the therapist has access to various tools such as supporting the patient's better efforts at self-understanding, questioning the wisdom of others, medicating the more severe symptoms, and using the CEE to alert the patient to a new perspective on interpersonal relationships. In this context, the surprises of the corrective emotional experience can unfold as the therapist disconfirms the expected responses that the patient has long come to elicit from others.

Much that is inherent in psychotherapy would be an example of the CEE tool: the therapist being timely, in speech and presence; having reasonably pleasant facial

expressions when greeting the patient; looking at and listening the patient; remembering the content of the last session and the dreams and stories of previous discussions; knowing the important anniversary dates in the patient's life, and so on. These techniques tell the patient he or she is valued, worthy of listening to, and being helped. The CEE as a tool differs from the narrower specificity of other tools, such as interpretive comments about material previously out of the patient's conscious awareness. Once thought by psychoanalysts and analytically oriented clinicians to be the most crucial technique for therapeutic success, interpretations are now considered by some to be another valid tool but not the most valuable one. Hanna Levenson, in her 1995 review of time-limited therapies, considers the CEE to be the "modernist" way of construing the historically important accurate and precise interpretation of unconscious material, emphasizing the relational rather than the intrapsychic in psychotherapy. The importance attributed to relational over interpretive tools of the therapist has increased in recent years, concordant with the repeated findings of good therapeutic outcome based on the relationship rather than on the accuracy of interpretation.

C. The Therapist's Judgment

The importance of the therapeutic alliance, the therapist's most basic tool, and the use of the CEE as a specialized tool are not to suggest that the therapist is without judgmental capacity. Therapy would not be worth much were that so. Rather, the therapist offers a reasonably balanced ear and may certainly disagree with and disapprove of some of the patient's behaviors and plans. For example, a patient prone to feeling entitled to more than her due, who treats others with contempt, has her CEE when the therapist enables her to hear her disdain and consider how this stance puts people off and has probably contributed to the patient's need for the therapy.

IV. SUMMARY

The CEE as an explicit concept has been with therapists since the 1940s. It has elements of both supportive and expressive psychotherapeutic technique. The corrective emotional experience is felt by the patient who expects certain responses from people but is instead surprised by the therapist's disconfirmation of the expected response. It is a tool available to the therapist who has formed a good therapeutic alliance with the patient. In its more dramatic incarnations, such as when induced by medications in a therapy session, it has been eschewed by psychoanalysts. More gently introduced, it is part of every psychotherapy that has helped a patient and merits a place in future psychotherapy research studies that can further the understanding of how and why psychotherapy works.

Acknowledgments

I want to express my appreciation to Jonathan Fried for editorial assistance, and to colleagues Susan Bers, Lisa Marcus, Nancy Olson, and Joan Wexler for insightful comments about the CEE.

See Also the Following Articles

Effectiveness of Psychotherapy ■ History of Psychotherapy ■ Outcome Measures ■ Role-Playing ■ Supportive-Expressive Dynamic Psychotherapy ■ Time-Limited Dynamic Psychotherapy ■ Transference ■ Working Alliance

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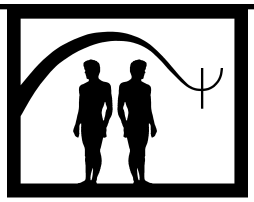

Correspondence Training

Karen T. Carey
California State University, Fresno

I. Description of Treatment
II. Theoretical Bases
III. Empirical Studies
IV. Summary
Further Reading

GLOSSARY

delayed reinforcement Reinforcement occurs after some period of delay following a correct response to a target behavior.

generalization The result of behavior change occurring under different conditions, settings, and behaviors from the original targeted conditions, settings, and behaviors.

maintenance The maintaining of behaviors over time following an intervention.

natural communities of reinforcement Reinforcement that is available in the normal, day-to-day environment.

prompt Verbal directions, modeling, or physical guidance that help an individual initiate a response.

self-regulation Involves observation or monitoring of one's own behavior, judgmental processes concerning one's own performance, and reactions of the individual to his or her behavior and performance.

social reinforcement Reinforcement that can include physical contact such as hugs or verbal statements such as approval when an individual engages in an appropriate response.

tangible reinforcement Objects, such as toys or stickers for young children, given when an individual engages in an appropriate response.

target behavior The behavior selected for change.

Correspondence training involves developing the relationship between children's verbal accounts of behavior and their actual behavior, between saying and doing. According to Ruth Baer, J. Williams, Patricia Osnes, and Trevor Stokes in 1983, correspondence training is training in "promise keeping."

I. DESCRIPTION OF TREATMENT

The focus of correspondence training is on verbalizations used to mediate behaviors. According to Ruth Baer, J. Williams, Patricia Osnes, and Trevor Stokes in 1983, "reinforcement is made contingent on both promising to engage in a target response and then actually doing so, or on truthfully reporting past actions" (p. 479).

In general, the treatment involves asking the child what he or she plans to do in a certain situation (e.g., "Are you going to talk to your teacher today?"). If the child responds positively to the question asked, the adult restates the behavior or tells the child to engage in the behavior (e.g., "Ok, you will talk to your teacher today"). If the child does not spontaneously respond to the initial question, the adult prompts the child until the child responds.

After the child has had an opportunity to engage in the behavior the child is provided with feedback regarding his or her behavior. If the child engaged in the behavior (i.e., talked to the teacher), the child is verbally,

socially, or tangibly reinforced. If the criterion was not met (i.e., the child did not talk to the teacher), the adult tells the child the criterion was not met and does not provide a reinforcer (e.g., "You said you were going to talk to your teacher today, but you didn't, so you can't have a sticker"). By repeatedly reinforcing correspondence between a child's verbal and nonverbal behavior it is expected that the child's verbal behavior will serve as a powerful discriminant stimulus for appropriate responding.

II. THEORETICAL BASES

Correspondence training is a self-mediated intervention technique. Such techniques are based on the concept of self-regulation, which involves one's ability to monitor one's own behavior. According to Frederick Kanfer and Paul Karoly in 1982, self-regulation or self-management "signifies the gradual assumption of control by the individual over cueing, directing, rewarding, and correcting his or her own behavior" (p. 576). Methods of external control by parents, teachers, or peers can be used to teach self-management skills.

Furthermore, language has been a target for many self-regulation intervention efforts for several reasons. First, language is often a well-developed skill with a pattern that results in some control over one's behavior. Second, language can be readily used across different environments and with different individuals. Lastly, language can be used conveniently and with little effort. Thus, language may facilitate behavioral changes across inconvenient settings and difficult circumstances.

Correspondence training is a type of self-regulation whereby the individual verbally agrees to engage in some targeted behavior and then after doing so is reinforced. Results of a number of studies indicate that it is a successful intervention for changing behavior.

III. EMPIRICAL STUDIES

In 1985, Ruth Baer, J. A. Williams, Patricia Osnes, and Trevor Stokes studied the effects of correspondence training with a 3-year-old boy described as having normal intelligence and no major behavior problems. Three behaviors were selected for training: picking up his pajamas after dressing, picking up his clothes after a bath, and choosing fruit for dessert. His mother observed both occurrences and nonoccurrences of the targeted behaviors.

The procedure was examined across two conditions. In the first condition, the child was questioned about specific home behaviors in the late afternoon prior to going home. During this private questioning period the child was asked by the teacher what he was going to do at home. When the child responded correctly he was praised. Prompts were provided to the child when needed in order for him to respond. However, prompts were required for only several sessions in order to elicit complete sentences (e.g., "I'm going to choose fruit for dessert"), and then were withdrawn.

On the next day, reinforcement was given only if the correct promise had been made the preceding day. Even if the behavior was not performed, the correct promise was reinforced. The consequences were described as follows by Ruth Baer, Patricia Osnes, and Trevor Stokes: "a grab bag containing slips of paper, each with one of the following written on it: 1 Big Hug; 2 Big Hugs; 2 Tosses in the Air; 3 Tosses in the Air; 3 Swings; 4 Swings; 5 Swings; 2 Tickles; 3 Tickles; 4 Tickles; Piggy Back Ride; Pick a Toy. If (the child) drew Pick a Toy, he was allowed to choose from a selection of inexpensive trinkets."

In the second condition, the teacher gave social praise and tangible reinforcers for actual correspondence between the promise and behavior: "Yesterday you said you would … and you did! That's very good! You get to draw from the surprise bag today." Or "Yesterday you said you would …, but you didn't. That means that you can't pick a surprise today."

The results showed that the second condition involving reinforcement of correspondence immediately changed target behaviors. The delay of reinforcement was successful without the correspondence training only when followed by the successful application of correspondence training to two prior targeted behaviors. Thus it was first necessary to establish a history of correspondence.

Correspondence training may be used for generalization and maintenance of responses. According to Patricia Osnes and Trevor Stokes, correspondence training may help with generalization to facilitate entry into natural communities of reinforcement by increasing the likelihood of reinforcement and positive attention from adults and peers. Through correspondence training children achieve a successful history between verbalizations and actions: what they say they will do and how they actually behave.

Correspondence training has also been used to enhance dinnertime conversation for preschool children. In 1979, Jacque Jewett and Hewitt Clark described the

intervention in the following way: "If the teacher could obtain reasonably accurate information on the children's dinnertime conversation, they could reinforce their corresponding verbal behavior on a delayed basis in the preschool group setting."

The subjects were four children ages 4 and 5 described as middle class, having intelligible speech, and with at least one sibling over the age of 4. Families were paid a nominal amount for participation. The evening meal was tape-recorded and was returned each morning to the school.

Outcome measures of conversations were (1) children's statements of appreciation, (2) conversational questions, and (3) comments "to prompt or to coach the target children" (p. 591). Conversational comments included initiating a topic, continuing a topic, or restating a comment. The central features of the study were (1) taped dinnertime conversations between family members, (2) the simulated family meal held by the preschool teacher, (3) the training sessions, and (4) the feedback sessions.

The training sessions were held in the preschool classroom prior to lunchtime. Based on the teacher's judgment the sessions lasted anywhere from 1 to 10 minutes. The teacher selected topics for the conversations and on the first day of a new topic the teacher modeled examples of comments for that topic. The comments were then taught, using prompting, modeling, practice, and social reinforcement. When the child was able to verbalize the comments independently or within 30 seconds of a modeled comment, the criterion was considered to have been met. The child then had to verbalize the appropriate set of comments for the next meal. Practice was directed toward any difficulties the child had. Correct sentence structure and variation of comments were also prompted.

The teacher then held simulated family style lunches. During this time, the children and teacher role-played a dinnertime meal with the teacher acting as different members of the child's family. Within the context of the teacher's role, she provided the child with social reinforcement. During the first day of each training session the teacher gave prompts freely. Predinner practice occurred in the afternoon and was the same as the prelunch practice.

Each day, at 10:30 a.m. the teacher held a feedback session to check correspondence between what the children reported and what comments were actually made at dinner the previous night. The teacher gave a prompt and the child was asked to repeat the comments: "Did you say all of the right things at dinner?" "Who did you ask questions to and what did you ask them?"

Further prompts and modeling of the correct responses were allowed for "eligible" children. If the teacher had to assist a child, a brief delay was given. ("Now you're saying it right, but I had to help you. I'll come back in a minute to see if you can remember all by yourself".)

Assistance was given to those children who had not met the criterion. The prompts were continued until the child met the criterion without assistance and earned the reward. The criterion was one comment to each specified family member in each planned category.

A social and snack reinforcement was provided contingent on the correspondence between verbal report and the use of the comments during the family dinner. Lunch feedback, in the afternoon, was identical, except that it focused on the simulated family meal.

Results indicated the effectiveness of the intervention for all four subjects. After the teacher discontinued the intervention, a 2-week follow-up revealed that each child's dinnertime conversation was being maintained by the natural community of reinforcement within each family through parent–child attention, family interaction, and new topics.

Correspondence training has also been used to enhance sharing in young children. Ann Rogers–Warren and Donald Baer, in 1976, developed and implemented such an intervention for use with 33 preschool children. The children were taught to share and praise one another for sharing. The teacher modeled the behaviors for the children and the children practiced sharing and praising one another. Following appropriate sharing and praising, the teacher reinforced the children.

In the first condition, children modeled the behavior and then were asked to report whether or not they engaged in sharing and praising. In this phase, both true and untrue reports of sharing and praising were reinforced. The second condition consisted of reinforcement for true reports of actual sharing and praising, following modeling. Both conditions were effective in increasing sharing behaviors and generalized to other settings. By training children in correspondence between saying and doing, the researchers effectively increased these children's prosocial behaviors.

IV. SUMMARY

Correspondence training is a type of self-regulation with demonstrated usefulness in getting individuals to

do what they say they will do. Particularly useful with young children, correspondence training allows children to achieve success between verbalizations and actions. Learning rules governed by language and then followed by reinforcement can be beneficial in altering children's behavioral trajectories.

See Also the Following Articles

Behavior Rehearsal ■ Child and Adolescent Psychotherapy: Psychoanalytic Principles ■ Objective Assessment ■ Parent–Child Interaction Therapy ■ Primary-Care Behavioral Pediatrics ■ Role-Playing ■ Self-Control Therapy ■ Self-Statement Modification ■ Therapeutic Storytelling with Children and Adolescents

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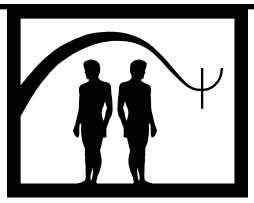

Cost Effectiveness

William H. Sledge
Yale University

Susan G. Lazar
Washington Psychoanalytic Institute

I. Introduction
II. Insurance Coverage for Psychotherapy
III. Difficulties in Providing a Psychotherapy Medical Benefit
IV. Cost Effectiveness
V. Studies of Cost Effectiveness
VI. Conclusion
Further Reading

GLOSSARY

charges A manager's efforts to recoup costs based on considerations of cost, market, and regulatory compliance—what the market will bear and not necessarily a function of the resources that must be consumed to bring about an intervention.

effectiveness The effect of an intervention in terms of bringing about desired outcomes in real-world conditions.

efficacy The ability of a treatment to bring about desired outcome under ideal conditions (i.e., homogeneous patient population, high fidelity of treatment to an ideal, delivery of defined care, etc.) that usually only pertain in highly controlled research or academic settings.

efficiency The ratio of the cost to benefits, for instance in a cost-benefit analysis, an efficiency ratio of less than one means that the intervention actually makes money.

elasticity The medical service utilization feature that is a measure of the sensitivity of the utilization of benefit to the generosity of the insurance benefit. A particular intervention or service is said to be elastic to the extent that its use is influenced by how much the patient must pay out of pocket as opposed to how much the patient wants/needs the benefit.

CEA ratio The expression of the relative costs per unit of outcome of an intervention designed to improve care in comparison to another intervention or no care.

cost-benefit analysis A method used to evaluate the outcomes and costs of interventions designed to improve health in which all the variables are expressed in economic units.

cost-effective analysis A method used to evaluate the outcomes and costs of interventions designed to improve health in comparison to one another.

cost offset The idea that expenditures in one realm (i.e., psychotherapy benefit) may be accompanied by reduction in expenditures in another (i.e., hospitalization).

opportunity costs The maximal value of a resource if the resource has some alternative use. An example might be the lost wages for the time spent in a doctor's waiting room.

parity The equalization of medical benefit coverage across illness domain categories. For instance, it has been common practice to provide more generous insurance coverage for the expenses associated with medical or physical illnesses in comparison to psychiatric or mental illnesses.

QALY (quality adjusted life years) The preferred outcome measure for societal CEAs in which disability and changes in life expectancy are components of outcome. The quality adjusted dimension refers to a weighting that is based on the premise that some people would rather be dead than live a certain way or alternatively would be ready to trade fewer years of a higher quality of life for more years at a lesser quality of life.

I. INTRODUCTION

Costs have preoccupied the purchasers of care in the last quarter century as health care costs have steadily

outpaced the inflation indices or other measures of costs. With this focus on costs has come also a deep interest in the effectiveness of health care expenditures. Managed care has been one effort to contain costs and direct resources to fund effective care.

The practice of psychotherapy has changed (many would say "suffered") greatly from the policies of managed care that have emphasized reducing costs and utilization in order to save money. This process is documented elsewhere in this Encyclopedia. The efforts to show that psychotherapy is cost-effective for a variety of conditions has been largely successful, if not exhaustive. This article reviews some of the basic ideas of cost-effectiveness generally, as well as specifically for psychotherapy, and indicates some of the questions that the future must address. Formal features of the structure of the field of psychotherapy, such as its large number of potential practitioners and its application to illnesses that are imprecise in their definition and sometimes difficult to distinguish from variants of normal behavior, have created a great deal of wariness on the part of those who manage benefits and pay the bills. Psychotherapy has posed a great challenge to public policymakers who attempt to rationalize the U.S. medical system. Psychotherapy has been denied and limited more than most medical interventions, perhaps in part as a function of the stigma associated with mental illness.

II. INSURANCE COVERAGE FOR PSYCHOTHERAPY

Even before the current era of managed mental health care benefits in which few patients are provided the psychotherapy benefits they actually need, it was common practice for insurance companies to limit coverage for psychotherapy with higher co-payments, stricter yearly limits, and lower lifetime limits than for other medical care. Parity for psychotherapy has not existed. These discriminatory practices were considered justified by insurers because of the widespread assumption that psychotherapy benefits are vulnerable to abuse by those not in need and will, therefore, unnecessarily inflate health care expenditures in a way not shared by other medical benefits. Psychotherapy benefits were said to have "elasticity" in which the use of the benefit is particularly sensitive to what the patient must pay.

The idea of parity of insurance coverage for mental health benefits (i.e., at the same level as for other medical benefits) has been hotly debated with opponents arguing that parity for mental health coverage is far too expensive to provide. A RAND study by Sturm examined assumptions about the high price of mental health parity expressed in the policy debates surrounding the Mental Health Parity Act of 1996. This study demonstrated that while access to mental health specialty care under conditions of parity increased to 7% of enrollees (compared to 5% of enrollees found in the free care condition in the earlier RAND Health Insurance Experiment), there was a relative shift to outpatient care, reduced hospitalization rates, and reduced payments per service. Children were the main beneficiaries of the expanded availability of benefits that were estimated to cost only an additional $1.00 per enrollee per year. The assumptions underlying concerns about the high costs of parity for mental health benefits were shown to be incorrect, based on outdated data, and dramatically overstated by a factor of 4 to 8.

III. DIFFICULTIES IN PROVIDING A PSYCHOTHERAPY MEDICAL BENEFIT

The psychotherapy coverage in health care insurance systems in the United States has a long, complex history. The clearest current inadequacy is the lack of parity with medical services for mental as well as physical illness. Physical illnesses are viewed by the public as inevitable, occurring as a person ages, or as a tragic event striking a person down in early life. Except perhaps for those illnesses caused by an individual's behavior that can be seen as self-destructive, such as the role of obesity in heart disease or poor diabetes control, patients who are stricken have the benefit of societal sympathy. Parson's explication of the sick role points to an institutionalized "forgiveness" of a patient's usual social role obligations, as well as the expectation that the patient has not been able to control the condition and will seek competent medical help.

In contrast, mental illness in a family often arouses intense shame and guilt in connection to the anticipated perception of weakness in the ill person as well as in family members. Contributing to these feelings is an ethic in the industrialized Western world that values self-sufficiency and self-control. Mental illness can readily be viewed as a failure to function in the self-contained manner expected.

The social stigma attached to people with mental illness can also spread to those who treat them. The treatment of a person with mental illness is usually highly confidential, commonly resulting in misconceptions

within the lay public about the nature of that treatment, the patients who suffer mental illness, and those who treat them. It is not unusual for patients and their therapists to be regarded with denigration.

Defining and measuring psychotherapy is an important challenge, particularly for those who would manage such care. The delivery of psychotherapy has also only recently become somewhat standardized with the development of a few relatively specific and behaviorally oriented "manualized" approaches. Psychotherapy manuals offer a way to specify indications, goals, and specific techniques of psychotherapy to give a standardized approach. For research ends, standardization has been essential to develop reliable means of evaluating psychotherapy. Furthermore, these approaches have assisted in the clinical training of psychotherapy. However, among clinicians the manualized approach has been criticized for its rigidity and that it can never truly substitute for the expertise of an experienced, dedicated clinician.

IV. COST EFFECTIVENESS

Increasingly policymakers and payers are insisting on a consideration of the economic dimensions of care before an intervention will be provided as a benefit covered by insurance or provided as part of a public sector program for un- or minimally insured patients. Cost-effectiveness (CEA) and cost-benefit analyses (CBA) have emerged as tools that allow an estimation of the cost of providing a particular form of care in relation to other interventions or no care. Cost-benefit and CEAs are similar ways to express the value of an intervention in relation to the effort to bring it about. Cost benefit analyses seek to represent all dimensions of the cost-benefit equation in monetary values whereas CEAs do not require the expression of outcomes in monetary terms. Cost effective analyses are preferred in most health service approaches because of the difficulty in expressing the outcome variables of symptoms, quality of life, and mortality experience in monetary terms. The principles of CEA for medical and mental health programs in general apply to psychotherapy efforts in particular.

A. Perspective

One major issue in the assessment of costs and effectiveness is the perspective of the study that determines the breadth of what is being examined. Different perspectives include: (a) only the resources furnished by the provider (the "management" perspective), (b) all the explicit resource costs associated with production of the services (the "accountant" perspective), or (c) all explicit and implicit resource costs that would address opportunity costs such as those for resources that are both donated or already owned (the "economist" perspective or "societal" perspective). For example, the management perspective of costs of developing a psychotherapy service in a public sector outpatient clinic would include the number, type, and hours of the psychotherapists assigned to or hired for such a service, the amount of electricity and other utilities they consumed, the costs of their malpractice insurance, and so on. The accountant would add the cost of the management of those services, and various other overhead expenses allocated to this function indirectly but directly incurred by the institution for doing business as an institution, such as the need to provide parking for all the workers, a security force, and so on. The economist would add the "opportunity" costs of using the resources (such as real estate, equipment, personnel) differently (even if they were "donated" without direct cost to the institution), as well as other hidden costs such as the supervision of the staff that was provided free to the institution and in exchange for a faculty appointment by another institution. The societal perspective allows studies to be more easily compared and to understand more clearly the full implications of choices about what to support and not to support.

