A Dissertation

entitled

College Students’ Attitudes and Perception of the Therapeutic Competence of Counselors and Other Mental Health Professionals.

by

Mohamed Badra

Submitted to the Graduate Faculty as partial fulfillment of the requirements for the Doctor of Philosophy Degree in Counselor Education & Supervision

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An Abstract of

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The public’s perception of counselors has been a topic of concern for many researchers. However, research examining the attitudes towards seeking mental health services and the effect such perceptions have on the propensity of public use is in its prime. Such knowledge is necessary for the benefit of the consumer as well as concerned mental health professional organizations. Furthermore, the ability to discriminate consumer perception based on the professional identity of the mental health service provider will serve as a benchmark for a young profession- counseling- to understand its current status in the minds of the general public, in comparison to related mental health professions, and for counseling professional organizations to better allocate resources aimed at professional advocacy efforts. As potential consumers of mental health services, it is of great merit to understand college students’ perceptions of mental health professionals’ therapeutic competence, and their attitudes towards seeking services based on the identity of the mental health service provider; i.e. counselor, psychologist, or social worker. This study provided an overview of - three helping professions: counseling, psychology, and social work. Additionally, it expanded upon the
circumstances surrounding the origination of each discipline and their governing bodies, current vocational opportunities and average salaries for members of each discipline, the rationale for conducting this study and the psychometric properties of the instrument- the Inventory of Attitudes toward Seeking Mental Health Services (IASMHS)- utilized by this study. The primary hypothesis which suggested a significant difference in student perception of the mental health professional’s level of competence with respect to the identity of the professional was tested. Additionally, student attitudes towards seeking mental health services were measured and a comparison on the basis of the identity of the helper was drawn. The research was unable to find statistical significance regarding the previously posed hypotheses. However, a significant difference was noted between the sexes and their propensity to seek mental health services such that the females in this sample were more likely to seek mental health services than were the male participants. Furthermore, a statistically significant and moderate relationship existed between the number of courses taken in a helping discipline and participants’ attitudes towards seeking professional mental health services such that as the number of courses completed increased, so did the positive manner in which participants viewed seeking mental health services. The researcher concluded the study by addressing its limitations and discussing future suggestions for researchers.
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Chapter 1

Introduction to the Study

A concern facing the field of clinical counseling is the public’s low perception of professional clinical counselors’ therapeutic competencies. Firmin, Wantz, Firmin and Johnson (2012) shared what Fall, Levitov, Jennings, and Eberts (2000) described as the public’s expression of “general confidence in professional counselors’ abilities to treat ‘less serious’ cases, but less confidence when treating cases which were perceived to be at higher levels of seriousness (e.g., psychopathology)” (p. 34). These findings echoed what Fall, Levitov, Anderson, and Clay (2005) concluded when exploring the perceptions of their study’s participants. In both studies, participants expressed greater confidence in other mental health professionals’ capacities in catering to complex cases, such as psychotic depression or Post Traumatic Stress Disorder (PTSD). Furthermore, findings from both studies suggested that doctoral level counselors are perceived to be on par with clinical psychologists and preferred over masters-level counselors.

In terms of history, counseling is at a chronological disadvantage when compared to psychology and social work due to its late emergence as a profession and to the slim
governmental utilization and recognition of its services. According to Smith (2012), it was not until 1939 that counseling emerged as a profession that not only addresses vocational concerns, but also various mental health issues. Social work and psychology, on the other hand, had been established since the middle of the 1800s (Ellis, Abrams, & Abrams, 2009; Day, 2009) and have been recognized by the federal government as mental health providers for the Veteran Affairs (VA) hospitals since 1926 and 1945 respectively ("Social work in," 2012; Guidelines and principles 2009). History is not the only factor not in favor of counseling. Furthermore, current data obtained from the Bureau of Labor statistics (BLS) suggest that counselors are at the bottom of the pay scale where their average annual wage is $43,290. Social workers’ and psychologists’ annual average wage is $54,870, $86,380; respectively.

