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THE DEVELOPMENT OF A FIELD: EXAMINING THE GROWTH AND ACCEPTANCE OF CLINICAL HEALTH PSYCHOLOGY

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Clinical health psychology has traveled a long road in becoming a respected field in both psychology as well as the medical field as a whole. This paper examines the growth of clinical health psychology in the United States and throughout the world and it explores the current contributions clinical health psychology has made to facilitate a better understanding of the role of behavior and psychological processes in medical health and individual well being. Current empirically supported interventions such as smoking cessation interventions and chronic pain interventions are examined.

La Psicología clínica de la salud ha recorrido un largo camino hasta convertirse en un campo respetado tanto en la psicología como en todo el ámbito médico. Este trabajo examina el desarrollo de la psicología clínica de la salud en los Estados Unidos y en el mundo, y explora las actuales contribuciones que la psicología ha realizado para facilitar una mejor comprensión del papel que tiene la conducta y los procesos psicológicos en la salud física y en el bienestar individual. Se examinan las intervenciones actuales, con base empírica, tales como el abandono del tabaco y el dolor crónico.

Peptic ulcers, inflammatory bowel disease, colitis, migraine headaches, chronic pain, essential hypertension, asthmatic wheezing, coronary heart disease, obesity—in the past few decades, research has shown that each of these medical disorders have psychological correlates. The field of clinical health psychology has developed to advance the understanding of the role that emotional well-being and mental health plays in physical health. More specifically, as defined by one of the pioneers in the field of clinical health psychology, Joseph Matarazzo, clinical health psychology is the "aggregate of the specific educational, scientific, and professional contributions of the discipline of psychology to the promotion and maintenance of health, the prevention and treatment of illness, and the identification of etiologic and diagnostic correlates of health, illness, and related dysfunctions" (Matarazzo, 1980, p. 815).

In the United States the field of clinical health psychology developed to address the commonly held misconception that permeated the medical field, that the mind and body were unrelated entities. For many years, the field of medicine viewed the mind and body as mutually exclusive, and the correspondence and mutual dependency of mental and physical health was largely overlooked. This mind-body dualism was fueled both by the medical field and the field of psychology. While the role of the medical field had been well established for centuries, psychology was still earning it role as an independent discipline. Thus, the onus was on the field of psychology to demonstrate its value for influencing emotional and physical well-being..

The emphasis on mental health heightened after World War II when the presence of psychologists in the medical field became concentrated on treatment and prevention of post-war psychiatric conditions, including Post-Traumatic Stress Disorder (PTSD). The role of psychological factors and stress on medical health was not emphasized at this point (DeAngelis, 1992). Post World War II a strict separation of phenomenon that were assumed to be related to the mind and those attributed to the body was maintained, with medicine focusing on physical health and psychology specializing in mental health. Despite the continually fueled misconception of a dualism between mind and body, since its development as a separate field of study, North American psychology has played a central role in efforts to understand medical and physical health.

HISTORY OF CLINICAL HEALTH PSYCHOLOGY IN THE UNITED STATES

Since the early twentieth century, psychologists have been involved in behavioral research related to physical health, the application of psychological concepts to

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health problems, and teaching principles of psychology to medical health providers. The first acknowledged contribution of psychology to the physical health field was in the teaching at medical schools. Psychologists taught courses in Behavioral Science to medical students, emphasizing ways of understanding "illness" behavior. While the number of pioneering psychologists was small in the early medical school setting, they contributed to a growing recognition that psychological factors played a vital role in physical health (Stone, 1979).

Despite the important role psychology held in providing instruction regarding behavioral influences in health care, for many the interplay between psychology and medical health remained unclear. Initially, the field of physiological psychology was given some credence when the interaction of psychology and medical health was considered, with little regard given to lifestyle factors and behavior (Belar, 1995). Several factors, however, have led to a greater appreciation of psychology and medical health. Many of the factors surround the growth of behavioral medicine and an awareness of the shortcomings of the biomedical model, which resulted in an effort to combine biomedical and behavioral knowledge to provide a better understanding of disease.

Clinical health psychology, as a branch of psychology, has had to evolve into an independent discipline in its own right, with a defined area of study and particular methods of both research and intervention. As clinical psychology became more and better defined as a discipline, however, it began to branch out into increasingly specific sub-disciplines. Clinical psychology initially spawned the field of behavioral medicine, which developed ties with the medical fields of psychosomatic medicine, neurology, and family practice. Subsequently, Clinical Neuropsychology evolved into a separate and independent field of study and finally, Clinical Health Psychology has become identified as a specialized sub-field of clinical psychology. With this growth has evolved an increasingly precise terminology to describe relationships between the physical and the psychosocial, and the scope of the practice has evolved to support the work of health psychologists, neuropsychologists, and specialists in behavioral medicine within medical health and medical school settings. Each of these fields lends perspective and expertise to the understanding of the interaction between mind and body, yet each has had a distinct meaning.