B. Dimensions of Benefit

A comprehensive cost-effective analysis must take careful account of the economic benefits of an intervention in assessing net economic costs. Just as costs have multiple dimensions, so do benefits. As Weisbrod noted in 1983, these benefits for psychiatric patients might include increased earnings of those treated, changes in labor market behavior that address the ability and willingness of the patient to seek employment, improvement in decision making about the use of expensive services, improved role functioning in terms of family and economic behavior, and improved physical and mental health. It is enormously difficult to measure these benefits economically and to express them accurately in monetary terms. Increasingly, to standardize studies allowing for comparisons and clarity of interpretation of results, one consensus outcome of CEAs is the cost-effectiveness ratio, an expression of the cost per unit of effect or the difference in the cost between the

two compared treatments divided by the difference in effectiveness of the two compared treatments. The cost-effectiveness ratio is the incremental cost of obtaining a particular effect from one intervention in comparison to another. Such a comparison also calls for a universal measure of outcome, the quality adjusted life year (QALY). This measure is the increase in life years (when that is an appropriate measure of effect), weighted for quality, brought about by the intervention.

One difficulty in establishing a broad and coherent policy addressing the support of psychotherapy has been the measurement of the various effects or outcomes of psychotherapy. For instance, it is only recently that there is a growing consensus that outcomes should include not only symptomatic relief, but also the capacity for greater social and vocational performance, utilization of nonpsychiatric as well as psychiatric health services, as well as other quality-of-life measures.

C. Dimensions of Costs

Cost is a complex idea. Cost is the value of the resources being withdrawn from society to bring about a specific intervention. Costs are to be distinguished from charges which are simply a manager's efforts to recoup costs based on considerations of cost, market, and regulatory compliance. Domains of costs that must be considered in a CEA are the following: (a) changes in the use of health care resources, (b) changes in the use of non-health resources, (c) changes in the use of informal care giver time, and (d) changes in the use of the patient time.

Health care costs include the direct costs of the intervention itself (drugs, personnel, supplies, etc.). The methodology for estimating total direct costs (of an intervention, program, etc.) is generally based on determining the unit cost of services and multiplying it by the amount of such services consumed. Different programs within an agency may use different production strategies to produce similar treatments. For instance, long-term psychotherapy provided by social workers may have a different cost structure from long-term psychotherapy provided by psychiatrists.

Another issue concerning the measurement of unit costs concerns the precise definition of the service unit. Service units can be defined as outputs that measure the services received by clients or as input or production inputs that measure the number of hours of staff effort. For example, if a therapist sees five patients during an hour-long group session, the group session can be counted as five client visits and five group hours in terms of output or as one group hour from the perspective of input.

An important concept and a consideration of the cost and benefit of any delivered medical service is the impact on other medical service-seeking behaviors. For instance, it has been shown in some instances that the provision of consultation or psychiatric services reduces the length of stay of hospitalized patients, particularly those suffering from orthopedic injuries. In this case, the difference between the cost of care with and without the second procedure, in this case psychotherapy, is called the "cost offset factor," in which the provision of a relatively inexpensive treatment can substantially influence the utilization of an expensive (usually inpatient) treatment by patients with various illnesses.

Non-health care resources used in the production of an intervention must also be considered. When an agency produces many different services, there are costs not directly attributable to the service in question but which are necessary to the agency's capacity to provide service. These include explicit as well as implicit, off-budget agency costs such as, for example, the time and effort of management to lobby the legislature for increased mental health services.

Furthermore, there are multiple types of costs in addition to production costs. In mental health studies it is customary to address maintenance costs for food, shelter, and other necessities for patients involved because some of the interventions (inpatient settings, some partial hospital programs) provide these services. Law enforcement costs are another type of cost that are relevant in considering the possible cost shifting when the criminal justice system is used as a de facto substitute for the psychiatric treatment system. Other well-known costs are the considerable cost shifting between psychiatric and other health care costs.

The time of the informal care giver(s) must also be considered. The concept of "family burden" addresses the resources consumed by a patient's family to provide care. If a particular service achieves cost reduction by shifting the burden to family members, then this service may end up not being cost-effective from a societal view, but very cost-effective from a provider's view.

The time the patient spends in seeking and receiving treatment is a cost that must also be considered. It should be included in the numerator if it is conceptualized as an opportunity cost and expressed in monetary terms. It can be included in the denominator of the cost-effectiveness ratio if it conceptualized and measured as a dimension of QALY. If the experience of the treatment is included as part of the effect of care, then it will be difficult to monetize the dimension of time, and it probably should be considered a dimension of QALY.

Another class of costs that can be considered either in the cost numerator or the effectiveness denominator is a class of costs sometimes referred to as indirect costs or productivity costs.

V. STUDIES OF COST EFFECTIVENESS

There have been many studies of the cost-effectiveness for specific disorders or illnesses. A few selected topics are addressed here. These are anxiety disorders, affective disorders, physical illnesses, borderline personality disorder, substance abuse, schizophrenia, and general considerations.

A. Anxiety Disorders

Anxiety disorders are the most common mental health problems and the most expensive, costing 31% of all mental health costs (both direct and indirect) and totaling over $46.6 billion in 1990. Salvador-Carulla and colleagues measured cost offset in panic disorder that is treated by psychotropic medication and supportive psychotherapy. Patients followed for 1 year experienced a reduction in use of medical treatments in the year following treatment, compared to the year prior, but had an increase in direct costs because of the expense of psychiatric visits and medication. Nonetheless, the indirect costs from sick days decreased by 79%, leading overall to a 30% reduction in total costs for those patients with the treatments.

B. Affective Disorders

Affective disorders are a common illness with 11% of the adult population in the United States suffering each year with an affective disorder. Of these patients, one half have major depression, one third dysthymia, and one sixth bipolar disorder. One fifth of Americans will have an affective illness during their lifetime. Greenberg and colleagues estimated the cost of depression in the United States in 1990, including both the direct costs of medical treatment and the indirect costs from mortality and reduced productivity, at 43 billion dollars. Several investigators have documented the greater disability and medical costs from depression than for other common medical conditions and other mental health disorders. In addition, depressed patients seek general medical care and have higher general medical costs than non-depressed patients.

There are a handful of studies that document directly the cost impact and cost savings of psychotherapy for depressed patients. For patients with major depression, several studies demonstrate cost-effectiveness, particularly when psychotherapy contributes to reduced hospital duration and hospital costs or to decreased costs of successful treatment compared to more usual care. Psychotherapy also leads to decreased costs from reduction in length of hospital stay for depressed medical inpatients. Depression is an extremely costly illness in lost productivity, in pain and suffering, in increased general medical costs, and in loss of life through suicide. If all societal costs are considered, any psychotherapy that has been demonstrated to be effective can almost presumptively be considered cost-effective. In addition, a small number of studies demonstrate directly the cost-effectiveness of a variety of psychotherapeutic approaches for this enormous public health problem.

C. Physical Disorders

Concomitant mental illness complicates medical illness and emotional reactions short of mental illness can profoundly affect the course of physical conditions. Psychotherapeutic interventions have been shown to be profoundly helpful in decreasing pain and suffering in a host of medical conditions and in some they can lead to improved physical health and cost savings in medical care.

A number of studies document the fact that depressed, anxious, and emotionally distressed medical patients utilize more medical services and have more medical expenses and longer hospital stays. Furthermore, patients who are medically ill with psychiatric illness do not respond as well to medical treatment if their psychiatric illness is left untreated. Druss and colleagues have demonstrated that the cost of medical care for depressed patients is higher than for those without mental illness. Rosenheck and colleagues have shown that if the depression is not treated, the medical costs may be increased along with the disability days.

Other results of investigations concerning physical illnesses have included the finding that psychotherapy for families of patients with Alzheimer's disease lowers the health care costs of these patients; that psychiatric consultation lowers health care costs for patients with somatization disorder, and that group therapy in addition further lowers medical costs for these patients. Linden and colleagues undertook a meta-analysis of psychological therapies for patients with heart disease and found significant clinical improvement and improved survival

for those treated with the addition of a psychological approach. Johannesson and colleagues found clinical improvement of coronary artery disease in cardiac patients for programs with multifaceted interventions that include psychotherapy and demonstrated cost-effectiveness in terms of life years gained. Psychotherapeutic services for orthopedic patients have been documented to be cost-effective in the care of some orthopedic patients as well as pain patients by reducing the utilization of other medical services.

While a number of studies of psychotherapy for cancer patients illustrates its beneficial effects in improving adjustment and ameliorating emotional distress, three groups in particular document improved survival when psychotherapy is added to the treatment plan. These cancers are as follows: breast cancer, malignant melanoma, and leukemia and lymphoma.

D. Borderline Personality Disorder

Borderline Personality Disorder is a psychiatric diagnosis that carries a high degree of disease burden in morbidity, mortality, as well as general medical, psychiatric and social costs. Borderline patients have a high rate of suicide attempts and use of emergency medical services. Borderline personality disorder is a potentially devastating mental illness with high costs in pain, suffering, disability, suicide attempts, completed suicides, and high medical, hospital and psychiatric costs. Several different approaches to psychotherapy have proven to be highly cost effective for this disorder by demonstrating that effective care substantially reduces the need for hospital level care. The work of Linehan is the closest to a cost effectiveness study in demonstrating this point.

E. Substance Abuse

Substance abuse is also an enormously expensive public health problem. Tobacco use is associated with 400,000 deaths per year. The costs of alcohol abuse to society have been estimated conservatively to be 99 billion dollars. Patients who abuse alcohol have higher rates of absenteeism, lowered productivity, and disability.

Psychotherapy is a potentially useful and cost-effective treatment for all substance abusers. It more than doubles the number of smokers who quit. Hester and colleagues performed an extensive review of treatments for alcohol abuse and found that brief interventions, social skills training, motivational enhancement, and a community reinforcement approach are all effective. Fals-Stewart found that behavioral couples therapy provides a highly cost-effective treatment for substance abusers living with a partner, compared to individual treatment. Although both approaches provided cost savings in the social costs of substance abuse, the couples approach was three times as cost savings.

F. Schizophrenia

Schizophrenia is another costly illness for which psychotherapy can be cost-effective. The cost of schizophrenia in the United States in 1991 was 65 billion dollars, including treatment costs (19 billion dollars) and productivity lost due to illness (46 billion dollars). Psychotherapy, especially family therapy, given in combination with medication, has been shown to be cost-effective in the treatment of schizophrenia by decreasing the rate of relapse and the number of days spent in the hospital. Family therapy has been shown to be most effective for the families of patients with schizophrenia who are characterized as showing high "expressed emotion," meaning that there is a tendency for family members to express critical and overinvolved attitudes toward the schizophrenic patient and his or her illness. A number of studies have demonstrated the superiority and cost-effectiveness of family therapy compared to other treatments for schizophrenia.

Lieberman and colleagues as well as others have documented that a form of psychotherapy, social skills training, is also effective in schizophrenia. Patients treated with social skill training show improved social functioning, lowered relapse rates, and decreased time in the hospital compared to controls given other treatments, demonstrating a cost savings effect.

G. General Studies

There are also a number of general studies that have shed light on the question of cost-effectiveness of psychotherapy. Gabbard and colleagues carried out a survey of the literature on the economic impact of psychotherapy published between 1984 and 1994. This review of 18 studies, 10 with random assignment and 8 without random assignment, found that 80% of the former and 100% of the latter suggested that psychotherapy reduces total costs. This review found that psychotherapy appears to be cost-effective, especially for patients with severe disorders, including schizophrenia, bipolar affective disorder, and borderline personality disorder.

One study demonstrating substantial cost offset is a Bell South pilot project from 1991 to 1993 by Saeman, which hints at the complex relationship between medical

services utilization and costs and psychiatric services utilization and costs. Three thousand Bell South workers and their families were given psychiatric benefits including two psychotherapy visits per week or a total of 52 visits a year, a lowered co-payment for psychotherapy visits, partial psychiatric hospitalization services, and an employee assistance program (EAP). There were significant subsequent decreases in psychiatric inpatient stays (by 30%) as well as in both outpatient and inpatient medical and surgical services (by 78% and 87%, respectively). Total health care expenses per company member declined from $17 to $8 per month even though outpatient psychiatric services increased by 33% and partial psychiatric hospitalization increased by 45%.

Two other studies demonstrate cost-effectiveness by virtue of a reduction in lost workdays. Klarreich and colleagues found that providing rational-emotive psychotherapy through an EAP of one large company led to a decrease in absenteeism from 10 to 3 days per year per employee equal to a decrease of $1,054 in the annual cost of absenteeism per employee. For each dollar spent on psychotherapy, the corporation saved $2.74. In a British study by Mynors-Wallis and colleagues randomly assigned 70 primary care patients with concomitant psychiatric illness to a problem-solving therapy by a trained nurse. The outcome compared with the usual treatment delivered by a general practitioner. There was no difference in clinical outcome as measured by four structured clinical assessment measures. However, the patients who received the psychotherapy had fewer subsequent lost workdays that more than offset the cost of providing the therapy.

VI. CONCLUSION

Although there are too few large-scale studies addressing the cost-effectiveness of psychotherapy for specific diagnostic groups of patients, we can arrive at some important impressions from the studies that we do have. Those that exist do confirm that, for many conditions psychotherapy works, is cost-effective, can often provide a significant cost offset in other medical and hospital expenses, and is not overused or "abused" by those not truly in need. However, there is much work to be done to add explicit detail to these findings.

See Also the Following Articles

Alternatives to Psychotherapy ■ Economic and Policy Issues ■ Efficacy ■ Outcome Measures ■ Relapse Prevention ■ Termination

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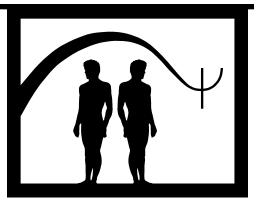

Countertransference

William H. Sledge
Yale University

I. Definition
II. History
III. Types of Countertransference
IV. Technical Implications
V. Conclusion
Further Reading

GLOSSARY

countertransference Broadly speaking, any emotional reaction of the therapist toward the patient. There are two definitional traditions: classical and totalistic.
1. The classical definition defines countertransference as the emotional "transference" reactions that the therapist has toward the patient.
2. Totalistic countertransference refers to all the therapist's emotional reactions toward a patient, which are composed of (a) the therapist's irrational transference feelings toward the patient, (b) the "realistic" emotional reactions of the therapist toward the patient, and (c) the emotional psychological reactions of the therapist toward the patient that are in response to the patient's transference reactions toward the therapist.

parallel process Refers to the replication in the relationship between the supervisor and the supervisee of some of the dynamic transference and countertransference elements in the relationship between the patient and the supervisee.

projective identification The process whereby primarily unconscious fantasy is "projected" or imagined to exist in another person with the result that the person projected into will return in some modified version the psychological material that has been extruded from the projecting person. The target of the projection may or may not become unconsciously responsive to this process and may or may not actually experience elements of it and act accordingly.

transference The emotional reactions of the patient toward the therapist, in which thoughts or feelings related to an early stage of development are "transferred" from the objects (usually parents) of that earlier period to the therapist.

I. DEFINITION

Countertransference is a complex concept. Basically, the broad conceptualization is intended to include all the psychological and emotional reactions of the therapist toward the patient. More recently, it has come to signify not only the irrational or transference reactions of the therapist toward the patient, but also the therapist's emotional reactions to the transference of the patient. Finally, some authors define an aspect of countertransference as the "objective" elements of the therapist's reaction toward the patient. This includes the idea that the therapist is responding to the realistic dimensions of the qualities of the patient.

II. HISTORY

Freud had coined the term countertransference *(gegenübertragung)* and referenced it only on several occasions during his writing, and never treated it

systematically. Freud seemed to conceptualize countertransference as the analyst's transference toward the patient. Consequently, for Freud the notion of countertransference was a part of therapy that needed to be managed and "kept in check."

Several early analysts conceptualized the relationship between analysand and analyst differently from Freud and were interested in modifying the strict rule of neutrality and abstinence. Ferenczi was clearly in this school, as was Michael Balint. Helene Deutsch was among the first to emphasize a different dimension of countertransference, in which she put forward the "complementary attitude" of the identification with the transference objects. She indicated that although these reactions could be an interference with therapy, they also could be a constructive influence and could serve as the underlying elements of empathic responsiveness.

These ideas of the possible usefulness of the countertransference were developed more systematically by Racker and Little, both of whom, coming from an object-relations perspective, developed the idea of the usefulness of countertransference in elucidating the unconscious mental life of the patient. By the time that Racker was writing, the notion of projective identification had been established through the Kleinian approaches.

As the concept of countertransference broadened, and included realistic and predictable dimensions of the analyst's response to the patient and dimensions of the analyst's own conflicts, there grew, along with the admonishment of the dangers of countertransference, the increasing belief that countertransference reactions on the therapist's part could provide important and valuable information about the patient.

With the effort to apply psychoanalytic principles to the treatment of people with severe psychotic disorders, the role of the therapist's response became increasingly more important as a therapeutic tool in the treatment of such patients. Harold Searles was instrumental in developing the idea of the centrality of the therapist's emotional reactions to the patient for a genuine therapeutic process. His work was based on that of many who had gone before, including Freida Fromm-Reichmann, Margaret Little, Phyllis B. Cohen, and Sandor Ferenczi, as well as Harry Stack Sullivan.

III. TYPES OF COUNTERTRANSFERENCE

Countertransference types can be conceptualized on the basis of the content (love, hate, turning away) as a function of the psychopathology of the patient (psychotic, depressive, borderline, etc), as elements in the analyst's life (the sick, pregnant, or recently traumatized analyst), and specific content as a function of a stage of therapy (beginning, termination, etc.). Enumerating all these possible countertransference reactions is, of course, beyond the scope of this article. However, an account of problematic countertransferences might prove useful.

Victor Altshul and I identified three kinds of problematic countransferences. These are the turning away countertransference, activated countertransference, and unconscious enactment. Each poses a different kind of problem.

The turning away countertransference includes those kinds of reactions that represent some kind of reduction in interest or investment in the patient. Such states as boredom, apathy, sleepiness, repugnance and forgetfulness are all the manifestations of such a reaction. They all share the property of an inability to feel engaged by the patient. There are, of course, many reasons why the therapist may experience a "turning away" reaction. Such a difficulty in engaging the patient might be due to a psychological effort on the part of the patient to make him- or herself uninteresting or unattractive, and this kind of psychological effort, albeit unconscious, might also reflect a hostile set of motivations toward the analyst.

Whatever the motivations for the genesis of a turning away reaction, it is important for the therapist to recognize that he or she is having such a reaction and to relate it to what is going on with the therapist and the therapy. One of the most important steps in this process is the accurate diagnosis of the emotional responsiveness of the therapist to the patient.

Another form of countertransference that we identified is the activated countertransference. In this instance, empathy is hampered by an intensely positive or negative feeling toward the patient. Positive countertransference might be characterized by intense liking/loving of the patient, desire to be with the patient, and the idealization of the patient's efforts in psychotherapy. Erotic countertransference is a common manifestation, as is an intense maternal countertransference. An intensely negative countertransference is also a form of activated countertransference. Intense hatred or strong negative feelings allude to a special importance in the therapist's mental life filled by the patient.

Activated countertransference carries the burden and seduction of a compulsion to take action. Intense admiration, idealization, erotic feelings, and rescue fantasies for the patient seem so compelling that the impulse to

action is irresistible for some. These reactions become problematic when the therapist loses his or her sense of control of the therapeutic relationship and begins to feel that he or she is there for a different reason, such as to rectify a wrong in the patient's life or to provide comfort when insight is more appropriate.

Another form of problematic countertransference are unconscious enactments. These problematic reactions entail the acting out of a technical failure without the experience of a conscious reaction in the form of a judgment of the failure. For example, as we noted in our previous work, one of us worked with a therapist who forgot the second appointment with the new patient. Initially, he was at a loss to understand why and did not feel particularly troubled or uncomfortable. As the therapy progressed, it became clear that the patient had been severely neglected by parental figures in her past, frequently acting as if the patient did not exist. It soon became clear that the patient had succeeded in evoking in the therapist the feeling of rage and reproach that had to be dealt with by the forgetting enactment.

IV. TECHNICAL IMPLICATIONS

By far the major challenge is for the therapist to be prepared educationally and personally to be aware of and capable of examination of such feelings toward the patient. The therapist must seek to understand the realistic elements of his or her own transference reactions and his or her response to the projective identification processes entailed in the patient's own transference.

Recognizing the problem is a major step in solving it. The key that there is a problem is the presence of any strong feeling about the patient, whether positive or negative. Other clues are attitudes that are unusual for the therapist, slips, momentary forgetting, and other parapraxia may also allude to the fact that there is an unconscious and unacknowledged process between the patient and the therapist that needs to be examined.

It is important for the therapist to be able to recognize his or her own unmet needs that are aroused by the therapy and to identify clearly the patient's contribution to his or her countertransference. There has been a substantial debate in psychotherapeutic circles as to whether elements of countertransference should be disclosed to patients. There are rare occasions when it is useful for there to be substantial disclosure of countertransference feelings toward the patient. Such disclosure is more likely to be burdensome, intensive, and confusing to most patients than it is to be therapeutic. There may be occasions in which it is sensible for a limited disclosure, but for the most part, disclosure of the therapist's emotional reactions to the patient becomes a burden, particularly early on in the therapy. The therapist should stay away from tactless, intrusive confessions to the patient. However, when the therapist enacts an error and obvious lapse in technique, then it is sensible to acknowledge the lapse and explore this with the patient.

One specialized aspect in which countertransference can play out is in the supervisory process. Sometimes, through the mechanism of unconscious communication and projective identification, the therapist and the supervisor can unwittingly begin to enact by replicating dimensions of the transference–countertransference relationship between the patient and the therapist. This can lead to the therapist coming to act more like the patient in relationship to the supervisor. Again, these kinds of enactments and processes can be used to great benefit to help clarify the kinds of emotional and unconscious themes in the relationship between the patient and the therapist. This process is referred to as a parallel process.

