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Preparing Mental Health Professionals for Work in Collaborative Care Settings

Angela G. Hester

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LOMA LINDA UNIVERSITY
School of Behavioral Health
in conjunction with the
Department of Psychology

Preparing Mental Health Professionals for
Work in Collaborative Care Settings

by

Angela G. Hester, M.S., M.A.

Project submitted in partial satisfaction of
the requirements for the degree of
Doctor of Psychology

December 2013

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Each person whose signature appears below certifies that this doctoral project in his opinion is adequate, in scope and quality, as a doctoral project for the degree Doctor of Psychology.

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ABBREVIATIONS

ABPP	American Board of Professional Psychology
ACEND	Accreditation Council for Education in Nutrition and Dietetics
APA	American Psychological Association
BPS	Biopsychosocial Model
BPS-S	Biopsychosocial-Spiritual Model
CMSA	Case Management Society of America
CPS	Child Protective Services
DSM	Diagnostic and Statistical Manual of Mental Disorders
EPPP	Examination for Professional Practice of Psychology
LPN	Licensed Practical Nurse
LVN	Licensed Vocational Nurse
MFT	Marriage and Family Therapist
NCLEX	National Council Licensure Examination (Nursing)
OT	Occupational Therapist
PA	Physician Assistant
PT	Physical Therapist
RD	Registered Dietician
ST/S-LP	Speech Therapist/Speech-Language Pathologist
USMLE	United States Medical Licensing Exam (Medicine)

ABSTRACT

Preparing Mental Health Professionals for Work in Collaborative Care Settings

by

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Loma Linda University, December 2013
Dr. Adam L. Arechiga, Chairperson

There has been a significant shift regarding how health and illness are conceptualized. In decades past, the biomedical model predominated. Factors other than biological were not seen as important with regard to the diagnosis and treatment of illness; mind and body were viewed as separate. Engel's 1977 article challenged the biomedical perspective with the biopsychosocial model, suggesting the reciprocal nature of biological, psychological and social factors on patients' experience of health and illness, and responsiveness to treatment interventions. While viewing individuals holistically was not a new concept at that time, several factors led the biopsychosocial model to gain wide acceptance among health care providers and institutions.

The influence of the biopsychosocial model may be seen not only in the way patients' providers conceptualize health concerns and develop treatment plans, but in the increasing collaboration among professionals from different disciplines in an effort to provide integrated care. Collaboration or a treatment team approach to health care delivery is now commonplace in hospitals and similar institutions. Degree of collaboration and the extent to which responsibilities overlap among different disciplines

varies; there are several models of collaboration: multidisciplinary, interdisciplinary and transdisciplinary.

Early career psychologists and trainees (doctoral students completing practicum and internship placements) are presented with the challenges of understanding collaborative care and effectively integrating themselves into treatment teams. Research indicates that there are limited opportunities for health care professionals (of various disciplines) to gain adequate understanding of collaborative care from coursework or practical experiences prior to completing their studies.

This project proposes a two-pronged approach to preparing mental health professionals to work in collaborative care. The first component recommends acquisition of knowledge regarding the team approach, including an understanding the historical context of the biopsychosocial model and collaborative health care, and development of an understanding of the educational requirements, roles and responsibilities of professionals often represented on treatment teams. The second component is the effective integration of early career professionals and trainees into teams, which requires the active engagement of trainees, their supervisors and training sites.

CHAPTER 1

INTRODUCTION: THE SHIFT IN HEALTH CARE DELIVERY

In the past few decades there has been a significant shift in the way health care services are delivered to consumers (Adler, 2009; Biderman, Yeheskel & Herman, 2005; King, Shaw, Orchard & Miller, 2010). For the purposes of this project, health care services will refer to a wide range of interventions, including medical, psychological and alternative treatments. This shift has come about for many reasons. Consumers (or patients) have become increasingly willing to advocate for themselves, taking an active interest in ensuring that their health care needs are met (King et al., 2010). Prior to the shift in health care delivery the needs of patients were thought to be inadequately addressed, and providers were believed to possess limited understanding of the essential contributory factors to disease and health (Engel, 1992). Considerable steps have been taken, however, by many health care practitioners to move toward conceptualization of patients' concerns in a holistic rather than a reductionistic manner (Adler, 2009; Borrell-Carrio, Suchman & Epstein, 2004).

Consistent with the trend toward health care that seeks to treat the whole person, there has been a significant movement in favor of professionals from different disciplines working together or collaborating (Fay, Borrill, Amir, Haward & West, 2006; King et al., 2010; Mann, Gaylord & Norton, 2004). Certainly, it has long been seen as beneficial and encouraged for one provider to consult with another when questions regarding patient care arises (King et al., 2010). Such consultation may be due to a myriad of factors, including the treating provider's limited understanding of a particular patient concern,

which is often related to stage of training/education (e.g., trainee versus expert), need for assistance with differential diagnosis or confronting an issue beyond one's scope of practice (King et al., 2010).

In larger institutional settings, the increased importance placed upon whole person care has led to the development of collaborative teams of practitioners that attend to different aspects of patient care, namely multidisciplinary, interdisciplinary and transdisciplinary teams (see the following section for definitions of these and other terms used throughout this project) (Thylefors, Persson & Hellstrom, 2005).

Given the paradigm shift toward integration, questions arise of how new professionals receive the necessary education and training in order to become effective members of collaborative treatment teams, and whether or not the current level of training provided sufficiently prepares individuals to meet the demands of working in a team setting. For the purposes of this project, the primary focus will be upon the training of mental health professionals though information provided may have practical utility for those in other fields.

While there appears to have been some efforts by graduate education and training programs of mental health professionals to provide curricula and information regarding how collaborative teams generally function, there is a paucity of information regarding the specific roles and function of team members (Kligler, Maizes, Schacter, Park, Gaudet, Benn . . . Remen, 2004; McIlvried, Wall, Kohout, Keys & Goreczny, 2010). Oftentimes, trainees' first extensive exposure to work with collaborative teams is during a practicum or internship (McIlvried et al., 2010). The challenge is that trainees may have had little to no exposure to information regarding collaborative teams in institutional settings. Thus, it

would seem that many trainees are ill-prepared to cope with the responsibilities of working with such a team, and consequently, cannot optimally operate as part of collaborative efforts to benefit patients or other professionals. Prior to exploring ways to improve training and dissemination of information regarding collaborative teams, it is necessary to review the historical context from which the idea of collaboration emerged.

Definitions of Terms

Brief definitions for several concepts relevant to this project are provided below. They are addressed and explored in further detail in subsequent sections.

Models for Conceptualizing Health and Illness

Biomedical model: This is a method for conceptualizing/understanding an individual's medical illness, mental illness or other condition, which considers only biological factors. It is often viewed as a traditional and reductionistic method for conceptualizing health versus illness (Doherty, Baird, & Becker, 1986).

Psychosocial model: This is an alternative to the biomedical model, and emphasizes the impact of psychological and social factors upon an individual's health status (Walker, Jackson & Littlejohn, 2004).

Biopsychosocial model: This method for conceptualizing health and illness integrates ideas from the biomedical and psychosocial models. The goal is to view a person/patient holistically; biological, social and psychological factors are seen as having important effects upon maintenance of health, progression of disease processes and

responsiveness to treatment or intervention (Borrell-Carrio, Suchman, & Epstein, 2004; Scherger, 2005). Representations of each model are illustrated in Appendix A.

Collaborative Health Care/Levels of Collaboration

Collaborative (Health) care: This refers to individuals from various disciplines (e.g., medicine, mental health, etc.) consulting with each other in an effort to provide optimal care of patients and address their diverse needs/concerns. Consultations may occur informally (e.g., 1:1 interactions among providers) or during formal meeting times when members of each discipline are in attendance and patients' cases are reviewed. Three models of collaborative care are presented below in increasing levels of collaboration (Dyer, 2003).

Multidisciplinary: A team composed of practitioners from several different disciplines; each practitioner working toward independently established goals, completing independent assessments and engaging in independent decision-making processes, and later disseminating pertinent information to other team members (Dyer, 2003; Thylefors et al., 2005).

Interdisciplinary: Team members achieve goals by working in an interdependent fashion, coordinating interventions and holding members of the team collectively responsible for the success of treatment outcomes; while team members are interdependent their roles do not extend beyond the expectations for their discipline (Dyer, 2003; Thylefors et al., 2005).

Transdisciplinary: Team members communicate frequently, and effectively share skills and responsibilities by maintaining flexibility with regard

to roles. They work toward enhancing appreciation for each team member's unique skill set; joint responsibility and collaboration are achieved when each team member works to implement interventions prescribed by others. Team members are treated as equals and the knowledge shared among them leads to rich discussion and high levels of integrated conceptualization. This fosters blurring of roles and disciplines (Dyer, 2003; Thylefors et al., 2005).

Additional Terms

Practicum/Internship (sometimes referred to as a field placement): This refers to a time-limited position during which an individual receives supervised, practical training in their field of study; it may be paid or unpaid. Such training often occurs as part of the individual's schooling/educational process, and prior to obtaining an entry-level position in a given field.

Trainee: This refers to an individual in training at a practicum or internship site (also may be referred to as an intern or practicum student). During such an experience, the trainee's work is supervised by a more experienced professional in their field.

Treatment team: Those from various disciplines or professions who provide collaborative care for the patients served at a given institution.

Aim

In order to remain competent and to provide quality care it is important for practitioners to understand and embrace the current climate in which they work. This demands flexibility, as the health care field is subject to changes over time. Research

continually provides greater understanding of how to optimally work with patients and efforts are made to provide an evidence base for continued use of established treatment approaches and integration of new ones. Literature has provided substantial evidence supporting collaborative interactions of individuals from different treatment disciplines in order to deliver whole person patient care, which demonstrates an appreciation for the biological, psychological, social and spiritual factors influencing a patient's presentation (Fay et al., 2006; King et al., 2010; Mann et al., 2004).

Students and trainees are not adequately prepared to function effectively as members of collaborative teams even though professional organizations have recognized the importance of professional development in this area for quite some time (Kligler et al. 2004; McIlvried et al., 2010). Practitioners may discuss integrated care in theoretical terms and develop skills which can be beneficial to collaborative care environments as part of their broad-based education, but educational institutions and training programs fail to provide critical information about collaborative care. This would assist greatly with the learning process and the socialization of new professionals to the current direction of integrated primary care and behavioral medicine. Graduate programs may attempt to develop a curriculum for collaborative treatment, but such offerings are often elective and not consistently available institution to institution (Harvey, 2009). Advocates of such training support the provision of more detailed information to trainees and suggest that this information be readily accessible to them in order to increase the likelihood that such knowledge would be used (e.g., informational resources available electronically) (Harvey, 2009).

The aim of this project is to provide a comprehensive resource on collaborative care for health care practitioners in training. While this project may have particular relevance for mental health professionals, it will likely be a beneficial resource to those from other disciplines. First, it is essential to examine the historical context, and the benefits and limitations of the biomedical and biopsychosocial models of illness and health in order to fully comprehend how the provision of health care has changed over time. This elucidates the reasons why a collaborative approach is widely utilized. Additionally, several types of collaborative teams are described in detail due to variability with regard to the degree of team member collaboration. There are differences regarding whether the roles and responsibilities of various disciplines are distinct or overlapping (i.e., those from different disciplines may have the ability to provide similar services to patients). Behaviors and decisions which enhance and detract from the efficacy of a team's ability to collaborate are also explored. In order to highlight a need for this resource guide, a discussion of limited course offerings and training opportunities in areas outside of students' chosen fields of study is addressed.

The second part of this resource guide has two purposes: (a) to provide detailed descriptions of professions often represented on treatment teams, and (b) to propose a method for acclimating early career professionals and trainees to work in collaborative care settings. The former addresses the problem that the composition of treatment teams and the roles of team members seem to be described in a very cursory fashion throughout relevant literature. Students and trainees, however, may have no understanding or only a vague notion of the work in which various team members engage in their professional roles. For example, a psychology trainee may be well acquainted with the responsibilities

of psychiatrists, but have no knowledge regarding how a psychiatrist contributes to patient care. Trainees may also be unaware of distinctions within disciplines (e.g., unable to identify the distinctions between occupational therapists and physical therapists). In order to augment the knowledge of trainees, the professional roles and responsibilities of disciplines commonly represented on treatment teams will be delineated. Educational requirements and licensure/certification processes, where applicable, will also be described. Though far from an exhaustive list, disciplines described will include psychology, relevant physician specialties, nursing, occupational therapy, physical therapy, speech therapy, marriage and family therapy, social work, chaplaincy and several others. With regard to acclimating individuals to collaborative care, a dual-pronged approach to providing trainees with information and the practical experience of becoming active treatment team members is proposed; a method for its integration into the current practicum or internship experiences is described.

CHAPTER 2

CONCEPTUALIZING HEALTH AND ILLNESS

Biomedical Model

Health care professionals are routinely called upon to consider factors that drive disease processes and those promoting health and healing; the answers to such matters guide practitioners' treatment of their patients. The biomedical model as a means to conceptualize health and disease states has been utilized by physicians since the mid-nineteenth century (Doherty et al., 1986). Some suggest that this model has been driven by practitioners eager to apply the scientific method to all human processes and by the Christian concept of man as an imperfect vessel, where the goals become the identification and correction of flaws (Engel, 1992). This model delineates health as normative, with disease, physical pain, discomfort or any other defect being seen as deviation from the norm (Doherty et al., 1986). Personal and societal factors are seen as unimportant to the evaluation and treatment of disease processes; assessment of physical processes alone is paramount and a single causative factor is sought to explain a patient's presentation (Doherty et al., 1986). Consequently, the mind (or mental state) of the patient being treated is viewed as having no bearing on the expression of illness or relevance to the treatment of a physical concern (Doherty et al., 1986). Some have suggested that because the biomedical model focuses upon correcting disease states it fails to place adequate emphasis on preventive measures (Doherty et al., 1986).

