

An Examination of the Role of
Health Promotion in Physical Therapy

Katie Marie Shumpert, M.S., Mississippi State University
Barry Hunt, Ed. D., Mississippi State University
Michael E. Hall, Ph D., Florida Atlantic University

Corresponding Author:

Dr. Barry P. Hunt Ed D
Professor of Health Promotion
Department of Food Science, Nutrition and Health Promotion
P.O. 9805
Mississippi State University
MSU, MS 39762
E-Mail: bhunt@fsnhp.msstate.edu

ABSTRACT

This article is a review of literature which attempts to address the following question: Can health education and health promotion be utilized in the field of physical therapy through practicing multidimensional concepts and utilizing health related theories when creating health programs and educating patients and families? The manuscript discusses the use of the health promotion models and theories such as the Social Cognitive Theory, Eberst's multidimensional cube model, and the Health Belief Model. Articles published from 1980 to 2009 were identified by searching PubMed, PsychINFO, and SportDiscus. Results were recorded from each individual study and then discussed in the discussion and conclusion sections. Evidence suggests that the field of physical therapy can benefit from the use of health promotion and health education. The review also addressed current progress that the world of physical therapy is making toward achieving the use of health promotion ideals and theories into their practice.

Key Words: health promotion, health education, physical therapy, theories, roles, physiotherapy, rehabilitation, health literacy health belief model, social cognitive theory.

INTRODUCTION

Many health care professionals, including physical therapists, are needed to lead and develop health promotion plans and strategies in the work forces in order to assist the nation in achieving Healthy People 2010 and 2020 goals (Rea, Marshak, Neish and Davis, 2004). The American Physical Therapy Association (APTA) is a member of the Healthy People conglomerate, a group of 650 national, professional, and voluntary organizations and agencies that assisted with creating Healthy People 2010 (USDHHS, 2000; APTA, 2009).

Physical therapists' educational and practice guidelines currently emphasize inclusion of health promotion (Martin and Fell, 1999). The mission of the American Physical Therapy Association (APTA), the principal membership organization representing and promoting the profession of physical therapy, is to further the profession's role in the prevention, diagnosis, and treatment of movement dysfunctions and the enhancement of the physical health and functional abilities of members of the public. According to the APTA vision statement, by 2020, physical therapy services will be conducted by providers who are doctors of physical therapy and may also be board-certified specialists. Consumers will have direct access to physical therapists in all environments for patient/clients management, prevention, and wellness services. Physical therapists will be practitioners of choice in patients'/clients' health networks and will hold all privileges of autonomous practice (APTA, 2009).

The APTA Guide to Physical Therapist Practice, 2nd edition, states that a part of physical therapists' practice is to "provide prevention and promote health, wellness, and fitness." It also suggests that physical therapists can be involved in primary, secondary, or

tertiary prevention. The APTA standards state that physical therapists are to “identify and assess the health needs of individuals, groups, and communities, including screening, prevention, and wellness programs appropriate to physical therapy” and to “promote optimal health by providing information on wellness, impairment, disease, disability, and health risks related to age, gender, culture, and lifestyle (Harro, 1999). Physical therapists have much to offer a dynamic health care system in the area of rehabilitation but also in the areas of disease prevention and health promotion (Harro, 1999).

METHODS

Articles published from 1980 to 2009 were identified by searching PubMed, PsychINFO, and SportDiscus. The following keywords were searched singularly and in various combinations: health promotion, health education, physical therapy, theories, roles, rehabilitation, health literacy, health belief model, and social cognitive theory. Articles were included in the review if they examined the impact and use of health education and health promotion in the field of physical therapy or rehabilitation, along with the roles that health promotion may play in the therapy field. Articles were limited to only those that related health promotion and physical therapy and included actual positively or negatively correlated outcomes. Only articles published in peer reviewed journals were included in the review.