V. CONCLUSION

Countertransference, like resistance, is a concept describing a phenomenon that in the early days of psychoanalysis was viewed as a problematic component of the work. However, the term countertransference has come to be redefined so that it is viewed as an inevitable aspect of the work with patients in an intensive psychotherapeutic manner. Furthermore, this new use of countertransference can be a rich source of information of what is going on within the patient.

See Also the Following Articles

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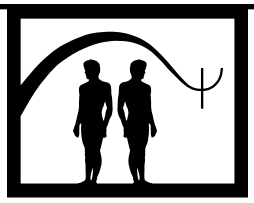

Couples Therapy: Insight-Oriented

Douglas K. Snyder
Texas A&M University

I. Description of Treatment
II. Theoretical Bases
III. Empirical Studies
IV. Summary
Further Reading

GLOSSARY

insight-oriented couples therapy A therapy that emphasizes the interpretation of recurrent maladaptive patterns from a developmental perspective.

Insight-oriented couples therapy emphasizes the interpretation of recurrent maladaptive relationship patterns from a developmental perspective. This article describes the sequence of interventions comprising insight-oriented couples therapy, theoretical explications of the presumed processes by which partners gain a new understanding of dysfunctional relationship themes and modify maladaptive interpersonal exchanges, and empirical findings regarding this treatment approach.

I. DESCRIPTION OF TREATMENT

Insight-oriented approaches to couples therapy emphasize recurrent maladaptive relationship patterns that develop from early interpersonal experiences either in the family of origin or within other significant emotional relationships. These approaches vary in the extent to which they emphasize the unconscious nature of these relational patterns, the developmental period during which these maladaptive patterns are acquired, and the extent to which interpersonal anxieties derive from frustration of innate drives. However, a shared focus of insight-oriented strategies are previous relationship injuries resulting in sustained interpersonal vulnerabilities and related defensive strategies interfering with emotional intimacy, many of which operate beyond partners' conscious awareness. Consequently, insight-oriented approaches to couples therapy emphasize that partners' maladaptive relationship patterns are likely to continue until they are understood in a developmental context. This exploration and new understanding serve to reduce the couple's attendant anxiety in current relationships and permit them to develop alternative, healthier relationship patterns.

The general sequence of intervention components comprising insight-oriented couples therapy is presented in Table 1. Understanding of maladaptive relationship patterns begins with identifying exaggerated emotional responses to current situations—for example, intense hurt or anger in response to modest disapproval from one's partner. Both partners are encouraged to explore early relationship experiences that evoked similar feelings and to consider how these emotional responses may have originally developed as protective coping strategies or as tactics for satisfying interpersonal needs.

TABLE 1
Sequential Components of Insight-Oriented Couples Therapy

1. Identifying exaggerated emotional responses to current situations.
2. Framing these responses as acquired affective dispositions in a developmental context.
3. Identifying affective coping strategies that interfere with higher relationship values.
4. Promoting resolution of these developmental conflicts through interpretive and related cathartic techniques.
5. Promoting alternative coping strategies that enhance relationship intimacy.

An essential prerequisite to interpretation of relational themes is a thorough knowledge of each partner's relational history. Critical information includes not only the pattern of relationships within the family of origin, but also relational themes in the family extending to prior generations. Beyond the family, intimate relationships with significant others of both genders provide insight regarding prior struggles with such issues as perceived acceptance and valuation by others, trust and disappointment, stability and resilience of relationships to interpersonal injury, levels of attachment and respect for autonomy, and similar relational themes.

Initially, previous relationships are explored without explicit linkage to current relational difficulties, in order to reduce anxiety and resistance during this exploration phase. Both partners are encouraged to remain "intently curious" about their own relational history but to refrain from premature interpretations that may be either incorrect, incomplete, or excessively self-critical. Just as important is for the individual's partner to adopt an accepting, empathic tone during the other's developmental exploration, encouraging self-disclosure in a supportive but noninterpretive manner.

Gradually, as the couple continues to explore tensions and unsatisfying patterns in their own relationship, both partners can be encouraged to examine ways in which exaggerated emotional responses to current situations have at least partial basis in affective dispositions and related coping styles acquired in the developmental context. Developing a shared formulation of core relationship themes is a critical antecedent to subsequent linkage of these themes to current relationship exchanges. Both individuals can be helped to understand that, whereas certain relational coping strategies may have been adaptive or even essential in previous relationships, the same interpersonal strategies interfere with emotional intimacy and satisfaction in the present relationship.

In insight-oriented couples therapy, the therapist's direct access to exchanges between partners affords a unique opportunity for linking enduring relationship themes to current relationship events. Rather than interpreting exaggerated responses that distort exchanges between either partner and the therapist, the focus is on partners' own exchanges in the immediate moment. Interpretations emphasize linkage of each partner's exaggerated affect and maladaptive responses to his or her own relationship history, emphasizing the repetition of relationship patterns and their maintaining factors in the present context. In linking the couple's current struggles to enduring relationship patterns the therapist encourages attention to the following: How does the immediate conflict between partners relate to core relationship themes explored earlier in the therapy? What are each person's feelings toward the other and their desired response? What impact do they wish to have on the other in this moment? How do their perceptions regarding their partner's inner experience relate to their attitudes toward themselves? What fantasies do they have regarding their partner's possible responses? What kinds of responses from their partner would they anticipate being helpful in modifying their core beliefs about their partner, themselves, and this relationship?

In insight-oriented couples therapy, cognitive linkage of relational themes from early development to the current context is frequently insufficient for reconstructing or modifying these interpersonal patterns. The affective component of interpretation is seen in the reconstruction of these critical emotional experiences in the immediate context; new understanding by both partners often promotes more empathic responses toward both themselves and the other, facilitating more satisfactory resolutions to conflict. Often the individuals must be encouraged to work through previous relationship injuries, grieving losses and unmet needs, expressing ambivalence or anger toward previous critical others in the safety of the conjoint therapy, and acquiring increased differentiation of prior relationships from the present one.

Partners' insight into enduring maladaptive relationship themes makes possible but does not inevitably lead to changes in their own relationship. In addition to interpretive strategies, insight-oriented couples therapy promotes interactions that counteract early maladaptive schemas. Thus, the couple therapist

allows partners' maladaptive patterns to be enacted within limits, but then assists both partners in examining exaggerated affective components of their present exchange. Partners' exaggerated responses are framed as acquired coping strategies that interfere with higher relationship values such as intimacy, trust, altruism, and compassion. Interpretations of the developmental context underlying the current unsatisfactory exchange help both partners to depersonalize the noxious effects of the other's behavior, to feel less wounded, and consequently to be less reactive in a reciprocally negative manner.

Both individuals are encouraged to be less anxious and less condemning of both their own and their partner's affect, and are helped to explore and then express their own affect in less aggressive or antagonistic fashion. Throughout this process, each individual plays a critical therapeutic role by learning to offer a secure context in facilitating their partner's affective self-disclosures in a softened, more vulnerable manner. The couple therapist models empathic understanding for both partners and encourages new patterns of responding that enhance relationship intimacy. That is, by facilitating the nonoccurrence of expected traumatic experiences in the couple's relationship, both individuals are able to challenge assumptions and expectations comprising underlying maladaptive schemas. Thus, therapeutic change results from the experiential learning in which both partners encounter relationship outcomes different from those expected or feared. In response, partners' interactions become more adaptive and flexible in matching the objective reality of current conflicts and realizing opportunities for satisfying more of each other's needs.

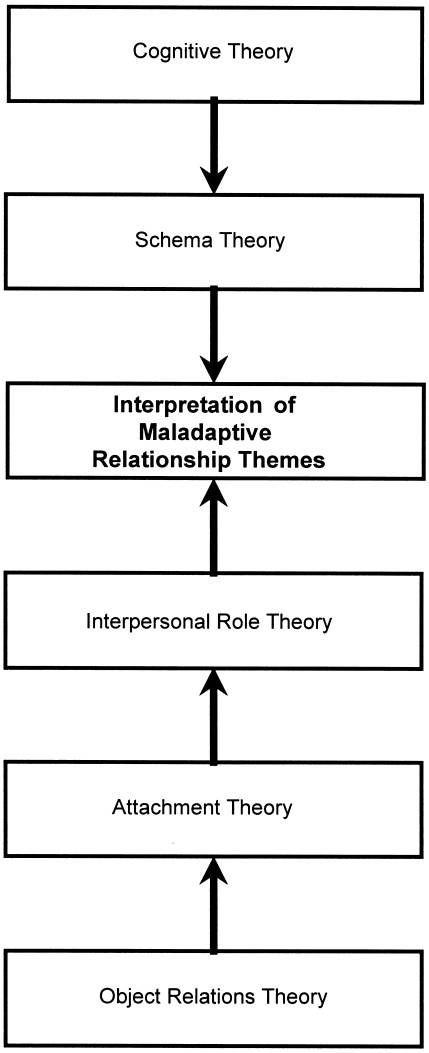

FIGURE 1 Theoretical approaches emphasizing affective and developmental components of couples' distress.

II. THEORETICAL BASES

Couple interventions emphasizing the interpretation of maladaptive relationship themes derive from diverse theoretical approaches that can be placed on a continuum from traditional psychoanalytic techniques rooted primarily in object relations theory to schema-based interventions derived from more traditional cognitive theory (see Figure 1).

In its most orthodox formulation, insight-oriented couples therapy derives from object relations theory and its central tenet that the primary drive in infants is to secure attachment to the mother. From interactions primarily with the mother, infants develop internalized images of the self, images of significant others, and sets of transactions connecting these images or objects. From an object relations perspective, maladaptive relationship patterns of adults reflect enduring pathogenic introjects that give rise to inevitable frustration when these are projected onto relationships with significant others. In a distressed marriage, partners' pathogenic introjects interact in an unconscious, complementary manner resulting in repeated disappointments culminating in persistent conflict. Consequently, the goal of psychoanalytically oriented couples therapy is helping partners to modify each other's projections, to distinguish these from objective aspects of their own self, and to assume ownership of their own projections.

Evolving from object relations theory, attachment theory emphasizes the importance of emotional closeness to others as an innate survival function from which infants develop information-processing capabilities and emotional responses intended to foster secure emotional bonds. From an attachment perspective, difficulties in intimate adult relationships may be viewed as stemming from underlying insecure or anxious models of attachment. Partners' dominant emotional experiences drive reciprocal feedback loops maintaining such behaviors as excessive clinging or avoidance. Susan Johnson and Leslie Greenberg developed "emotionally focused couples therapy" (EFT) from an attachment theory perspective.

Interpersonal role theory regards the persistence of maladaptive interpersonal patterns as resulting from their reinforcement by the responses of significant others. Rather than stressing constructs of projective and introjective identification, interpersonal theory emphasizes the unconscious assignment of specific roles to oneself and others in which feared relational events are elicited and enacted by the individual in his or her interactions with others.

Schema theory emphasizes relationship schemas extending beyond attachment to the mother (object relations theory) or significant others (attachment theory) to consider more generally how early relationship experiences influence adult intimate relationships. Although schema theory is linked more closely to traditional cognitive theory than to psychodynamic theory, schema-based approaches to couples therapy overlap considerably with more traditional insight-oriented strategies in their emphasis on interpretation of interpersonal exchanges within the therapy session as a vehicle for change, attention to affect during the processing of schema-related events, and their emphasis on the childhood origins of maladaptive schemas and the emotional reworking of these early experiences.

Drawing on earlier psychodynamic formulations, Douglas Snyder and colleagues described an insight-oriented approach to couples therapy emphasizing affective reconstruction of previous relationship injuries. In affective reconstruction, developmental origins of interpersonal themes and their manifestation in a couple's relationship are explored using techniques roughly akin to traditional interpretive strategies promoting insight, but emphasizing interpersonal schemas and relationship dispositions rather than instinctual impulses or drive derivatives. Previous relationships, their affective components, and strategies for emotional gratification and anxiety containment are reconstructed with a focus on identifying for each partner consistencies in their interpersonal conflicts and coping styles across relationships. In addition, ways in which previous coping strategies vital to prior relationships represent distortions or inappropriate solutions for emotional intimacy and satisfaction in the current relationship are articulated.

III. EMPIRICAL STUDIES

Among insight-oriented approaches to couples therapy, both the emotionally focused therapy developed by Susan Johnson and Leslie Greenberg and the affective reconstructive therapy described by Douglas Snyder and colleagues have been shown to be effective in reducing couples' distress and improving relationship satisfaction.

Several controlled trials of EFT have been conducted by Johnson, Greenberg, and colleagues—yielding an average effect size of 1.3, indicating that the average couple receiving EFT was better off at the end of treatment than 90% of couples in no-treatment control conditions. Findings have indicated that roughly 70% of couples receiving EFT experience significant reductions in distress in 8 to 12 sessions, and that treatment effects remain stable or improve over time. Research on the process of EFT suggests that engagement with emotional experience and interactional shifts are the active ingredients of change in this approach.

Douglas Snyder and Robert Wills compared their insight-oriented approach emphasizing affective reconstruction with a traditional behavioral couples therapy emphasizing communication skills training and behavior exchange techniques. Thirty couples were randomly assigned to each of these two treatment conditions, and 20 couples were assigned to a wait-list control group. At termination after approximately 20 sessions, couples in both treatment modalities showed significant gains in relationship satisfaction compared to the control group. The effect sizes for both treatments were approximately 1.0, indicating that the average couple receiving either treatment was better off at the end of treatment than 85% of couples in the control condition. By termination, 73% of couples receiving the insight-oriented therapy and 62% of couples receiving the behavioral therapy experienced significant improvement. In addition, couples in both treatment conditions generally maintained their therapeutic gains at 6 months following termination.

However, Snyder and colleagues followed up couples in their treatment study 4 years later and found striking

differences between couples treated with insight-oriented versus traditional behavioral therapy. At 4 years following treatment, 38% of the behavioral couples had experienced divorce, in contrast to only 3% of couples treated in the insight-oriented condition. Based on these findings, Snyder and colleagues argued that spouses' negative views toward their partner's behavior are modified to a greater degree and in a more persistent manner once individuals come to understand and resolve emotional conflicts they bring to the marriage from their own family and relationship histories.

IV. SUMMARY

An important source of couples' difficulties includes partners' emotional injuries from previous relationships resulting in sustained interpersonal vulnerabilities and related defensive strategies interfering with emotional intimacy. Insight-oriented couples therapy affords partners a unique opportunity to free themselves from recurrent maladaptive relationship patterns and pursue the rich emotional rewards that intimate relationships offer.

See Also the Following Articles

Behavioral Marital Therapy ■ Family Therapy ■ Interpersonal Psychotherapy ■ Object Relations Psychotherapy ■ Parent–Child Interaction Therapy ■ Psychoanalytic Psychotherapy and Psychoanalysis, Overview ■ Psychodynamic Couples Therapy ■ Sex Therapy ■ Spouse-Aided Therapy ■ Structural Analysis of Social Behavior

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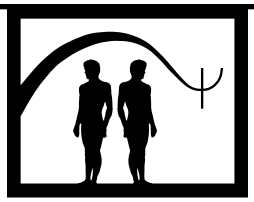

Coverant Control

E. Thomas Dowd

Kent State University

I. Description of Treatment
II. Theoretical Bases
III. Applications and Exclusions
IV. Empirical Studies
V. Case Illustration
VI. Summary
Further Reading

GLOSSARY

behavioral rehearsal A covert, imaged-based rehearsal of a desired sequence of behavior or course of action.
coverant A covert (internal) operant or response.
covert conditioning The reinforcement, punishment, or extinction of covert (private) events to alter their frequency.
extinction The decrease in the probability of a behavior due to lack of reinforcement.
homogeneity assumption The assumption that all categories of behavior, covert and overt, follow the same laws.
hypnotic susceptibility (trance capacity) The ability to enter a hypnotic trance and to experience a wide variety of perceptual alterations. It is relatively invariant across time and is normally distributed in the population. It may be related to the ability to vividly imagine.
implosive therapy (flooding) Reduction of fear responses by repeated exposure to images of the feared situation without being able to reduce the fear by avoidance.
interaction assumption The assumption that the categories of behavior—overt, covert, and physiological—interact with each other in a reciprocal fashion.
learning assumption The assumption that all behaviors are controlled by the same laws.
modeling (vicarious learning) An increase or decrease in the probability of a behavior that results from observation of a model being reinforced or punished rather than from direct reinforcement or punishment.
negative reinforcement Any consequence that increases the probability of an antecedent response by the withdrawal of the consequence.
operant Any individual response that operates on the environment.
positive reinforcement Any consequence that increases the probability of an antecedent response by its application.
Premack Principle The reinforcement of a lower probability response by a higher probability response.
private event An event or behavior observable only by the observing individual, not by the observing community.
punishment Any consequence that decreases the probability of an antecedent response by its application.
systematic desensitization Reduction of fear responses by repeated pairing images of the feared event with relaxation in a graduated hierarchy.

I. DESCRIPTION OF TREATMENT

In order to modify coverants, psychologists engage in covert conditioning or the conditioning by behavioral procedures in order to control private events. There are several types of covert conditioning procedures, each designed to achieve different results. Four of them, covert sensitization, covert extinction, covert response cost, and the self-control triad (thought-stopping) are designed to decrease the frequency of unde-

sirable behaviors. Two of them, covert positive reinforcement and covert negative reinforcement, are designed to increase the frequency of positive behaviors. Covert modeling can be used to either decrease or increase a target behavior. I will describe each in turn.

A. Covert Sensitization

This is a procedure designed to reduce the frequency of an undesirable behavior by pairing it in imagery with an aversive stimulus (e.g., a nauseous scene). Three aspects are important. First, classical conditioning is used by repeatedly pairing the undesirable behavior with the unpleasant scene. Second, escape conditioning is provided through the use of negative reinforcement whereby the reduction in the undesirable behavior is paired with positive feelings when the unpleasant scene is terminated. Third, it is helpful to relax the client first. For example, a therapist might instruct a client to graphically and in detail visualize how nauseous he feels when he sees a pack of cigarettes and then imagine himself feeling much better as he turns away from the cigarettes. This procedure has been used in hypnotic contexts as well as in imagery. The outcome probably depends on the client's ability to visualize, which in turn may be related to hypnotic susceptibility. This procedure was widely used at one time, more than any other covert conditioning procedure, and there has been research documenting its effectiveness, although other variables (such as expectancy) may be involved as well.

B. Covert Extinction

In this procedure, clients are instructed to imagine performing an undesirable behavior (the target behavior) and then not being reinforced for that behavior. For example, a client who talks too much will be instructed to imagine herself talking with no one listening.

C. Covert Response Cost

In this procedure, clients are instructed to imagine performing an undesirable behavior and then to imagine that they have no reinforcer for that behavior other than what is maintaining the response. This is similar to covert extinction except that in covert response cost there is a reinforcer but only the original one. There is no other reinforcer so there is a cost to making the response because other responses might provide more reinforcement.

D. Self-Control Triad (Thought-Stopping)

This procedure consists of three parts (hence the term "triad"). First, clients are instructed to shout "stop" to themselves (preferably not aloud, especially in public!) whenever they think of the undesirable behavior or thought. Second, they are instructed to take a deep breath, exhale, and relax. Third, they then imagine a pleasant scene as a reward for terminating the undesirable thought. Thus, negative reinforcement or escape conditioning is involved. Less obvious variations of this procedure have been used such as snapping a rubber band on one's wrist as an aid to stopping the thought or cognitive distraction from the intrusive thought to another image. The self-control triad can be useful for clients who are plagued by constant negative ruminations.

E. Covert Positive Reinforcement

In this procedure, clients are asked to imagine the positive target behavior and then to imagine a pleasant scene. For example, a client who has a fear of flying may be asked to imagine herself walking comfortably onto a plane, sitting in her seat, and then imagining a pleasant scene such as lying on a sunny beach. Thus, the pleasant scene acts as a positive reinforcer for the image of walking comfortably onto a plane.

F. Covert Negative Reinforcement

In this procedure, clients are asked to imagine an aversive situation or event, then to terminate this image, and immediately imagine a response to be increased in frequencey. For example, a man might be asked to imagine himself arguing with his wife (an aversive event) and to switch immediately to imagining himself making an assertive response to her. Thus, the termination of the aversive event is reinforced by the image of the new assertive response.

G. Covert Modeling

In this procedure, clients are asked to imagine observing a model performing the target behavior and then to imagine either a reinforcing or punishing consequence applied to the model's behavior. For example, a client with a fear of authority figures may imagine a model acting assertively with her boss and being reinforced by the boss's change of mind. This should result

in an increase in the probability of assertive responses in the future. Or, an overly aggressive client may be asked to imagine a model acting overly assertive with her boss and being punished by the loss of her job. This should result in a decrease in the probability of aggressive responses in the future.

Coverant control is ideally suited for self-control training. Its reliance on imagery-based procedures makes it extremely flexible and adaptable to a wide variety of client situations. Therapists can train clients in their offices to use these procedures in their daily lives.

Covert behaviors can serve a variety of functions. First, they may act as antecedents of other behaviors. They become the covert cues for subsequent behavior. For example, fear and avoidance of many objects are due to covert images of what might happen if one is placed in the fear-producing situation. The most prominent examples of changing the cuing functions of these covert images are systematic desensitization and "flooding" or implosion therapy. Both of these procedures have been shown by research to be effective in modifying subsequent behavior, though probably not for the reasons originally thought. In systematic desensitization, relaxation is used to change the covert cues that arouse the fear and avoidance so that it is no longer aroused to the same degree, beginning with covert cues low on the anxiety-producing hierarchy and gradually moving higher. In flooding, one begins at the top of the fear-producing hierarchy and uses repeated exposure through imagery to the fear-producing situation until it no longer evokes the same response. Other techniques for changing antecedent covert cues, such as focused attention, hypnosis, biofeedback, meditation, and autogenic training may also be effective in changing subsequent behavior.