Clearly, this model, which supports the idea of mind and body dualism, fails to consider how non-biological factors directly impact the course of a disease process, severity of symptomatology and a patient's responsiveness to treatment or perceptions

regarding their health status. This failure means that the patient comes to be viewed as fragmented because primary emphasis is placed upon treating the disease/site of the disease process while the greater individual is relegated to a position of unimportance (Doherty et al., 1986).

Engel (1992) suggested that due to the biomedical model's definition of disease as physical defect supporters of the model would tend to view mental illness as a myth, particularly when no neurophysiological problem could be identified as causal to psychological symptoms. In the past several decades, the biopsychosocial model has become prominent and has served as an alternative conceptualization to the biomedical model, identifying many factors as contributory to disease and health.

Biopsychosocial Model

In 1977, an internist, George Engel, published an article advocating for the widespread adoption of a biopsychosocial model to treatment; he suggested that the model was superior to the biomedical one in favor at the time (Engel, 1992). While Engel was not the originator of this concept, his article seemed to galvanize widespread acceptance and use of this model among health care providers dissatisfied with the limitations of the biomedical model. In direct contrast to the reductionist views, a biopsychosocial approach to treatment is based on the premise of monism; that mind and body cannot be viewed as separate. It has been postulated that the concept of monism was developed by Parmenides, a philosopher in ancient Greece (Ghaemi, 2009).

Development and application of a biopsychosocial model in contemporary health care have been closely associated with psychoanalytic theory. Roy Grinker, a physician

specializing in both neurology and psychiatry developed the term 'biopsychosocial' in the 1950s (Ghaemi, 2009). In his work with the mentally ill, he sought for a way to incorporate biological considerations into his case conceptualizations (Ghaemi, 2009). As part of his training, Grinker was psychoanalyzed by Sigmund Freud (Ghaemi, 2009). Similarly, Engel's mentor, Franz Alexander, was a student of Freud's with an interest in psychosomatic medicine, which examined how personality presentations could be associated with certain physical ailments (Ghaemi, 2009). Engel, influenced by his mentor, sought to examine psychological and social factors, which impacted the lives of his patients with cardiac and gastrointestinal concerns (Ghaemi, 2009).

Engel (1992) described his dissatisfaction with patient care at the time, noting that there are many conditions that deviate from normalcy or health even when physical causes may not be readily identified, and that these presentations require care as well. He further suggested that both physical problems (e.g., diabetes) and mental illness (e.g., schizophrenia) may seem equally severe among multiple individuals, and measurable in the case of the former, but perceptions by those individuals with regard to severity may vary as well as the degree to which signs and symptoms are apparent to the observer (Engel, 1992). In effect, he believed that non-biological factors could intervene and impact how patients presented issues to health care providers (Engel, 1992). Additionally, Engel (1992) reported dissatisfaction in his capacity as a physician attempting to treat what appeared to be physical problems, as he observed that patients with readily identifiable and treatable conditions often did not return to full health subsequent to medical intervention. Biderman et al. (2005) further maintain that research since Engel's publication has supported the notion that non-biological factors can impact the degree to

which an individual is susceptible to a given disease process and that an individual may choose to assume a sick role in the absence of physical dysfunction.

Engel (1992) concluded that the considerable influence of non-biological factors meant that disease and health could not have well-defined boundaries. Such boundaries become even less defined when considering that a health care provider's role as an investigative scientist and a patient's willingness to adhere to treatment recommendations and interventions are influenced in no small part by the relationship that a patients and providers develop and maintain (Biderman et al., 2005).

Borrell-Carrio et al. (2004) described the biopsychosocial (BPS) model as having several functions. These researchers have suggested that the model serves as a philosophy to guide clinical care by augmenting knowledge regarding how suffering and disease operate on a variety of levels (Borrell-Carrio et al., 2004). Additionally, the BPS model may be utilized as a practical guide to clinical practice, as health care practitioners account for the degree to which a patient's subjective experience influences diagnostic and treatment implications (Borrell-Carrio et al., 2004). The model is also relationship-centered and efforts are made by health care practitioners to connect to the patient and appreciate their experience as a whole person (Scherger, 2005).

Adler (2009) also suggested that health care providers should not rely upon a biomedical model alone to inform their work with patients; they are seen as able to effectively treat patients only when they regularly strive to utilize information from various parts of patients' lives to inform treatment decisions and interventions. Consistent with this, Sperry (2008) and Mann et al. (2004) found that patients report lower levels of satisfaction with conventional, disease model-driven treatment interventions and that

many practitioners have reported that operating from this perspective can lead to treatment results that are less than completely effective. With this in mind, Biderman et al. (2005), suggest what an integrated approach might look like in practice. They propose that health care under such circumstances becomes patient-centered and that significant time needs to be spent interviewing the patient in order to understand psychological and social processes present (Biderman et al., 2005). Additionally, health care providers are called upon to form strong therapeutic alliances with patients and to render appropriate diagnoses by maintaining empathy, curiosity and self-awareness throughout any assessment or evaluative process (Biderman et al., 2005). The time constraints associated with fast-paced health care settings, however, place the onus upon providers to efficiently assess various domains of patient functioning while developing and maintaining rapport.

As a monist view was not novel at the time Engel's article was published, it is worth considering the reasons the material he presented became so widely accepted and has become the preferred way to conceptualize patient concerns among health care providers from a variety of disciplines. Collaborative treatment was identified as valuable as early as the 1940s by the World Health Organization, but did not experience a significant resurgence in popularity until the 1980s and 1990s (Kessel & Rosenfield, 2008). Historically, Engel's article seemed to appear at a particularly advantageous time. Ghaemi (2009) stated that in the years immediately following the article's publication, psychopharmacologic interventions and use of the Diagnostic and Statistical Manual of Mental Disorders, 3rd Edition (DSM-III) gained widespread appeal, as health care practitioners sought more integrative methods for approaching work with patients. In part, it would also seem that such wide acceptance was due to Engel's propositions

having a high degree of face validity; it seems like a reasonable premise that various aspects of patients' lives could impact health status. Indeed, within the realm of psychiatry and psychology many studies have demonstrated that the combination of medication and psychotherapy present superior efficacy compared to either intervention utilized on its own (Ghaemi, 2009). That such results have not been demonstrated in every study has been seen by some critics as evidence that a multi-faceted approach to treatment may not be the most effective route or always yield more truth or insight about a patient's presentation (Ghaemi, 2009).

Health care providers must also remain cognizant of the questions raised by reliance upon the BPS model. Some have maintained that the model is inadequate because it is descriptive and not explanatory in nature, failing to advise the appropriate course of action (Vetere, 2007). Others have suggested that trainees may struggle to integrate information from various disciplines and instead attempt to classify conditions or diseases as biological or psychological or social (Tavakoli, 2009). The BPS model, when incorrectly conceptualized as less than integrative, may serve to reinforce stigma and hinder effective treatment of patients (e.g., attempts to make the case that some psychological conditions are devoid of biological components or that issues that are behavioral in presentation possess a biological component) (Tavakoli, 2009).

Despite criticisms and the initial lack of supportive scientific evidence offered by Engel at the time of his article's publication, effort in subsequent decades has been made to demonstrate that integrative approaches to health care can have significant, positive impact upon patients and may even go beyond examination of biological, psychological

and social factors to include attention to how patients' spiritual and religious needs impact health and disease.

The American Psychological Association (APA) designed a focused campaign in 2005 to examine the connection between mind and body, and the president of this organization at the time, Ronald Levant, developed an initiative to enhance the integration of psychology and medicine entitled "Health Care for the Whole Person" (Foley, Levant, Kleiver, Calzada, House, Kuemmel & Kelleher, 2006). Foley et al. (2006) emphasized the importance of integrative health care by reporting that as many as 75% of patients seen in medical settings present with distress unrelated to a physical cause, and as many as 90% of studies regarding the combination of primary care utilization and psychological intervention demonstrate significant decreases in the use of medical care following psychological interventions. Dobmeyer, Rowan, Etherage, & Wilson (2003) reported that 60% of patients seeking assistance from primary care providers were in need of some form of behavioral health intervention. At the same time, at least 28% of Americans meet DSM criteria for a mental illness, yet 50% receive no intervention for their concerns and 25% seek assistance from physicians (non-psychiatrists) only (Dobmeyer et al., 2003). With regard to physician training, however, one survey indicated that between the years 1997-1999 biopsychosocial topics comprised 10% of the curricula in medical school (Waldstein, Neumann, Drossman & Novack, 2001). Consequently, at least 25% of patients mentioned above are likely to encounter physicians who are ill-prepared to effectively conceptualize and treat their mental illness. These numbers are regrettable, however, because addressing patients' needs beyond the physical has been associated with the mitigation of symptoms for both acute and chronic

health problems, and has been found to foster patient self-efficacy and likelihood to engage in health promoting behaviors (Foley et al., 2006). Hollenberg (2006) discussed the incorporation of alternative medicine into integrative health care, which demonstrates recognition for how services culturally relevant to some patients or in contrast to traditional treatment modalities may facilitate the healing process.

Importance of Incorporating Religion and Spirituality into the BPS Model

Researchers, educators and practitioners alike are coming to recognize that it is of critical importance to consider how patients' religious and spiritual views impact upon health and efficacy of treatment interventions; some have suggested conceptualizing patient concerns according to a biopsychosocial-spiritual (BPS-S) model. Appreciation for diversity and the imperative that health care providers demonstrate multicultural competence in practice are so essential that many professional organizations have incorporated these issues into accreditation processes. For example, the APA (2000) in guidelines for accreditation stated, "Cultural and individual diversity refers to diversity with regard to personal and demographic characteristics. These include but are not limited to age, color, disabilities, ethnicity, gender, language, national origin, race, religion, sexual orientation, and social economic status" (p. 5). C. Jones (2005) advocated for categorizing spiritual, referred to as non-local, as one of six proposed modes of therapeutic action; other modes include biochemical, biomechanical, psychological/symbolic, mind-body and energy, and are inclusive of all treatment modalities from conventional to alternative.

Unfortunately, despite the importance placed upon diversity education and training health care practitioners have been found to be deficient in their knowledge base with regard to matters of religion (Brawer, Handal, Fabricatore, Roberts, & Wajda-Johnston, 2002). Over time, availability of religion courses at medical schools increased from 3% to 30% (data reflective of offerings as of 1997), and since 1996 psychiatric residency programs have been required to incorporate issues of religion and spirituality into formal training processes (Brawer et al., 2002). With regard to the training of psychologists, approximately 5% reported that religious and spiritual matters were addressed (Brawer et al., 2002). This is, however, at odds with the likely needs of patients when 96% of Americans believe in God, 90% pray (50% on a daily basis) and 75% identify their faith as important; psychologists and other health care providers cannot hope to adequately meet the needs of such clients without proper training (Brawer et al., 2002). These researchers postulate training that neglects to incorporate religious and spiritual considerations may be reflective of the tendency within the field of psychology to examine pathology in favor of positive contributory aspects to health, and is consistent with an initial view associated with psychology that it was essential for the discipline to be seen as a science; some feared this would be compromised by delving into matters of the metaphysical (Brawer et al., 2002). The latter seems indicative of the potential difficulty, which some practitioners have encountered, in their effort to embrace a theory so divergent from the biomedical model. What has been demonstrated by research findings, however, is that religion and spirituality have been positively associated with well-being, life satisfaction, and inversely associated with problematic behaviors (e.g., antisocial presentations and suicidality), indicating that examination of pathology need

not be the only course of action (Brawer et al., 2002). When considering whole person care, treatment providers would seem to benefit from demonstrating openness to addressing the religious concerns of their patients and engaging in collaboration and consultation with team members for whom exploration of the divine is an explicitly integral part of their function (e.g., pastoral counselors).

CHAPTER 3

UNDERSTANDING COLLABORATIVE HEALTH CARE

The increased acceptance of the BPS model has contributed to the transformation of contemporary beliefs and practices with regard to how treatment services are delivered to patients. Beginning during training students are taught to think critically about their patients' concerns. They learn that patient issues can be quite multifaceted in nature and develop an understanding that a given patient's experience is comprised of situations both similar to others and unique to the self.

Perhaps the most salient, relatable example of a shift toward critical thinking and appreciation of the individual within the social context has been the emphasis in the past several decades to incorporate multicultural/diversity education into the curricula of health care professionals while emphasizing the need for all practitioners to develop competence in this area. A true understanding of a patient's culture, defined as much more than race/ethnicity or gender, can only be obtained by a thorough examination of biological, psychological, social and spiritual factors impacting upon that individual in both explicit and implicit ways.

An individual's health status is certainly an important part of their background and history that should be considered when developing recommendations or interventions. The prominence of the BPS model and appreciation for diversity, with regard to patients and practitioners alike, have allowed for essential alterations to occur in the theory and practice of treatment delivery.

Levels of Collaborative Care

As noted above, it is commonplace for health care practitioners to consult with each other. This may occur during the course of a supervisory relationship or whenever a practitioner recognizes that reliance upon the knowledge base of other professionals may augment and facilitate the treatment of their clients. In larger institutional settings, collaboration and consultation are essential functions. In such environments patients have the potential of receiving a wide variety of services that rely upon the expertise of multiple professionals. Even though it is ideal for practitioners to develop a broad knowledge base, it is neither desirable nor feasible for them to achieve expertise in all areas of care. Consequently, reliance upon the knowledge of others becomes essential.

Dyer (2003) suggests that collaborative care provides a rich educational experience, which includes development of goals and programs, and exchange of information/communication to ensure delivery of quality care. At the same time, health care practitioners may have difficulty comprehending the operation of collaborative care models because they can take one of several forms and vary in function (Dyer, 2003).

