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# Extending Clinical Practice to Medicine

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#### **Abstract**

The following article is first in the series of articles of this Special Issue. The prominence of need and use of Psychological Services in Medicine is identified. Key studies highlighting the effectiveness of interventions by Medical Psychologists are explained. Comments regarding the utility of inclusion of Medical Psychology in Medicine, use of assessment and future directions are presented.

**Keywords:** Health psychology; Behavioral medicine; Medical psychology; Health care; Sleep medicine; Primary care

## **Extending Clinical Practice to Medicine**

Psychologists working in Medical settings have taken place since the growth surge in the field following World War II. Clinical Psychology professional growth escalated with its empirically developed assessment and treatment interventions. The initial invitations in Medicine came to Psychologists from departments of Psychiatry [1-3]. The recognition of the knowledge competencies (i.e., Brain & Behavior, Social Interactions, Learning, Memory, Perception) fundamental to the training of doctoral level Clinical Psychologists expanded to the Veteran's Administration service and medical specialties of Neurology and Physical Medicine [4]. The integrated knowledge and skills of the Psychologist to design, implement and interpret research investigations of patients' behavior fortified the flourishing of Psychologists in general hospital settings [5,6]. Brown and Reed [7] noted a trend in the recent twenty-five years growth of utilizing Psychologists in healthcare as due to the increasing complexity of health care. In fact, the core competencies of Psychology doctoral training include many areas congruent to medicine. They are: scientifically minded practice, intervention skills, consultation and interpersonal collaborations, supervision and professional development. Also, according to the American Psychological Association (APA), these specialized competencies are acquired last in the training following advanced knowledge and skills [8,9]. Belar & Deardorff [10] stated that the content mastery in doctoral training in areas of anatomy, pathophysiology, clinical pharmacology, social and psychological bases of disease, healthcare policies and organization prepare graduate psychology students for professional practice in a medical setting [11]. Belar and Deardorff [10] wrote that in practice, these knowledge and skills areas are translated much like (e.g., Miller's Scientist Practitioner Model) a research plan from literature to hypothesis with the parallel being precipitant factors to disease and target behavior for intervention. Table 1 is a sample handout recommended by that could be used to communicate the specifics of Psychological Services to Physicians for a more complete referral for service [10].

## **Role of Medical Psychologists**

A challenge, initially, to the Medical Psychology field was the establishment of the role in medical practice as distinguished from traditional Psychology practice in Departments of Psychiatry. Boschen et al. [12] report the utility of applying learning theory principles to conceptualizing anxiety. Ten recommendations for clinical practice in anxiety disorder were proposed by Boschen et al. [12]. Gutteling et al. [13] conducted a standardized treatment study to investigate the use of patient psychosocial information. In this study, the findings indicated

patients given the choice to complete the questionnaire so as to provide the information to their physician was favored / statistically significant.

Additional distinctions of the role of the Medical Psychologist come from the establishment of a journal and specialized training in the area. The mission of the Journal of Clinical Psychology in Medical Settings provides an international forum for articles about professional practice matters from both basic and applied psychological study in this area. Post-doctoral training in medical settings provides the Psychologist with the specialty in Medical Psychology to earn a specialty board certification, American Board of Medical Psychology and Academy of Medical Psychology upon completing exams. The American Board of Behavioral Health Practice provides a board certification after further post-doctoral training and completion of an exam. The scientific application of psychological principles, assessment and interventions are focused to a wide variety of medical conditions by the Medical Psychologist (e.g., asthma, gastrointestinal disorders, cardiovascular conditions, acute pain and chronic pain, headache and pro-health behaviors).