Covert behaviors can also act themselves as target behaviors to be changed. Perhaps the best-known example of this procedure is Donald Meichenbaum's original self-instructional training. In this procedure, negative self-statements, such as, "I know I'm going to fail!" are gradually replaced with more adaptive self-statements, such as, "If I take my time, I know I can succeed." Therapists model these adaptive self-statements and train the clients how to use them. This procedure has been applied to a variety of covert target behaviors, such as test anxiety, impulsivity, and schizophrenic "crazy talk." Thought-stopping, described earlier, is another example of covert behaviors as target behaviors. Indeed, the cognitive therapies developed by Aaron T. Beck and Albert Ellis consist in large part of modifying covert target behaviors, which are called negative self-statements. Clients gradually learn how to identify their negative self-statements (negative covert target behaviors) and replace them with more positive and adaptive self-statements (positive covert target behaviors).

Covert behaviors can also act as consequences; that is, they can themselves function as reinforcers and punishers. Imagined consequences of specific actions have long been known to exert a powerful control on behavior and emotion. Thus, changing an image about the likely consequence of an action can change the action. Behavioral rehearsal, or the imaginal rehearsal of a desired behavioral sequence of action, is an example. In this procedure, clients are asked to imagine themselves engaging in a sequence of action they desire, which is reinforcing, as well as providing them with new ideas for action. This imagined course of action can be modified in discussions with the therapist. Covert sensitization, covert positive reinforcement, covert negative reinforcement, covert extinction, and covert modeling, as described earlier, are also examples of covert behaviors used as consequences.

II. THEORETICAL BASES

Although it has been known by other names for centuries, coverant control was first identified and described by that name by Lloyd Homme. The term coverant is simply a contraction of the terms covert operant and refers to internal responses, such as thinking, fantasizing, daydreaming, feeling, or imagining. They are responses than laypeople would call mental operations. Certain physiological sensations would also be classed as coverants. Thus, coverant control refers to control of private mental or physiological events, observable only to the observing individual, rather than to the control of events observable to everyone.

Coverant control is assumed to be derived from the same behavioral laws, primarily those of operant conditioning, that govern overt control, or the control of publicly observable behavior, and coverants are subject to the same laws of learning. This is known as the learning assumption. Furthermore, there is a continuity between overt and covert behavior such that conclusions about one class of behavior can be transferred to the other. This is known as the homogeneity assumption. Coverants can be increased in frequency via the technique of positive or negative reinforcement or decreased in frequency via the technique of punishment and extinction. Thus, coverant control is a behav-

iorally oriented control method, differing from overt behavior control only in the observability of the events. Coverant control is therefore an aspect of behavioral psychology, not cognitive psychology. However, coverant control is based heavily on the imagery process or, in some cases, hypnosis and hypnotic imagery. Indeed, it operates primarily on the use of imagining because this provides the vehicle by which the private events are assessed and the reinforcing or punishing consequences are administered. Essentially, the imagery processes act as mediating stimuli between the reinforcing or punishing consequence and the antecedent event.

Coverant control also uses modeling or vicarious learning as originally developed by Albert Bandura. He discovered by extensive research that it was possible to increase or decrease the probability of a behavior without an individual being exposed directly to reinforcing or punishing consequences. Rather, it was sufficient to observe a model being reinforced or punished for learning and behavior change to occur in an observer. Bandura called this "vicarious conditioning" and he argued that it is the basis on which most human learning occurs. Bandura also distinguished between a coping model (who made mistakes) and a mastery model (who did not) and found that the former was actually a more effective model. Perhaps this is true because clients can more easily identify with a coping model. Indeed, as Bandura has noted, people even respond in accordance with their perception of a reinforcer rather than an actual reinforcer itself.

Coverant control also makes use of the Premack Principle. The Premack Principle states that behaviors engaged in with a greater probability can be used as reinforcers for behaviors engaged with a lower probability or not at all. For example, studying behavior in students, which is a lower probability behavior, can be reinforced by watching television, which is a higher probability behavior. Thus, students may set a contract by which every 2 hours of diligent study will be rewarded by a half-hour of television. It is important to note, however, that the high probability behavior must be intrinsically reinforcing to the individual and not simply one that carries little or no reinforcement value.

Coverant control assumes that the various categories of behavior, such as overt, covert, and physiological, interact with and influence one another in ways that can be derived from basic laws of learning. This is known as the interaction assumption. In other words, thinking, behaving, and feeling all influence each other reciprocally. It should be noted, however, that what are commonly called "emotions" or "feelings" may be essentially a situationally specific cognitive labeling of a physiological arousal, the emotion thus identified being dependent on the social context in which the arousal is noted and labeled. In addition, it is often difficult to identify a "first cause" for the content of this interacting system, although in most situations it is probably behavior.

Although it is not usually discussed as such, covert control can be based on classical conditioning. Many negative coverants (e.g., negative images) were originally conditioned by being paired with negative life events. For example, extreme trauma, such as occurs in wartime combat, can result in (by classical conditioning) very negative images that occur repeatedly as flashbacks. These flashbacks can be seen as a form of covert events. Repeatedly pairing these flashbacks, spontaneous or elicited, with more positive feeling states (such as relaxation) or positive self-statements may lead to a reduction in frequency and severity. In principle, any negative covert event might be reconditioned by being paired repeatedly with a more positive event or other coverant (image).

III. APPLICATIONS AND EXCLUSIONS

Coverant control only represents an extension of the basic laws of learning to internal, private events, that is, those observable only to the observing individual (the homogeneity assumption). Because these laws are thought to be universally applicable to humans, regardless of various aspects of human diversity (the learning assumption), no racial, gender, or ethnic groups should be excluded. Coverant control has been applied to a variety of populations, including outpatient adult clients, children, and the elderly, as well as residential school, and hospitalized clients. However, different events or consequences will be differentially rewarding (or aversive) to different cultural or other groups; indeed to different individuals within those groups. Therefore, behavioral psychologists should carefully assess which consequences are likely to be reinforcing or punishing to different individuals within and across these groups. It cannot be assumed that common reinforcers or punishers are reinforcing or punishing to everyone.

In addition, individuals vary considerably in the extent to which they are able to create vivid images and therefore to make use of imagery-based procedures.

This ability has been linked to hypnotic susceptibility, which is normally distributed in the population. Although those individuals who have difficulty creating vivid mental images may improve somewhat with practice, they are unlikely to become imaging virtuosos. Hypnotic susceptibility has been shown to be a relatively stable characteristic of human functioning.

Because the internal behaviors to be changed cannot be directly observed by others and the reinforcing consequences must be self-applied, it is especially important that clients be motivated and willing to disclose appropriate target behaviors. Clients who are not self-referred may lack the motivation to make coverant control methods useful. In addition, they are probably not appropriate for crisis intervention because immediate action may be required by an external agent.

There are also certain people for whom coverant control might be difficult or not applicable because of their inability to understand or follow instructions. For example, very young children may not yet possess the ability to concentrate and create vivid images. Individuals with severe mental or behavioral disorders, or significant intellectual deficits, may also have great difficulty using imagery-based procedures. However, even within these populations, certain individuals may have the capacity, at least in part and with training, to formulate and use images. Thus, no population should be excluded from this procedure *only* on the basis of group membership. Indeed, for all clients, regardless of group membership, it is very helpful prior to treatment to conduct an assessment of ability to use imaginative procedures.

IV. EMPIRICAL STUDIES

Of all the various covert conditioning procedures, covert sensitization has been the most empirically investigated. Early studies showed that it was effective for a wide variety of problems with lasting effects. Later studies by David Barlow and his colleagues in the late 1970s supported this conclusion. Joseph Cautela and Albert Kearney summarized research from the 1970s and early 1980s indicating that in general covert positive reinforcement and, to a lesser extent, covert sensitization was effective. However, the research evidence was mixed and the mechanism often unclear. Other studies from the 1970s indicated that coverant control was effective in increasing the rate of positive self-evaluations, reducing neurotic depression, losing weight, and reducing annoying personal habits. However, it was difficult to rule out the causal effects of other variables.

Curiously, almost no research appears to have been conducted on the effectiveness of coverant control since then. A survey of the literature up to early 2000 turned up almost exclusively publications describing theoretical arguments and procedural descriptions. One study published in 1981 by Joseph Cautela found covert reinforcement to be more effective than reciprocal inhibition in modifying pain response. Another study published in 1986, however, failed to support Cautela's theoretical explanation of covert conditioning as based on operant conditioning.

V. CASE ILLUSTRATION

Although covert sensitization is the proceduce most commonly used and investigated in the coverant control literature, it has been applied mostly to the elimination or reduction of entrenched habit disorders such as smoking. Therefore, in this section I will present an example of a more versatile technique that can be applied to increasing the frequency of a wide variety of positive behaviors: covert positive reinforcement. It can be used to modify both maladaptive behavior and avoidance behavior. In the operant conditioning literature, positive reinforcement has been shown to be more effective in general than alternative behavior change methods.

"Joe"(not his real name) was a young man of 20 who was highly date-phobic. Although he had been popular in high school among the boys and had some casual female acquaintances, he had not had a real date other than a contrived encounter with an acquaintance of his aunt 2 years previously. That experience had proved to be extremely anxiety-provoking for him and he spent the entire evening in a sweat thinking of what to say next. His anxiety had rubbed off on the woman who talked less and less in the course of the time they were together. As a result, whenever he thought of calling a woman for a date, his mind flashed back to that one painful encounter and he became so anxious that he avoided thinking of dating to eliminate the anxiety. Interestingly, he was able to relate to adult women who were not potential romantic partners relatively easily and could even talk with women his age who were unavailable for other reasons. It was only when the female in question was a potential date that his anxiety surfaced.

The therapist soon determined that Joe's avoidance behavior was continuously reinforced by escape from

the anxiety-producing image of his agonizing first (and only) date. This image with its associated feelings was so powerful that it appeared to be unwise to attempt to eliminate it. Accordingly, the therapist decided to use covert positive reinforcement instead and to teach Joe this technique so he could use it whenever he interacted with a potential date.

The therapist's first task was to identify a positive reinforcer that Joe could use. After an extended discussion, it appeared that the best one was Joe's love of fishing. Nothing was as rewarding to him or as relaxing as sitting in a boat with his line and hook in the water. It hardly mattered if he caught anything; indeed the activity required to "land" a fish disturbed his reverie. Accordingly, the therapist asked Joe to relax, close his eyes, and to imagine the following scene as vividly as he could:

> Joe, I'd like you to imagine sitting in a boat, fishing … with your line in the water, your bobber floating a few feet away. It's a warm summer day and you can feel the sun on your body, feel its warmth penetrate your entire body. The boat is bobbing gently on the lake and you can hear the lapping of the water on the side of the boat. There is a very slight breeze, just enough so you can feel it but not enough so it is distracting. As you sit there, you can feel yourself relaxing more and more—with all the warmth and peace filling your body and your mind.

This scene was repeated with minor variations until Joe could easily visualize and experience it, along with the associated feelings of relaxation, peace, and warmth. The therapist then gave Joe the following instructions:

> Joe, in a minute I'm going to ask you to imagine a scene as vividly as you can. When you have that image firmly in your mind, raise the index finger of your right hand (or left hand if Joe is left-handed). When you do that, I'm going to say the word "reinforcement" to you and I want you to imagine the fishing scene we practiced earlier. As soon as that scene is clear, raise your finger again. Ok?

After Joe had closed his eyes and relaxed, the therapist then presented the following scene:

> Now, Joe, I want you to imagine that you meet a woman on the street who you know from your friends would like to date you. You begin to walk toward her. Raise your finger when this scene is clear. ("reinforcement"). Now, imagine her beginning to speak with you; raise your finger when this is clear. ("reinforcement"). Now imagine yourself beginning to speak with her; raise your finger when this is clear. ("reinforcement"). Now, imagine yourself finishing your conversation with her and beginning to leave; raise your finger when this is clear ("reinforcement"). Good, now terminate that scene from your mind.

After several repetitions of this extended scene paired with the reinforcing scene, Joe was able to imagine himself meeting and speaking with available women The therapist then asked him to practice this sequence at home on a regular basis. When he was able to do this, Joe was asked to practice it in an actual situation, taking care not to extend the conversation too long at first. With repeated practice, Joe was able to hold longer and longer conversations with women.

In conducting covert reinforcement, it is important to repeat the procedure many times in order to associate the aversive scene with the reinforcing scene. In this manner, the former may gradually become associated with the latter instead of with anxiety. The proper selection of the reinforcing scene is crucial because it should be important enough to overcome the considerable previous conditioning of the aversive situation.

VI. SUMMARY

Coverant control is a set of procedures that grew out of primarily operant conditioning methods and is applied to covert, or internal, behaviors rather than external. It uses many of the same techniques as overt conditioning and is based on the same theoretical explanations. According to this model, internal activities such as images, thoughts, and feelings, are considered to be behaviors following the same laws of conditioning as external activities. It is potentially quite flexible because it can be implemented anywhere by clients themselves. There may be individual differences in how vividly clients can visualize images and therefore use the techniques. Although some research findings have demonstrated support for the procedures, especially covert sensitization, others have not and it has not been shown that coverant control is generally more effective than alternative procedures. In addition, research has not clearly demonstrated that the hypothesized theoretical mechanisms actually account for the change. Since the early 1980s, the literature on the topic has consisted almost entirely of theoretical and procedural aspects and the number of articles has declined from the 1960s and 1970s.

See Also the Following Articles

Covert Positive Reinforcement ■ Covert Rehearsal ■ Covert Reinforcer Sampling ■ Extinction ■ Implosive Therapy ■ Modeling ■ Negative Reinforcement ■ Positive Punishment ■ Systematic Desensitization ■ Thought Stopping

Further Reading

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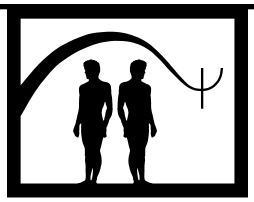

Covert Positive Reinforcement

Gerald Groden and June Groden

The Groden Center, Inc. and Brown University

I. Description of Treatment
II. Theoretical Bases
III. Empirical Studies
IV. Summary
Further Reading

GLOSSARY

analogue studies Studies similar to clinical studies but not using clinical patients or clinical level problems.

antecedent A preceding event, condition, or cause.

baseline Measures taken on a behavior before initiating a treatment program. This is used to evaluate the effect of a behavior treatment program.

cognitive restructuring A cognitive-behavioral procedure in which the client is assisted in utilizing different cognitive perspectives or frameworks in the process of treatment.

control group A contrast group used in experiments to help ensure that study findings are not due to confounding factors, such as subject expectation.

covert extinction An imaginal procedure in which the reinforcer is no longer delivered for a previously reinforced response that results in a decrease in the probability or likelihood of the response.

covert sensitization An imagery-based treatment in which clients imagine themselves engaging in an undesired behavior (e.g., overeating) and then imagine an aversive event or state. The treatment is designed to decrease the undesired behavior.

demand/request phase An experimental control phase in which a request is used to rule out the possibility that the request, or implied request, affected the behavior.

dependent measures Measures of a variable that is expected to change as a result of experimental events or changes in these events.

functional assessment Evaluation of the behavior and of antecedents and consequences associated with the behavior in order to understand the role of the antecedents and consequences in the occurrence of the behavior.

multiple baseline An experimental design that demonstrates the effect of a contingency by introducing the contingency across different behaviors, individuals, or situations at different points in time. A causal relationship between the experimental contingency and behavior is demonstrated if each of the behaviors changes only when the contingency is introduced.

picture rehearsal (or cognitive picture rehearsal) A therapeutic procedure developed by June Groden in which the client views and recites a sequence of scenes involving a behavior to be changed and the consequence of that behavior.

placebo An inactive substance or condition serving as a control in an experiment.

reciprocal inhibition Weakening the bond between an anxiety-evoking stimulus and an anxiety response by pairing an anxiety-inhibiting response with an anxiety-evoking stimulus.

reinforcement An increase in the probability or likelihood of a response when the response is immediately followed by a particular consequence. The consequence can be either the presentation of a positive reinforcer or the removal of a negative reinforcer.

response prevention Preventing a response in the presence of an event that usually produces it.

satiation A loss of reinforcer effectiveness that occurs after a large amount of the reinforcer has been delivered.

self-control triad The self-control triad, developed by Joseph Cautela, is a combination of three techniques: thought-stopping, relaxation, and pleasant imagery. When an individual wants to decrease the probability of a behavior, he or she says to himself or herself "STOP." He or she takes a deep breath, relaxes, and imagines a pleasant scene.

systematic desensitization The systematic presentation of successively stronger anxiety-producing stimuli in the presence of an anxiety-inhibiting response resulting in a reduction of anxiety.

target behavior The behavior to be altered during a behavior change program.

visual imagery A procedure in which one creates an image in one's mind of an object or event, generally with one's eyes closed.

I. DESCRIPTION OF TREATMENT

A. Definition of Covert Positive Reinforcement

Covert positive reinforcement (CPR) is a procedure that was developed in 1970 by Joseph R. Cautela under the rubric of covert conditioning. Other covert conditioning procedures are covert sensitization covert extinction, covert response cost, and the self-control triad. These procedures were designed to decrease the frequency of behaviors. Covert positive reinforcement and covert negative reinforcement increase the frequency of desirable behaviors.

Positive reinforcement occurs when the behavior to be increased is followed by a consequence or event that results in an increase in the probability of that behavior. Covert positive reinforcement occurs when an individual imagines the behavior to be increased and then imagines a pleasant consequence or reward. This results in an increase in the probability of that behavior.

There are three main ingredients in the CPR procedure: (1) identifying the antecedent event; (2) selecting the target behavior; and (3) selecting an appropriate reinforcer or pleasant event. The use of functional assessment of behavior or a behavioral assessment is a prerequisite to designing a covert positive reinforcement program and provides the information that is necessary to design the scripts for the covert positive reinforcement scenes.

B. Presentation Formats

1. Visual Imagery

In implementing CPR, clients are instructed to imagine a scene in which they are performing the behaviors to be increased. The reinforcing scene should be clearly visualized within 5 seconds after imagining this scene. One pair of target and reinforcing scenes is referred to as a single trial. In 1986, Joseph Cautela and Albert Kearney stated that an intertrial interval of at least 1 minute is recommended in order to avoid inhibition of reinforcement and too rapid a growth of inhibitory potential.

The therapist first presents the scene asking clients to keep their eyes closed and imagine the scenes that are described. Sensory details should be included (e.g., hear the sound of the ocean, smell the flowers). The client then repeats the scene. When the client first imagines the scene, the therapist asks questions to see if the client is visualizing (e.g., what does the ocean look like?). Audio tapes can also be used for home practice. Cautela recommends that at least 60 scenes be completed (for a typical adult) over a period of time before results are expected. After completing the practice scenes, when a situation occurs that involves the target behavior, the client is taught to recognize the antecedent, and repeat to himself or herself the behavior that is practiced in imagery and then use the appropriate behavior that has been rehearsed in imagery.

2. Picture Rehearsal

There are some individuals who have difficulty in visualizing the scenes. This may include persons with developmental disabilities or those who report problems in getting a clear visual image. June Groden, Joseph Cautela, Patricia LeVasseur, Gerald Groden, and Margaret Bausman in 1991 developed an adaptation of covert positive reinforcement by designing scenes that can be presented using written scripts or pictures that depict the scene and put it into the same format as the CPR procedure.

C. Designing a CPR Program

1. Identify the Antecedent Event

Antecedents are those events that precede the target behavior. These events can be people, places, time of day, or situations that influence the occurrence of the target behavior. Information obtained from the behavioral assessment should be incorporated into imagined scenes. Often, there are many different antecedents that influence a targeted behavior. In this case, scenes can be designed so that the antecedents are rotated when practicing the different scenes, or an antecedent that is nonspecific can be used. For example, if a person finds it difficult to socialize at parties or at work, the scene might either begin with "you are at a party" or "you are at work" or "you are somewhere" (nonspecific).

2. Identify the Target Behavior

Target behaviors can be identified in a number of ways: (1) self-report from either the client or in the case of children, legal guardians or caregivers; (2) paper-and-pencil surveys; or (3) natural observations. Establishing a baseline, which is taken prior to beginning any formal intervention, involves data collection to gather information about frequency, duration, and the topography of the behavior. The baseline data are then used to measure effectiveness of the procedure. It is also useful during the course of treatment. If there is not a positive change in the data or the trend line, modifications can be made to the scenes to incorporate new information and alter the scripts to reflect this new information.

3. Create a Personalized Menu of Pleasurable or Reinforcing Events

Each imagery scene in the CPR format should conclude with an imagined pleasant scene that is specific for each client. Information for these scenes can be obtained from self-report, paper-and-pencil surveys, or direct observations, particularly in free choice situations. Reinforcement sampling described by Teodoro Ayllon and Nathan Azrin in 1968 may also be used to acquaint individuals with reinforcers they may not have been exposed to previously. It is important to have a number of reinforcers from which to choose in order to prevent satiation (i.e., ice cream may not be as reinforcing to imagine following the consumption of an ice cream sundae).

D. An Example of a CPR Scene

In 1981 Avis Bennett and Joseph Cautela described the following CPR scene to increase the target behavior of not eating dessert:

> Imagine you are standing at the dessert table with your friends. As dessert is passed, you politely refuse, and feel good about staying on your diet.

This is followed by a pleasant scene:

> Imagine you are your ideal weight. You look really slim in your favorite color and style. Someone you like says to you, "Gee, you've lost weight. I've never seen you look so good."

E. Advantages of CPR

CPR has many advantages. All positive procedures are preferred over techniques that are aversive and put the individual at risk for discomfort, stress, or other side effects. In addition to sharing the advantages of all positive procedures, the advantages of using CPR include the following:

1. Scenes in the use of CPR can be adapted to various cognitive levels and learning styles.
2. It allows for more opportunities for practice and repetition that can be done overtly. As the number of trials increases, learning becomes stronger.
3. Spatial and temporal restrictions are not limited since the procedures are done in imagination. Environments can be created that are not accessible in overt situations.
4. The opportunities for generalization increase since many more scenes can be practiced in different settings and with different people without having to go to those settings or having the persons actually present.
5. An individual's general level of reinforcement can be increased by imagining pleasant events.
6. In order to administer the therapy, it is not necessary to interrupt daily life functioning (i.e., unlike the administration of tokens in a classroom, which interrupts the classroom program, CPR can be administered in another setting, and the change will occur in the classroom through the imagined practice).
7. There is no need to use materials or equipment that are difficult to carry or that are interfering.