Multidisciplinary teams are composed of practitioners from several different disciplines; each practitioner working toward independently established goals, completing independent assessments and engaging in independent decision-making processes; they disseminate pertinent information to other team members, as needed (Dyer, 2003; Thylefors et al., 2005). Interdisciplinary team members achieve goals by working in an interdependent fashion, coordinating interventions and holding members of the team collectively responsible for the success of treatment outcomes (Dyer, 2003). Additionally, interdisciplinary team members, while interdependent do not extend their

roles beyond the expectations for their discipline (Thylefors et al., 2005). The model requiring the greatest amount of collaboration is the transdisciplinary model.

Transdisciplinary team members communicate frequently and effectively share skills and responsibilities by maintaining flexibility with regard to roles and working toward enhancing appreciation for each team member's unique skill set (Dyer, 2003).

Kaczmarek, Pennington & Goldstein (2000) state that blurring of roles and disciplines can be referred to as role release, where joint responsibility and collaboration are achieved when each team member works to implement interventions prescribed by others. Team members are treated as equals and the knowledge shared among them leads to rich discussion and high levels of integrated conceptualization (Thylefors et al., 2005). Hibbert, Arnaud & Dharampaul (1994) reported that nurses viewed work on transdisciplinary teams to be preferable to all other models.

For the purposes of this project each of these models will be considered a form of collaborative care. It is necessary for practitioners to recognize the differences between the models in order to understand the type of expectations that other team members could potentially have and so that they may be optimally effective regardless of the model/work environment in which they would be required to practice.

Collaborative Care: Research Findings

In response to the perceived necessity of collaborative care in medical/health care settings, a substantial body of literature has been developed regarding the functioning of teams. Without an evidence base to support continued implementation of collaborative models it would seem reasonable to conclude that their utility would be questioned; team

processes demand quite a number of resources and time, which is contrary to the demands and expectations of patients and insurance carriers/agencies that provide reimbursement for health services. With the expectation that health care providers become increasingly efficient and accountable, agencies that fund health care endeavors have sought not only to determine whether or not collaborative efforts are effective, but have demonstrated a vested interest in discovering the degree to which health care providers can be socialized to work in a collaborative fashion (e.g., experiencing value and comfort in working with others) (King et al., 2010). Researchers also advocate for socialization to collaborative models in order to develop professional identity supportive of such treatment approaches and comfort with group membership (Miller, Hall & Hunley, 2004). In seeming response to demands external to the team, two main, and quite intertwined, areas of interest have emerged as part of the study of collaborative care: professionals' perceptions of factors which assist or hinder the collaborative process among members and the overall efficacy of treatment teams.

Many studies have suggested that when teams collaborate and communicate effectively, better treatment plans are developed and that patients tend to have better health outcomes (Batorowicz & Shepherd, 2008; Buljac-Samardzic, Dekker-van Doorn, van Wijngaarden & van Wijk, 2010; Dobmeyer et al., 2003; Grace & Higgs, 2010; Molleman, Broekhuis, Stoffels & Jaspers, 2010a). Transitioning from a traditional treatment model to one that is collaborative has also been associated with enhanced treatment efficacy (Lowe, & O'Hara, 2000). Communication that enhances the group process and overall efficacy has been found to incorporate inclusive language (i.e., members speaking to each other in ways that reinforce respect and group cohesion)

(Sheehan, Robertson & Ormond, 2007). Similarly, teams with high collective identification functioned more effectively (Van Der Vegt & Bunderson, 2005). Grace & Higgs (2010) also stated that both patients and practitioners perceived integrated health care of higher quality than traditional forms of care because it necessitates a patient-centered approach, which is highly valued by patients. Moreover, it has been suggested that integrative health care empowers patients, improves continuity of care and humanizes the patient-practitioner interaction; these goals may be difficult to achieve or wholly absent when health care practitioners adopt a reductionist approach to treatment (Harvey, 2009; Maizes, Rakel & Niemiec, 2009). Similarly, a meta-analysis of 48 studies involving multidisciplinary teams working in acute care environments revealed that efficacy of intervention (as perceived by team members) was associated with 'non-technical' skills of team members such as communication, cooperation and presence of effective leadership (Buljac-Samardzic et al., 2010). Unfortunately, the variability found across studies and related to service delivery did not allow for researchers to draw any conclusions related to efficacy based on patient perceptions (Buljac-Samardzic et al., 2010).

When patients experience connection to their providers, are invited to participate in team meetings, and have regular involvement in their own care, they experience increased physical, emotional and global well-being (Verhoef, Mulkins & Boon, 2005). Maizes et al. (2009) further state that institutional adoption of electronic charting and means of contact between health care practitioners can decrease many barriers to effective collaboration.

Efforts to identify specific areas for team improvement seem considerably useful, especially if the same measure or evaluative process has the potential to aid in identification of different areas of concern for different treatment teams. Batorowicz & Shepherd (2008) explored the communication, collaborative efforts and decision-making processes of transdisciplinary teams and developed a questionnaire, the Team Decision Making Questionnaire, to evaluate function and areas for improvement. The questionnaire evaluated four areas relevant to team function: decision-making, team support, learning and the development of quality services; the measure demonstrated internal consistency, stability over time and construct validity (Batorowicz & Shepherd, 2008). The researchers indicated that the questionnaire helped identify any of the four domains as strengths or weaknesses, and that a given team finding a weakness in their collaborative process could make targeted changes to improve; the measure could also be utilized subsequent to changes to determine the long-term efficacy of such changes (Batorowicz & Shepherd, 2008).

If communication and willingness to collaborate, as described above, drive effective and efficient team practice, the absence of such factors would serve as a hindrance to function. Additional factors have been identified as problematic to collaborative processes. One study examining multidisciplinary teams discovered that the tendency to simplify and categorize patient problems and unwillingness to develop new and innovative ideas in terms of service delivery led to less effective outcomes for patients (Fay et al., 2006). Others have identified clash of clinical cultures and perceived information overload as related to reluctance of practitioners to act collaboratively; they believe that disciplines are too divergent to integrate or that remaining knowledgeable

and current with regard to one's own discipline is already a considerable onus that would not allow for the acquisition of additional information from another discipline (Mann et al., 2004).

Some health care practitioners unfortunately tend to engage in exclusionary tactics when they disagree with or fail to find value in what some team members have to offer patients (Hollenberg, 2006). A. Jones (2006) reported that even when differences between roles of team members are small, there is the tendency for members to emphasize role distinctions and have conflict related to role definitions, problems which have been associated with decreased ability to meet the needs of patients. In their study focusing on the roles of social workers, Carpenter, Schneider, Brandon, & Wooff (2003) determined that role conflict and loss of professional identity after becoming part of a multidisciplinary team led to poorer perceptions about the treatment team and diminished job satisfaction; the opposite was determined to be true when the social workers perceived their roles and related expectations to be clear. The authors indicated that the team members they studied perceived their work and contributions to be marginalized and that they worked in environments dominated and overly influenced by medical personnel (Carpenter et al., 2003). Unfortunately, some individuals may accurately perceive that they are not accorded any or enough recognition by certain team members (Sundberg, Halpin, Warenmark & Falkenberg, 2007).

Surgical specialists have also reported experiencing threats to personal identity when other team members demand that their actions be justified and make the case that they are more accountable than other team members for patient outcomes (Molleman, Broekhuis, Stoffels & Jaspers, 2010b). Tensions as described above, where individuals

perceive that they must justify their treatment decisions or presence on a treatment team would seem reflective of members having a poor understanding of the skills and responsibilities of each discipline (Slade, Rosen, & Shankar, 1995).

These findings point to the importance of all team members having equal levels of respect for each other even when levels of education vary and areas of expertise may differ; failing to do so would seem to be the likely culprit of the problems revealed more so than blurring of roles. As noted above, transdisciplinary models advocate for less rigid boundaries and flexible roles for team members, and when mutual respect is present, such a model seems quite effective.

Education of Trainees in Health Care Professions

As demonstrated above, given the reliance upon collaborative teams to provide effective, efficient, cost-conscious and patient-centered care, educators and researchers advocate for training in this area early on in the educational process (Talen, Fraser & Cauley, 2005). The APA (1998) acknowledged that most psychologists did not receive adequate training to work in environments providing integrative care, “Given the nature of problems presented in primary care, psychologists need to be an essential part of that interprofessional primary health care team. They need training, however, specific to primary care settings and services . . . in addition to the breadth of scientific and clinical training they receive in their doctoral preparation” (p. 5). At that time available opportunities to learn about behavioral medicine were quite limited; only 36% of 500+ psychology internship programs provided such training and a mere 2% provided interns with the opportunity to work within a primary care setting (APA, 1998). In 1998, 75 of

117 medical schools (64%) reported offering classes in collaborative care; classes were generally elective and utilized by few students (Kligler et al., 2004). Pachana, Sofronoff & O'Brien (2008) suggest that in applied disciplines which areas of study are identified as most important by educators, methods of training, and practices commonly implemented and supported by evidence-based research are significantly incongruent with the training that is actually provided.

With so few training opportunities, it is surprising that interest in incorporating information about multidisciplinary treatment has been present in counselor and psychologist education since 1979 (Alcorn & McPhearson, 1997). While many seem in favor of broad based curricula in graduate programs, which would include extensive training related to theoretical and practical aspects of collaborative care, training of this nature does not seem to be implemented on a regular basis (Chur-Hansen, Koopowitz, Jureidini, Abhary, & McLean, 2006). There is significant variability between programs and student training experiences, as educators possess different interpretations of the broad role of psychologists and attempts are made to meet the demands of the ever-changing health care system (Markey, Rufener, Clary & Wonderlich-Tierney, 2007). For example, exposure to collaborative care may consist only of a few guest lectures by members of different disciplines (Chur-Hansen et al., 2006), 1 hour training sessions offered once per month for less than a year (Novy, Hamid, Driver, Koyyalagunta, Ting, Perez . . . Burton, 2010) or exposure to different types of practitioners at occasional health or career fairs (Antunez, Steinmann, Marten & Escarfuller, 2003). Each of these methods seems completely inadequate for introducing trainees to collaborative care and

would not seem to provide adequate information with regard to how a new professional could competently navigate within a health care system.

An example of educators' attempts to develop a more thorough plan for introducing students to collaborative care is the model developed at the University of Southern Mississippi. In the late 1970s, educators at the University of Southern Mississippi sought to incorporate collaborative care into their counseling psychology program, and this curriculum has continued to develop over the past several decades (Alcorn & McPhearson, 1997). In order to acclimate doctoral students to collaborative treatment models beyond information provided by the curriculum, students gained exposure by participating in research team meetings and observing faculty and physician relationships (Alcorn & McPhearson, 1997). These activities were deemed beneficial and successful by university educators, as many students chose to immerse themselves in behavioral medicine-guided research and student rates of involvement in behavioral medicine settings post-graduation increased (Alcorn & McPhearson, 1997).

Priest, Roberts, Dent, Blincoe, Lawton & Armstrong (2008) demonstrated that educating students from different disciplines (e.g., nursing and psychology) together was effective for introducing trainees to the process of collaboration and developing an appreciation for different approaches to patient care, while clarifying and maintaining comfort with professional identity. Increased exposure to professionals in other disciplines may also augment critical thinking skills while decreasing self-segregation and bias (Woodruff-Borden & Newton, 2006).

If such education is not initiated at the undergraduate level, educators are encouraged to implement such training at the graduate level, and certainly before trainees

advance to internship, post-doctoral or other forms of specialty training, in order to provide socialization to collaboration (Woodruff-Borden & Newton, 2006; Talen et al., 2005). Reserving education for latter years of training may be less than ideal (Woodruff-Borden & Newton, 2006; Talen et al., 2005), and may reduce efforts to maintain quality control within the educational process (Derner & Stricker, 1986). Early education would seem especially important, given the many potential obstacles to the implementation of collaboration and to mitigate anxiety experienced by trainees in relation to questions of role, responsibilities and competence (Pica, 1998).

Biderman et al. (2005) noted that there is, in fact, resistance to integration among students and trainees. Identified as reasons for the resistance include trainees' beliefs that they have made an investment to study a certain discipline and not others, and that their primary focus as students was to develop an adequate knowledge base within their own discipline in order to begin providing competent treatment (Biderman et al., 2005). Additional training (beyond discipline of practice), which can be difficult to incorporate into already rigorous programs, may be better received when it is perceived to be accessible and convenient (Markey et al., 2007). Due to limited knowledge about the needs and operation of the health care field, students and trainees do not even acknowledge training to work in collaborative care among top reasons for program selection and can end up believing that they are competent without it (Tibbits-Kleber & Howell, 1987). Instead they identify more traditional areas as key to their selection process and interest, including geographic location, desire to work with certain faculty members or a general sense of fit with a given program (McIlvried et al., 2010). Lack of awareness regarding training/program needs is quite problematic, as collaborative care

has been associated with reducing the numbers of errors made with patient care (e.g., by having multiple professionals available for consultation and helping an individual practitioner process complex issues, like ethical dilemmas) (Vogwill & Reeves, 2008).

Even when trainees are not averse to embracing the concept of collaboration, they experience isolation from potential colleagues and trainees from other disciplines because there is the pervasive belief that only providers from one's own discipline adequately understand treatment issues (Gawinski, Edwards & Speice, 1999). This compounds the problem of misperceptions among trainees (family therapy doctoral students in this study) who often feel devalued and fail to recognize they are indeed important to collaborative efforts, especially due to their often superior knowledge of current research activities (Gawinski et al., 1999). Misperceptions are easily maintained because other practitioners with numerous responsibilities and limited time can seem rushed and to have little regard for trainees (Gawinski et al., 1999). Moreover, trainee anxiety, concerns about self-efficacy and difficulty adjusting to a collaborative work environment would seem to be negatively influenced by the finding that those already accustomed to working in such an environment incorrectly make the assumption that trainees can efficiently function and have sufficient knowledge to operate effectively (Waldstein, Neumann, Drossman & Novack, 2001).