In light of the preceding arguments, it is reasonable to conclude that counselors are at an occupational disadvantage, when compared to psychologists and social workers, based on the absence of a clear professional identity, counseling’s lower average annual income, counseling’s young age as a profession, and the only recent recognition of counselors by the federal government as a mental health services providers. Meyers, Sweeney, and White (2002) and Chi Sigma Iota (1999) acknowledged the public’s struggle to accept the counseling profession and called for the establishment of a legitimate status for counselors amongst other mental health professionals in order for counselors to be seen as credible. Meyers, Sweeney, and White have also recognized the
absence of strong advocacy on behalf of the counseling profession and called for a national advocacy plan which entails achieving consensus concerning professional identity, promoting a positive public image, and establishing effective intraprofessional and interprofessional collaboration. In addition to factors related to the absence of a unified professional identity and poor advocacy efforts, public perception of mental health professionals’ competency may be affected by the public’s lack of understanding of counselors’ scope of practice. Additionally, the overlap in the roles and functions of counselors, psychologists, and social workers may have added to the public confusion regarding unique differences between these professions.

The population of interest for this study is college students. It is speculated that the average college student who may experience unique stressors, due to being in a new environment, may not be aware of on or off-campus support systems. Additionally, it is possible that college students who leave their homes to attend college, may be exposed to various “adjustment-stressors” that may affect their academic achievement, social life, and overall mental health. Thus, it is reasonable to assume that this diverse representative segment- i.e., college students- of the general public can be regarded as potential consumers of mental health services and it is of merit for the advancement of the counseling profession to capture and understand its perception. In the current study, it is hypothesized that, regardless of the reasons, college students’ attitudes towards and
perceptions of counselors’ therapeutic competence is lower than that of psychologists’ and social workers’.

**Statement of the Problem**

The public’s struggle to accept the counseling profession has been recognized by the counseling scientific body and a call for the establishment of a legitimate status for counselors amongst other mental health professionals, in order for counselors to be seen as credible, has been made. While several factors may have been suggested as contributors to such low status of counselors amongst other professions, public perception of counselors’ therapeutic competence has yet to be explicitly explored. Furthermore, a comparison of public perception of counselors with respect to other helping professionals (psychologists and social workers) has yet to take place. Such comparison is overdue and should serve as a benchmark, for the American Counseling Association (ACA) and other professional entities, to better assess where the profession stands in the eye of the consumer in comparison to other related professions, i.e. competitors. In light of the preceding facts, it is of utmost importance for the counseling profession to be able to establish itself as a legitimate clinical mental health helping profession. The findings of the proposed study would offer significant insight into whether, or not, past and current professional advocacy efforts have been fruitful in positively portraying the profession. In the event that the researcher’s hypothesis is
supported, it is highly recommended that the ACA and other professional entities revisit their professional advocacy agenda and adjust future direction accordingly.

**Purposes of the Study**

The purpose of the study is to document and comprehend public perception of clinical mental health counselors’ (CMHC) therapeutic competence. Specifically, the study explores college students’ attitudes and perceptions of clinical psychologists’, licensed independent social workers’, and CMHC therapeutic competence in order to understand where clinical mental health counselors stand in comparison to these other helping professions and offer the counseling profession concrete data which could be used to better allocate professional advocacy efforts by the ACA and other concerned professional entities.

**Research Questions**

1A. Do participants’ attitudes towards seeking professional mental health services differ with respect to the identity of the professional?

    H$_0$: There is no significant difference in participant attitudes towards seeking professional mental health services with respect to the identity of the professional.

    H$_1$: There is significant difference in participant attitudes towards seeking professional mental health services with respect to the identity of the professional.