CPR can be a preventative procedure. Problematic situations can be anticipated. Scenes of stressful antecedents and the appropriate response to them can be practiced in imagery. The stressful and aversive antecedent does not actually have to occur for the practice to take place. This can avert a problematic behavior when the aversive stimulus actually occurs and the patient exhibits appropriate behavior.

II. THEORETICAL BASES

Covert conditioning is a theoretical model that involves a set of assumptions about imagery-based procedures that change response frequency. Covert is the term used because the client is asked to imagine the target behavior and the consequences. The covert conditioning procedures are based on three main assumptions:

1. Homogeneity: This assumption implies a continuity between overt and covert behaviors. The covert and overt processes share similar importance and similar properties in explaining, maintaining, and modifying behavior.

2. Interaction: Covert events can influence overt events and overt events can influence covert events. In addition, these events can occur concomitantly.

3. Learning: Covert conditioning is based on the assumption that covert and overt behaviors are governed by laws of learning, primarily operant conditioning, and that overt and covert behaviors interact according to these same laws.

III. EMPIRICAL STUDIES

Most of the studies on this topic appeared in the early 1970s and 1980s shortly before the period in which studies in learning/conditioning techniques for therapeutic purposes waned and cognitive-based ones captured experimenters' and clinicians' interests. Many of these studies were not written or reviewed with the scientific rigor that we often find now in collaborative studies. In fact, it is only recently that rigorous study guidelines are receiving general acceptance. Earlier reviews of CPR were published by Donald Scott and Anne Rosentiel in 1975, Alan Kazdin and George Smith in 1979, and Michael Stevens in 1985. These concluded, with some reservations regarding study design and other problems, that evidence suggested that CPR was effective.

Literature utilized for this review were controlled experimental studies resulting from a literature search using the terms covert positive reinforcement and covert reinforcement. The search covered the period 1970, the time of the first article on CPR by Joseph Cautela, to the present. The search resulted in 34 articles. This literature contained both clinical research (8 studies), as well as analogue research, that is, research in which CPR was used to modify either clinical-type problems in persons who did not have them to the extent that they would be classified as patients, or nonclinical behaviors (26 studies).

A. Summary of CPR Effectiveness

In the clinical studies, the effectiveness of CPR was compared to one or more of the following conditions: an alternate treatment thought to have some empirical support; a placebo condition, in which the subjects thought that they were receiving treatment, but were not actually receiving it; and no-treatment. In the analogue studies, CPR was compared to an alternate treatment, an expectancy or attention group (analogous to placebo controls for the clinical studies), and/or a no-treatment group. Some of these studies included additional comparison groups for the purpose of testing the theory on which CPR is based.

Overall, in the clinical studies, CPR was more frequently superior to alternate treatment and placebo comparisons. This was also the case, although to a lesser extent, for no-treatment comparisons. The analogue experiments indicate CPR to be generally or at least equal to alternate procedures, with mixed results for expectancy or attention controls and no-treatment control comparisons. Although the majority of studies were analogue, because CPR was developed as a clinical procedure, it is thought that the results of the clinical studies should receive emphasis in judging CPR's therapeutic efficacy.

B. Discussion of Comparison Studies

1. Clinical Studies

Of the clinical studies, five utilized group designs. In two of these the effectiveness of CPR as a technique for effecting weight loss was evaluated. Two other studies involved test-taking anxiety reduction, while another concerned self-concept enhancement. There were also three single-case design studies. Two of these involved improving social behaviors in children with developmental disabilities and the third involved fear reduction in a college student. In the group studies, CPR was found to be more effective than an alternate treatment in one out of one comparison. CPR was also more effective than placebo controls in three out of four comparisons and more effective than no treatment in two out of three comparisons. The findings of the single-case studies were somewhat supportive of CPR.

2. Analogue Studies—Clinical-Type Behaviors

There were 13 analogue studies in which CPR was used to modify clinical-type problems in persons who did not have them to the extent that they would be characterized as patients. Study participants were generally college students participating in the studies as part of a course requirement and not because they were independently seeking treatment. Three of the studies were on attitude change, concerning attitudes toward persons with mental retardation, physical handicaps, or self-esteem; five involved fear reduction; and five involved test-taking anxiety reduction.

In all, five out of five studies comparing CPR to an alternate procedure reported CPR to be equal to, or more effective than, that procedure. Four out of seven studies, including a placebo control, found CPR to be superior to the placebo condition. Nine of the studies utilized a no-treatment control group. Of these, two found CPR to be superior. Thus in this group of studies CPR was more frequently equal to or superior to an alternate procedure, slightly more frequently superior to placebo, but not superior to no treatment.

3. Analogue Studies—Non-Clinical-Type Behaviors

There were 13 analogue studies in which the target behavior was nonclinical, such as influencing over- or underestimation of circle size, and the subjects were frequently college students. In 1 of these studies, subjects were patients hospitalized in a psychiatric facility. In four of the studies, the target behavior was increased tolerance to experimentally induced pain. In three studies the target behavior was attitude change, and the remaining six involved influencing verbalizations, circle size estimation, eye contact, and yawning.

In four comparisons with alternate procedures, CPR was more effective than these treatments in three of four instances. CPR was more effective in one of four comparisons with an expectancy condition. When compared to no-treatment conditions, CPR was superior in four of nine studies. An additional study in this category found CPR effective, but it did not lend itself well to this type of analysis. Thus, CPR was generally superior to alternate procedures, but not superior to expectancy or no-treatment conditions.

Several studies addressed the question of whether or not, when CPR proved efficacious, operant conditioning was responsible for its effect, as Cautela proposed. Some of these studies cast doubt on this crucial assertion and offered alternate explanations, such as reciprocal inhibition or exposure and response prevention.

4. Interpretation Problems

The introduction to the empirical studies review noted problems in past CPR research, making it difficult to render valid conclusions regarding its effectiveness. These problems have been noted by other reviewers as well. In addition to those already mentioned, these studies suffered from either not containing as many as 25 subjects per condition (a number recommended by Dianne Chambless and Steven Hollon in 1998 to be the minimum number for detecting differences between groups), different experimenters conducting different groups, or the experimenters conducting placebo or expectancy conditions not being blind to conditions. Frequently, subjects in these groups were not asked post-study whether or not they thought they were receiving treatment. A number of studies relied on subjects' reports regarding the extent they practiced CPR homework scenes that were assigned to them. Also, the articles frequently did not sufficiently describe the CPR procedures employed, used nonstandardized instructions and reinforcing stimuli, lacked no-treatment or placebo controls, and used unvalidated dependent measures. In addition, comparison treatments characterized in this review as alternate treatments considered to have some empirical support were often not carried out with as much richness as they might have been in actual clinical treatment. Nonuniform subject characteriestics, such as motivation, and variable experimenter characteristics, such as competence in procedures used, also characterized the literature. Finally, it should also be noted that CPR is a clinical procedure that, for maximal effectiveness, should be carried out in a highly individualized manner in which the clinician is sensitive and adjusts to the idiosyncrasies of the client. Group studies in which instructions are often taped and the procedures predetermined would be expected to put it at a disadvantage.

IV. SUMMARY

In summary, CPR is a learning-theory-based therapeutic procedure in which imagined target, behaviors, and consequences are substituted for overt ones. The literature suggests its effectiveness, but characteristics of the studies make it difficult to conclude this with any certainty. Future, improved studies will hopefully clarify the merits and mechanisms of this innovative and potentially promising procedure. Joseph Cautela was certainly one of the pioneers in the use of imagery in therapy and its incorporation into cognitive behavioral therapy, behavioral medicine, and sports psychology.

See Also the Following Articles

Assisted Covert Sensitization ■ Behavior Rehearsal ■ Coverant Control ■ Covert Rehearsal ■ Covert Reinforcer Sampling ■ Negative Reinforcement

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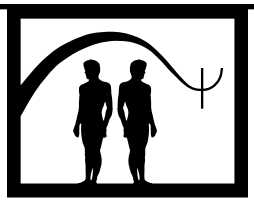

Covert Rehearsal

Zehra F. Peynircioğlu

American University

I. Overview
II. Types of Covert Rehearsal
III. Effectiveness of Covert Rehearsal
IV. Covert Rehearsal of Nonverbal Materials
Further Reading

GLOSSARY

autobiographical memory Memory for events from one's earlier life.
automatic encoding Committing to memory without any intention or effort.
depth of encoding Degree to which information is processed in a meaningful way when it is first encountered and committed to memory.
episodic memory Memory for specific personal experiences.
flashbulb memory Extremely vivid episodic memories that feel like they will never be forgotten.
know-type memory Memory for an event without the specific experience of encountering that event.
long-term memory Memory that lasts longer than a few minutes without active efforts to maintain it and survives the encoding of intervening events.
mnemonic devices Deliberate and systematic strategies to make remembering information easier.
motor memory Being able to do a physical action with greater facility after practice.
reaction time The time it takes to respond to a presented stimulus.
reception context In flashbulb memory research, remembering autobiographical information from when we received the news of a flashbulb event, such as where we were, who was with us, how we felt, and so on.
remember-type memory Memory for an event that includes not only the recollection of the event but also the experience of encountering that event.
serial recall Remembering information in the order it was presented.
short-term memory Maintaining a limited quantity of information in memory for a brief period of time.

In memory research, covert or mental rehearsal refers to silently thinking about events or items with the intention of learning them, or, if already learned, strengthening or simply refreshing memory for them. In this article, the aim is to focus on what is meant by different types of covert rehearsal and to review findings from some intriguing empirical studies that have explored various aspects of covert rehearsal.

I. OVERVIEW

The function of rehearsal is to improve performance. To this end, most rehearsal in life is not covert but overt. That is, it is observable and necessarily resembles the performance itself, such as an orchestra rehearsal or basketball practice. When it comes to memory performance, however, overt rehearsal is less popular because, among other reasons, people are often reluctant to think aloud

and share their private thoughts with other people while learning new information; it is often faster and more practical to think silently, and not all thoughts are verbally communicable. In addition, in studying rehearsal, asking participants to share their mental activity can create restrictive and artificial task demands, cramp the rehearsers' style, and thus confound the purpose of the research. Thus, what is more often engaged in as well as more often explored in memory research is covert rehearsal. We engage in covert rehearsal in such cases as when we study for a test or try to memorize a list of names. Its function is to improve memory performance by enabling one to remember more events or items and with more facility. Various types of mental activity can be thought of as covert rehearsal; not all covert rehearsal is effective, or, leads to long-term memory improvement; and covert rehearsal is possible with both verbal and nonverbal stimuli.

II. TYPES OF COVERT REHEARSAL

In general, as the word implies, covert rehearsal involves repetition, or thinking about the material over and over again. However, in a less strict sense, any mental processing engaged in after as well as any "extra" mental processing engaged in during the occurrence of an event or the presentation of a stimulus item can be considered as covert rehearsal. In those cases, continual repetition per se is not necessary, although the concept of repetition is still there because any further thinking about a target stimulus by definition involves the repetition of that stimulus. Indeed, it is possible to consider any further mental processing of the target events or items as covert rehearsal even if it is a one-shot deal and does not involve any continual repetition. Among such types of covert rehearsal might be imagery, reorganizing the target material, or even involuntarily thinking about the target material on being reminded of it by an unexpected cue, although in this article we focus primarily on intentional covert rehearsal, the types that we engage in to improve memory performance.

Simple, continual repetition is perhaps the most basic and intuitively obvious type of covert rehearsal. If we want to commit something to memory, we can keep repeating it in our minds until we can recite it without needing to look at the stimulus anymore. We can then further rehearse it to make this recitation even more comfortable. Such simple repetition is perhaps most useful in trying to learn something verbatim, such as a poem or lines in a play, or when the order of the to-be-recalled items (e.g., in serial recall) is important. In addition, it is probably the most commonly used type of covert rehearsal when we want to keep items in short-term memory, such as holding onto a phone number until we dial it, practicing our opening lines before starting a speech, or holding onto our words after having formulated just the right way of phrasing an answer to a question. It is the type of intentional covert rehearsal that probably requires the least amount of mental effort. Indeed, as R. S. Johnston, C. Johnson, and C. Gray showed in 1987, even 5-year-old children can engage in the effective use of such "inner speech" to remember words.

Other types of intentional covert rehearsal, especially those that are not necessarily dependent on simple repetition, require some creative thinking or thinking beyond the target stimuli at hand. For instance, imagery usually involves relating the target stimuli to pictorial or otherwise nonverbal entities or embedding them in more complex and usually perceptual scenarios. To be able to better remember, say, the word "viola," we may try to conjure up a visual image of the instrument, visualize its location in an orchestra, or try to mentally reconstruct how it sounds. Indeed, many mnemonic devices involve mentally thinking about the target stimuli further by arranging them in a different but more easily recoverable format. For instance, in using the method of loci, we combine imagery with a well-established map and mentally place the target stimuli in, say, different houses along the street we live on. Then, when it is time to remember, we try to reconstruct the to-be-remembered stimuli using the already known houses as cues. If the target stimuli are themselves nonverbal, such as dance moves, imagery may involve visualizing going through the moves or, in other words, mentally running through them; thus imagery can sometimes be confounded with simple, albeit nonverbal, repetition, as well.

The critical concept in all types of covert rehearsal is the concept of "further" or "extra" processing. Thus, for silent thinking to be considered to be rehearsal, it needs to occur after the initial encounter with the target stimulus, although the target stimulus need not have disappeared. If the target stimulus is still present, or the next stimulus not yet presented, there is an ostensible danger of confounding covert rehearsal with depth of initial encoding, a concept used to describe any elaborate mental processing that one engages in when one is presented with a target stimulus and a concept some psychologists keep separate from that of covert rehearsal. However, because in many contexts the fine line between deep initial encoding and rehearsal is quite blurred, especially if deep initial encoding involves mental repetition, this distinction may be unnecessary. Just as it is possible to say one is rehearsing one's lines or a piece of music even

when it is for the first time, perhaps what is considered deep encoding when one is presented with a target stimulus for the first time can be thought of also as covert rehearsal, as long as it involves "further" thinking about the stimulus. Thus, in this article, whether it involves mental repetition of the target stimulus or another strategy, any "extra" thinking about the target stimulus is considered covert rehearsal.

In addition to considering the type of mental activity involved, that is, whether it relies solely on simple repetition or involves another mental strategy, covert rehearsal may be classified in many other ways. For instance, it may be stimulus based rather than memory based in that we can keep referring to the target stimulus while rehearsing, or it may be experimenter controlled rather than participant controlled in that we rehearse what is presented to us and not what we choose. In addition, covert rehearsal may be classified in terms of whether it is effective or ineffective, that is, whether it improves memory performance or not. Not all types of covert rehearsal improve memory; sometimes, even when a person feels that his or her memory has improved because of rehearsal, such subjective feelings may not be accurate in terms of performance measures. Covert rehearsal may also be classified in terms of modality, that is, whether the target material or indeed even the mental activity involved in the process of rehearsing is verbal or pictorial or musical.

In the next two sections, the focus is on the effectiveness of covert rehearsal in different situations and on the different modalities in which covert rehearsal can be used, regardless of whether it is stimulus- or memory based or whether it is experimenter- or participant controlled.

III. EFFECTIVENESS OF COVERT REHEARSAL

In one sense, all rehearsal serves a function. For instance, simply repeating a set of phone numbers helps us remember them until we can dial them. But that involves only short-term memory recall. Usually, after a few minutes of distraction, we can no longer remember those numbers. Learning, however, often implies committing stimuli to long-term memory. We need to be able to think about other things and then still be able to remember what we had intended to learn. Thus, effectiveness of covert rehearsal refers to the success with which stimuli can be remembered later.

To this end, psychologists have made a distinction between rote and elaborate rehearsal. Usually, rote rehearsal refers to simple repetition whereas elaborate rehearsal refers to using any other strategy such as imagery or organization. For instance, in 1973, F. I. M. Craik and M. J. Watkins showed that the amount of covert rehearsal engaged in with the intention of simply keeping a target stimulus in short-term memory had absolutely no effect on long-term remembering. In general, with verbal stimuli, such as lists of words or passages of text, covert rehearsal involving mindless repetition or shallow thinking, that is, rote rehearsal, is often quite ineffective in improving long-term memory compared to covert rehearsal involving thinking beyond the stimuli, that is, elaborate rehearsal. Indeed, M. Naveh-Benjamin and J. Jonides showed in 1986 that even when the stimuli themselves are not remembered, people can remember the frequency information; that is, when given a certain stimulus, they can remember the number of times that stimulus had been presented. Such frequency information, previously thought to be an automatically encoded aspect in memory, is also much better after elaborate rehearsal compared to rote rehearsal. In addition, using elaborate rather than rote covert rehearsal may tend to even change the qualitative nature of the memories, increasing or affecting the reporting of remember-type memories but not of know-type memories.

However, there do exist situations in which even elaborate covert rehearsal may not be effective. For instance, no amount of covert rehearsal, elaborate or rote, unless it is stimulus based, improves long-term implicit memory, that is when we are not consciously trying to remember the stimuli but our memory is measured indirectly by our performance on such tests as how fast we can read words off a screen or how well we can complete the missing letters of a given word. In such cases, the critical variable is the actual perceptual exposure to the stimuli, and silent thinking or covert rehearsal is entirely ineffective.

Psychologists have looked at the role of covert rehearsal also in a more global everyday memory setting while studying autobiographical memory and, more specifically, within the context of flashbulb memories. Although most silent thinking about real-life events tends to be in the form of inadvertent reminiscing rather than with the intention of improving our memory, such as when we keep reliving a championship game we participated in or cannot stop thinking about the last moments we spent together with a dying loved one, it is reasonable to suppose that such frequent and intense mental thinking or covert rehearsal is part of the reason why those moments may become flashbulb memories. Thus, exploring the assumed effectiveness of covert rehearsal in this context is also informative. In 1977, R. Brown and

J. Kulik postulated that rehearsal, both overt and covert, was an important variable in the formation of flashbulb memories for important public events, such as remembering, and never to forget, how we heard about John F. Kennedy's assassination. However, more recently, the effectiveness of rehearsal in the formation of flashbulb memories have been challenged by some researchers such as D. B. Pillemer in 1984, although these cases have dealt with primarily overt and "experimenter-controlled" rehearsal such as exposure to media coverage of the event. In a more recent study in 1997, A. İ. Tekcan and Z. F. Peynircioğlu specifically asked about the estimated number of times a person had thought about the event as well as the reception context to tell someone else about them. To the extent that the event was "thought about" first, such rehearsal has a large covert component. They found that this type of rehearsal did correlate with recall levels whereas strictly overt rehearsal such as exposure to media coverage did not. Thus, there is some evidence that in flashbulb memory research such rehearsal can indeed be effective and improve memory.

One area in which the effectiveness of covert rehearsal has been quite controversial is with nonverbal tasks, especially those relying on the performance of some skill. For instance, in 1989, C. A. Linden, J. E. Uhley, D. Smith, and M. A. Bush found no improvement in walking balance in the elderly following covert rehearsal of the actions. Similarly, in 1995, M. Lejeune, C. Decker, and X. Sanchez found no improvement in table-tennis performance in novice players following covert rehearsal, although covert rehearsal when combined with physical practice and observation did improve performance, and in 2000, D. R. Shanks and A. Cameron found no improvement in a sequential dot-location reaction time task following covert rehearsal. In 2000, Z. F. Peynircioğlu, J. L. W. Thompson, and T. B. Tanielian found that covert rehearsal did improve performance in free-throw shooting but not in a grip-strength task, whereas overt "psyching up" strategies improved performance in the grip-strength task but not in free-throw shooting. They concluded that covert rehearsal would improve nonverbal performance only when the task depended on the coordination of many fine and specific skills and not when the task depended on simple strength, focus, or concentration.

IV. COVERT REHEARSAL OF NONVERBAL MATERIALS

As mentioned earlier, covert rehearsal can improve performance in certain nonverbal physical tasks. Although involving motor memory, improvement in such physical tasks has not been the focus of covert rehearsal studies for memory psychologists, however. Rather, the focus has been on exploring the effectiveness of covert rehearsal for remembering nonverbal stimuli in a list-learning or episodic-memory situation.

In 1980 and 1981 M. J. Watkins and T. M. Graefe explored whether effective covert rehearsal of pictures was possible. They presented pairs of thumbnail pictures or photographs of faces and after each pair cued one of the pictures for covert rehearsal. The cue came when the pictures were no longer present, thus the depth of initial encoding of the two pictures was held constant. They found that those pictures that were covertly rehearsed were better recognized than those that were not. In addition, they found that after a sequence of pictures were presented, and then any one of them cued for rehearsal, the rehearsed picture was better recognized than the others. Thus, the pictures could be conjured up in some fashion well after they had disappeared and covertly rehearsed in an effective manner. Later, in 1991, D. J. Read, R. Hammersley, S. Cross-Calvert, and E. McFadzen showed that in a face identification situation, just as with verbal materials, the timing of the covert rehearsal or how long after the presentation of the materials it occurred was crucial to its effectiveness.

Effective covert rehearsal was shown also in the nonverbal auditory domain, within the context of voice recognition. In 1982, M. J. Watkins and Z. F. Peynircioğlu presented pairs or sequences of short utterances, each utterance comprising a different phrase and spoken by a different though same gender person and afterwards cued one of these utterances for covert rehearsal. They found that the target voice in which an utterance was spoken was later more likely to be recognized among alternative same gender voices all saying the same utterance if the target utterance had been covertly rehearsed than not rehearsed. Later they also extended this finding from voices to natural sounds such as "thunder," "baby crying," or "a dentist drill." These natural sounds were also more likely to be recognized among alternative similar sounds if they had been covertly rehearsed than not rehearsed.