CHAPTER 4

COMPOSITION OF THE TREATMENT TEAM

Treatment teams are comprised of members from various disciplines in order to comprehensively address the biological, psychological and social issues of patients in their care. As such, team composition may vary as a function of the institution providing services or the needs of a given patient. For instance, an individual with chronic mental illness would require a different set of interventions and team member expertise than a person being treated for cancer. Examples of different types of treatment teams are illustrated in Appendix B.

Treatment Team Members

Below (listed alphabetically) are various professions regularly represented on treatment teams in medical/rehabilitation and psychiatric settings. Information provided includes basic educational requirements and roles fulfilled by each profession. Unless otherwise specified, each of the fields described requires a bachelor's degree prior to pursuit of further education or training. Areas of specialization, relevant to health care and rehabilitation settings within certain disciplines have been described. As the team approach to patient care is collaborative, certain disciplines' roles and responsibilities may overlap among providers of patient care.

Addictions Counselor

1. Educational requirements: There is significant variability among states with regard to the educational requirements to become an addictions counselor.

Certification often requires achievement of a certain level of education, hours of supervised experience or both. Minimally, an associate's degree is required, but many types of certifications require a bachelor's (4 years of study) or master's degree (1 to 2 years of post-bachelor study), especially when advanced certification is sought. With a limited number of programs specific to addictions, those interested in this field often pursue degrees in psychology or behavioral science ("Certified Addictions," 2012).

2. Roles/Responsibilities: Addictions counselors review historical information and a patient's current status in order to assist with proper diagnosis, treatment planning and readiness for treatment interventions; they provide counseling sessions or educational information related to addictions/health (individual or group format), review some test results with patients (e.g., results of drug screenings) and help the patient develop aftercare goals/secure aftercare treatment. Addictions counselors may also provide education and therapy to the patient's family members. While addictions most often refers to problems with alcohol or drugs, addictions counselors may also help patients address other related behaviors (e.g., gambling) ("Certified Addictions;" "What Does a Substance," 2012).

Case Manager

1. Educational requirements: Case managers may come from a wide variety of disciplines, including psychology, social work and nursing. Entry level positions requiring only a high school diploma are thought to be rare. Generally, case managers have at a minimum a bachelor's degree (e.g., in nursing or social work).

Those who attain 2 to 4 years of post-degree clinical experience and certification are seen as more competitive for case management positions (“How to Become a Qualified Case Manager,” 2012).

2. Roles/Responsibilities: The Case Management Society of America (CMSA) states:

Case managers help provide an array of services to help individuals and families cope with complicated situations in the most effective way possible, thereby achieving a better quality of life. They help people to identify their goals, needs, and resources. From that assessment, the case manager and the client - whether an individual or a family - together formulate a plan to meet those goals. The case manager helps clients to find resources and facilitates connection with services. Sometimes she or he advocates on behalf of a client to obtain needed services. The case manager also maintains communication with the client to evaluate whether the plan is effective in meeting the client’s goals (“What is a Case Manager,” 2012, para. 1).

3. Areas of Specialization:
 - a. Rehabilitation: Involves work with those diagnosed with mental disorders or recovering from brain trauma. In this setting, the case manager helps the patient secure treatment from other health care providers, with issues related to independent living and seeking employment/educational accommodations, as needed.

- b. Health Care/Hospital: Case managers in this setting often having nursing backgrounds. They may monitor a patient's progress during the course of a hospital stay, discuss issues related to health status and self-care and help patients and families evaluate post-release treatment options (e.g., patient placement in an assisted living facility).
- c. Child Welfare: Those working with children are often representatives of Child Protective Services (CPS), assisting with various decisions when allegations of abuse or neglect arise (e.g., investigating abuse, determining whether or not foster care placement is appropriate, setting and evaluating CPS interventions for families ("What Does a Case," 2012).

Chaplain

1. Educational requirements: Minimally, entry-level chaplains must complete a bachelor's degree. There are several settings in which chaplains work that require completion of graduate training (e.g., a master's degree in theology or divinity is required to work as a chaplain for the military). At times, 2 to 4 years of work as a religious leader is required prior to pursuing a chaplaincy position. While ordination is not always required, chaplains must have the endorsement of fellow members of their religion or faith. ("What Training," 2013). National certification through the Board of Chaplaincy Certification Inc. is often an employment requirement; completion of a master's degree is required in order to obtain certification ("How Do I Become," 2013).

2. Roles and Responsibilities: Chaplains may be of any faith, and engage in spiritual ministry and provide individuals with counseling (e.g., assisting in the exploration of existential and ethical concerns as well as emotional ones) (“What Training,” 2013). Rather than being affiliated with a particular house of worship, they are associated with an institution or agency (Joyner, 2013). For instance,

a chaplain is an individual who is ordained or endorsed by a faith group to provide chaplaincy care in diverse settings including, but not limited to, hospitals, corrections, long-term care, sports teams, palliative care, military, hospices, workplaces, mental health and universities (“How Do I Become,” 2013, para. 1).

Due to the types of institutions with which chaplains are affiliated, they more frequently assist individuals who have experienced trauma or some form of crisis compared to pastors or other members of the clergy (Joyner, 2013).

Marriage and Family Therapist

3. Educational requirements: Graduate education (2 to 3 years to obtain a master’s degree; 3 to 5 years to obtain a doctoral degree) or participation in an extensive post-graduate clinical training program (3 to 4 years). Licensure may be obtained after graduation from an accredited program and completion of 2 years of post-degree clinical training (“Qualifications and FAQs,” 2011).
4. Roles/Responsibilities: “Marriage and Family Therapists (MFTs) are mental health professionals trained in psychotherapy and family systems, and licensed to diagnose and treat mental and emotional disorders within the context of marriage,

couples and family systems” (“Qualifications and FAQs,” 2011, para. 2).

Additionally, MFTs may assist patients to address relational issues, and health and behavioral problems from a holistic perspective. Family members may be called upon for input with regard to treatment planning. Therapy provided is generally intended to be brief (12 sessions on average) and solution-focused, while helping the patient/family develop attainable treatment goals (“Qualifications and FAQs,” 2011).

Nurse

1. Licensed Practical or Licensed Vocational Nurse (LPN or LVN)
 - a. Educational requirements: Minimally requires completion of a 1 year, accredited certificate program. Training includes coursework in nursing and biology, and supervised clinical training. LPN/LVN certificate programs are often offered by secondary schools, community colleges or vocational schools. Upon certificate completion, LPNs/LVNs must become licensed by passing the National Council Licensure Examination in order to practice (NCLEX-PN) (“Licensed Practical,” 2012).
 - b. Roles/Responsibilities: LPNs/LVNs provide basic nursing care to patients, receiving supervision from RNs and physicians. Duties often include monitoring vitals, changing bandages or catheters, helping patients to dress or bathe, teaching family members how to care for a patient and collecting samples for testing. Additionally, they record patients’ health status, and keep supervisors apprised of such information. Note:

regulations specific to each state may dictate what care LPNs and LVNs are able to provide (“Licensed Practical,” 2012).

2. Registered Nurse (RN)

- a. Educational requirements: Individual may work toward becoming an RN by obtaining a diploma from a nursing program (2 to 3 years), an associate’s degree in nursing (ADN, 2 to 3 years) or a bachelor’s degree in nursing (BSN, 4 years of undergraduate study) (“Registered Nurses,” 2012). The former 2 avenues, often offered through community colleges or hospital-based programs, generally train individuals for circumscribed practice, while the later allows trainees to develop skills to practice in a wide variety of health care settings. Coursework includes anatomy and physiology, human development, psychology, biology, nutrition and organic chemistry; 4 year programs may also provide specialized coursework (e.g., in psychiatric nursing, obstetrics, pediatrics, nursing theory, health policy, etc.). Upon becoming licensed by passing the National Council Licensure Examination (NCLEX-RN), individuals may obtain entry-level nursing positions. Individuals may also choose to pursue graduate degrees; master’s degree (MSN, administration and education), doctor of philosophy (Ph.D., education and research) or doctor of nursing practice (DNP, clinical practice and leadership). (“How to Become a Nurse,” 2012).
- b. Roles/Responsibilities: Administer medicine/treatment, consult with other health care providers, assess patient symptoms/assist with diagnosis,

observe patients' progress, assist in the development of treatment planning, and provide education to patients and their families on managing illness/conditions ("Registered Nurses," 2012).

c. Areas of Specialization:

- i. Addiction: provide care to those coping with alcohol, drug or tobacco concerns.
- ii. Critical Care: provide treatment and monitoring of individuals with acute or complex illness, often in an intensive care setting.
- iii. Rehabilitation: provide treatment to individuals with temporary or permanent disabling conditions (e.g., individuals with post-surgical complications, those recovering from stroke or traumatic brain injury).
- iv. Advance Practice Registered Nurses (additional coursework/advanced degrees and several years of experience required, provision of primary or specialty care, able to prescribe medication in many states):
 1. Nurse Practitioners: provide nursing and primary care services to patients.
 2. Clinical Nurse Specialists: provide specialized direct care and expert consultation (e.g., psychiatric-mental health, geriatrics, palliative care, diabetic management, etc.).

3. Nurse Anesthetists: provide anesthesia, and may also be involved with care related to emergency services and pain management (“Registered Nurses,” 2012).

Pastoral Counselor

1. Educational requirements: Those interested in becoming pastoral counselors earn either a master’s degree or doctorate in divinity; as part of their degree process, they also complete coursework and obtain training in psychology (“Pastoral Counseling,” 2013). Upon completion of these requirements (some variability in requirements state to state), pastoral counselors often work toward licensure/certification from the American Association of Pastoral Counselors:

While not every state requires pastoral counselors to be licensed, most do because their jobs come under the category of mental or behavioral health services. In the states that require licensing, it is often illegal for a person without a license to call himself a counselor–pastoral or otherwise (“Pastoral Counseling,” 2013, para. 1).

2. Roles and Responsibilities: “A pastoral counselor is a religious leader – often a pastor, imam or rabbi – who has received training in psychology in addition to their training in theology;” this allows the pastoral counselor to promote healing and to provide support to others by integrating spiritual and psychological tools (“Pastoral Counseling,” 2013, para. 1; “Frequently Asked Questions, 2013”).

Physician

1. Educational requirements: A science-focused bachelor's degree (e.g., emphasis on biology, chemistry and physics) followed by 4 years of study at a medical school accredited by the Liaison Committee on Medical Education. Upon completion of medical school, individuals receive either a doctor of medicine (M.D.) or doctor of osteopathic medicine (D.O.) degree. Subsequent to this, physicians complete 3 to 7 years of graduate medical education/residency (length of residency varies by specialty pursued). Some physicians opt for additional fellowship training of 1 to 3 years in order to gain further expertise within a given specialty. Licensure must be obtained from the state in which a physician intends to practice, requiring sufficient performance on exams (e.g., United States Medical Licensing Exam (USMLE)/other state exams) and completion of a minimum number of years of graduate medical education. Physicians may opt to become board certified in specialty and subspecialty areas ("Requirements for Becoming a Physician," 2012).
2. Roles/Responsibilities: Physicians complete health assessments, diagnose/monitor medical conditions, prescribe/monitor medications, screen for preventable conditions, coordinate of treatment planning and referrals and provide education on health/health care- related topics ("Your Interdisciplinary," 2012).
3. Areas of Specialization:
 - a. Geriatrist/Geriatrician: provides specialized care for the elderly. They may focus more upon the quality of life and functional abilities of a patient

instead of working toward curing ailments, and help older adults with the management of multiple medications (Stall, 2003).

- b. Neurologist: provides evaluation, diagnosis and treatment of neurological disorders (conditions which affect the brain, spinal cord and peripheral nervous system (“What is a Neurologist,” 2012).
- c. Physiatrist/Rehabilitation Physician: treats illnesses/injuries that impact patients’ movement (e.g., assessing and treating pain, working to restore maximum function/range of movement via non-surgical intervention) (“What is a Physiatrist,” 2012).
- d. Psychiatrist: provides diagnosis and treatment for patients with mental disorders. Treatment may be preventative or rehabilitative in nature. In the case of the latter, efforts are made to eliminate or reduce symptoms and the associated disabilities of mental illness (“What Do Psychiatrists Do,” 2012).

Physician Assistant

- 1. Educational requirements: Generally, physician assistants obtain a health care-related/science-focused bachelor’s degree prior to completing a 2-year master’s program in physician assistant studies. Graduate training includes further coursework in anatomy, physiology, clinical medicine and pathology, and clinical training in several specialty areas (e.g., family medicine, pediatrics, emergency medicine, etc.). Many graduate programs also require that students obtain some experience working in health care prior to applying (e.g., 200 to 300 hours of

shadowing, prior work as a nurse or emergency medical technician). All states require licensure; individuals become license eligible upon completion of their graduate work and passing of the Physician Assistant National Certifying Exam (“Physician Assistants;” “Becoming a PA,” 2012).

2. Roles/Responsibilities: Under the supervision of a physician, physician assistants practice medicine, maintaining a certain degree of autonomy to make medical decisions (e.g., conduct physical exams, make initial diagnoses, prescribe medications, order and interpret diagnostic tests, provide education to patients and their families, participate in research endeavors (“Physician Assistants;” “What is a Physician Assistant,” 2012).

Psychiatric Technician

1. Educational requirements: Psychiatric technicians generally complete some form of post-secondary training (psychiatric aides may not have training beyond high school). This education is variable and may range from 1 semester to 2 years (coursework may include biology, psychology, counseling and mental health technology). Individuals receive a certificate or associate’s degree upon completion of their training. Additionally, workplaces provide for on-the-job training (lasting weeks to months) for new hires. As of 2011, 4 states (Arkansas, California, Colorado and Kansas) require licensure, which may be obtained subsequent to completing an accredited program and passing an exam (“Psychiatric Technicians,” 2012).