1B. Does participant perception of the mental health professional’s therapeutic competence level differ with respect to the identity of the professional?
H₀: There is no significant difference in participant perception of the mental health professional’s level of competence with respect to the identity of the professional.

H₁: There is significant difference in participant perception of the mental health professional’s level of competence with respect to the identity of the professional.

2A. Are participants’ attitudes towards seeking professional mental health services from a professional helper, more favorable for counselors than social workers?

H₀: There is no significant difference in participant attitudes towards seeking professional mental health from a professional helper with respect to counselors and social workers.

H₁: There is significant difference in participant attitudes towards seeking professional mental health from a professional helper with respect to counselors and social workers.

2B. Is participant perception of counselors more favorable than their perception of social workers?

H₀: Participant perception of counselors is not more favorable than their perception of social workers.

H₁: Participant perception of counselors is more favorable than their perception of social workers.

3A. Are participants’ attitudes towards seeking professional mental health services from a professional helper, more favorable for counselors than psychologists?
H₀: There is no significant difference in participant attitudes towards seeking professional mental health from a professional helper with respect to counselors and psychologists.

H₁: There is significant difference in participant attitudes towards seeking professional mental health from a professional helper with respect to counselors and psychologists.

3B. Is participant perception of counselors more favorable than their perception of Psychologists?

H₀: Participant perception of counselors is not more favorable than their perception of psychologists.

H₁: Participant perception of counselors is more favorable than their perception of psychologists.

4A. Do participants’ attitudes towards seeking professional mental health services differ with respect to the participant’s gender?

H₀: There is no significant difference in participant attitudes towards seeking professional mental health from a professional helper with respect to the participant’s gender.

H₁: There is significant difference in participant attitudes towards seeking professional mental health from a professional helper with respect to the participant’s gender.
4B. Does participant perception of the mental health professional’s therapeutic competence level differ with respect to student gender?

H₀: There is no significant difference in participant perception of the mental health professional’s level of competence with respect to participant gender.

H₁: There is significant difference in participant perception of the mental health professional’s level of competence with respect to participant gender.

5A. Do participants’ attitudes towards seeking professional mental health services differ with respect to the participant’s religion?

H₀: There is no significant difference in participant attitudes towards seeking professional mental health from a professional helper with respect to the participant’s religion.

H₁: There is significant difference in participant attitudes towards seeking professional mental health from a professional helper with respect to the participant’s religion.

5B. Does participant perception of the mental health professional’s therapeutic competence level differ with respect to the student’s religion?

H₀: There is no significant difference in participant perception of the mental health professional’s level of competence with respect to participant religion.

H₁: There is significant difference in participant perception of the mental health professional’s level of competence with respect to participant religion.
6A. Do participants’ attitudes towards seeking professional mental health services differ with respect to the student’s academic major?
H₀: There is no significant difference in participant attitudes towards seeking professional mental health from a professional helper with respect to the participant’s academic major.
H₁: There is significant difference in participant attitudes towards seeking professional mental health from a professional helper with respect to the participant’s academic major.

6B. Does participant perception of the mental health professional’s therapeutic competence level differ with respect to the participant’s academic major?
H₀: There is no significant difference in participant perception of the mental health professional’s level of competence with respect to participant academic major.
H₁: There is significant difference in participant perception of the mental health professional’s level of competence with respect to participant academic major.

7A. Is there a significant relationship between participants’ attitudes towards seeking professional mental health services with respect to the number of classes participants have taken within either of the three fields?
H₀: There is no significant difference in participant attitudes towards seeking professional mental health from a professional helper with respect to the number of classes the participant has taken within either of the three fields?
H₁: There is no significant difference in participant attitudes towards seeking professional mental health from a professional helper with respect to the number of classes the participant has taken within either of the three fields.

7B. Is there a significant relationship between participants’ perceptions of the mental health professional’s therapeutic competence level and the number of classes participants have taken within either of the three fields?