Thus, it appeared that nonverbal materials, whether visual or auditory, could be covertly rehearsed in an effective manner so that long-term memory for them was improved. What was unclear, however, whether such rehearsal was nonverbal in nature, as well, or whether people translated these nonverbal materials into verbal descriptions and then rehearsed these descriptions instead. To be sure, it would be quite cumbersome to label

or describe some of these materials, and the alternatives during the recognition test often shared similar verbal descriptions as the target materials. Nevertheless, a verbal rehearsal strategy with nonverbal materials could not be ruled out completely. To address whether effective nonverbal covert rehearsal was possible, in 1984, M. J. Watkins, Z. F. Peynircioğlu, and D. J. Brems presented participants with items that were depicted both pictorially and verbally. One half of these picture/word items were cued for rehearsal. For some of these cued items, participants were instructed to covertly rehearse the picture by keeping its image in mind after it disappeared from view, and for the other cued items they were instructed to covertly rehearse the name by silently repeating it. During the recognition test, one half of the verbally rehearsed items as well as one half of the pictorially rehearsed items were tested using a verbal measure, asking participants to complete fragments of words, and the other one half were tested using a pictorial measure, asking participants to identify degraded versions of the pictures. The results showed that covert rehearsal was effective only if the mode of testing matched the mode of rehearsal. That is, both verbal and pictorial covert rehearsal was effective, but it appeared that verbal rehearsal of an item did not improve memory for its pictorial depiction and pictorial rehearsal did not improve memory for its verbal label, showing that people were not simply translating pictures into words and rehearsing only verbally. Thus, effective covert rehearsal was possible in a nonverbal manner, as well.

Finally, in 1995, Z. F. Peynircioğlu looked at covert rehearsal of tones, materials that are quite difficult to label verbally for the layperson and thus are likely to be rehearsed nonverbally. For simple pairs or triples of tones, even though physical repetition improved both short- and long-term memory and covert rehearsal improved short-term memory, covert rehearsal was quite ineffective for long-term remembering. That is, long-term memory for pitch or interval information alone could not be improved through silent thinking. Long-term memory for more complex musical materials such as 6-tone sequences or longer sequences with additional rhythmic information, however, did benefit from covert rehearsal. Thus, covert rehearsal of nonverbal materials can be effective and even carried out effectively in a nonverbal mode, but it seems that the to-be-rehearsed material needs to be meaningful or include many cognitive dimensions.

See Also the Following Articles

Assisted Covert Sensitization ■ Behavior Rehearsal ■ Coverant Control ■ Covert Positive Reinforcement ■ Covert Reinforcer Sampling

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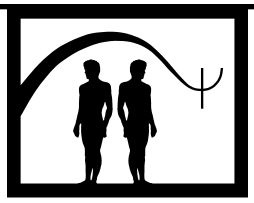

Covert Reinforcer Sampling

Patricia A. Wisocki

University of Massachusetts/Amherst

I. Description of Treatment
II. Theoretical Bases
III. Empirical Studies
IV. Summary
Further Reading

GLOSSARY

covert conditioning procedures A set of behavioral techniques that employ imagery as a way for clients to rehearse the performance of selected behaviors within the operant conditioning framework.

operant conditioning The process of increasing or decreasing the frequency of a behavior by altering the consequences that follow the performance of that behavior.

reinforcement An increase in the frequency of a behavior when that behavior is followed immediately by a particular contingent consequence.

reinforcer sampling The provision of a small sample of a potentially reinforcing stimulus in order to increase the use of the stimulus.

response priming Any procedure that initiates the first steps in a sequence of responses, and thereby increases the likelihood that the final response in the sequence will occur.

Covert reinforcer sampling is adapted from an operant conditioning technique (reinforcer sampling) that follows the principles and rules of the operant conditioning methodology, but has the stimulus presentation occur via imagery instructions instead of by direct exposure to the stimulus. The covert reinforcer sampling procedure is designed to increase the number and range of reinforcing events available to clients by exposing them to the reinforcing elements of stimulus events or items without the direct manipulation of positive or negative consequences.

I. DESCRIPTION OF TREATMENT

Covert reinforcer sampling is employed in conjunction with other treatment interventions when the goal of therapy involves developing or strengthening reinforcers for a client. It is often used clinically with clients who are depressed and lacking access to or interest in pleasurable activities, clients who are living in environments in which stimulation may be severely lacking (e.g., in nursing homes, institutional settings), and for clients who frequently demonstrate a negative outlook on life.

The procedure is suggested for use after the therapist and client discuss the importance of a range of activities that a person may enjoy in his or her life and the problems that may develop from a limited venue of pleasurable experiences. Together the client and therapist develop a series of images that the client may find pleasurable, at least to a minimal degree. These images may involve activities (e.g., arranging a vase of flowers), settings (e.g., view of the mountains), interactions (e.g., shopping with a friend), or specific items (e.g., pictures

of grandchildren). The images may be about real or fantasized events, all of which occur on a low-frequency basis. The technique does not involve the presentation of either reinforcing or punishing consequences. The client is asked simply to imagine several of the agreed-on stimulus events in as much graphic detail as possible several times a day in blocks of 10 to 15 trials each time. It is important to include in the image as many different sensory aspects of the stimulus as possible (e.g., hearing the sound of the waves breaking on a beach, while seeing the sun setting on the water and tasting a hot dog). The stimulus material should be varied in order to avoid satiation of the reinforcer.

II. THEORETICAL BASES

Covert reinforcer sampling is derived from the operant conditioning procedure of reinforcer sampling, a variation on the technique of response priming, which is any procedure that initiates early steps in a sequence of responses. Reinforcer sampling is used to initiate the first steps in a low-frequency behavior by exposing the client to a small sample of the stimulus in order to encourage greater use of that stimulus. Once the behavior occurs on a consistent basis, the sampled reinforcer may be used to increase continued performance.

The adaptation of reinforcer sampling to an imagery venue is based on previous work with a large number of imagery-based behavioral procedures in which the client uses images to rehearse various behaviors and consequences in such a way as to produce a change in particular overt or covert activities. Many of these psychotherapeutic techniques were designed by Joseph Cautela, who referred to them as "covert conditioning procedures" and grounded them in operant conditioning methodology.

III. EMPIRICAL STUDIES

Covert reinforcer sampling has been evaluated in two case studies and one study in which it was compared with the traditional method of overt or direct reinforcer sampling. In the first case study, reported in 1976 by Patricia Wisocki, the procedure was employed along with several other behavioral techniques to help a client overcome a fear of social rejection. Covert reinforcer sampling was successfully used to help the client explore potentially reinforcing new social activities in order to enhance her social repertoire and increase the quality and quantity of her social interactions. For example, in trying to interest the client in joining a hiking club, the therapist asked her to imagine the following scene:

> Imagine that you are in the mountains on a cool, sunny day. Imagine that you are wearing heavy boots for walking, a backpack, a sweater, shorts, and a wide-brimmed hat. Imagine that you are walking with about five other people and you are all talking about the beauty around you. You see a stream nearby. It looks cold and inviting. You feel exhilarated—glad to be alive on such a day.

Scenes like this were inserted into each therapy session over a 3-month period, after which time the client became an active member of a hiking club, a church choir, an advanced French class, and a women's group. She met with friends two or three times a week, and planned and carried out social activities.

No attempt was made in this study to determine the efficacy of covert reinforcer sampling relative to the other procedures used with the client.

In the second case study, reported in 1993, Wisocki described the use of covert reinforcer sampling in a case of orofacial tardive dyskinesia experienced by a 77-year-old woman in a nursing home. The study took place over an 11-week period, including 2 weeks of an initial baseline, during which time the frequency of dyskinetic tongue thrusting movements was assessed during three 5-minute intervals during each morning, afternoon, and evening, for a total of nine intervals each day. That period was followed by 1 week of self-control instructions in which the client was asked to "try her best to relax her tongue" during the nine 5-minute sampling intervals taken in the original baseline condition. There was no decrease in the movements during this self-control phase. The tongue thrusting movements continued to occur at an average rate of 130 incidents during each 5-minute sampling interval. Relaxation training then took place over the next 2 weeks and resulted in a reduction in tongue movements to an average of 40 thrusts per interval. Covert reinforcer sampling was used during the next 2 weeks and resulted in a decrease of tongue movements to an average of 20 thrusts per interval. A second baseline, in which no treatment was provided but measurement continued, was implemented for 2 more weeks. Movements increased to an average of 60 thrusts per interval and continued at that level during the next 1 week when the client was asked to repeat the self-control instructions. Finally, the covert reinforcer sampling procedure was

reintroduced and resulted in a return to an average of 30 thrusts per interval.

Both the client and the staff working with her reported positive gains from the covert reinforcer sampling procedure. The content of the imagery scenes selected by the client stimulated discussion about the places depicted in them. They provided an occasion for the client to demonstrate her interests and showed her to have more socially endearing qualities than had been noticed previously by staff, which resulted in a reduction of the client's social isolation.

The additive design of this study did not allow for a test of the differential effects of the two interventions. Thus, it cannot be concluded that covert reinforcer sampling was more or less effective than relaxation.

Although the treatment was successful in reducing the number of dyskinetic movements, the client was not convinced that the efforts she was making to keep her tongue still were worthwhile and she demanded and received an increase in phenothiazine medication, which soon resulted in a return to severe tardive dyskinesia.

In 1980 Patricia Wisocki and Michael Telch examined the effects of covert reinforcer sampling and overt reinforcer sampling on the attitudes of a group of 56 college students, using a placebo group and a no-contact group as controls. The students' attitudes were first measured by an attitude scale. The 15 participants in the covert reinforcer sampling group were asked to imagine volunteering in a local nursing home and experiencing pleasure at interacting with the elderly residents. The imagery scene consisted of a description of a typical nursing home one would expect to encounter, including a description of various clients one might find in the setting. The scene went on to describe a positive encounter with a friendly older adult client and an ensuing positive interaction. The scene was read aloud three times during each of two 30-minute sessions and the participants were asked to imagine it in as much detail as possible for them.

The 12 participants in the overt reinforcer sampling group were taken to a nursing home and asked to interact with as many of the patients as they could during two 30-minute periods, an equivalent amount of time as given to the covert reinforcer sampling group. The 14 participants in the placebo control group were asked to imagine a scene depicting themselves volunteering to work with adults with mental retardation, using the identical procedure as provided in the covert reinforcer sampling group. The 15 students assigned to the no-contact control group simply completed the attitude scale before and after the study was completed.

Results indicated a significant increase in positive attitudes toward the elderly for both reinforcer sampling conditions. There were no changes in the attitude scale scores for the subjects in either control group. In comparing the two treatment groups, the researchers determined that the participants in the overt reinforcer sampling group increased their attitude scale scores significantly more than the participants in the covert reinforcer sampling group did. Further, participants who initially scored below the group mean on the attitude scale were found to respond significantly better to the overt reinforcer sampling procedure, while participants who initially scored above the group mean responded significantly better to the covert reinforcer sampling condition. Therefore, it appears that those subjects with an initially poor attitude toward older adults improved their attitudes more from direct contact with the population, while those with neutral or somewhat positive attitudes benefited more from the covert reinforcer sampling procedure.

IV. SUMMARY

Covert reinforcer sampling is an imagery-based procedure used therapeutically to increase the range and number of items and events that may be used as reinforcers for clients who experience a low frequency of pleasurable activities. It is derived from an operant conditioning paradigm. It has been shown effective in two cases where clients experienced a dearth of positive life experiences. It was also demonstrated to be equally effective as a direct reinforcer sampling condition in changing attitudes of college students toward elderly nursing home residents. Those in the direct reinforcer sampling condition, however, increased their attitude scale scores significantly more than those in the covert reinforcer sampling condition. Direct reinforcer sampling also appeared to be more effective with those participants whose initial attitudes toward the elderly were more negative, while covert reinforcer sampling appeared to benefit those whose initial attitudes were neutral or somewhat positive.

See Also the Following Articles

Assisted Covert Sensitization ■ Coverant Control ■ Covert Positive Reinforcement ■ Covert Rehearsal ■ Negative Reinforcement ■ Operant Conditioning ■ Positive Reinforcement

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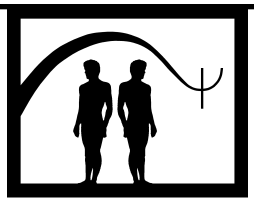

Cultural Issues

Edward F. Foulks

Tulane University School of Medicine

I. Description of Cultural Issues and the Cultural Formulation
II. Theoretical Bases of Ethnic Identity
III. Theoretical Bases of Racial Identity
IV. Applications of Culturally Sensitive Psychotherapy
V. Empirical Studies of Psychodynamics and Culture
VI. Psychotherapy Specific to Cultural Groups
VII. Psychotherapy Technique and Culture
VIII. Transference—Countertransference and Culture
IX. Case Illustration
X. Summary
Further Readings

GLOSSARY

countertransference An emotional reaction of the therapist toward the patient, usually meant to include two elements, which are the irrational feelings based on the therapist's unconscious mental organization, and the feelings and responses of the therapist in reaction to the patient's unconscious transference feelings toward the therapist.

culture The concept encompassing the collective knowledge, shared beliefs, values, language, institutions, symbols, images, and artistic works of a group that represent, signify or allude to these values, beliefs, and ideas and result in a shared world view.

cultural competency The awareness on the part of the psychotherapist of the various cultural factors influencing the behavior of the patient. These factors include the cultural identity of the individual, the cultural explanation of the individual's illness, cultural factors related to the psychosocial environment and functioning of the patient, and cultural elements in the relationship between the individual and the clinician. The idea of competency includes the ability to use this information in treatment planning and crafting effective psychotherapuetic interventions.

cultural formulation The process whereby the ethnic/cultural identity of the patient is used in the process of diagnosis.

transference The emotional reaction of the patient towards the therapist, in which thoughts or feelings related to earlier stages of development are transferred to the therapist.

I. DESCRIPTION OF CULTURAL ISSUES AND THE CULTURAL FORMULATION

There has recently been an increasing awareness of ethnic diversity within almost every country of the world.This awareness and the advocacy of various ethnic groups for equality in multicultural environments have resulted in an emphasis on cultural competencies in medical education and practice.

Cultural competency in psychotherapy has become an explicit goal in all mental health disciplines in the United States and provides a benchmark of quality in the public mental health systems in California, New York, and many other localities serving large minority populations. Cultural competency in psychotherapy requires that the therapist develop Knowledge and skills predicated on an attitude of receptiveness to "foreign" theories of illness and alternative pathways of healing such as is exemplified in the following case of Carlos:

Carlos is a 26-year-old Puerto Rican born man who was referred by a local spiritual healer in New York for medical and psychiatric workup. He had a skin rash that worried him to the point of despondency. Over the course of six months he had become more and more depressed and feared that he might be suffering a fatal illness.

Carlos was treated with psychotherapy, at first twice a week for two months and later weekly for eight months. He was also prescribed imipramine hydrochloride, orally, which was increased during a two-Week period to 150 mg at bedtime. His symptoms improved. Several weeks later, Carlos said that he was going to have a religious intervention at a session in his spiritual healer's church. His psychiatrist was invited to attend and observe the session. There were about 25 to 30 persons in attendance at the healing center. In the churchlike room, there was an altar with many statues of "Saints" from the Catholic religion. In front of the altar there was a table with numerous religious paraphernalia, such as collars, prayer books, bottles of incense, and a cup with water. After some consultation with others in attendance in accordance to the norms and rituals of the center, Carlos was called in for his spiritual/religious intervention. The spiritual healer told him that he had to pray regularly in order to be protected from bad spiritual influences. He was also told about the woman in the neighborhood who put the "root" on him, with the intention of separating him and his wife. His wife acknowledged that she had actually considered that possibility all along. Later on, the spiritual healer put a cream on his abdomen, and massaged the area supposedly affected by the "root." Then he applied a lotion in order to make his digestive system, especially his stomach, less vulnerable to "rooting." Additionally, the spiritual healer gave him and his family advice as to how to protect their home from bad spiritual influences using water and special herbs. At the end of the religious session, everyone prayed together on behalf of Carlos. Carlos' daughters were present in the session, as were also many other children who came with members of their families. He subsequently became a devout follower of this healing center religion. His religious conversion made his wife very happy, since she had always gone to the center alone or with her two daughters.

Cultural competencies have been addressed in the *Diagnostic and Statistical Manual of Mental Disorders* (Fourth Edition, DSM-IV), published in 1994. A special Task Force on Cultural Psychiatry was created by the American Psychiatric Association to identify "specific culture, age, and gender features" for each diagnosis in the DSM-IV. The Task Force emphasized that:

- Cultural pluralism has become a worldwide reality.
- Psychiatric diagnosis must be predicated on considerations of cultural factors.
- Cultural differences in the meaning of illness and of health put the clinician, who is unaware of nuances of the patients' behavioral-environment and belief system, in jeopardy of seriously misunderstanding.
- Misunderstanding can lead the clinician to judge variations in normal behavior, belief, and experience as psychopathology, when such is not the case.

The Cultural Formulation outlined in the DSM-IV focuses on the effects of culture on the expression of symptoms, definition of illness, and treatment considerations, and effectively enriches the traditional biopsychosocial model of treatment in psychiatry practice. The Cultural Formulation recommends that the clinician address the following factors involved in patient care:

> A. *Cultural identity of the individual.* The clinician should specify the individual's cultural reference groups. Attend particularly to language abilities, use, and preferences (including multilingualism). For immigrants and ethnic minorities, note separately the degree of involvement with both the culture of origin and with the host or majority culture.
>
> B. *Cultural explanations of the individual's illness.* Identify (1) the predominant idioms of distress through which symptoms are communicated (e.g., such as the case of Carlos—"nerves," possessing spirits, somatic complaints, inexplicable misfortune); (2) the meaning and perceived severity of the individual's symptoms in relation to norms of the cultural reference group; (3) any local illness category used by the individual's family and community to identify the condition . . ; (see Part II of this Appendix, "Glossary of Culture-Bound Syndromes and Idioms of Distress" in DSM-IV); (4) the perceived causes or explanatory models that the individual and the reference group employ to explain the illness; and (5) current preferences and past experience with professional and popular sources of care.
>
> C. *Cultural factors related to psychosocial environment and functioning.* Note culturally relevant interpretations of social stressors, available social supports (such as the spiritual center available to Carlos), and levels of functioning and disability. Special attention should be given to stresses in the local social environment and to the role of religion and kin networks in providing emotional, instrumental and informational support.
>
> D. *Cultural elements of the relationship between the individual and the clinician.* Indicate differences in culture and social status between the individual and the clinician and problems that these differences may cause in

diagnosis and treatment (e.g., difficulty in communicating in the individual's first language, in eliciting symptoms or understanding their cultural significance, in negotiating an appropriate relationship or level of intimacy, in determining whether a behavior is normative or pathological, etc.).

E. *Overall cultural assessment for diagnosis and care.* The formulation would conclude with a discussion of how these cultural considerations specifically influence comprehensive diagnosis and care.

II. THEORETICAL BASES OF ETHNIC IDENTITY

The Cultural Formulation recommends that the clinician assess the ethnic identity of the patient as the first step in the process of diagnosis. This recommendation might seem familiar to most physicians, for they have been traditionally taught to begin the patient evaluation with "Identifying Information and Chief Complaint." Most clinical presentations begin with the phrase, "the patient is a 42-year-old, black male, who…," or "…is a 12-year-old, white female, who…," or "…is a 73-year-old, Hispanic male, who…" Such descriptors are taken for granted and by now have become almost universal in clinical conferences, ward rounds, and case reports. The ethnic/racial descriptor is most often ascribed by the examining physician rather than by the patient.

Eliciting the patient's self-perception of his or her own ethnic identity is, however, an important procedure in the diagnostic process and is also helpful in designing the treatment and management interactions that follow. How then does the physician validly describe the ethnic "identity" of the patient? The first step in this process is to ask the patient about cultural and religious backgrounds. Notice that the plural is used in "backgrounds," for the patient's mother and father may have different cultural origins. People who live in multicultural societies may have several ethnic traditions from which much of their identity is derived. In patients from minority cultural backgrounds, the identity acquired by the process of enculturating to mainstream American culture renders another layer of complexity. Modern mobility has resulted in many people growing up in different neighborhoods and even in different countries. This can add further dimensions to ethnic identifications. The dynamics of cultural influences on identity are as complex as psychodynamics are in the formation of personality. Although patients may be able to articulate some cultural influences with full awareness, others may be so automatic and taken for granted that they are only discoverable by studied self-reflection and inference. In nearly all such cases, terms that we commonly use to categorize ethnicity may be too simplistic.

Giving the patient the opportunity to reflect on personal cultural identifications may allow for expressions that affirm the self and inform the clinician. Several caveats, however, must be considered in the process of assigning labels pertaining to ethnic identity. Much of the terminology now in official and common use to designate ethnic identity is actually quite questionable from a scientific perspective. For example, the ethnic categorization of people as black, Hispanic, Asian, and American Indian lacks precision and comparability because they have different referents; that is, Black refers to skin color; Hispanic to a language; Asian to a continent; and Indian to a heterogeneous group of aboriginal inhabitants within the United States.

Distinctions based on skin color have been used for purposes of social discrimination, oppression, and segregation. During the Reconstruction era following the Civil War, many families in the southern states were divided arbitrarily using the criterion of tone of skin color. Those members who could "pass" were considered "white," and those of darker hue were called "colored," "Negro," or "black." This issue remains problematic to their descendants to this day. Skin color is in fact a poor marker of ethnic or genetic differentiation.

"Hispanic" is another ethnic designator that is used as a political banner for many disenfranchised Americans but, like skin color, has dubious validity. "Hispanics," "Hispanic-Americans," or "Latinos" tend to be labeled as such regardless of country of origin and cultural background, thereby leading to clinical and research categories that are imprecise. "Hispanic" can apply to people from Spain or South America who speak Spanish. Are Spanish-speaking Filipinos to be considered "Hispanic" or "Asian"? Are Brazilians who speak Portuguese also "Hispanics"? Consider the cultural and possible genetic variability between "Hispanic" Argentinians of Jewish–European descent; Puerto Ricans of Afro-Caribbean descent; and Mexicans of Mayan Indian descent. All speak Spanish and are from "Latin" America. From the perspective of a racial grid based on skin color, one "Hispanic" group could be considered "white"; another "black"; and the third, "red."