2. Roles/Responsibilities: Psychiatric technicians provide therapeutic care for patients with mental illness or developmental disabilities. Responsibilities include observing patient behavior, checking vitals, directing therapeutic/recreational activities, assist in restraining violent individuals, assisting individuals with activities of daily living, and assisting with admissions and discharges. Psychiatric aides ensure a safe environment for individuals and assist with their daily activities (“Psychiatric Technicians,” 2012).

Psychologist

1. Educational requirements: 4 years of undergraduate study typically includes liberal arts and science courses (e.g., introductory psychology, statistics, research methods, abnormal psychology, social psychology, personality). Individuals may opt to pursue a doctoral degree immediately after completion of undergraduate study or choose to obtain a master’s degree in clinical or counseling psychology prior to entering a doctoral program (18 months to 2 years of graduate study). Individuals with a master’s degree in psychology may be involved in research endeavors or provide therapy in a variety of settings, and in many states such individuals may become licensed; the term “psychologist” is reserved for those who have obtained their doctoral degree. Most doctoral programs require 5 to 7 years of study post-bachelor’s degree and 1 year of pre-doctoral internship training; programs may opt to waive some coursework requirements for individuals with master’s degrees. Upon obtaining a doctorate, individuals may elect to participate in 1 to 2 years of post-doctoral, specialty training (“Getting

Ready,” 2012). Most commonly, individuals are awarded either a Ph.D. (recommended for those interested in research and academia) or a Psy.D. (recommended for those interested in careers focused on clinical practice); degree type, however, does not necessarily limit career focus (e.g., individuals with Psy.D.s are often involved in research endeavors) (Tartakovsky, 2012). Another distinction often made is between counseling and clinical psychologists. Though both may be involved in research or direct care of patients, actual practice differences may be nuanced. The former often emphasizes provision of advice/vocational guidance whereas the latter focuses upon diagnosis and treatment of those with mental health concerns. Licensure requirements for independent practice vary by state and typically include obtaining a passing score on the Examination for Professional Practice of Psychology (EPPP) and accruing a set number of supervised hours. Psychologist may also opt to become board certified by the American Board of Professional Psychology (ABPP) in one of 14 specialty areas (“Psychologists,” 2012).

2. Roles/Responsibilities: Psychologists provide psychotherapy to individuals and groups and assist patients with behavior change, diagnose and treat a wide variety of mental, emotional and behavioral problems, provide cognitive and personality assessment, consult with medical and other mental health providers to develop and implement treatment plans, engage in scientific study/utilize empirically validated techniques in practice (“Psychologists,” 2012).
3. Areas of Specialization:

- a. Clinical Neuropsychology: utilization of formal, norm-referenced cognitive measures to assess and provide treatment recommendations for individuals who have sustained cognitive changes or compromise due to injury or illness.
- b. Health: evaluate how an individual's response to illness, pain management efforts or health promoting interventions is influenced by biopsychosocial factors.
- c. Rehabilitation: assist individuals with concerns related to adjustment, pain management, adaptation and quality of life subsequent to injury (e.g., stroke or accident) or due to congenital conditions (e.g., mental retardation, developmental disability or epilepsy).
- d. Forensic: utilization psychological principles and theory to inform legal processes and decisions (e.g., evaluate an individual's mental competency related to criminal proceedings, provide opinions regarding insurance claims, conduct risk assessments, assist officers of the court to understand psychological findings) ("Some of the Subfields," 2012).

Registered Dietician

1. Educational requirements: Registered dieticians often obtain a bachelor's degree in nutrition and dietetics. Many individuals choose to pursue a master's degree (1 to 2 years; degree in clinical nutrition, public health or related field). Training also includes successful completion of a 6 to 12 month supervised practice program (e.g., at a hospital or other community agency) accredited by the Accreditation

Council for Education in Nutrition and Dietetics (ACEND). A national exam must also be passed. Some RDs obtain additional certification (e.g., pediatric nutrition, diabetes education, etc.) (“Registered Dietician,” 2012). It is worth noting that while only those with a master’s degree in Nutrition are to be called “nutritionists” the term is used by many individuals, including those with no formal education in nutritional sciences (“Dietician or Nutritionist,” 2012).

2. Roles/Responsibilities: “Dietitians and nutritionists are experts in food and nutrition. They advise people on what to eat in order to lead a healthy lifestyle or achieve a specific health-related goal” (“Dieticians and Nutritionists,” 2012, para 1). Specifically, they may be called upon to assess a patient’s nutritional needs, develop meal plans with the patient and monitor the impact of nutritional changes over time. Time may also be spent educating a patient about nutrition and related health issues (“Dieticians and Nutritionists,” 2012).
3. Areas of Specialization:
 - a. Clinical Dieticians: work in health care institutions (e.g., hospitals or long-term facilities) that develop nutritional programming based on the medical/health needs of those served (“Dieticians and Nutritionists,” 2012).
 - b. Management Dieticians: Responsible for meal planning in hospitals and cafeterias, including determinations regarding food purchased. Role may include supervision of cafeteria staff and involvement in related business decisions (“Dieticians and Nutritionists,” 2012).

- c. Community Dieticians: provide education about nutrition in various settings (e.g., public education provided by community clinics and non-profit agencies) (“Dieticians and Nutritionists,” 2012).

Rehabilitation Therapy

According to the MDGuidlines website,

Rehabilitation therapy comprises various treatments aimed to increase functional independence, prevent further loss of function, and maintain or improve quality of life for individuals living with physical illnesses or conditions. The desired outcome is to enhance the individual's independence in as many aspects of life as possible, including activities of daily living, work, and family responsibilities. There are many different types of rehabilitation therapy, including occupational, physical, speech, respiratory, recreational, cognitive/psychological, and social services therapy (“Rehabilitation Therapy,” 2010, para. 1).

Addictions counseling and social work may be classified as additional forms of rehabilitation therapy, but have their own sections in this document.

1. Occupational Therapist
 - a. Educational requirements: Areas of undergraduate study include biology, anatomy, psychology or sociology. Minimally, a master’s degree in occupational therapy is required. Upon graduation, OTs work toward passing a national certification exam and obtaining licensure to practice (Rosenberg, 2012).

b. Roles/Responsibilities: Subsequent to patients experiencing injury, illness or disability, occupational therapists assist with treatment planning by helping patients develop, improve or restore functions and skills related to daily living (e.g., helping patients compensate for memory deficits, directing play for an autistic child or demonstrating exercises to decrease chronic pain in patients). Understanding patients' needs may be facilitated by direct observation of patients in their home or work environments and by evaluating how the environments may be improved (e.g., by the introduction of assistive equipment, like a wheelchair). Education is provided to family members or an employer in order to ensure that proper accommodation for the patient is maintained ("Occupational Therapists," 2012).

2. Physical Therapist

a. Educational requirements: Undergraduate coursework is heavily focused upon the sciences: anatomy and physiology, biology and chemistry), individuals may pursue a Doctor of Physical Therapy degree (DPT, more common, 3 year program) or a Master of Physical Therapy degree (MPT, less common, 2 to 3 year program). Physical therapy programs include coursework in biomechanics, neuroscience, pharmacology and further training in anatomy and physiology. Students also gain practical experience via participation in supervised clinical rotations. Post-graduation, many physical therapists opt to complete residencies (9 months to 3 years in length) in order to receive further training (e.g. to

enhance overall skills or to work with a particular population, like children or athletes) (“Physical Therapists,” 2012).

- b. Roles/Responsibilities: Physical therapists assist patients with chronic conditions (e.g., back and neck injuries, cerebral palsy, sports injuries, stroke or amputations) improve their range of movement and decrease the experience of pain. Individualized treatment for a patient is designed by evaluating the patient’s goals and through direct observation of the patient’s dysfunctional movement. Physical therapists utilize a wide variety of interventions or ‘modalities’ to treat patients, depending upon the condition being treated (e.g., application of heat or cold, massage, training patients to use assistive and adaptive equipment). Additionally, they provide education to patients and their families regarding the process of recovery, and provide preventative therapy to minimize loss of mobility (e.g., promotion of fitness, development of wellness programs) (“Physical Therapists,” 2012).

3. Speech Therapist (Speech-Language Pathologist)

- a. Educational requirements: Undergraduate studies may include the following types of coursework: foreign languages, science and technology, and audiology and phonetics; bachelor’s degree sought is often in communication sciences and disorders (“Speech Therapist,” 2012). Minimally, it is expected that those in this field earn a master’s degree in speech-language pathology. Licensure is required in most states and may be obtained subsequent to completion of education and supervised clinical

experience (some states require accreditation of graduate programs). The American Speech-Language-Hearing Association provides additional certification, which may be required in certain states or by certain employers (“Speech-Language Pathologists,” 2012).

- b. Roles/Responsibilities: Speech therapists work with patients having a wide range of speech impairment, including the inability to speak, comprehension concerns, general difficulty speaking or specific speech conditions related to rhythm or fluency. Patients may be assessed via standardized tests or reading/vocalization tasks. Therapist interventions may include helping patients improve their ability to read and write, develop alternative methods for communication, learn to make sounds or augment strength of muscles in the throat (“Speech-Language Pathologists,” 2012).

Social Worker

1. Educational requirements: Requirements vary depending on the type of social work performed. For entry-level or generalist positions, a bachelor’s degree (BSW, 4 years) is required; this level of education prepares individuals to work in direct-service positions (e.g., caseworker, mental health assistant). Those wishing to work in hospitals or other health care settings, and who wish to work clinically or become involved in supervisory duties, must obtain a master’s degree (MSW, 1 to 2 years of graduate study). Training programs include fieldwork placements or supervised clinical experiences (“Social Workers,” 2012). Coursework in social

work programs includes generalist practice, social work policy, human behavior and research methods (“Social Work Courses,” 2012). Those interested in research or working as educators may pursue doctoral degrees (DSW or Ph.D.) (“Explore the Social Work Profession,” 2012). Individuals who have obtained graduate levels of education may seek licensure. Most states require adequate performance on standardized exams offered by the Association of Social Work Boards; licensure, certifications and credentialing may be sought through the National Association of Social Workers (“Become a Social Worker,” 2012).

2. Roles/Responsibilities:

- a. Direct-Service: assess patients’ needs, strengths and limitations, assist patients to develop goals and cope with various challenges, engage in advocacy and crisis intervention, refer patients to various community/government agencies, evaluate service efficacy.
- b. Clinical: provide diagnosis and therapy for individuals and groups with emotional, mental or behavioral problems, refer patients for ancillary services, assist with the development of patient treatment plans and engage in consultation with other health care providers (“Social Workers,” 2012).

3. Areas of Specialization:

- a. Health care: assist patients to understand diagnoses, manage chronic illness and make lifestyle changes and refer patients to home health care or support groups, as needed.

- b. Gerontology: connect older adults and their families to appropriate services including assisted living and meal programs; work with individuals to create advanced directives.
- c. Hospice/Palliative: provide patients and families with support in dealing with serious or terminal illness (e.g., connecting individuals to support groups, grief counseling or pain management resources).
- d. Mental Health and Substance Abuse: provide support to individuals with mental illness or substance abuse/dependence disorders via therapy and referral to self-help or transitional housing programs (“Social Workers,” 2012).

CHAPTER 5

BECOMING PART OF A COLLABORATIVE TEAM

Incorporating Trainees into a Collaborative Team

As noted previously, students and trainees may obtain limited formal education regarding collaborative care prior to entering a practicum or internship due to lack of course offerings at their institution or inability to incorporate such coursework into an already intensive curriculum. Consequently, the majority of a trainee's exposure to a collaborative health care teams would seem likely to occur during practicum and internship training. Such experiences, as in the case of doctoral students in psychology, occur during the latter part of individuals' education and training, and only a year or two prior to entering the workforce as entry-level professionals. This provides a relatively short window of opportunity for the trainee to acquire information. To increase the likelihood that early career professionals become effective in collaborative settings, a two-pronged training experience is proposed: (a) acquisition of information about working within a collaborative care setting, and (b) successful integration of the trainee as a member of the treatment team. The responsibility for achievement of these tasks is shared between the trainee and their supervisors/training institution.

Acquisition of Information

Significant resources (e.g., full-time professionals who provide supervision, and design and present didactics) are often allotted to the trainee during their practicum or internship placement. The focus of such resources, however, may be upon educating the trainee about their duties during their placement, providing training on institution-specific

procedures, and monitoring and reviewing the trainee's progress for the length of the placement. The time-limited nature of practicum or internship placements may result in less emphasis being placed on instruction for working in collaborative care settings and more upon issues seeming more relevant to the effective functioning of the trainee. For example, in the case psychology interns, didactics often focus on how to address potential crisis situations with patients (e.g., how to effectively address patient suicidality/dangerousness toward others, reporting suspected child or elder abuse to the appropriate agencies, etc.), and ensure appropriate protections are afforded to patients (e.g., maintenance of confidentiality, privacy, etc.). Appropriate knowledge and understanding of such topics is foundational and essential to effective practice as a mental health clinician. Thus, it is not the suggestion that such relevant topics be eliminated from a training curriculum in favor of those on collaborative care. Rather, it is suggested that education on collaborative care to be complimentary to foundational topics, enhancing trainees' functioning.

It would seem beneficial if training institutions devoted some didactic experiences to collaborative care topics, including information on how treatment teams are viewed and function within the specific institution (e.g., information about which professions are represented as part of the team, the process by which members of different professions collaborate to provide quality patient care, etc.). Trainees would also greatly benefit from didactics provided by individuals outside their field (e.g., physician led didactics on medication side effects). Professionals from different disciplines could provide invaluable insight into their work with patients/their contributions to patient care, and the particular set of skills/expertise which they bring to the team. At the same time, a trainee would

seem to benefit greatly by taking a proactive stance by approaching different team members on an informal basis to learn about their role and contributions to the institution.