Clinical Health Psychology has evolved as a separate field within applied psychology, beginning with a seminal article by William Schofield in 1969. The article, entitled "The Role of Psychology in the Delivery of Health Care", presented the idea that mental health should not be a separate entity from physical health, but that both must be conceptualized under the vast rubric of the health field. Schofield analyzed psychological abstracts from the years 1966-1967 to determine how much research was done in the health fields. He confirmed that psychology focused on primarily three things: psychotherapy, schizophrenia, and mental retardation. Schofield encouraged psychologists to expand their vision to include more physical health related venues. He emphasized the necessity for psychologists to get more involved with physical illnesses since psychological factors played a major role in the etiology of illness, cooperation with treatment, and response to treatment.

After Schofield's article, the field of clinical health psychology continued to expand. His paper prompted the American Psychological Association to develop a Task Force on Health Research in 1973. Schofield headed this Task Force which focused on the role of psychology on health issues outside of mental health (Weiss, 2000). The task force determined that the field of psychology could contribute to the understanding of the interface between behavioral variables and physical illness (Weiss, 2000).

Another landmark in the history of health psychology are to be found in the work of Neal Miller. Miller introduced the use of biofeedback, a set of procedures that neatly demonstrated the interaction between the mind and the body. Miller described biofeedback as: "Feedback provided by a device that provides prompt measurement of a biological function," (Miller, 1978). Biofeedback is a form of self-regulation in which a person is given insight regarding how they can control certain visceral responses such as blood pressure, skeletal responses, and heart rate. In addition to physical ailments, biofeedback is used to treat psychological disorders such as attention deficit and hyperactivity, autism, posttraumatic stress, sexual dysfunctions, and panic disorder to name a few. Biofeedback illustrates how insight into somatic activities can influence one's ability to control those activities which then gives one control over both physical and mental health problems.

As interest in the psychological and psychosocial aspects of health grew, the medical field was growing increasingly dissatisfied with the biomedical approach to understanding health and illness (Belar, 1995). Medical professionals recognized that social, behavioral, environmental and bio-

logical factors all played a role in the etiology of medical diseases. In examining the medical issues that were affecting the population, researchers noted that behavior played a large role in the manifestation and perpetuation of certain illnesses. Recognizing the role that behavior plays in society's most significant health problems, "…challenges the traditional medical model, which views disease as a purely biological phenomenon, that is, the product of specific agents or pathogens and bodily dysfunction" (Krantz, Grunberg, & Gaum, 1985, p. 351). Concurrently, in this atmosphere of change, Joseph Matarazzo, the first president of the division of health psychology offered his vision of health psychology.

BEHAVIORAL INFLUENCES ON HEALTH

How behavior influences health and disease "…can be grouped into three broad categories: direct psychophysiological effects, health impairing habits and lifestyles, and reaction to illness and the sick role" (Krantz, Grunberg, & Gaum, 1985, p. 352). The direct psychophysiological effects involve biological changes that occur as a result of psychosocial issues. An example of this would be stress-induced illnesses. Another way that the behavior-illness interface can be examined is through the impact of health impairing habits and behaviors. Cigarette smoking, poor diets, and lack of exercise are all behaviors and habits that lead to health impairment. Finally, how an individual reacts to illness and their view of the sick role is the final category. Many individuals may delay seeking treatment for certain symptoms, in effect, they exacerbate the symptoms. Part of their hesitance may be a function of what health psychologists term "illness behavior" or how a person reacts to physical illness as well as to being sick (Krantz, et al., 1985).

Several other factors also influenced the development of clinical health psychology as a field. Included in this process were the growing interest in quality of life; a shift in focus onto chronic disease rather than infectious diseases; and a change in psychology that reflected an interest in disease and its correlates to behavior (Belar, 1995).