#### The Practice of Medical Psychology

Rozensky et al. [14] identified the following medical conditions as areas of practice for the Medical Psychologist based on his Meta analytic review: cancer, pain, spinal cord injury, chronic illness, heart disease, sickle cell disease and asthma. In addition, assessment of candidates for transplant surgeries in terms of their understanding of the procedure, medical risks and consequences and their ability to cope with the recovery are commonly conducted by Medical Psychologists [14]. Medical Psychologists also provide timely record keeping in medicine to communicate to medical staff has to adhere to current ethical standards, medication adherence or abuse by the patient and treatment compliance. These functions are useful in a myriad of medical related settings. The Health Insurance Portability and Accountability (HIPPA) [15] specify how Protected Health Information (PHI) is to be managed [8]. In order to practice, many Medical Psychologists have sought and have been granted allied medical staff membership and privileges. The

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Allied Staff Privileges are granted with sponsorship by current staff and a thorough review of credentials [8].

Morrison [16] has identified patient behaviors and symptoms that are psychological in nature but may present as physical symptoms (e.g., confusion and delirium for vitamin B deficiency). One prominent [17] theorist described medical conditions that may increase the likelihood of depression and/or anxiety. It is thought that some 27% of patients with medical diagnoses sometimes meet the criteria for a concurrent psychological diagnosis of depression [17,18]. The prevalence of depression symptoms seen in primary care is ranging from 20% to 30% [19] and some 67% of primary care providers do not recognize clinical depression [20]. Thus, effective screening for mental health symptomology by the Medical Psychologist is essential as it has been documented that nearly one third of primary patients have comorbid psychiatric conditions 50% of the time [17].

While traditional views of the role of the Psychologist converge on the diagnostic and treatment functions related to Mental Health symptomology, the more contemporary role of the Professional Psychologist including the Medical Psychologist is more broadly defined. As noted, the diagnosis and treatment of many health related conditions has taken precedence. The health problems of obesity/ weight reduction, adherence to medical regimes to prevent relapse and prevention programming by training parents of children diagnosed with asthma are a few examples. In Table 1, the broadly defined roles are represented in terms of the varied reasons for referral from a Physician to a Medical Psychologist is noted. Wolf and Hopke [21] concluded in their review of psychosocial interventions in Medical settings that problem-solving therapy, interpersonal psychotherapy, and pharmacotherapy are effective interventions for major depression. Cognitive and Cognitive Behavioral Therapies were noted to be probably effective with mild depression, anxiety, bereavement and stress-related psychological conditions that co-occur with medical illness [21]. Further specific types of assessment tools and descriptions of interventions used by Medical Psychologists are referenced in the articles of this Special issue and can be found in Belar and Deardoff

Professional Psychologists working in the role of a Medical Psychologist utilize their Multicultural training that is uniformly taught in doctorate programs. The cultural competence achieved from the training qualifies the Medical Psychologist to improve the quality and adequacy of the assessment and treatment of patients in medical settings. Disparities by race, ethnicity, and socioeconomic status exist across a range of medical conditions [22,23]. Training in patient-centered care which many of the multicultural graduate and professional training includes, allows the Medical Psychologist to take into account a patient's communication style and understanding level of their medical condition. Patient adherence to treatment is increased with improved communication [22].

## **Evidenced Areas of Medical Psychology Work**

Monaghan et al. [24] monitored the amount of nighttime blood glucose monitoring by caregivers to their Type I diabetic children. The twenty-four hour care of these patients' conditions is warranted and in pediatric care it is more pronounced as the blood glucose monitoring, administration of insulin, carbohydrate counting and prevention of hypertension responsibilities are with the caregiver. A needs assessment of the teaching of health care instruction and monitoring

of blood glucose level addressed the parent concern, child's medical need and safeguarded child's medical progress. Thus, the controllable chronic disease of diabetes can be treated by the Medical Psychologist with, in this instance, Psychoeducation and parent training about their child's diabetes disease [25].

In a consultation modality, Medical Psychology intervention may address patient care needs with the care provider. Persoon et al. [26] report an analysis of daily observations of acute care geriatric patients by nurses. The observations of naturally occurring interactions by nursing staff provided ecological validity; the study's findings provided consistent measurement.