The process of educating trainees about collaborative care necessarily includes the provision of information regarding ‘institutional politics,’ as it may potentially have a detrimental impact on quality of care delivered to patients and level of cohesion among team members. This may be a topic that supervisors and institutions are reticent to discuss, but trainees should be adequately prepared for the reality that collaboration among many different professions, and even among those of the same profession, presents significant challenges at times. Appropriate discussions of allocation of resources/funding, perceptions of various disciplines within an institution, overlapping roles and responsibilities, difference in professions’ level of power and influence within the institution, and the degree to which such matters are acknowledged and addressed are very relevant to the trainee’s education, and provide supervisors and training staff with the opportunity to model professionalism in their presentation and discussion of such issues. Again, the trainee would seem to benefit by taking on a proactive role, asking questions about and discussing any observed conflict, and how such conflict is addressed with their immediate supervisor. Thorough acquisition of information serves to allow the trainee to be integrated into the treatment team during their practicum/internship.

Integration

Integration of the trainee into an existing treatment team should be one of the goals of any training institution. It transitions the educational process from passive to active, and compliments the practical and ‘hands on’ nature of a practicum or internship. It may be the case that team members outside of the trainee’s field do not have a

complete understanding of the trainee's role. As such, supervisors should make an effort to inform the treatment team of the trainee's role and responsibilities. Team members can help the trainee with the process of developing a professional identity and increased competence by routinely asking for the trainee's opinion about a particular patient or treatment issue both informally and as part of staff/treatment team meetings versus having the trainee remain a passive observer. Further, the trainee should have ample opportunity to provide formal presentations to support treatment team activities and decision-making (e.g., presenting patient issues to the team as they arise in the trainee's work, developing case conceptualizations or creating didactics to benefit the team).

Whether initiated by the trainee, their supervisor or another team member, the practicum or internship experience should offer opportunities for the trainee to work with professionals from fields other than their own. Such experiences could include shadowing a professional from another field in order to augment understanding regarding their responsibilities, collaborating on research or professional development endeavors or sharing responsibilities of direct clinical care (e.g., a psychology intern co-facilitating education classes or group therapy with a staff social worker or addictions therapist). It seems a reasonable expectation that by the conclusion of their final practicum or internship experience, a trainee provided with education and a range of practical opportunities to operate as part of a collaborative treatment team would be well-prepared to participate in other collaborative settings as an early-career or entry level professional.

CHAPTER 6

CONCLUSION

In recent decades, the shift in the conceptualization of health and illness from a biomedical to a biopsychosocial perspective has led to a parallel changes with regard to the delivery of health care. Viewing illness, as well as the path to recovery through a holistic lens has fostered the development of collaborative health care where the varied and evolving needs of the patient are met by the expertise of professionals from multiple disciplines. Service delivery provided by collaborative treatment teams has the potential to benefit patients in numerous ways (e.g., thorough conceptualization of patients' conditions and concerns, availability of multiple opinions regarding a prescribed course of treatment, a wide range of knowledge beyond that of a single health care provider, etc.). At the same time, decisions about the distribution of limited resources to team members, how potential power imbalances are perceived and addressed, and the degree to which the team can effectively collaborate provide ongoing obstacles to integration.

It can be a challenge for students, trainees and early career professionals to understand these complex interactions among team members, which may either promote or hinder quality of patient care. Additionally, the roles and responsibilities of different members may not fully be understood or adequately defined at a given institution or training site. At the same time, the topic of collaborative care appears to be insufficiently addressed in educational curricula, and yet it would seem to the benefit of both patients and institutions for early career professionals to be well-versed in this area. Thus, it is recommended that institutions (e.g., hospitals, community mental health centers, prisons, etc.) include training on collaborative treatment issues into the experiences of their

practicum students and interns. Ideally, training would include both a didactic/educational component and the in vivo experience of the trainee's integration into an existing team. Adequate education in the collaborative approach, while, perhaps, requiring some changes to training procedures at some institution, is best seen as an investment in helping to create professionals who are well-prepared to serve patients and function effectively within a team.

References

- Adler, R. H. (2009). Engel's biopsychosocial model is still relevant today. *Journal of Psychosomatic Research*, 67(6), 607-611. doi: 10.1016/j.jpsychores.2009.08.008.
- Alcorn, J., & McPhearson, R. (1997). Counseling psychology in multidisciplinary health settings: Implications for future training. *The Counseling Psychologist*, 25(4), 637-653. doi:10.1177/0011000097254007.
- American Psychological Association. (2000). *Guidelines and principles for accreditation of programs in professional psychology*. Washington, DC: Author.
- American Psychological Association. (1998). *Interprofessional health care services in primary care settings: Implications for professional education and training of psychologists* (SAMHSA/HRSA Project on Managed Behavioral Health Care and Primary Care: SAMHSA Work Order No. 97M220464). Washington, DC: Author.
- Antunez, H., Steinmann, W., Marten, L., & Escarfuller, J. (2003). A multidisciplinary, culturally diverse approach to training health professions students. *Medical Education*, 37(10), doi:10.1046/j.1365-2923.2003.01633.x.
- Batorowicz, B., & Shepherd, T. A. (2008). Measuring the quality of transdisciplinary teams. *Journal of Interprofessional Care*, 22(6), 612-620. doi: 10.1080/13561820802303664.
- Become a social worker. (2012). In *Social Work License Map*. Retrieved July 28, 2012, from <http://socialworklicensemap.com/become-a-social-worker/>
- Becoming a PA. (2012). Your PA Career. In *American Academy of Physician Assistants*. Retrieved July 28, 2012, from http://www.aapa.org/your_pa_career/becoming_a_pa.aspx
- Biderman, A., Yeheskel, A., & Herman, J. (2005). The biopsychosocial model--have we made any progress since 1977? *Families, Systems, & Health*, 23(4), 379-386. doi: 10.1037/1091-7527.23.4.379.
- Borrell-Carrio, F., Suchman, A. L., & Epstein, R. M. (2004). The biopsychosocial model 25 years later: Principles, practice and scientific inquiry. *Annals of Family Medicine*, 2, 576-582.
- Brawer, P., Handal, P., Fabricatore, A., Roberts, R., & Wajda-Johnston, V. (2002). Training and education in religion/spirituality within APA-accredited clinical psychology programs. *Professional Psychology: Research and Practice*, 33(2), 203-206. doi:10.1037/0735-7028.33.2.203.

- Buljac-Samardzic, M., Dekker-van Doorn, C. M., van Wijngaarden, J. D. H., & van Wijk, K. P. (2010). Interventions to improve team effectiveness: A systematic review. *Health Policy, 94*(3), 183-195. doi: 10.1016/j.healthpol.2009.09.015.
- Caregiving and Interprofessional Teams. (2013). In *American Psychological Association*. Retrieved September 1, 2013, from <http://www.apa.org/pi/about/publications/caregivers/education/interprofessional-teams.aspx#>
- Carpenter, J., Schneider, J., Brandon, T., & Wooff, D. (2003). Working in multidisciplinary community mental health teams: The impact on social workers and health professionals of integrated mental health care. *British Journal of Social Work, 33*(8), 1081-1103. doi: 10.1093/bjsw/33.8.1081.
- Certified addictions counselor education requirements. (2012). In *Education-Portal.com*. Retrieved July 28, 2012, from http://educationportal.com/certified_addictions_counselor.html
- Chur-Hansen, A., Koopowitz, L., Jureidini, J., Abhary, S., & McLean, S. (2006). An interdisciplinary course for trainee psychiatrists: Feedback and implications. *Australasian Psychiatry, 14*(2), 186-191. doi:10.1111/j.1440-1665.2006.02259.x.
- Derner, G., & Stricker, G. (1986). Quality control in professional psychology: Avoiding the decline of excellence. *Quality in professional psychology training: A national conference and self-study* (pp. 37-43). Washington, DC US: American Psychological Association. doi:10.1037/10558-005.
- Dietician or nutritionist? (2012). In *Ask the Dietician*. Retrieved August 17, 2012, from <http://www.dietitian.com/rds.html>
- Dieticians and nutritionists (2012). Occupational Outlook Handbook. In *Bureau of Labor Statistics*. Retrieved August 17, 2012, from <http://www.bls.gov/ooh/Healthcare/Dietitians-and-nutritionists.htm#tab-2>
- Dobmeyer, A. C., Rowan, A. B., Etherage, J. R., & Wilson, R. J. (2003). Training psychology interns in primary behavioral health care. *Professional Psychology: Research and Practice, 34*(6), 586-594. doi: 10.1037/0735-7028.34.6.586.
- Doherty, W. J., Baird, M. A., & Becker, L. A. (1986). Family medicine and the biopsychosocial model: The road toward integration. *Advances, 3*, 17-28.
- Dyer, J. (2003). Multidisciplinary, interdisciplinary, and transdisciplinary educational models and nursing education. *Nursing Education Perspectives, 24*(4), 186-188.
- Engel, G. L. (1992). The need for a new medical model: A challenge for biomedicine. *Family Systems Medicine, 10*(3), 317-331. doi: 10.1037/h0089260.

- Explore the social work profession: Education. (2012). In *Careers.socialwork.org*. Retrieved August 17, 2012, from <http://careers.socialworkers.org/explore/education.asp>
- Fay, D., Borrill, C., Amir, Z., Haward, R., & West, M. A. (2006). Getting the most out of multidisciplinary teams: A multi-sample study of team innovation in health care. *Journal of Occupational and Organizational Psychology*, 79(4), 553-567. doi: 10.1348/096317905X72128.
- Foley, J. M., Levant, R. F., Kleiver, A. L., Calzada, P. J., House, A., Kummel, A., & Kelleher, W. J. (2006). Using community outreach to promote integrated health care: A pilot project. *Professional Psychology: Research and Practice*, 37(2), 125-131. doi: 10.1037/0735-7028.37.2.125.
- Frequently asked questions about pastoral counselors. (2013). In *The Pastoral Counseling Center*. Retrieved September 15, 2013, from <http://www.pccmidvalley.org/pastoral-counseling-faq.html>
- Gawinski, B., Edwards, T., & Speice, J. (1999). A family therapy internship in a multidisciplinary healthcare setting: Trainees' and supervisor's reflections. *Journal of Marital and Family Therapy*, 25(4), 469-484. doi:10.1111/j.1752-0606.1999.tb00263.x.
- Getting ready to work in psychology. (2012). In *American Psychological Association: Careers in Psychology*. Retrieved July 28, 2012, from <http://www.apa.org/careers/resources/guides/careers.aspx?item=5>
- Ghaemi, S. N. (2009). The rise and fall of the biopsychosocial model. *British Journal of Psychiatry*, 195(1), 3-4. doi: 10.1192/bjp.bp.109.063859.
- Grace, S. & Higgs, J. (2010). Integrative medicine: Enhancing quality in primary health care. *The Journal of Alternative and Complimentary Medicine*, 16(9), 1-6. doi: 10.1089/acm.2009.0437.
- Harvey, R. (2009). Review of whole person healthcare, Volumes 1, 2, & 3 (2007). *Psychotherapy: Theory, Research, Practice, Training*, 46(2), 272-273. doi: 10.1037/a0016078.
- Hibbert, E., Arnaud, S., & Dharampaul, S. (1994). Nurses' satisfaction with the patient care team. *Canadian Journal of Rehabilitation*, 8(2), 87-95.
- Hollenberg, D. (2006). Uncharted ground: Patterns of professional interaction among complementary/alternative and biomedical practitioners in integrative health care settings. *Social Science & Medicine*, 62(3), 731-744. doi: 10.1016/j.socscimed.2005.06.030.

- How do I become a chaplain? (2013). In *Association of Professional Chaplains*. Retrieved September 15, 2013, from <http://professionalchaplains.org/content.asp?contentid=78>
- How mental health difficulties affect children. (2012). In *Kids Matter*. Retrieved June 2, 2013, from <http://www.kidsmatter.edu.au/families/about-mental-health/should-i-be-concerned/how-mental-health-difficulties-affect-children-0>
- How to become a nurse. (2012). In *American Nurses Association*. Retrieved August 17, 2012, from <http://nursingworld.org/EspeciallyForYou/What-is-Nursing/Tools-You-Need/RegisteredNurseLicensing.html>
- How to become a qualified case manager. (2012). In *CaseManagementCertification.org*. Retrieved August 17, 2012, from <http://www.casemanagementcertification.org/training-and-certification>
- Interdisciplinary Parkinson disease clinic. (2013). In *UNC School of Medicine: Department of Neurology*. Retrieved September 1, 2013, from <http://www.med.unc.edu/neurology/divisions/movement-disorders/npfcoe/interdisciplinary-parkinson-disease-clinic>
- Jones, A. (2006). Multidisciplinary team working: Collaboration and conflict. *International Journal of Mental Health Nursing*, 15(1), 19-28. doi: 10.1111/j.1447-0349.2006.00400.x.
- Jones, C. H. (2005). The spectrum of therapeutic influences and integrative health care: Classifying health care practices by mode of therapeutic action. *The Journal of Alternative and Complementary Medicine*, 11(5), 937-944. doi: 10.1089/acm.2005.11.937.
- Joyner, J. (2013). What is the difference between a chaplain and a pastor? *Houston Chronicle*. Retrieved September 15, 2013 from <http://work.chron.com/difference-between-chaplain-pastor-5956.html>
- Kaczmarek, L., Pennington, R., & Goldstein, H. (2000). Transdisciplinary consultation: A center-based team functioning model. *Education & Treatment of Children*, 23(2), 156-172.
- Kessel, F., & Rosenfield, P. L. (2008). Toward transdisciplinary research: Historical and contemporary perspectives. *American Journal of Preventive Medicine*, 32(2, Suppl 1), S225-S234. doi: 10.1016/j.amepre.2008.05.005.