OVERVIEW OF STUDIES & RESULTS

Fruth, Ryan and Gahimer (1998) completed a study of the prevalence of health promotion and disease prevention statements made by physical therapists within 96

physical therapy sessions. The study was based on 6 dimensions of health included in Eberst's Multidimensional Model of Health (1984); physical, emotional, mental, social, spiritual and vocational. Within each of those 6 dimensions researchers created subcategories. For example in the physical dimension, subcategories included nutrition and overweight, patient disease or injury, exercise, smoking, rest and relaxation, stress, sports fitness, and recreation. Outcomes indicated that the average number of health promotion statements in a treatment session was relatively low, with a mean frequency of 2.44. When health promotion statements were made, they were primarily in the "physical" dimension. For example, 172 out of the 218 total health promotion statements were in the physical dimension, 6 in the emotional; 2 in mental health, 14 in social, 24 in vocational, and none in spiritual. The researchers found no relationship between the number of health promotion statements and the therapists' academic degree, years of experience, duration of treatment sessions, type of physical therapy setting, or where the patient's stage in the course of recovery (Fruth, Ryan and Gahimer, 1998). Results suggest that physical therapists seem to most commonly address the physical dimension of health promotion statements during treatments.

Rea et al (2004) completed a separate study to investigate perceptions of practice patterns in 4 focus areas of Healthy People 2010 and to identify related self-efficacy and outcome expectations of physical therapists in California, New York, and Tennessee. The study addressed 4 focus areas of Healthy People 2010 including: disability and secondary conditions affecting psychological well-being; nutrition and overweight; physical fitness and activity; and tobacco use. Self-efficacy and outcome expectations examined were as described by the Social Cognitive Change Theory (SCT) (Bandura, 1986), in order to

identify likely predictors of physical therapists practice. An instrument was pilot tested and distributed in 2 waves to 3,500 randomly selected, licensed physical therapists from three states: California, New York and Tennessee. Three states were chosen for the study because they represented distinctly different environments in which physical therapists practice, and this could possibly influence how physical therapists practice health promotion. Random interviews were conducted via telephone with 23 physical therapists in all 3 states until similar responses were identified in order to create a qualitative instrument, which was then tested with 20 physical therapists in California. The health promotion behavior most commonly practiced by physical therapists was assisting patients to increase physical activity, followed by psychological well-being, nutrition and overweight issues, and smoking cessation (Rea et al, 2004)

From these specific areas of focus came two research questions to be answered at the end of the study. Question 1: What are physical therapists general perceptions of their health promotion practice patterns in regard to the 4 focus areas of Healthy People 2010, and are there differences across California, New York and Tennessee? Question 2: What are physical therapists general levels of perceived self-efficacy and outcome expectations in regard to incorporating health promotion into practice for each of the 4 focus areas of Healthy People 2010, and are such levels of self-efficacy and expectations related to health promotion practice patterns of practicing physical therapists? Self-efficacy predicted all 4 behaviors beyond the control variables. The study showed that while many therapists believe that they are addressing health promotion topics with their patients, they are doing so in varying degrees and at lower than desirable levels based on Healthy People 2010 goals. The study demonstrates that a physical therapists' confidence in being

able to perform a behavior was the best predictor of perceptions of practice patterns and is an area to target in future interventions.

Self-efficacy and outcome expectations are both prime elements of the Social Cognitive Theory and have been shown to be important in therapeutic relationships (Glanz and Rimer, (2005). With positive self-efficacy and the right outcome expectations a patient may have a more effective rehabilitation experience.

The next study that was reviewed is a qualitative study conducted by Davis (1995). The goal of rehabilitation is to help disabled clients achieve the highest functional capacity of which they are capable. Health promotion is concerned with promoting health and preventing ill health by helping people to develop self- control. Self-empowerment is defined as a way of enabling individuals to be in control and consequently the key to health promotion. The qualitative study explored nurses understanding of health education and health promotion and their role within these fields; and also their perception of illness and wellness related to disability. The principle of methodological triangulation was employed using questionnaires; group interviews and content analysis of client care plans. Although the nurses did have difficulty distinguishing between health promotion and health education, differences did emerge which were supported by the literature (Davis, 1995).

Nurses generally identified their role as being in the realm of health promotion, however, they tended to equate wellness with physical independence. As a result of the study a health promotion model based on the principles of self-empowerment was suggested, which could be used as a framework for rehabilitation nurses and other health professionals, such as therapists, to enable them to focus on health and wellness rather

than illness and disability. The research resulted in the development of a model in which policy making, social and physical environment were all considered as health promotion activities. Empowering patients and working with them to make them more independent was considered as health education (Davis, 1995).