Boschen et al. [12] report the utility of the application of learning theory principles to the conceptualization of anxiety symptoms by medical patients. From this work, ten recommendations for clinical practice related to working with patients with anxiety symptoms/disorders were proposed [12]. Thus, a clinical rubric, generated by Medical Psychological research can be validly used with patients. Gutteling et al. [13] conducted a standardized treatment study to investigate the use of patient psychosocial information. In this study, the findings indicated patients given the choice to complete the questionnaire so as to provide the information to their physician was favored and was statistically significant. Here again, standard measures or rubrics generated with research rigor by Medical Psychologists expands their scope of practice and setting(s).

Central to Medical Psychologists integration into primary care is the acceptance of the Biopsychosocial model [10]. Bluestein and Cubic [27] identify some current concerns in Primary Care for the Medical Psychologist to consider based on their review of comments from the 22006 American College of Physicians summary. Patient distrust of specialists and the varying levels of Primary Care embracing coordinating referral and services exist. Brief visits and immense administrative needs, Bluestein and Cubic [27] report would require 18 hours per day per patient. Training patients in goal-setting, behavioral change skills and providing them with education has been suggested as a viable solution to the current situation. This solution would involve shared decision making between primary care providers and Medical Psychologists [3,28].

Marjan and Aliranaie [29] conducted an intervention of nursing staff working two hospitals that examined their stress level. This Medical Psychology study/consultation resulted in the identification that male nurses with little job experience cope the poorest and experience the most stress. Merz [30] measured stress and socially relevant information memory and documented impaired recall after acute stress exposure. With the identification of stress factors for staff working in medical settings, the Medical Psychologist is in a unique position to plan effective interventions for medical staff. Health problems are common reason older adults, as a group, have for requesting a Psychology consultation. Furthermore, over five million older adults have minor depressive symptoms that can impact physical health and quality of life [31]. Behavior therapy, cognitive behavioral  $the rapy, cognitive\ bibliotherapy, problem\ solving\ the rapy, brief\ the rapy$ and reminiscence therapy [32] and evidence based psychotherapies for older adults. Individual, group and family intervention formats are widely used in Clinical practice to address acute stress secondary to confusion from memory impairment in older adults with Patient education such as teaching compensatory strategies to utilize residual memory are common [26].

Persistent or chronic pain is conceptualized, neurophysiologically as pain receptors change to modify the body's response to injury after tissue injury [33]. This encoding of pain-related information the pain patent is addressed by the Medical Psychologist with the teaching of coping skills, enhancement of self-directed treatment with appropriate, realistic goals of physical activity [34].

Public Health concerns of obesity are mounting. Pediatric obesity is significant public health threat with estimates of over one third of children in the United States as obese [35]. Medical Psychology interventions in this area, such as the work of Weithorn and Campbell [36] help to identify the scope of this problem and provide evidenced rationale for various treatment interventions. For example, reducing television viewing and increasing exercise/physical activity in children will reduce food cues to overeating and provide a viable means to reduce weight [37].

### **Future Directions in Medical Psychology**

Newer trends in the field of Psychology were instituted in the Medical Psychology forum. These newer trends are switching the focus from assessment studies to identify stress levels and quality of life associated with medical disease to measurements of treatment/ intervention outcomes and effectiveness [7,9,16,38,39] has satisfactory outcome reports based on their analysis of case studies [40]. The use of telehealth, videoconferencing, chat /email connections to practitioners by "computer-use comfortable" patient closes the communication gap and bridges the distance between medical need and treatment. Practicing Medical Psychologists today utilize these modalities, with many starting from making themselves accessible through blogs and webpage sources.

This first article in the Special Edition sets the stage with a description the role and common responsibilities of the Medical Psychologist. The type of medical setting and application of the Professional Psychologists' skill sets (including multicultural competence training) to various needs stemming from Primary care, Consultation to Physicians, Training and Intervention of Staff to Research applications to validate assessments and treatments represents the broad array of work of the Medical Psychologist. The extension of clinical practice to the medical setting, with the inroads made by Professional Psychologists working as Medical Psychologists has become recognized and valued.

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