Designations based on geographical place of origin are also inadequate indicators of ethnic identity. "Caucasian," "American Indian," "Asian American,"

and "African American" are examples of general categories used for this purpose. Caucasian refers to "white" people of European ancestry but would probably exclude those populations with epicanthic skin folds of the eye lids who actually live in the region of the Caucasian Mountains of Central Asia. "American Indian," on the other hand, refers to a heterogeneous people from 260 different language groups, some descended from groups that migrated from North Asia during the last Ice Age and others, such as the Innuit (Eskimos), who have migrated more recently (witness recent arrivals of Eskimos from Siberia to Alaska). Ironically, these recent arrivals from Asian Siberia are not, however, considered Asian Americans.

The term Asian American commonly refers to people emanating from the Far Eastern countries such as Japan, China, and those of Southeast Asia, Vietnam, Cambodia, Laos, and Thailand. Asians from India, Pakistan, Iran, Iraq, Turkey, and so on, are usually not included in this category. Instead, they are often referred to as Muslims (a religious preference) or Middle Easterners, but as yet they have not been categorized as an official ethnic minority.

Without actively exploring these issues during the interviewing process, attributing racial and ethnic identities to the patient may be invalid and may even have pernicious results. For example, arbitrarily classifying patients according to perceived skin tones may not only identify but also reinforce historically derived categories of social discrimination and negative stereotyping. Therefore, clinicians need to be aware of and actively inquire about the patients' self-attributions regarding ethnicity, race, social class, and religion. By exploring each of these items, the clinician can develop mutual understanding with the patient in regards to cultural and social influences on the mental disorder and its treatment.

III. THEORETICAL BASES OF RACIAL IDENTITY

There is no ready consensus these days as to what is meant by race, nor is there agreement on what is actually meant by "black" or "white." The genetic heterogeneity of American society makes it impossible to define what is meant by race-linked terminology. In the southern United States it was census law that a drop of "black blood" made an individual black. However, it was commonly observed that a light-skinned woman living as a black in one community might have an equally light-skinned sibling living as a "white" in another community where few had knowledge of the family's relationships.

Despite such lack of precision and clarity with respect to racial classifications, race has taken on particular significance in the United States. The historical American experience with slavery has led to associating stereotyped concepts and stigma to dark skin. On the other hand, equally stereotypic notions of superiority and intellectual cleverness have come to be associated with light skin color.

The complexity of grouping people together on the basis of such arbitrary racial distinction is compounded by consensual identifications because of common cultural heritage. Hence, "blacks" can indeed look very different but still agree that they are African American in cultural outlook. Furthermore, only relatively recently has the notion of substantive variability in ethnic identity among blacks been examined. For example, one dark-skinned individual may be minimally Afrocentric and "mainstream" in political outlook, whereas another equally dark-skinned person may be resolutely Afrocentric. Some psychotherapists have observed that the same individual may change ethnic identity over the period of adult life with a Afrocentrism developing with maturity.

The importance of race as a dynamic factor in American life is practically ubiquitous in its effects, and the potentially problematic interaction between different racial groups is a significant element in practically every facet of life. Clinicians have come to recognize that race has some importance in the context of psychiatric practice, especially pertaining to the patient/clinician dyad and the clinician/supervisor dyad, which may be substantively influenced by racial considerations. Race can impact on clinical understanding, with significant consequences for the diagnostic process and ultimately for treatment decisions.

IV. APPLICATIONS OF CULTURALLY SENSITIVE PSYCHOTHERAPY

Cultural explanations regarding the nature and experience of illnesses are related to the initiation, process, and termination of psychotherapy. Patients often have cultural explanations for their stress and symptoms that differ from those of their psychotherapist. Many people who suffer from psychiatric disorders do not seek psychotherapy for this reason. Studies have shown

that patients who believe that their illness resulted from religious, magical, or other sources not considered valid by modern medicine were more likely to fail standard psychotherapy than those who shared a similar model of causation with their therapist. It is not uncommon in the cross-cultural treatment situation to hear patients state that religious problems contribute to their illness: that God is punishing them for past sins, that they are not in God's grace, or that their problems are God's will. Some patients believe that others have caused their sickness through voodoo or the "evil eye." Other examples of alternative nonmedical beliefs can be found in patients who follow modern popular health movements or who believe in traditional herbal practices that attribute psychological problems to imbalanced diets or to the toxic effects of sugar, meat, food additives, or other edibles. In contrast, patients who endorse medical model explanations and reject folk explanations of their psychiatric symptoms will be more likely to follow a psychotherapist's treatment advice. Similarity or difference in the explanatory model of the psychiatric illness between the psychotherapist and the patient may have a profound influence on the course of treatment. The use of psychotherapy in treating mental disorders that occur in nonmajority patients has therefore been a subject of consideration in planning psychiatric services. Many clinicians working with ethnically diverse populations have questioned several basic assumptions of psychotherapy as developed in Western Europe and the United States and its applicability to people raised in different cultural environments. For example, psychoanalytic psychotherapy is a talk therapy aimed at bringing insight and transformation to a personal, often unconscious, aspect of the individual self. According to this theoretical approach, even interpersonal relationships are "psychologized" and brought back for self-reflection in a person-centric construct focused on the individual as a unitary, active agent.

Some scholars in cultural psychiatry view this form of psychotherapy as a uniquely Western ethnotherapy that is best applied to those of this tradition (i.e., white, educated, middle class), and not used with members of other ethnic groups. A few might even regard psychoanalytic psychotherapy as a pernicious, harmful practice meant to reinforce the values of the elite majority while damaging further the self-esteem derived from traditional identity.

Although some of these arguments may be inspired by recognizing that self-esteem and identity are enhanced by the solidarity of accepting and identifying with one's ethnic or racial heritage, they ironically lend support to the not-so-scholarly opinions of those psychotherapists who believe that, for a variety of reasons, minority or low socioeconomic status patients are not "good candidates" for insight-oriented psychotherapy. Such psychotherapists have observed that "minority" patients often express conflict by "acting out" rather than by verbalization and cognitive mastery, and that the early life traumas (common in lower socioeconomic status populations) preclude the more mature object-relational capabilities required for successful engagement in psychotherapy. Policymakers and agencies that are concerned with cost reduction in psychiatric services are also bolstered by these arguments to reduce basic psychiatric services to those who might most need them but cannot afford them.

Although psychotherapy has become an important treatment modality in general psychiatry, it has been for the most part reserved for the affluent members of society. Many surveys have revealed that minorities, particularly those of low socioeconomic status, receive less psychotherapy, for shorter periods of time, by less experienced staff.

A number of studies have indicated, however, that members of many major ethnic minority groups in the United States are as receptive to psychotherapy as members of the majority group. These studies find no differences between Mexican Americans and Anglo Americans in terms of referral, compliance, and resistance to psychotherapy, and they reveal that neither race nor ethnicity has any effect on the number of treatment sessions, treatment modality, or treatment environments. Some studies have also demonstrated the efficacy of culturally sensitive psychotherapy with Asian-American patients, refuting the cultural stereotype that Asians are unable to express themselves in emotional terms. It is well recognized by now that, even abroad in India and Japan, psychotherapy and psychoanalysis have obtained a valuable place as treatment modalities appropriately offered to many patients in these societies.

V. EMPIRICAL STUDIES OF PSYCHODYNAMICS AND CULTURE

Studies of the psychodynamics of people in Asian societies emphasize emotions as embedded in interpersonal relations, in which persons are rarely considered autonomous and separate from their society. Thoughts, feelings, ambitions, and desires are perceived to reside not in the individual, but in family and

close social networks. Some psychiatrists have reported that Japanese have no clear–cut conceptual demarcation between self and others. There seems to be "blurred ego boundaries" between self and significant others, which creates a sense of group identity rather than individual identity. The goal of one type of psychotherapy practiced in Japan (Nai-Kan—look within oneself) is to bring awareness to the patient of how ungrateful and troublesome he or she has been to parents, teachers, and benefactors. The patient is appropriately counseled as to how to show gratitude and alliance. In this process, patients realize that they have no right to expect that their personal wishes and desires will be gratified by others. Instead, they realize that they exist for the sake of others. Egocentric traits such as "sticking to a personal opinion" are seen to be neurotic and selfish. Therefore, the patient must come into harmony with group goals that may be equally assertive and competitive but will collectively serve the family, class, or company's needs rather than personal needs.

Many Asian patients with such sociocentric orientations also have problems speaking to a psychotherapist about intrapsychic or interpersonal problems. They often have emotional and cognitive conflicts involving feelings of selfishness, ingratitude, and betrayal about considering such issues. Some psychiatrists have commented on the Asian patient's desire to protect his "inner self" from exposure. Others have speculated that, in sociocentric societies, the inner self is undefined, with minimal referential vocabulary, or is psychologically undeveloped to the extent that the patient has little or nothing to report regarding an awareness of an inner self. Such patients will distrust talk therapy and, when severely symptomatic, will express their distress somatically rather than in psychological terms. Such presentations of illness may not only be defensive in function but may also reflect a context-dependent perspective in which organs, body parts, individuals, and groups are considered holistically balanced or imbalanced in a unified-interactive system.

Because many patients in Asian countries complain of somatic symptoms in time of distress, it is assumed that they lack psychological mindedness. Some studies have observed that the use of proverbs may provide a vehicle for expressing interpersonal and intrapsychic conflict. Asian societies use proverbs to express empathetic understanding and often point out dysfunctional defenses in a manner acceptable to the listener. Traditionally educated Vietnamese are required to memorize volumes of such verses, which are considered to be classics.

Many Vietnamese proverbs express psychological awareness of, and concern for, intrapsychic and interpersonal conflict. Proverbs are used to interpret and instruct family members and close friends in regard to their defensive handling of affects. In psychotherapy, proverbs are used in a gentle, indirect, nonconfronting way when approaching psychological or sensitive interpersonal issues, particularly in such culturally specific therapies as Nai-Kan and Morita.

VI. PSYCHOTHERAPY SPECIFIC TO CULTURAL GROUPS

Specific forms of psychotherapy practiced within unique cultural groups range from the laying on of hands and prayers that commonly occur in many Christian denominations to spiritual centers *(espiritismo centros),* evil-eye curing centers *(malocchio/mal de oio),* sweat lodges (southwestern American Indians), and root work (rural African-American communities), among many others. The merit of many of these culturally specific therapies is currently an issue of much interest and study, as at the Center for Alternative/Complementary Medicine at Columbia University. Culturally specific therapies often reaffirm traditional cultural values and reinforce group solidarity, providing support and identity to a patient in distress. In addition, many ethnic curing practices identify and explicate unique culturally related interpersonal conflicts that cause distress and provide mechanisms for appeasement or resolution.

As valuable as many of these specific cultural approaches may be for special and unique populations, their general applicability in multicultural environments seems limited. Some have suggested creating a broad array of culturally specific clinics or having each therapist or clinic achieve competence in administering the myriad culturally specific therapies required to bring an equal quality of mental health care to all diverse citizens. This would seem to be an organizational and quality assurance task of daunting proportions. In addition, sensitive civil rights issues may be encountered in triaging and assigning minority patients to culturally specific therapies, while majority patients are referred to standard treatments.

Integrating knowledge of the unique cultural values and beliefs into personal psychodynamics in the treatment of people from non-Western societies would seem to offer the most parsimonious and optimal approach to this dilemma. Familiarity with cultural traditions, val-

ues, and context as well as language ability are essential to such a cross-cultural psychotherapeutic enterprise. The following case study of a Japanese-American woman will illustrate these principles.

VII. PSYCHOTHERAPY TECHNIQUE AND CULTURE

The therapist's ability to listen openly in an empathetic, noncritical manner to what the patient is saying and to mutually decide on the goals of the treatment are fundamental to any treatment no matter what the ethnic group. These skills do not come naturally. Cross-ethnic psychotherapy must be self-consciously examined and learned. Psychotherapy requires that intimate conversations occur between socially distant individuals. In most cultures, intimate conversation is reserved for close family or acquaintances. Formal, polite, nonrevealing patterns of communication are used in conversations with outsiders. For example, it has been observed that bilingual Hispanic American patients tend to use Spanish at home and English in psychotherapy, even when the psychotherapist is bilingual. The formality of the treatment situation and the standardization of English by therapists enhance these tendencies. The patient in cross-ethnic psychotherapy may therefore establish early transferences based on previous formal relationships (e.g., with English-speaking teachers, store clerks, and ministers) where self-disclosure was kept to the minimum required to transact an interaction. One approach used in cross-ethnic psychotherapy to overcome this resistance is having the therapist use the more informal language when possible. Another is to discover with whom the patient does share personal information, contrast this mode of sharing with the more formal conversations in treatment, and ask that the patient talk in therapy as they talk to their confidants.

It may also be useful for the therapist to pay particular attention to and learn ethnic colloquialisms that characterize the patients' informal conversational style. Generally, the more knowledgeable the therapist can become regarding differences in use of vocabulary, communicative gestures, expressions of distress, and personal-culturally based values, the better will be the therapeutic alliance. For example, incorporating "dichos," or sayings that exist in Mexican-American and other Latino cultures, into psychotherapy provides useful approaches to mitigate resistance and reframing problems.

In addition to attending to the cognitive aspects of cross-ethnic psychotherapy, therapists should also become aware of their own unconscious reactions to patients of another race or culture. White therapists, for example, have been found to make more errors in speaking and have less forward lean, eye contact, and shoulder orientation when working with black patients. Body language may carry culturally specific meanings that can be easily misinterpreted and warrants exploration and understanding in cross-ethnic psychotherapy.

VIII. TRANSFERENCE–COUNTERTRANSFERENCE AND CULTURE

Cultural differences may fascinate the therapist and distract treatment from the reality of the patient's core conflict to inquiries of a more anthropological nature. An example is in the vignette of psychotherapy with a Brazilian-American patient, where substantial time was spent discussing cultural meanings of colorful and affect-laden interactions with friends during Carnival, while the patient's defensive use of hypomania was overlooked.

Conversely, many therapists deny that cultural differences have any relevance to psychotherapy, and they believe that all patients are or should be "just like me after all." The exuberance of this revelation may often pave the way to unwarranted assumptions regarding social values that may interfere with an insightful-empathetic enactment of mutual goal setting in cross-ethnic psychotherapy. In such cases, the therapist may overlook the special needs associated with specific minority membership to the point of cultural insensitivity.

Matching therapists and patients by race or ethnicity has been suggested as one way of avoiding such difficulties and facilitating the formation of the therapeutic alliance in work with ethnic subgroups.

For example, when African-American patients are matched with African-American psychotherapists, the therapists are less likely to misinterpret lifestyles as pathologic, and instead will readily recognize the strengths and positive aspects. For some patients the African-American therapist may be better able to evaluate the role of "black reality" as actual rather than as a defense or resistance to change. Such relatedness and understanding contribute to better rapport, communication, and empathy with the social reality of the patient.

Matching of therapist and patient also has its pitfalls. For example, African-American therapists can become overly concerned with the sociopolitical factors involved in their patients' dysphoria. This concern may result in emphasizing black political solidarity and perspective rather than focusing on the "personal" and familial problems unique to their client's life. Some therapists may reject "white theories" and propose theories that carry an overt or implicit political message. They may convey the message to the patient in a familiar moralizing, preacher fashion attempting to enlighten the patient regarding the social injustices he or she has endured. Some authors refer to the "blacker than thou" stance manifest in such countertransference reactions. Some patients who reject their own blackness may also project their own lack of self-esteem onto the therapist whom they erroneously perceive to be lacking in ability. Especially vulnerable may be patients who grew up in white neighborhoods. Such issues are explored most effectively, and the therapeutic alliance is enhanced by carefully working with the patient to help unfold the patient's personal life's story and to examine the patient's denied or repressed feelings and conflicts.

An "Afrocentric" approach to psychotherapy with African-American patients has been proposed as a way to recognize African influences in our society. This approach stresses person-to-person relationships, style and use of language, strong emotional expressiveness, and the spiritual orientation of blacks. Alternative forms of healing have also been advocated based on African traditional practices and folkways. These are explored and revitalized for use in current treatment programs.

Although ethnic minority patients may often prefer to be treated by therapists from their own ethnic/racial group, skin tone might have minimal relevance to shared cultural beliefs, values, and behaviors. For example, a Jamaican-American therapist of Rastafarian tradition may have few cultural values in common with a "black patient" whose father is a law professor and whose mother is Irish Catholic. In such a case, the status of the development of global racial identity may or may not be the core issue essential to treatment.

Defining "what is being matched" in matched versus mismatched therapeutic relationships is often accomplished by distinguishing ethnic and racial variables "distal" from those "proximal" in the treatment situation. Many studies of matching therapist and patient have used indicators that are distal (or remotely relevant) to the actual treatment situation. Distal indicators might include skin color, declared ethnic identity, languages spoken, countries of origin, religion, and so on. Those factors may only superficially indicate the mutual values, behaviors, beliefs, and attitudes actually manifested in a shared therapeutic relationship. These factors are the proximal indicators of a therapist–patient match and are crucial to the valid assessment of outcomes. From this perspective, it is the actual behaviors and attitudes manifested within the treatment itself that determine the therapeutic alliance, the accuracy of interpretations, and the ultimate outcome. In this case, a match of therapist and patient is based on measures of the process of therapy itself rather than on global or declared ethnic/racial attributes of the parties involved.

In contrast, matching on the basis of superficial descriptors, such as nationality or race, indicates little about the ethnic identity, cultural orientation, or racial/ethnic group identifications of either the patient or therapist. The importance of designing therapist–patient matching strategies in terms of the substantive constructs underlying definitions of racial identity and culture, rather than superficial labels, is indicated by studies showing that therapist–patient similarities of values, locus of control, and semantic differentials are related to better outcome. In addition, studies showing that better outcome is related to similarity of demographic variables, such as marital status and socioeconomic status, indicate the importance of distinguishing ethnically specific matching variables from other characteristics that may influence the results of treatment.

Another apparent variable in the outcome of matching patient and therapist is the therapist's clinical skill. Many studies that attempt to determine the influence of ethnic matching on outcome are hampered by insufficient assessment of therapist competence as distinct from other therapist-related variables, including ethnicity. One methodological approach for estimating therapist competence, adopted by technological models of psychotherapy research, involves an independent rating of therapist adherence to the guidelines of operationalized treatment manuals. This methodology allows process-oriented evaluations of therapist behaviors and the degree to which they conform to the technical and theoretical parameters of the particular therapy model. Exclusive reliance on process variables allows specific measurements of treatment integrity and therapist performance as distinct from other therapist characteristics and independent of outcome assessment. Research strategies that specifically measure therapist adherence may, therefore, represent useful tools for researchers attempting to identify the separate contribution of therapist–patient ethnic

matching on outcome. These strategies may provide an initial methodologic framework to consider how culturally responsive activity by the therapist may be necessary in cross-ethnic therapies. In this manner, subcultural studies in the future might illuminate how culturally responsive adaptations intrinsic to the psychotherapeutic frame and process affect outcome.

IX. CASE ILLUSTRATION

Kimiko, a 26-year-old Japanese woman married to an American man, will serve as an example of how the unique experience of the self as embedded in family relationships can contribute to conflict in acculturating to a multicultural society such as that of the United States.

Kimiko had moved to the United States with her husband at the age of 23. Kimiko's reasons for beginning psychotherapy were depressed feelings and a lack of Jibun ("me" as a target of cognitive intentionality) or Jiko-ishi Ki (self-awareness). This lack showed itself as (1) inability to make choices when she had to express a personal preference; (2) her feeling that there was nothing to which she would like to fully devote hereself; and (3) her sense that she was only able to pursue her own happiness indirectly by doing things for others that resulted in their happiness. Kimiko underwent 100 sessions of psychoanalytic psychotherapy with a Japanese psychoanalyst in the United States. A general theme of Kimiko's therapy was her discovery of self. Transference issues included a desire for a responsive, affectionately strong father. This desire was conditioned by Kimiko's relationship with her father who had been "reticent" or "absent." There was also an important maternal transference based on Kimiko's attachment to a nurturing and open relationship with her mother. The therapist was highly idealized in this regard, especially early in treatment. During her sixth hour of psychotherapy, Kimiko talked about her relationships with her mother, husband, and others:

> Two days before my anniversary I received from my grandmother a card and a check from my mother. I know they always do something for me. But I was happy to receive so much from them even though I am economically independent … They would be pleased to learn how I spent the money. … They are always behind me. I can depend on them should something happen … am not completely independent … if an emergency happens I can receive help from them. I feel that this is *Amae* [dependency]. Even though I do not meet them every day they are in my mind and when I feel lonely, I turn to them. I consider this as *Amae.*

Kimiko also reported a number of dreams during her psychotherapy. One of these dreams particularly captured her core conflictual relationship them: "My mother is seen far away. I wanted to call her but I could not vocalize. Her leaving home with somebody was seen remotely. I wanted to call her attention but I could not emit my voice."

Kimiko had separated from her family and culture when she moved to the United States with her husband. Themes of separation and dependency (Amae) are repeatedly experienced in her treatment. In addition, she complains of the lack of a sense of self, and her narrative reveals her embeddedness in the supportive family network. In the context of the United States, where independence of self is considered an asset, Kimiko feels particularly disadvantaged.

Therapists must be alerted to recognize when such contrasts occur between their own values and assumptions and those of their patients. Psychotherapists are advised to share their patients' world-view without negating its legitimacy. In the case of Kimiko, such a compromise was not an issue because she herself complained about her dependency and lack of sense of self. If Kimiko, with her depression, had experienced *Amae* as ego-syntonic, even laudable in terms of Japanese social values, the therapeutic process might have necessarily taken another course. In any case, the therapist may not be able to completely understand the patient's values but should be able to explore them empathetically and nonjudgmentally in a working, therapeutic alliance.

X. SUMMARY

The DSM-IV Cultural Formulation indicates essential principles of cross-ethnic and cross-cultural diagnosis of mental disorders. These principles include:

Knowledge of the concepts employed in studies of language, culture, and medical anthropology. Such concepts should be applied to the clinical context and include understanding:

- cultural concepts of world-view, emic-etic, values, and norms (ideal and behavioral);
- linguistic concepts of denotation-connotation, translation-interpretation, idioms and local jargon and referents;

- medical anthropology concepts of cultural "idioms of distress," and cultural conceptions of illness and illness presentation.