- King, G., Shaw, L., Orchard, C. A., & Miller, S. (2010). The interprofessional socialization and valuing scale: A tool for evaluating the shift toward collaborative care approaches in health care settings. *Work: Journal of Prevention, Assessment & Rehabilitation, 35*(1), 77-85. doi: 10.3233/WOR-2010-0959.
- Kligler, B., Maizes, V., Schacter, S., Park, C. M., Gaudet, T., Benn, R. . . . Remen, R. N. (2004). Core competencies in integrative medicine for medical school curricula: A proposal. *Academic Medicine, 79*(6), 521-531.
- Licensed practical and licensed vocational nurses (2012). Occupational Outlook Handbook. In *Bureau of Labor Statistics*. Retrieved August 30, 2012, from <http://www.bls.gov/ooh/healthcare/licensed-practical-and-licensed-vocational-nurses.htm#tab-2>
- Lowe, F. & O'Hara, S. (2000). Multi-disciplinary team working in practice: Managing the transition. *Journal of Interprofessional Care, 14*(3), 169-279.
- Maizes, V., Rakel, D. & Niemiec, C. (2009). Integrative medicine and patient-centered care. *Explore, 5*(5), 277-289. doi: 10.1016/j.explore.2009.06.008.
- Mann, D., Gaylord, S., & Norton, S. (2004). Moving toward integrative care: Rationales, models, and steps for conventional-care providers. *Complementary Health Practice Review, 9*(3), 155-172. doi: 10.1177/1533210104272314.
- Markey, M., Rufener, C., Clary, L., & Wonderlich-Tierney, A. (2007). Didactic presentations as a supplement to graduate education. *The Behavior Therapist, 30*(8), 184-186.
- McIlvried, E., Wall, J., Kohout, J., Keys, S., & Goreczny, A. (2010). Graduate training in clinical psychology: Student perspectives on selecting a program. *Training and Education in Professional Psychology, 4*(2), 105-115. doi:10.1037/a0016155.
- Miller, H. L., Hall, S. E., & Hunley, S. A. (2004). Value perceptions of integrative health care: A study of primary care physicians and professional clinical counselors. *Journal of Contemporary Psychotherapy, 34*(2), 117-124. doi: 10.1023/B:JOCP.0000022311.91263.92.
- Molleman, E., Broekhuis, M., Stoffels, R., & Jaspers, F. (2010a). Complexity of health care needs and interactions in multidisciplinary medical teams. *Journal of Occupational and Organizational Psychology, 83*(1), 55-76. doi: 10.1348/096317909X478467.

- Molleman, E., Broekhuis, M., Stoffels, R., & Jaspers, F. (2010b). Consequences of participating in multidisciplinary medical team meetings for surgical, nonsurgical, and supporting specialties. *Medical Care Research and Review*, *67*(2), 173-193. doi: 10.1177/1077558709347379.
- Novy, D., Hamid, B., Driver, L., Koyyalagunta, L., Ting, J., Perez, M. . . . Burton, A. W. (2010). Preliminary evaluation of an educational model for promoting positive team attitudes and functioning among pain medicine fellows. *Pain Medicine*, *11*(6), 841-846. doi: 10.1111/j.1526-4637.2010.00856.x.
- Occupational therapists. (2012). Occupational Outlook Handbook. In *Bureau of Labor Statistics*. Retrieved July 28, 2012, from <http://www.bls.gov/ooh/Healthcare/Occupational-therapists.htm#tab-1.S>
- Pachana, N., Sofronoff, K., & O'Brien, M. (2008). Focus on clinical psychology postgraduate training: Taking the curriculum into the next decade. *Australian Psychologist*, *43*(4), 219-221. doi:10.1080/00050060802475270.
- Palliative care and pain management at the end of life. (2012). In *NetCE: Continuing Education for Healthcare Professionals*. Retrieved September 28, 2012, from <http://www.netce.com/coursecontent.php?courseid=841>
- Pastoral counseling. (2013). In *How to Become a Pastor*. Retrieved September 15, 2013, from <http://www.howtobecomeapastor.com/>
- Physical therapists. (2012). Occupational Outlook Handbook. In *Bureau of Labor Statistics*. Retrieved August 17, 2012, from <http://www.bls.gov/ooh/Healthcare/Physical-therapists.htm#tab-1>
- Physician assistants. (2012). Occupational Outlook Handbook. In *Bureau of Labor Statistics*. Retrieved August 30, 2012, from <http://www.bls.gov/ooh/Healthcare/Physician-assistants.htm#tab-1>
- Pica, M. (1998). The ambiguous nature of clinical training and its impact on the development of student clinicians. *Psychotherapy: Theory, Research, Practice, Training*, *35*(3), 361-365. doi:10.1037/h0087840.
- Priest, H., Roberts, P., Dent, H., Blincoe, C., Lawton, D., & Armstrong, C. (2008). Interprofessional education and working in mental health: In search of the evidence base. *Journal of Nursing Management*, *16*(4), 474-485. doi:10.1111/j.1365-2834.2008.00867.x.
- Psychiatric technicians and aides. (2012). Occupational Outlook Handbook. In *Bureau of Labor Statistics*. Retrieved July 28, 2012, from <http://www.bls.gov/ooh/healthcare/psychiatric-technicians-and-aides.htm#tab-1>

- Psychologists. (2012). Occupational Outlook Handbook. In *Bureau of Labor Statistics*. Retrieved July 28, 2012, from <http://www.bls.gov/ooh/Life-Physical-and-Social-Science/Psychologists.htm#tab-1>
- Qualifications and FAQs. (2011). About AAMFT. In *American Association for Marriage and Family Therapy*. Retrieved August 30, 2012, from http://www.aamft.org/imis15/Content/About_AAMFT/Qualifications.aspx
- Registered dietician (RD): Educational and professional requirements. (2012). In *Academy of Nutrition and Dietetics*. Retrieved August 30, 2012, from <http://www.eatright.org/BecomeanRDorDTR/content.aspx?id=8143>
- Registered nurses (2012). Occupational Outlook Handbook. In *Bureau of Labor Statistics*. Retrieved July 28, 2012, from <http://www.bls.gov/ooh/healthcare/registered-nurses.htm#tab-2>
- Rehabilitation therapy. (2010). In *MDGuidelines*. Retrieved August 30, 2012, from <http://www.mdguidelines.com/rehabilitation-therapy>
- Requirements for becoming a physician. (2012). In *American Medical Association*. Retrieved August 30, 2012, from <http://www.ama-assn.org/ama/pub/education-careers/becoming-physician.page>
- Rosenberg Mckay, D. (2012). Occupational therapist: Career planning. In *About.com: Career Planning*. Retrieved August 30, 2012, from http://careerplanning.about.com/od/occupations/p/occ_therapist.htm
- Rural beginnings project. (2013). In *Australian Government: Australian Institute of Family Studies, Child Family Community Australia*. Retrieved September 1, 2013, from <http://www.aifs.gov.au/cafca/>
- Scherger, J. E. (2005). The biopsychosocial model is shrink wrapped, on the shelf, ready to be used, but waiting for a new process of care. *Families, Systems, & Health*, 23(4), 444-447. doi: 10.1037/1091-7527.23.4.444.
- Sheehan, D., Robertson, L., & Ormond, T. (2007). Comparison of language used and patterns of communication in interprofessional and multidisciplinary teams. *Journal of Interprofessional Care*, 21(1), 17-30. doi: 10.1080/13561820601025336.
- Slade, M., Rosen, A., & Shankar, R. (1995). Multidisciplinary mental health teams. *International Journal of Social Psychiatry*, 41(3), 180-189. doi: 10.1177/002076409504100303.
- Social work courses and classes overview. (2012). In *Education-Portal.com*. Retrieved August 17, 2012, from http://education-portal.com/social_workers_courses.html

- Social workers. (2012). Occupational Outlook Handbook. In *Bureau of Labor Statistics*. Retrieved July 28, 2012, from <http://www.bls.gov/ooh/Community-and-Social-Service/Social-workers.htm#tab-1>
- Some of the subfields in psychology. (2012). In *American Psychological Association: Careers in Psychology*. Retrieved August 30, 2012, from <http://www.apa.org/careers/resources/guides/careers.aspx?item=2>
- Speech-Language pathologists. (2012). Occupational Outlook Handbook. In *Bureau of Labor Statistics*. Retrieved August 30, 2012, from <http://www.bls.gov/ooh/Healthcare/Speech-language-pathologists.htm#tab-1>
- Speech therapist: 5 steps to becoming a speech therapist. (2012). In *DegreeDirectory.org*. Retrieved August 30, 2012, from http://degreedirectory.org/articles/Speech_Therapist_5_Steps_to_Becoming_a_Speech_Therapist.html
- Sperry, L. (2008). The biopsychosocial model and chronic illness: Psychotherapeutic implications. *The Journal of Individual Psychology*, 64(3), 369-376.
- Stall, R. S. (2003). What is a geriatrician? In *Univeristy at Buffalo, State University of New York*. Retrieved August 17, 2012, from <http://www.acsu.buffalo.edu/~drstall/geriatrician.html>
- Sundberg, T., Halpin, J., Warenmark, A. & Falkenberg, T. (2007). Toward a model for integrative medicine in Swedish primary care. *BMC Health Services Research*, 7(107), 1-9.
- Talen, M. R., Fraser, J. S., & Cauley, K. (2005). Training primary care psychologists: A model for predoctoral programs. *Professional Psychology: Research and Practice*, 36(2), 136-143. doi: 10.1037/0735-7028.36.2.136.
- Tartakovsky, M. (2012). Choosing between the PsyD and PhD psychology degrees. In *PsychCentral*. Retrieved July 28, 2012, from <http://psychcentral.com/lib/2011/choosing-between-psyd-phd-psychology-graduate-degrees/>
- Tavakoli, H. R. (2009). A closer evaluation of current methods in psychiatric assessments: A challenge for the biopsychosocial model. *Psychiatry*, 6(2), 25-30.
- Thylefors, I., Persson, O., & Hellstrom, D. (2005). Team types, perceived efficiency and team climate in Swedish cross professional teamwork. *Journal of Interprofessional Care*, 19(2), 102-114.

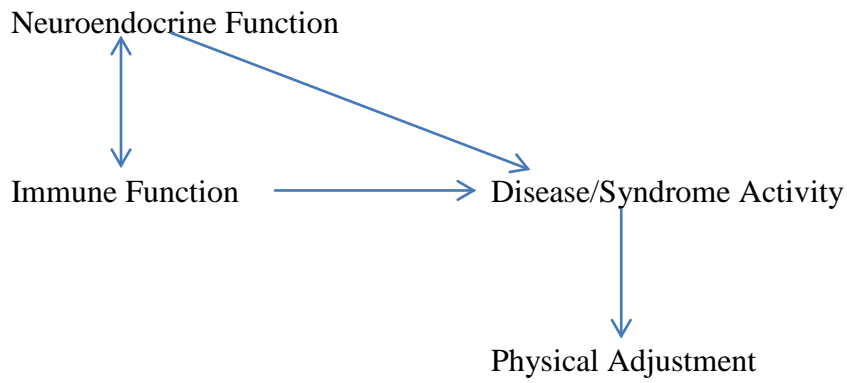
- Tibbits-Kleber, A., & Howell, R. (1987). Doctoral training in clinical psychology: A students' perspective. *Professional Psychology: Research and Practice*, 18(6), 634-639. doi:10.1037/0735-7028.18.6.634.
- Van Der Vegt, G. S., & Bunderson, J. S. (2005). Learning and performance in multidisciplinary teams: The importance of collective team identification. *Academy of Management Journal*, 48(3), 532-547.
- Verhoef, M. J., Mulkins, A., & Boon, H. (2005). Integrative health care: How can we determine whether patients benefit?. *The Journal of Alternative and Complementary Medicine*, 11(Suppl 1), S57-S65. doi: 10.1089/acm.2005.11.s-57.
- Vetere, A. (2007). Bio/psycho/social models and multidisciplinary team working - Can systemic thinking help?. *Clinical Child Psychology and Psychiatry*, 12(1), 5-12. doi: 10.1177/1359104507071050.
- Vogwill, V., & Reeves, S. (2008). Challenges of information exchange between nurses and physicians in multidisciplinary team meetings. *Journal of Interprofessional Care*, 22(6), 664-667. doi: 10.1080/13561820802114772.
- Waldstein, S. R., Neumann, S. A., Drossman, D. A. & Novack, D. H. (2001). Teaching psychosomatic (biopsychosocial) medicine in United States medical schools: Survey findings. *Psychosomatic Medicine*, 63(3), 335-343.
- Walker, J. G., Jackson, H. J., & Littlejohn, G. O. (2004). Models of adjustment to chronic illness: Using the example of rheumatoid arthritis. *Clinical Psychology Review*, 24(4), 461-488. doi:10.1016/j.cpr.2004.03.001.
- What do psychiatrists do? (2012). In *Canadian Psychiatric Association*. Retrieved August 30, 2012, from <http://www.cpa-apc.org/browse/documents/17>
- What does a case manager do? (2012). In *DegreeDirectory.org*. Retrieved August 30, 2012, from http://degreedirectory.org/articles/What_Does_a_Case_Manager_Do.html
- What does a substance abuse counselor do? (2012). In *DegreeDirectory.org*. Retrieved August 30, 2012, from http://degreedirectory.org/articles/What_Does_a_Substance_Abuse_Counselor_Do.html
- What is a case manager? (2012). In *Case Management Society of America*. August 30, 2012, from <http://www.cmsa.org/Consumer/FindaCaseManager/WhatisaCaseManager/>