In 1978, the American Psychological Association (APA) recognized Health Psychology as a field under Division 38. Along with the formation of Division 38, a number of journals related to health psychology have emerged. Health Psychology, Psychology and Health, the Journal of Health Psychology, the Journal of Behavioral Medicine, and the International Journal of Behavioral Medicine were among the journals that provided avenues for communication and channels for research (Weiss, 2000). In the mid 1980's, the American Board of Health Psychology was founded to provide board certification to health psychologists. Then in 1993, health psychologists gained full affiliation status with the American Board of Professional Psychology (ABPP), the oldest national credentialing body for professional psychologists (Belar, 1995). Health psychology has begun to gain acceptance throughout the world. In 1993 the first International Association of Health Psychology was established and their inaugural meeting was held in Tokyo in that same year (Weiss, 2000).

Table 1
The History of Clinical Health Psychology

YEAR	Historical Events in Clinical Health Psychology in the United States
Early 1900s	Psychologists provide instruction at medical schools on human behavior
1969	William Schofield writes article discussing the relationship between mental health and physical health
Late 1960s	Dissatisfaction with the medical model explanations of disease and illness
1973	Schofield's article prompts the American Psychological Association to develop the Health Research Task Force
1978	Neal Miller introduces the concept of biofeedback
1978	American Psychological Association (APA) recognizes Health Psychology as a field and develops Division 38
1980	Joseph Matarazzo defines the scope of clinical health psychology
Middle 1980s	American Board of Health Psychology founded to provide board certification to health psychologists
1993	Clinical health psychologists gained full affiliation status with the oldest national credentialing body for professional psychologists, the American Board of Professional Psychology (ABPP)
1993	First International Association of Health Psychology was established and the inaugural meeting held in Tokyo
2002	Council of representatives of the American Psychological Association Division of Health Psychology expands mission statement

CURRENT ROLE OF CLINICAL HEALTH PSYCHOLOGY IN THE UNITED STATES

Today the concepts of health psychology are based on the biopsychosocial model. This model bases its theoretical foundation on the premise that physical health, illness and disease results from the interaction of biological characteristics, behavioral factors, and social conditions (APA Health Psychology website; Suls & Ruthman, 2004). Moreover, disease can be viewed as having multiple causes and each of these causes must be inspected in the context of determining a correct diagnosis; consequently, treatment and intervention must take into account all the contributing factors of the disease. The biopsychosocial model has effectively replaced the biomedical view of disease which states that disease is primarily a result of biological factors. The model provides a more holistic view of disease by integrating various aspects of a person's life into the understanding and treatment of illness. Health psychology interventions work towards facilitating an individual's understanding of how behavior and mental health play a role in medical well being.

TYPES OF INTERVENTIONS

Interventions in clinical health psychology serve several different roles. They have been designed to help individuals decrease risky behaviors, for example interventions that help individuals decrease substance abuse and quit smoking; they serve to increase behaviors that maintain healthy living and maintain a higher quality of life. Health psychologists have played an integral in developing smoking cessation programs and programs that help people lose weight and maintain a healthier lifestyle.

Interventions in clinical health psychology have also been designed to provide services to patients and the families of patients that have chronic illnesses such as cancer, HIV, AIDS, diabetes, stroke survivors, Alzheimer's disease, and Crohn's disease. The interventions also teaches patients skills that can help them cope with chronic pain, such as headaches, spinal cord injuries, and back pain. Additionally, health psychologists provide interventions to cardiovascular patients to help them develop skills that would allow them to live a better quality of life. Health psychology interventions have also been designed to help individuals suffering from problems associated with health that can be found in both the Diagnostic and Statistical Manual of Mental Disorders 4th edition, Text Revision and the International Classification of Diseases, 10th edition. Disorders such as bulimia nervosa and anorexia nervosa fit this category (Compas, Haaga, Keefe, Leitenberg, & Williams, 1998).

Health psychology interventions have been shown to improve individuals' symptoms and quality of life (Keefe & Blumenthal, 2004), additionally they have improved the ability to help patients develop the coping skills that are needed to deal with traumatic surgeries and medical interventions (Nicassio, Meyerowitz, Kerns, 2004). The interventions "…have addressed a range of objectives, including reducing stress, enhancing quality of life, providing support, bolstering immune system functioning, fostering adherence to provider recommendations, reducing disability, and increasing education and awareness" (Nicassio, Meyerowitz, & Kerns, 2004, p. 132).

Efficacy of Health Psychology Interventions

The several fields of applied psychology, as a group, have been increasingly focused on developing psychological treatments and interventions that have been empirically supported. In 1995, the Clinical Psychology Division of the American Psychological Association developed the Task Force on Promotion on Dissemination of Psychological Procedures. Researchers propose that identifying treatments that are empirically supported will serve to advance the field and can further establish psychological interventions as beneficial and effective treatment approached. In light of the current environment, clinicians have been encouraged to determine the best method of treatment for their clients, and have been challenged to find evidenced-based interventions that meet their patients' needs. In a field that must meet the demands of rapid growth and advances in medicine and health care needs, it has been necessary for the field of clinical health psychology to provide evidence that their interventions are effective and evidence-based.