H₀: There is no significant difference in participant perception of the mental health professional’s level of competence with respect to number of classes participants have taken within either of the three fields.

H₁: There is significant difference in participant perception of the mental health professional’s level of competence with respect to number of classes participants have taken within either of the three fields.

**Significance of the Study**

Counselors’ public image ought to be a matter of vital concern for all counselors and professional counseling entities. The public’s perception of any profession should serve as a mirror for that entity to objectively self-reflect and make the necessary adjustments accordingly. It is important to emphasize that the public is the potential consumer of counselors’ services, and that their knowledge about counselors (education and credentialing), and their confidence in counselors’ therapeutic competence could translate into (a) a recognition of counselors as competent mental health providers and (b)
to an ultimately higher demand for counselors’ services within the marketplace. Myers, Sweeny, and White (2002) expressed their concern about the negative effects a poorly established professional identity can have on the profession and highlighted the link between a weak professional identity and the profession’s low public image. Meyers et al., (2002) expressed their concern with the ongoing conflict about counselors’ professional identity which has resulted in the profession’s inability to articulate, to the public, its constituents and their scope of practice. Amongst many obstacles, to counseling’s positive public image, Meyers et al., stressed the lack of public awareness of the field, slim public exposure (of the field), the various professional loyalties (within the profession), and the shy self-advocacy efforts as potential reasons. Further adding to counselors’ vocational disadvantages is the general lack of awareness of counselors’ credentials which lead to exclusion of counselors from the Public Health Service Act which would have given counselors more public exposure due to the public’s vast use of Medicaid (Meyers et al). Meyers et al., stress the importance of the public’s view of counselors and highlight that “consumers are less likely to seek the services of professional counselors if they do not know about out competencies, are uncertain about what we do for clients, and do not have access to these services through third party or other means; hence the public’s image of and access to counselors are critical.” (p. 397).

In light of the preceding argument, the importance and value of the public’s perception of counselors is clear. In a market where other mental health professionals
have long established roots it is reasonable to conclude that the public’s confidence in counselors may not be up to par when compared to that of other helping professionals, psychologists and social workers; i.e., counselors’ marketplace competitors. While ACA’s 20/20 vision was able to create agreement amongst various counseling professional organizations on the definition of counseling, it did not produce any concrete suggestions regarding enhancing the profession’s public image. Efforts to capture current public perceptions of counselors’ therapeutic competence and objectively compare it to the public’s therapeutic confidence in other well-established, helping professions should be of merit to the profession, as a whole, in order to assess counseling’s current standing and make the necessary, and vital, adjustments. It is hoped that the findings of this study provide the ACA with concrete evidence regarding current public perception of counselors in order to better allocate efforts and investments aimed towards professional development and advocacy.

**Organization of Chapters**

This dissertation is comprised of five chapters. Chapter one includes a statement of the problem on which the study was based, the purpose of the study, the research questions, the significance of the study, and chapter organization. The second chapter provides a comprehensive review of the literature relevant to this study. Chapter Three describes the method used to conduct the study, including the research design, description of sampling procedures and participants, instrumentation, procedures, and data analysis.
Chapter Four presents the results of the study, including statistics related to the acceptance or rejection of each of the null hypotheses examined in this research. The fifth chapter summarizes and interprets the research findings, integrates the findings with past relevant research, expands on the implications of the findings, discusses the limitations of the study, and provides future recommendations regarding research in this area.