Therapists must understand how culture and ethnicity can modify the importance of work, family, illness, and death in the lives of their patients. They should appreciate the ideal cultural norms with regard to family organization and loyalty (e.g., patriarchal-matriarchal authority, patrilineal-matrilineal inheritance, and patrilocal-matrilocal-neolocal residence). They should recognize when an illness represents a personal failure or moral lapse in the sufferer; when it suggests the action of a malevolent spirit that has been offended by the patient or a family member; when illness raises the question of a curse by an enemy; when the patient fears death from the malady; and in the patient's culture, what follows after death.

Therapists should also appreciate the existence of certain culture-bound or culture-related disorders. They should understand the concept of pathoplasticity and the role played by culture in certain psychiatric conditions (e.g. eating disorder, substance-related disorders, and various somatoform, hysterical, or crisis-induced states).

Skill in the following areas:

- Diagnostic interviewing across ethnicities and cultures; methods of establishing rapport; the importance of facilitation and clarification; potential problems associated with confrontation and interpretation and education; ethnic differences in eye contact and interpersonal space (or "body envelop") and nonverbal communication.
- Patient versus family interviewing; cultural differences regarding confidentiality and privacy; presence of a family member during assessment.
- When to use an interpreter; preparation for becoming an interpreter; conceptual models regarding interpreters; differences between translators and interpreters; problems in being an interpreter; and how to facilitate the work of a translator.

Patients' histories can be approached in terms of their personal, family, and cultural histories. These histories are held by the patients as constructs, which can be detected by the use of keywords used over and over as they interact with the clinician. Family cultural background can be elicited from the patient's personal explanation and meaning of the family's developmental history through the generations. Another method of eliciting cultural identity is by using an interpersonal matrix that involves assessing the patient's viewpoint of particular topic areas—such as demographics (age, gender, and location), status (social, educational, and economic), and affiliations (ethnic, religious, and family)—and the behaviors, expectations, and values associated with these factors. This model helps the therapist understand that behavior can have different meanings depending on the patient's ethnic identity and cultural perspective.

Attitude: Therapists should also be able to appreciate their own ethnicity and their ethnocentricity. They should appreciate the ethnicity of their patients and remain sensitive to the world-views of others. In particular, they should recognize how their own ethnocentricity may interfere with therapy and psychotherapy.

Therapists should be able to recognize that not all unfamiliar traits, behaviors, thoughts, or emotions in a patient are necessarily the result of psychopathology. Similarly, they should be able to consider that the unfamiliar dimensions of a patient may not be simply cultural in origin. Perhaps most important, the therapist must be able to recognize and deal with cultural countertransference, negative and/or positive.

The guidelines provided by the Cultural Formulation of the DSM-IV are fundamental to diagnosing and treating patients in a multicultural society. The cultural issues encountered in psychotherapy are especially dependent on these fundamentals.

See Also the Following Articles

Countertransference ■ Feminist Psychotherapy ■ Humanistic Psychotherapy ■ Multicultural Therapy ■ Race and Human Diversity ■ Transcultural Psychotherapy ■ Transference ■ Women's Issues

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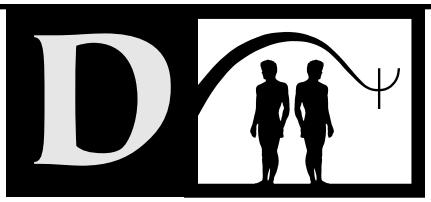

Danger Ideation Reduction Therapy

Mairwen K. Jones and Ross G. Menzies

University of Sydney

I. Description of Treatment
II. Theoretical Bases
III. Empirical Studies
IV. Summary
Further Reading

GLOSSARY

cognitive-behavior therapy A therapeutic approach designed to change mental images, thought patterns and behaviors to help sufferers overcome emotional, behavioral, and psychiatric problems.

danger ideation reduction therapy (DIRT) Developed by Mairwen K. Jones and Ross G. Menzies in the mid-1990s. DIRT is a cognitive-behavioral treatment package for OCD sufferers who experience contamination obsessions and washing compulsions. It solely aims to decrease danger-related expectancies concerning contamination and disease.

obsessive–compulsive disorder (OCD) An anxiety disorder characterized by persistent and unwanted thoughts or images, and impulses to carry out repetitive behaviors or mental acts. Obsessions about contamination and compulsions involving washing are particularly prevalent in sufferers.

This article presents a brief description of the expectancy model that underpins this treatment approach and outlines the empirical findings related to this account. It also provides a description of each of the six treatment components of Danger Indeation Reduction Therapy (DIRT) and discusses its therapeutic effectiveness by reviewing the DIRT treatment trials that have been conducted to date.

I. DESCRIPTION OF TREATMENT

Danger Ideation Reduction Therapy uses a variety of techniques to decrease patient estimates of the probability of dangerous outcomes. DIRT procedures include cognitive restructuring, filmed interviews, corrective information, microbiological experiments, a probability of catastrophe estimation task and attentional focusing. A core tenet of DIRT is that clients perform compulsive washing behaviors in response to faulty beliefs about contaminants in the environment and the ease with which contact with "contaminated" stimuli will lead to illness. Each component of DIRT aims to decrease the patient's belief in the likelihood of dangerous outcomes with respect to contamination. DIRT does not involve exposure and response prevention or employ pharmacotherapeutic agents. In addition, DIRT differs from other cognitive therapy approaches to OCD because all maladaptive beliefs other than exaggerated threat expectancies are ignored by the package.

A. Cognitive Restructuring

This procedure combines features of systematic rational restructuring developed by Marvin Goldfried in

the mid-1970s and rational-emotive therapy developed by Albert Ellis and introduced in the early 1960s. The therapist encourages the patient to identify unrealistic thoughts related to contamination/illness and teaches the patient to reevaluate these thoughts, changing them to be more realistic and appropriate to the demands of the situation. Once constructed, participants are asked to rote-learn their reappraisals, reading and copying them on a daily basis. In later sessions, participants are shown how to apply their reappraisals to novel situations.

B. Filmed Interviews

This component involves the presentation of filmed interviews with workers employed in a range of occupations which involve regular contact with contamination-related stimuli. Occupations include house cleaning, laboratory work, printing, gardening, banking, and nursing. Each interviewee describes in detail the frequent contact with OCD-related stimuli (e.g., chemicals, garden soil, animal hair, bodily fluids, money). Interviewees are then asked about their health and level of sick leave over the course of their employment. The therapist highlights the absence of work-related illnesses in each interviewed employee.

C. Corrective Information

This component involves the presentation of a list of facts related to illness and death rates in various occupational groups (e.g., the number of health care workers who had occupationally contracted HIV). The information provided to clients highlights common misconceptions about illness and disease and the ease with which a variety of conditions can be contracted. Additional information is provided to participants concerning the problems inherent with excessive hand washing. This includes a one-page microbiological report that explains how vigorous washing can damage the integrity of the skin, causing cracks and fissures that break down the protective barrier to infection.

D. Microbiological Experiments

In this procedure the therapist discusses the results of a series of microbiological experiments concerning contamination. The experiments involved the researchers "contaminating" one hand by touching a number of stimuli commonly found to be anxiety provoking to OCD washers, (including garbage bins, toilet doors, and animal hair), while the other hand acted as a control. Fingerprints from both hands were imprinted on sheep blood agar plates. Following the description of the experiments the therapist directs the patient to the research report findings which state that no disease-causing organisms were isolated from fingerprints on the sheep blood agar plates following contact with OCD-relevant stimuli. No potentially pathogenic organisms were isolated on either the control or the experimental task plates. The microbiological report concludes that none of the tasks involved contamination of the hand with any organisms that were other than normal commensal flora of the skin. Discussion of the results focuses on challenging patient's previous excessive risk estimates associated with these tasks.

E. The Probability of Catastrophe

As described by Rense Hoekstra in 1989, this procedure involves comparing patient estimates of the probability of a negative outcome with an estimate derived from an analysis of the sequence of events that might lead to the feared outcome. Behaviors, such as throwing out the garbage, are broken down into the sequence of events required for contamination or illness to occur (e.g., bacteria present on garbage bin, bacterial transfer to hand, bacteria entering the body, initial immune system failure). Probability estimates for each step in the sequence are given by the participant. These are multiplied together to give a new estimate of the likelihood of illness. The therapist highlights the inconsistency between the patient's initial elevated global estimates and those lower probability estimates obtained using the probability sequencing task. Homework consists of applying this method to novel situations.

F. Attentional Focusing

This use of this procedure, which is essentially a basic breathing meditation task, was described in detail in 1985 by Chris Clarke and Wayne Wardman. It involves a focusing task that aims to decrease the occurrence of danger-related intrusive thoughts by increasing the participant's ability to attend to alternative cognitive targets in a rhythmic breathing exercise. Participants are taught to focus on a series of numbers while breathing in and to focus on the word "relax" while breathing out. Participants are instructed to breathe normally and not to slow or speed up the respiration rate. Participants initially train with their eyes closed in a quiet location with minimal noise and distraction. As training progresses across sessions, participants are instructed to increas-

ingly complete their daily focusing sessions in noisier environments while keeping their eyes open. Daily practice consists of two, 10-min focusing sessions.

II. THEORETICAL BASES

A number of models of anxiety propose that expectancies of danger are involved in the mediation of normal fear reactions and clinical anxiety and avoidance. Threat-expectancy accounts of the anxiety experienced by sufferers of OCD have been proposed for a number of decades. For example, in 1974 Anthony Carr argued that patients with OCD make very high subjective estimates of the probability of aversive outcomes. That is, they may more often anticipate danger or negative outcomes than nonobsessives in the same settings. The performance of compulsive behaviors is said to lead to the relief of anxiety through the reduction of the subjective threat.

Such expectancy models seem particularly relevant to OCD because researchers and clinicians have frequently identified themes of danger in the obsessional beliefs of sufferers of OCD. In addition, many patients with OCD are able to specify negative outcomes associated with not performing their rituals, for example contamination and disease for sufferers who fail to execute washing behaviors. Given this, theorists like Carr have argued that danger expectancies may mediate the anxiety and avoidance experienced by the sufferer of OCD. In two studies reported in the literature in 1997 and 1998, Jones and Menzies investigated the validity of an expectancy account of OCD with a focus on those sufferers whose dominant concerns involve contamination obsessions and washing compulsions.

In the first study, Jones and Menzies examined the potential mediating roles of danger expectancies and other cognitive variables that have been hypothesised to play a role in OCD, including responsibility, perfectionism, anticipated anxiety and self-efficacy. They obtained ratings from 27 patients with OCD before and during a Behavioural Avoidance Test (BAT) involving a compound stimulus of potting soil, animal hair, food scraps, and raw meat. Correlation and partial correlation analyses were conducted to investigate the relationships between the cognitive predictor variables and urge to wash, level of anxiety, time spent engaged in the task, and duration of washing in the posttest phase.

The researchers reported significant relationships between danger expectancies and each of the dependent measures. That is, correlations between BAT estimates of danger and anxiety, urge to wash, and time washing were positive, significant, and moderate to high in size. Correlations between BAT estimates of danger and time in dirt were negative, significant, and moderate in size. Partial correlations were conducted between the postulated mediating variables and the four dependent variables, with alternative mediating variables held constant. Severity of disease or illness ratings were found to remain significantly related to all four dependent variables when non-danger variables were held constant. Likelihood of disease ratings remained significantly related to three of the four dependent variables when non-danger variables were held constant. The only relationship that appeared tenuous was between likelihood of disease ratings and time washing, which disappeared when self-efficacy or responsibility ratings were held constant. No alternative cognitive variable was found to be related to any of the four measures of OCD washing in partial correlation analyses when danger expectancy ratings were held constant. More important, the four dependent variables chosen covered a range of the prominent symptoms displayed by OCD washers, from subjective urges and distress to actual avoidance and excessive washing. The ability of danger expectancies to relate to all aspects of the disorder in this study was argued to provide considerable support for danger-based models of the condition.

Following this study, the BAT stimulus was utilized in a second experiment aimed at assessing the role of danger expectancies in OCD washing. In this study Jones and Menzies manipulated the perceived level of danger in the BAT by varying the pre-BAT instructions given to 18 participants. Participants were randomly allocated into a high-danger instruction condition or a low-danger instruction condition. In general, the data obtained were again consistent with a danger expectancy account of OCD washing. That is, as Jones and Menzies had hypothesized, participants in the high-danger instruction condition were found to have higher mean ratings for anxiety and urge to wash and showed greater avoidance and posttest hand washing than participants in the low-danger instruction condition. These differences were significant for time spent washing post-BAT and BAT duration. For this last variable, while all the participants in the low-danger condition were able to keep their hands in the container for the whole 5-min task, four of the nine participants in the high-danger condition withdrew their hands prematurely. Clearly, the fact that a task perceived as more likely to contaminate could lead to significantly increased washing and avoidance is supportive of disease-based models of OCD washing.

III. EMPIRICAL STUDIES

Since the development of DIRT, Jones and colleagues have carried out three studies examining its effectiveness. In the initial treatment trial, which was published in 1997, three patients with OCD whose primary concern involved contamination/washing were selected for the study after presenting at the Anxiety Disorders Clinic of the University of Sydney. At intake each patient had refused standard behavioral intervention (i.e., response prevention). Treatment consisted of between six and ten 1-hour weekly sessions. Treatment was terminated in each case when, in the judgment of the treating clinician (a) clinically significant gains were apparent with minimal symptomatology remaining, and (b) clients displayed a sound grasp of the cognitive model underpinning DIRT procedures. Substantial reductions on all four outcome measures were experienced by the three participants at posttreatment. Posttreatment scores on two of these OCD measures, the Maudsley Obsessional–Compulsive inventory (MOCI) and the Padua Inventory, were lower than typical group means for participants receiving exposure and response prevention in clinical outcome studies and were similar to scores obtained by "normal" control participants in several reports. On the basis of these results, Jones and Menzies argued that the DIRT package may prove useful in achieving and maintaining clinically significant improvements in OCD washers.

In a second study conducted by Jones and Menzies, 21 sufferers of OCD with washing/contamination concerns took part in a controlled DIRT treatment trial. Eleven of the participants received DIRT during eight, 1-hour weekly group sessions. Ten participants were placed on a wait list and did not receive DIRT or any other treatment. All participants were assessed at pretreatment, posttreatment, and 3-month follow-up using the Maudsley Obsessional–Compulsive inventory, Leyton Obsessionality inventory, Beck Depression Inventory, and a Self-Rating of Severity Scale. Participants who received DIRT showed significantly greater reductions in symptomatology from pretreatment to after treatment on all four outcome measures than participants who were in the control condition.

The researchers note that although clinical improvements were obtained in this controlled trial, these were not as large as anticipated. In particular, the posttreatment average MOCI score was higher than typical group means for participants receiving exposure and response prevention in clinical outcome studies and considerably higher than scores typically obtained by "normal" control participants. Therefore, the findings from the second trial of DIRT were not as convincing as those found in the first DIRT trial.

Jones and Menzies suggested a number of reasons to account for the discrepancy in treatment effectiveness between the two DIRT trials. It was suggested that DIRT may be more beneficial when presented in individual sessions in which the therapist is more aware of the dysfunctional beliefs of the individual client and can then help the client identify suitable reappraisals. Also, participants may have been hesitant to discuss their concerns or ask for clarification of techniques in front of other group members. Finally, although the three participants in the first DIRT trial received treatment until clinically significant gains were apparent with minimal symptomatology remaining, this condition was not used as a guide to terminate treatment in the second trial. Instead, before the trial commenced the treatment protocol specified that treatment would involve eight sessions, regardless of clinical gains or the client's understanding of the model underpinning DIRT procedures.

Annette Krochmalik, Mairwen K. Jones, and Ross G. Menzies conducted a recent trial of DIRT with severe, treatment-resistant cases of compulsive washing. The researchers examined the effectiveness of DIRT in five patients with OCD who satisfied *DSM-IV* criteria for OCD with Poor Insight. All patients were classified as treatment resistant, because they had failed to respond to at least two separate, 12-week drug trials using serotonergic agents and had also failed to respond to at least 15 sessions of exposure and response prevention just prior to being offered the DIRT intervention.

Unlike the previous controlled DIRT trial that involved group therapy, Krochmalik, Jones, and Menzies returned to an individual treatment format. Participants received a maximum of 14, weekly 1-hour DIRT sessions. Again, treatment was terminated earlier if clinically significant gains were apparent with minimal symptomatology remaining and clients displayed a sound grasp of the cognitive model underpinning DIRT procedures. Based on this criteria, the five participants received between 9 and 14 sessions in total.

The trial utilized four self-assessment measures (the Maudsley Obsessional–Compulsive inventory (MOCI), the Padua Inventory (PI), the Beck Depression Inventory-II (BDI-II) and the Self-Rating of Severity Scale), and one clinician-rated measure, the Global-Rating of Severity. Using the two-fold criteria of Neil Jacobson and Paula Truax, each participant was able to be classified as unchanged/deteriorated, improved but not recovered, or

recovered on three of the measures (the MOCI, PI, and BDI-II).

The researchers reported that at the post-DIRT assessment phase four of the five participants exhibited reliable decreases in scores on all measures. These improvements were maintained at 4 to 6-month follow-up. In addition four of the five cases met the criteria for recovery on the MOCI and the PI and three of the five cases met the criteria for recovery on the BDI-II at the follow-up assessment phase.

In summary, while one of the five participants did not benefit from DIRT, the other four participants did respond well to this recently developed treatment approach. Given that all four had previously been non-responsive to standard treatment interventions the authors concluded that DIRT may offer substantial promise for treatment-resistant cases of OCD washing and for individuals with OCD with Poor Insight.

IV. SUMMARY

A number of theoretical approaches concerning the nature of OCD have stressed the importance of cognitive biases. Physical danger or threat beliefs is one of the cognitive variables that has been proposed as a mediating variable in OCD. Two studies reported in the literature that have directly examined the role of danger expectancies in OCD have provided support for danger-based models of the disorder. These results reveal previously unexplored possibilities for the treatment of OCD washers. In particular, cognitive-behavioral treatments specifically designed to target and reduce danger-related cognitions appear to be both logically consistent with the findings and potentially effective. One such treatment package, Danger Ideation Reduction Therapy (DIRT), has been recently developed and empirically assessed in three small treatment trials to date. Overall, the results from these studies have provided support for the usefulness of this intervention. The importance of these findings should not be underestimated given that only moderately effective treatments are currently available for OCD, and those traditional treatments are typically associated with significant rates of patient drop-out and refusal.

On the basis of these initial studies it is too early to determine the future utility of this novel treatment approach. However, DIRT appears to have several potential advantages over behavioral and pharmacological treatments. First, unlike exposure and response prevention, DIRT does not require the patient to confront anxiety-provoking stimuli. This is particularly important because many sufferers either refuse exposure treatment or drop-out before completion because of its anxiety-provoking effects. Second, unlike clomipramine, DIRT does not produce any physical side effects. Third, DIRT is a highly structured treatment package involving films, structured reports, and exercises that are relatively inexpensive to package and administer. Fourth, DIRT appears to require relatively few sessions for its therapeutic effect. Finally, DIRT may prove beneficial for patients whose condition has not improved following standard OCD treatments and for those who manifest poor insight.

See Also the Following Articles

Attention Training Procedures ■ Breathing Retraining ■ Cognitive Behavior Therapy ■ Cognitive Behavior Group Therapy ■ Reality Therapy ■ Relaxation Training

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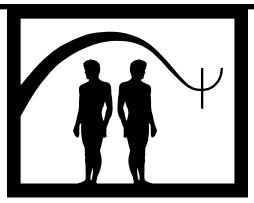

Dialectical Behavior Therapy

Sarah K. Reynolds and Marsha M. Linehan

University of Washington

I. Introduction and Overview
II. Theoretical Foundation
III. Description of Treatment
IV. Empirical Evidence
V. Summary
Further Reading

GLOSSARY

borderline personality disorder A psychiatric disorder characterized primarily by intense negative emotions (including depression, anger, self-loathing, and despair), disturbed interpersonal relationships, and self-damaging impulsive behaviors such as substance abuse and parasuicide.

dialectics A philosophical world-view that reality reflects an ever-changing transactional process.

parasuicide A term that refers to any intentional, acute self-injurious behavior with or without suicidal intent, including both suicide attempts and nonsuicidal self-mutilation. Considered the hallmark of borderline personality disorder.

randomized clinical trial A tightly controlled research design in which participants are randomly assigned to treatment condition. Random assignment allows one to conclude that post-treatment differences between groups are likely due to treatment effects.

Dialectical behavior therapy (DBT) is a multicomponent, cognitive-behavioral psychotherapy intended for complex, difficult-to-treat patients. Originally developed to treat the seriously and chronically suicidal patient, DBT has evolved into a treatment for suicidal patients who also meet criteria for borderline personality disorder (BPD), and it has since been adapted for BPD patients with presenting problems other than suicidal behaviors and for other disorders of emotion regulation. Treatment is based on a unique blend of behavioral psychology principles used to promote change, and Eastern mindfulness principles used to promote acceptance. This entry will describe the theoretical rationale, as well as the basic format of treatment, and will also briefly review the research on its efficacy.

I. INTRODUCTION AND OVERVIEW

Marsha Linehan and her research team at the University of Washington developed DBT during the 1980s as a treatment for the chronically suicidal patient who had a pattern of both suicide attempts and/or nonsuicidal self-injurious behaviors (i.e., parasuicidal behavior). DBT was soon extended to treat individuals meeting criteria for *borderline personality disorder (BPD),* a disorder often characterized by parasuicidal behaviors. DBT has since been standardized in Linehan's 1993 treatment manuals, and evaluated in randomized clinical trials. The data (to be reviewed later in this article) suggest that it is more effective than usual psychotherapies offered in the community for treating women with BPD with primary presenting problems of suicidal behavior and substance abuse. DBT has also been