Since the advent of the Task Force on the Identification and Dissemination of Empirically Validated Treatments, initiated by the Division of Clinical Psychology (American Psychological Association), investigators have reconsidered the interventions on which research has been conducted, evaluating them by criteria that may conventionally be considered to be necessary to be considered empirically supported. According to these currently accepted criteria, "Each study must have used random assignment to treatment conditions; be manual guided, or…be very clearly described; standardized and replicated by different investigators" (Compas, Haaga, Keefe, Leitenberg, & Williams, 1998, p. 90). Additional-

ly, interventions must show that they are significantly more effective than designs in which one of the following three conditions were met: no treatment was provided, placebo pills were provided, or an equally established treatment was provided (Chambless, & Ollendick, 2001; Compas, Haaga, Keefe, Leitenberg, & Williams, 1998).

Currently, research designs such as randomized controlled trials (RCTs) have been utilized to demonstrate the advantages of health psychology-based interventions; the field also lends itself to research based on systematic but less tightly controlled observational research. These methods have contributed significantly to providing a basis to demonstrate the effectiveness of health psychology interventions. Using the criteria delineated by Chambless, several different interventions have been shown to be effective. Compas, et al. (1998), reviewed literature spanning several years that examined different health psychology interventions, including cigarette smoking cessation interventions; interventions that address managing chronic pain; interventions that focus on the treatment of individuals with cancer; and eating disorders interventions.

SMOKING CESSATION INTERVENTIONS

Compas et al. (1998), reviewed studies that examined the efficacy of behavioral therapy alone, as well as behavioral therapy and each one of the following as a conjunctive treatment method, nicotine gum and physical exercise. Smoking cessation interventions that used physical exercise alone was also reviewed. The review of the data demonstrated the effectiveness of behavioral approaches to smoking cessation. Review of interventions that teach the management of chronic pain also indicated the effectiveness of psychological interventions. In this review, Compas et al. (1998) found that the psychological interventions that were most effective in the treatment of chronic pain included: biofeedback training, cognitive behavior therapy and operant-behavioral therapy.

CANCER AND CHRONIC PAIN INTERVENTIONS

In the United States and around the world cancer is highly prevalent. Every year in the United States, 1 million new cases are reported and the World Health Organization lists cancer as one of the leading causes of death. Research has also indicated that there are several correlated psychological issues that are diagnosable in patients with cancer, such as depressive disorders and anxiety related disorders (Compas et al., 1998). Consequently, psychological interventions have been found to be useful in helping patients suffering from cancer and the comorbid psychological disorders that these patients experience.

Another area in which Compas et al., (1998) examined the efficacy of health psychology interventions was with patients experiencing chronic pain. From rheumatoid arthritis to migraine headaches to lower back injuries, chronic pain affects a large population of individuals throughout the world. In the United States it accounts for most visits to orthopedic surgeons and neurosurgeons, and in many cases causes such severe disability that an individual is unable to function in the work force. While the biomedical model has long been the guide for the treatment of chronic pain conditions, it has failed to account for several factors that have been observed: "(a) Patients having the same level of underlying disease activity often report very different levels of pain; (b) pain can be present even when there is no clear-cut evidence of tissue damage, and (c) pain may persist long after a reasonable time for healing has passed" (Compas, et al., 1998, p. 93).

The shortcomings in traditional, medical approaches to the treatment of pain has allowed health psychology to successfully insert itself as an accepted supportive or even primary intervention. With the use of operant behavior therapy approaches, and cognitive behavior therapy approaches, patients have learned to successfully cope and manage pain symptoms. One study noted that patients with rheumatoid arthritis reported significant decreases in pain symptoms after using cognitive behavioral techniques to help them cope with their pain symptoms.

Health Psychology Interventions in Pediatric Settings

Health psychology interventions have also been found to effective in pediatric populations. Health psychology interventions have been documented to be effective in a very important aspect of pediatric care, treatment adherence. Adherence is defined as " '…the extent to which a person's behavior (in terms of medications, following diets, or executing lifestyle changes) coincides with medical or health advice' " (Lemanek, Camps & Chung, 2001, p. 254). In pediatric populations, as well as adult populations, nonadherence to treatment regimens is prevalent. Several factors contribute to nonadherence, including disease characteristics, the individual's view of the sick role, as well as other individual and family characteristics.