**Summary**

In light of all the preceding arguments regarding the three professions, the weight certain evidence may pose on the overall public perception of counselors is considered. An in-depth review of the literature that compares or contrasts the three professions on any or all of the previously discussed levels, in addition to public perception of each profession, did not yield any results. While a critical observation of the professions suggests high levels of similarity in the therapeutic services provided by counselors, psychologists, and social workers, differences between these three professions suggest that counselors are at a disadvantage in regards to salary and vocational opportunities. Amongst the three professions, according to the Bureau of Labor statistics (BLS) counselors rank last with an average annual income of $43,290, while psychologists rank first with an average annual income of $86,380, followed by social workers whose average annual salary is $54,870. Additionally, counselors are at a historical disadvantage, when compared to the two inveterate professions, due to the relatively late emergence of counseling as a mental health profession in 1939; propelled by
Williamson’s Trait and Factor theory (Smith, 2012). In contrast, the birth of social work, as a profession, dates back to the mid to late 1800s (Day, 2009), and while psychology’s existence can be traced back to the Greek Civilization, however, modern psychology ages back to the use of the scientific method in 1878 (Ellis, Abrams & Abrams, 2009). Furthermore, counseling seems to be adversely affected by the absence of a single national accrediting body while psychology’s and social work’s accreditation is universally recognized through the American Psychological Association (APA) and the Council on Social Work Education (CSWE), respectively. Confusion regarding what counselors do and their places of employment seems to exist. Such confusion does not only affect the public, but it may also reach counselors themselves.

Efforts to capture current public perceptions of counselors’ therapeutic competence and objectively compare it to the public’s therapeutic confidence in other well-established, helping professions should be of merit to the profession, as a whole, in order to assess counseling’s current standing and make the necessary, and vital, adjustments. It is hoped that the findings of the current study will provide the ACA with concrete evidence regarding current public perception of counselors in order to better allocate efforts and investments aimed towards professional advocacy.
Chapter 2

Literature Review

This study is concerned with college students’ mental health wellness and their awareness of mental-health-services-provider options. It examines whether the average college student who may experience unique stressors, due to being in a new environment, may not be aware of either the availability of on-campus mental health services, or the differences that may exist between the three main mental-health-services providers (clinical psychologists, clinical social workers, and clinical mental health counselors). Additionally, it is likely that college students who leave their homes to attend college, may be exposed to various “adjustment-stressors” that may affect their academic achievement, social life, and overall mental health. According to O’Keeffe (2013), certain groups of students, such as ethnic minorities, students with disabilities, of low socioeconomic status, and first-generation college students (those for whom neither parent attained a bachelor’s degree) are at higher risk of not completing their college education. Furthermore, O’Keeffe states that students suffering from mental health
disorders are also at risk of not completing their college education, and shares that 4.7 percent- about 5 million- of students in the United States drop out, annually, due to mental disorders. Laughlin (2004) concluded that mental disorders amongst college students are highly prevalent where 1 in 3 students reported having experienced prolonged periods of depression, 1 in 4 students reported having suicidal thoughts, 1 in 7 students reported taking part in dangerous behavior, and 1 in 7 students reported having trouble with academics due to mental illness. O’Keeffe shares that student mental health has now become a concern for families who are not only considering the academic stature of institutions when looking to enroll their children in universities. Additionally, O’Keeffe highlights the fundamental concern of providing students with mental and emotional support to avoid serious compromises of overall student well-being. O’Keeffe affirmed that student mental health is leading to student attrition and called for well-resourced campus-based counseling centers to address the needs of students experiencing mental health issues. In addition to housing clinical counselors, college counseling centers tend to be multidisciplinary in nature and harbor other mental health providers such as clinical psychologists and clinical social workers. As potential consumers of mental health services, it is of great value to understand college students’ perceptions of these mental health professionals.

The following chapter provides a general overview of three helping professions: clinical psychology, clinical social work, and clinical mental health counseling. The
circumstances surrounding the origination of each discipline and their governing bodies will be discussed. Additionally, current vocational opportunities and average salaries for members of each discipline will be explored and compared. In addition to expanding on the rationale for conducting this study, the psychometric instrument utilized by this study is elaborated upon.