While Davis's study was done using the occupation of rehabilitation nurses', therapists can also utilize important results that were taken from study outcomes. The use of health education and health promotion in the field of therapy can potentially improve a person's self-empowerment along with their self-efficacy. The literature in this study highlighted the need for all rehabilitation professionals to adopt a health promotion philosophy and was very clear that while this specific study was aimed at nurses, the suggested model can and should be used by other rehabilitation professionals (Davis, 1995).

A fourth study by Hammer, Degerfeld and Denison (2007) attempted to measure and describe several constructs of Social Cognitive Theory (SCT) (self-efficacy, outcome expectations, outcome expectancies, and behavioral capabilities) in terms of relevance to compliance with exercise regimens in physiotherapy, and to explore relations between SCT constructs and compliance. The prominent problem with most kinds of therapy which requires patients to perform certain actions, such as doing exercises, pertains to whether patients actually do whatever is believed to produce a treatment result. This phenomenon, referred to as compliance, addresses patients attaining pre-established goals or adherence. Low compliance to various forms of medical regimens seems to be a general problem within healthcare. Compliance with physiotherapeutic treatment pertains to exercises or other procedures at the clinic or to the performance of home programs or

attending certain regimens. A systematic approach to patient behavior change may enhance compliance and thus treatment effectiveness. The most widely used theory to understand and influence human behavior is the Social Cognitive Theory (SCT) (Hammer, Degerfeld and Denison, 2007) As seen in previously discussed studies, the SCT is the assumption of reciprocal interdependence between internal personal factors, behavior, and the external environment (Glanz and Rimer, 2005)

The aim of this particular study was to describe SCT constructs and exercise compliance, and to explore relations between SCT variables and exercise compliance in patients with lumbar derangement syndrome during mechanical diagnosis and therapy (MDT) treatment. Fifty-eight subjects completed the study. Data collection included measures relevant to SCT constructs and compliance: outcome expectations and expectancies, self-efficacy expectations, behavioral capability, and self reported frequency of exercise occasions, as well as treatment outcomes regarding pain intensity and disability. This is one of the first studies that attempted to study several SCT constructs in relation to compliance with an exercise program that is widely used by physical therapists, the McKenzie's MDT, a method of evaluating and treating spinal disorders (Hammer, Degerfeld and Denison, 2007). The high scores in the SCT variables and high compliance rates are in line with SCT and support the theory. The SCT postulates that people will take action when they expect given actions to produce desired outcomes and believe that they can perform those actions (Glanz and Rimer, 2005). Results in the study were consistent with previous results from a study on exercise treatment not related to MDT for sub acute and chronic LBP patients in a primary healthcare setting. Subjects reported similar expectations, exercised self-efficacy and

performed their exercises well. Results were also consistent with data that showed good overall short-term compliance (Hammer, Degerfeld and Denison, 2007)

The value of self-efficacy in adherence to physical therapy related exercise regimens remains uncertain. Jette, Rooks and Lachman (1998) found no evidence that self-efficacy towards exercise was related to adherence to an exercise program in a sample of older adults, while Chen, Strecker, Neufeld, Feely and Skinner (1999) reported a low, but significant correlation between the two with an exercise program in a sample of subjects with upper-extremity impairment. McAuley, Courneya, and Rudolph, 1994) showed that self-efficacy can predict exercise adoption in a sample of middle aged adults. Hammer, Degerfeld and Denison, 2007) reported that the lack of significant correlations in this study could be due to not enough variation in data.

Davis and Chesbro (2003) discussed the need for integrating health promotion, patient education, and adult education principles with older adults. Demographic changes and an increase in the number and population proportion of older adults, have resulted in a greater demand for health promotion and patient education by rehabilitation professionals. Many interrelationships between health promotion, patient education, and adult education exist in the context of rehabilitation so that interventions must have the maximal impact possible. Health promotion and patient education are within the scope of practice of rehabilitation professionals, but the success of these effects is diminished unless concepts and approaches of teaching and interacting with older adults are used (Davis and Chesbro, 2003). With the addition of these ideas into rehabilitation curriculum and practice, health promotion, patient education, and adult education principles, therapists and rehabilitators can potentially be more effective. The best ways to integrate

these ideas into therapy may be through health promotion theories and models. Through us of theoretical frameworks, therapists can attend to all levels of organization when treating a patient (Davis and Chesbro, 2003)