Behavioral strategies and organizational strategies have been found to be useful in helping children and families adhere to treatment regimens. Additionally, clinical interventions that are focused towards children and families that address concerns and strategies regarding treatment have been found to be helpful in increasing adherence to treatment (Lemanek, Camps & Chung, 2001).

HEALTH PSYCHOLOGY AND DISASTER

The role of health psychology does not end in medical settings however. The field lends itself to providing public health service, and in a time in which environmental stressors, such as terrorism and disaster are of public interest, health psychology is responsible for meeting the needs of the public. Health psychology is important to address both at the individual and community level. In times of crisis, both at the individual level and at the community level, the need for stability is paramount for the individual in order for them to continue functioning at an appropriate level including physical and emotional needs. Physical needs, such as medical health, clothing, food and shelter are primarily the needs that are met by crisis workers; in recent times however mental health has been recognized as one of the factors that contribute to an individual's overall well being during critical times. More importantly, it was recognized as one of the needs that remained overwhelmingly unmet (Morgan, 1995).

Examining the impact of traumatic stress can illustrate this concept. The effect of crisis and critical incidents on an individual's mental health has been well-publicized. In response to experiencing trauma, an individual may have one of many short term or long term psychopathological reactions. Traumatic stress resulting from events such as car accidents, rape, or terrorist acts puts an enormous strain on the medical system in the United States and the world over.

In any one year, over 5.2 million people suffer from Post Traumatic Stress Disorder (NIMH website). These individuals often utilize the emergency medical system to address concerns stemming from associated symptoms (such as panic attacks) and many are so disabled by the disease that they become unable to work. Traumatic stress disorders therefore do not only result in the suffering of an individual, but result in a strain on a variety of resources within a community.

To address the health of a community, education can be a powerful form of prevention. The Palo Alto Medical Reserve Corps (PAMRC) in California exemplifies how integral psychological health education can be to a public education program aimed at improving community health. In addition to instructing licensed mental health professionals in empirically derived early trauma interventions, the PAMRC invests considerable effort in working with the local police department, city government, hospitals and universities to educate the public about the causes, symptoms, and available treatment options associated with traumatic stress.

The educated public is then able to identify the signs and symptoms of traumatic stress in their loved ones, coworkers, neighbors and themselves and is able to direct the sufferer towards appropriate treatment. Many hope that this type of education will decrease the strains traumatic stress can put on the community by treating people suffering from traumatic stress earlier and more effectively, thereby decreasing the duration of their suffering and the duration of impact on the medical system and community.

FUTURE DIRECTIONS IN CLINICAL HEALTH PSYCHOLOGY

Psychology now enjoys an important role in the field of physical health. It is an accepted fact today that the etiology of many diseases and illnesses are related to behavior. In fact the leading causes of death in the United States: heart disease, cancer, and stroke, all have behavioral components. Currently the role of psychologists in medical settings has expanded beyond the psychiatric domain and beyond providing explanations of human behavior. Many subspecialties within the medical field, including surgery, internal medicine, pediatrics, obstetrics and gynecology, rehabilitation, cardiology, anesthesiology, and dentistry, recognizes the influence of psychology in the etiology, diagnosis and treatment of medical disease. The most common specialties within health psychology in the medical domain include clinical health psychology, rehabilitation psychology, and neuropsychology. There are an estimated 3,000 psychologists that are currently employed in medical schools (DeAngelis, 1992).

It is now commonly acknowledged that health and behavior are invariably and inextricably linked. Health psychology's contributions have been instrumental in this acknowledgement. This field will continue to grow as the concern and attention of the health care system expands. The era of believing that mind and body are unrelated ships passing in the night has finally met its end. Science

today readily acknowledges that mind and body are equally involved in the prevention, etiology, and treatment of disease.

As the medical field and medical research continues to grow, the onus is on health psychology and health psychology interventions to continue to grow as well. In 2002, the American Psychological Association's Council of Representatives voted to expand the mission statement of the division of health psychology (Division 38). The mission statement now states that advancements in the field of psychology as a whole must include "'…promoting health, education, and human welfare'" (Smith & Suls, 2004, p. 115).

Currently, psychologists play a large role in determining the best recipients of organ transplants, and as the field of genetic research continues to grow, health psychology can also play an integral role, providing interventions and undertaking research. As an established filed in psychology, health psychology must now ensure that the interventions and research performed reaches the populations that are in most need of its interventions. Professional groups and patients alike must be targeted, and the field must ensure that the role of health psychology in the etiology and treatment of disease continues to be understood.

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