**Clinical Psychology**

The curiosity to uncover and explore the human mind long preceded the formal study of psychology and dates back to the Greek philosopher Hippocrates (Ellis, Abrams, & Abrams, 2009). Exploring the historic origins of psychology over the course of humanity is beyond the scope of this dissertation. However, a brief description of the circumstances which lead to the emergence of psychology as an independent field in the United States is necessary to inform the reader about contrasts between it, psychology, and other helping professions; social work and counseling.

According to Sokal (1992), through the 1880s, psychology was a part of philosophy in the United States’ academic institutions; where mental and moral philosophy were taught and the need for philosophy departments to establish research based programs was not yet recognized. According to Ellis, Abrams, and Abrams (2009), it was not until 1878 when Wilhelm Wundt established the first psychology laboratory, in existence, at the University of Leipzig. Wundt’s later work lead to the establishment of structuralism- a school of psychology which breaks down and inspects the elements of
consciousness—which was introduced in the United States by Wundt’s student; Edward Titchener (Ellis et al., 2009). According to Sokal (1992), the need for experimental psychology was recognized by some academic institutions in the mid-1880s; a recognition which cultivated into the establishment of near 20 psychological laboratories by 1892 (Sokal, 1992). According to Ellis et al., (2009), “the United States established its first laboratory dedicated to psychological research at Johns Hopkins University in 1883, under the leadership of G. Stanley Hall (1844-1924), the first president of the American Psychological Association.” (p. 31). The field of psychometrics was established with the introduction of batteries of psychological tests by Francis Galton, thus granting psychological testing as “a legitimate area of research” (Ellis et al., 2009). With the award of the first doctorate degree in experimental psychology in 1878, psychology had become more distinguished as a field (Ellis et al., 2009).

The Modern Era.

According to Sheridan, Matarazzo, and Nelson (1995) during the early 1940s, doctoral graduates in psychology programs were limited to teaching and conducting research in a university setting or careers in a government and military setting. Independent practice was not widespread due to the absence of a national governing body tasked with the advancement of psychology as a profession, and the lack of state regulation regarding the practice of psychology (Sheridan et al., 1995). No professional association comes into existence in a perfect form and that is certainly the case for the
American Psychological Association (APA) which has gone through its own metamorphosis. The APA played a key role in establishing institutional training standards, in clinical psychology, required by the Veterans Administration (VA) and the Public Health Service (PHS) - two tax–supported government agencies- in order to efficiently serve the need of returning World War II veterans (Sheridan, et al., 1995). The collaboration, between the APA and the VA, which dates back to December of 1945, established a pivotal moment in the history of accreditation in clinical psychology (Guidelines and principles, 2009). “As of the beginning of 2009, there are over 370 accredited doctoral programs, more than 460 accredited internship programs, and more than 45 accredited postdoctoral programs” (Guidelines and principles, 2009). The maturity exhibited by the profession is clearly reflected by the universal training standards set forth by an exclusive accrediting body; the APA, which has promoted the employability of licensed clinical psychologists.

The most recent data attained from the Bureau of Labor Statistics (BLS) regarding national estimates related to psychologists, suggest that the number of psychologist jobs in 2012 was 160,200 (“U.S. Bureau of”, 2012a). Additional data suggest that the mean annual wage is $86,380 and list the following as the industries with the highest concentration of employment: federal executive branch (.32 percent of industry employment and an annual mean wage of $87,910), offices of other health practitioners (.18 percent of industry employment and an annual mean wage of $88,970), educational
support services (.08 percent of industry employment and an annual mean wage of $84,190), psychiatric and substance abuse hospitals (.05 percent of industry employment and an annual mean wage of $67,020), scientific research and development services (.04 percent of industry employment and an annual mean wage of $94,950) ("Occupational employment and," 2012a).