- What is a neurologist? (2012). In *Remedy Health Media, LLC*. Retrieved July 28, 2012, from <http://www.healthcommunities.com/brain-nerve-tests/what-is-a-neurologist.shtml>
- What is a physiatrist? (2012). In *American Academy of Physical Medicine and Rehabilitation*. Retrieved July 28, 2012, from <http://www.aapmr.org/patients/aboutpmr/pages/physiatrist.aspx>
- What is a physician assistant? (2012). In *Physician Assistant Education Association*. Retrieved July 28, 2012, from <http://www.paeaonline.org/index.php?ht=d/sp/i/197/pid/197>
- What training is required to become a chaplain? (2013). In *DegreeDirectory.org*. Retrieved September 15, 2013, from http://degreedirectory.org/articles/What_Training_and_Education_is_Required_to_Become_a_Chaplain.html
- Wilson, C. C., & Netting, F. E. (1985). Training students to functionally assess elderly clients in a home health setting. *Journal of Applied Gerontology*, 4(2), 111-116. doi: 10.1177/073346488500400213.
- Woodruff-Borden, J., & Newton, T. L. (2006). Introduction to series: Predoctoral clinical psychology education and training: Integrative models and perspectives. *Journal of Clinical Psychology in Medical Settings*, 13(1), 1-2. doi: 10.1007/s10880-005-9004-5.
- Your interdisciplinary treatment team. (2012). In *Kernan Orthopaedics and Rehabilitation*. Retrieved July 28, 2012, from http://www.kernan.org/patients/treatment_team.htm

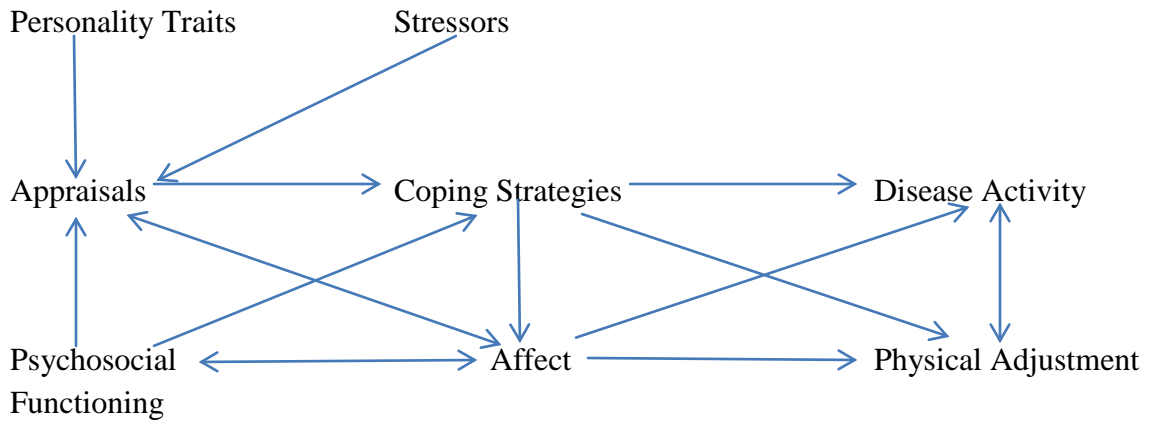
Appendix A

Models Used to Conceptualize Health and Illness

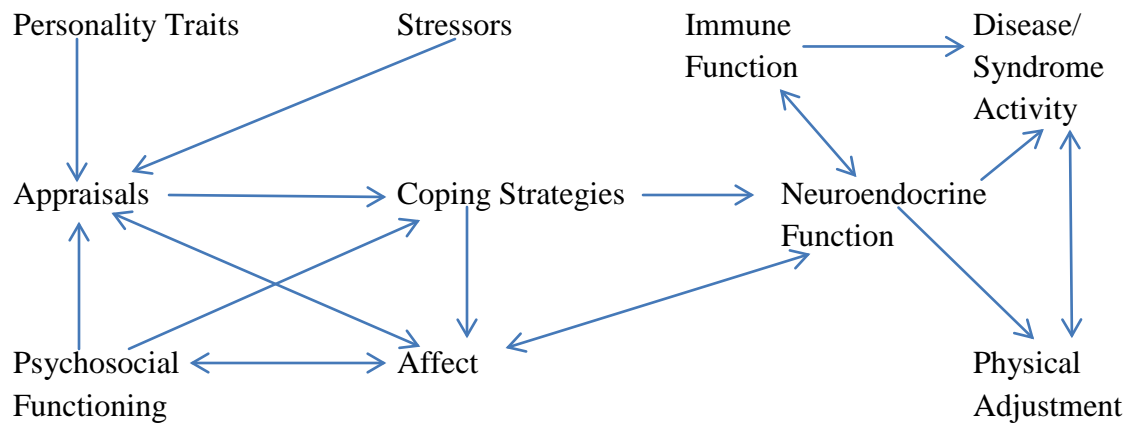
Biomedical model of the pathogenesis of rheumatoid arthritis (Walker et al., 2004).



Psychosocial model of the pathogenesis of rheumatoid arthritis (Walker et al., 2004).



Biosychosocial model of the pathogenesis of rheumatoid arthritis (Walker et al., 2004).

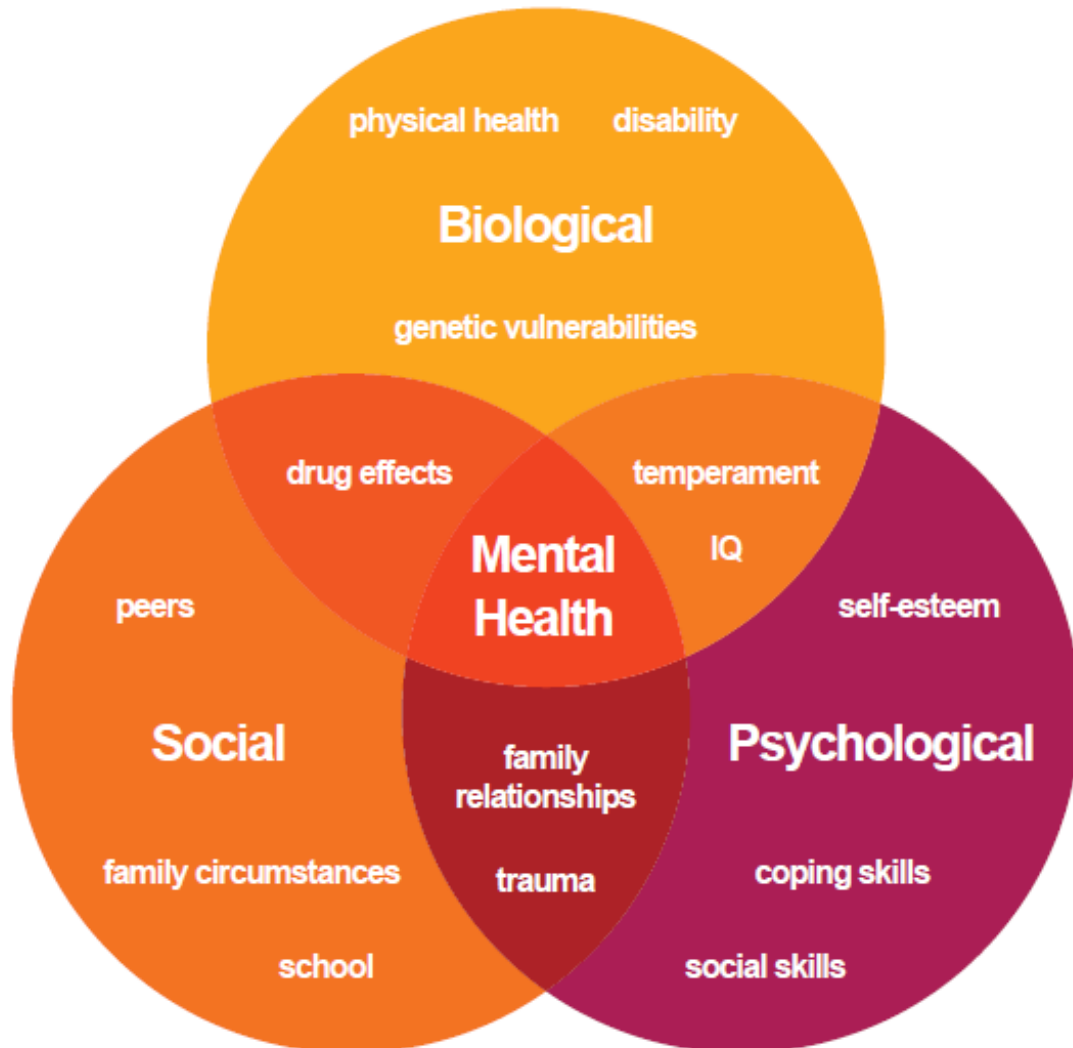


Appendix B

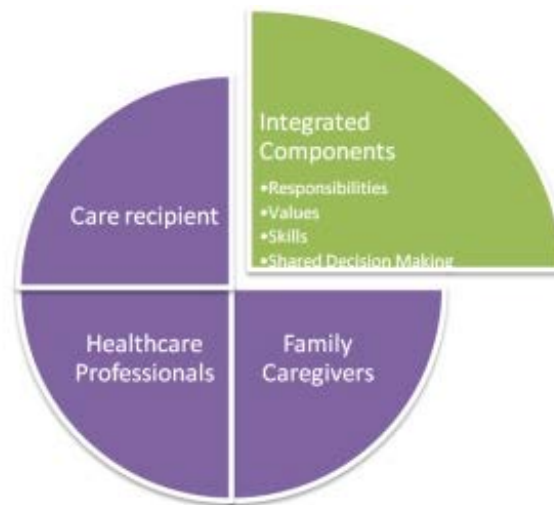
Models of Collaborative Care

Biosychosocial model of factors impacting mental health in children (“How Mental Health,” 2012).

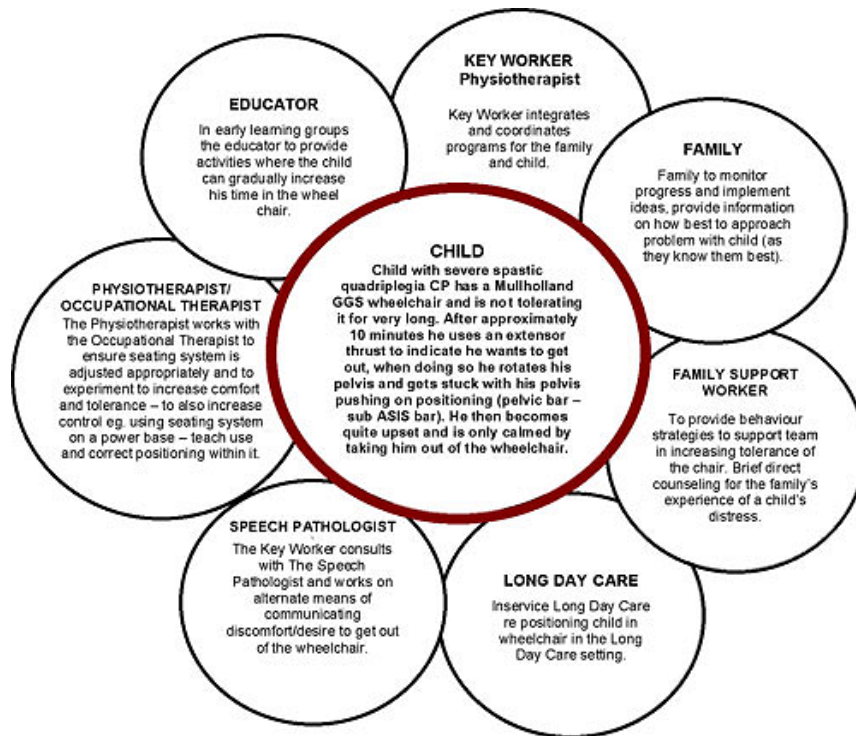
The biopsychosocial model of health



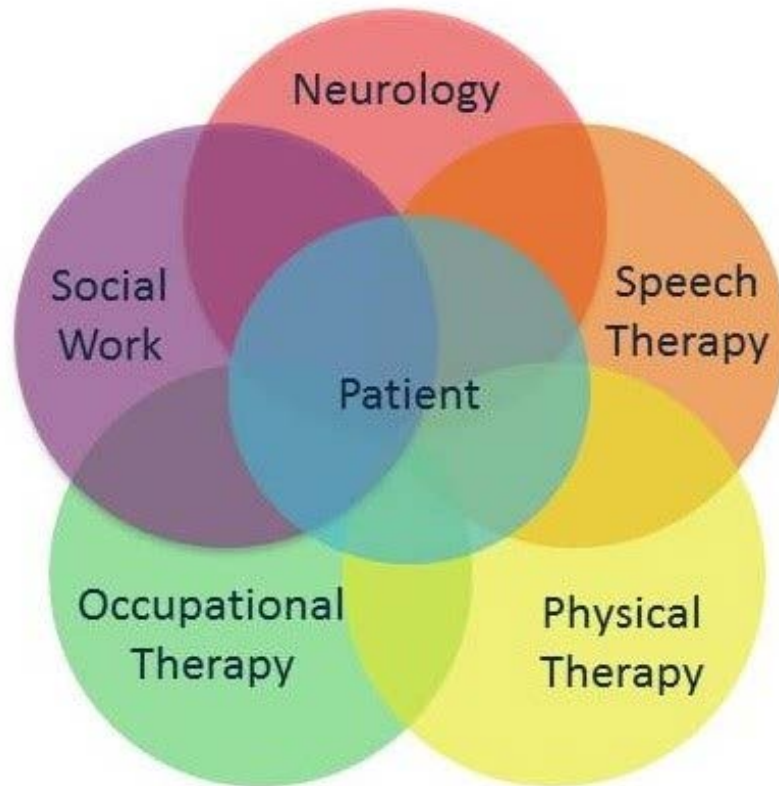
Model of integrated health care with family involvement (“Caregiving and Interprofessional Teams,” 2013).



‘Team Around the Child’ example of collaborative care (“Rural Beginnings Project,” 2013).



Model of an interdisciplinary team treating Parkinson's patients ("Interdisciplinary Parkinson," 2013).



Model of an interdisciplinary team in palliative care (“Palliative Care,” 2012).