Sluijs, Kok and Van der Zee (1993) conducted a correlational study describing factors related to patient compliance with exercise regimens during physical therapy. The study investigated whether or not patient compliance was related to characteristics of the patient or the patients' illness, to the patients' attitude, to the therapist's behavior. Results of the study showed that the main factors related to noncompliance were: barriers patients perceive and encounter; lack of positive feedback; and degree of helplessness. The barriers factor showed the strongest relation with noncompliance. Results also indicated that noncompliance was more strongly related to the characteristics of the illness than to the illness itself. While the article did not explicitly explore the idea of the Health Belief Model in its' discussion of compliance, the results of this study may have been different had the therapists been using the Health Belief Model as a partial guide in their treatment process.

A group of researchers in the US Public Health Services developed the Health Belief Model (HBM) in the 1950s. The HBM was one of the first theories and remains one of the most widely recognized value-expectancy theories in health promotion. The HBM proposes that behavior is related to expected outcomes of certain behaviors and the value that is places on those outcomes. The theory is used to assess individuals' beliefs about susceptibility to a given disease, the severity of the disease, whether there are pertinent benefits to preventive behaviors and if those benefits outweigh perceived barriers to the behaviors. The theory also takes into consideration whether or not the

person is ready to act or adopt the behavior along with whether the person is confident in their ability to complete the action or behavior successfully (self-efficacy).

After reviewing the study and comparing the HBM concepts to the problem areas, it is evident that with the use of health promotion through the Health Belief Model, the three main barriers related to noncompliance in Slulja, Kok and Van der Zee (1993) study could have been effectively addressed. The HBM addresses barriers, self-efficacy, which can be obtained through positive feedback, and a degree of helplessness, which can be ameliorated through development of self-efficacy or social support networks.

DISCUSSION

Health promotion is a growing part of the physical therapy field today. While, the idea is still not fully integrated into the practice, it is well on its way. From the overview and results we are able to see where not only specific health models, such as the Social Cognitive Theory and the Health Belief Model, but also other basic principles of health promotion can be beneficial to physical therapists.

Another aspect of health promotion not previously discussed that therapists and other health care professionals should focus on is health literacy. Patients may not always fully understand their diagnosis and treatment. As a result, they may not follow through with their home health care programs, medications or preventative care. Health literacy is defined as “the degree to which individuals have the capacity to obtain, process and understand basic information and services needed to make appropriate decisions regarding their health (Vanderhoff, 2005)

According to the Institute of Medicine (IOM), “90 million America’s, nearly half of all adults, have inadequate health literacy” (Vanderhoff, 2005). Much progress has

been made to enhance health literacy. The providers' competency is paramount to successful patient education. As such, The Commission of Accreditation in Physical Therapy Education has made patient education an accreditation requirement for PT education programs (Vanderhoff, 2005). The best way to ensure that health education and health promotion are being utilized in physical therapy is to ensure that it is taught to students and in continuing education courses.

CONCLUSION

The medical field has recognized the need to shift the disease treatment focus to a prevention of disease focus for many years (Jette, Latham, Smout, Glassway, Slavin and Horn, 2005). It is imperative that physical therapists embrace the idea of practicing their professions while including health promotion, education and wellness. In order for this to occur, physical therapists must have the understanding of basic concepts associated with health promotion and disease prevention. Therapists must also have access the basic concepts and manage risk factors and risk behaviors. Models of health behavior change are especially relevant and useful to therapists who want to help positively effect health behavior change among their patients.

Through use of multidimensional models, Social Cognitive Theory, Health Belief Model, and in-service education addressing the latest research and prevention methods therapists could potentially improve their practice. There are several studies that give mixed signals about whether or not health promotion is being used by physical therapists. However, one general consensus is that health promotion is beneficial to therapists in a plethora of ways (Martin and Fell, 1999).

The APTA has been offering Advanced Clinical Practice courses (APTA, 2009). In 2006, the APTA offered a course that should be required to all therapists; a two-day course titled Health Promotion and Wellness: Expanding your Practice Paradigm. In these sessions the APTA explores how to motivate patients to participate in the prevention and wellness efforts. All of these issues are explored in the session along with others related to development, marketing, implementation and assessment of health promotion and wellness programs. In the end, health promotion includes concepts and skills that could benefit and should be practiced in many allied health professions, especially the field of physical therapy.

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