**Clinical Social work**

The tangible presence which the field of social work currently celebrates is not a product of coincidence. Rather, the nationally recognized structure and organization, which the field has developed into, is a product of various social needs which arose in response to the demands of the evolving American society. The value-base of this field was established by adopting concepts from other fields, including psychology (Day, 2009). Ehrenreich (1985) dates the beginning of social work to the end of the nineteenth century which ushered a new definition of poverty; due to the rise of a new set of standards in determining social justice which held environmental factors such as “unemployment, bad housing, disease, and accidents”, as factors responsible for poverty (p. 43). The Darwinist explanation of poverty, which attributed economic disadvantage to personal attributes would soon subside (Ehrenreich, 1985). Ehrenreich (1985) shares that the decades following World War I were characterized by an industrial and urban boom, to which, the socially disadvantaged were exploited, thus, resulting in a social crisis and a concern for the existence of the middle class. According to Day (2009), social work
emerged during the Industrial Revolution (mid to late 1800s) to cater to the needs of the growing underprivileged immigrant population: “Grassroots organization, education, and training, provided in supportive group settings, without moral stigma, were the means to success” (Day, 2009, p. 54). The casework model of practice, which highlights environmental reasons for poverty, is a product of charity organization societies’ efforts (Day, 2009).

According to Day (2009), it wasn’t until the early 1900s when social work was recognized as a gainful profession, and formal training began to ensue where social work would adopt principles from other disciplines such as psychology (“human development, mental health, and primary and secondary relationships”), sociology (“behavior in groups, societal values and norms, the place of person in organization, and the use of power, class, race, and sex”), learning theory (how ideas are assimilated and the stages of mental development), and history (the effect of community, economics, and religion in social welfare) (p. 54). The first social work class was offered in 1898 at Columbia University (Dyeson, 2004). The number of social work schools continued to grow in the latter half of the 20th century in response to the growing number of established governmental programs and nonprofit agencies (Dyeson, 2004). The concern for a uniform and standardized curriculum would soon be recognized (Dyeson, 2004). In 1952, the various organizations, formed to coordinate amongst social work schools, unified their efforts and established the Council on Social Work Education (CSWE); a national
accrediting body for social work programs (Dyeson, 2004). According to Dyeson (2004), the establishment of laws and regulations which governed social workers was a significant step towards the solidification of the profession. The first state to register social workers was California, in 1945; when the Board of Social Work Examiners was formed (Dyeson, 2004). As of 2004, all 50 states and the District of Columbia have laws which “declare who is allowed to use the title social worker, establish an examination board, set continuing education policies, and outline disciplinary hearing procedures.” (Dyeson, 2004, p. 408). As of October 2013, there are 718 accredited baccalaureate and master’s social work programs (CSWE, 2014). According to Day (2009) a generalist education is provided at the baccalaureate level while a specialist education is provided at the master’s level. It is worth noting that during the time which this dissertation was being written, there was no accrediting body for doctoral programs in social work.

The rich history and deep level of social integration exhibited by social work is clearly reflected by the arrival at universal training standards set forth by exclusive licensing and accrediting bodies; the Association of Social Work Boards (ASWB) and the Council on Social Work Education (CSWE). The depth to which social work is integrated in the American society has been reflected in the VA since June, 16, 1926, when the social work program was established in the Veterans Bureau where early involvement was focused mainly with psychiatric tuberculosis patients ("Social work in," 2012). According to “Social work in” (2012), the department of Veteran Affairs is affiliated with
over 180 graduate social work programs, thus, housing the largest comprehensive clinical training program for students. Day (2009) expounds that the main mission of social work is to intervene on a social, not only personal, level to reform poverty and its causes and distinguishes social work from other helping professions in its ability to service a wide range of clients; an individual, a group, a family, an organization, a neighborhood group, or a political body. The well-integrated and well-established field, social work, promotes for high levels of employment versatility for social work graduates.

The most recent data attained from the Bureau of Labor Statistics (BLS) regarding national estimates related to social workers, suggest that the number of social worker jobs in 2012 was 607,300 (“National association of”, 2012). Additional data suggest that the mean annual wage is $54,870 and list the following as the industries with the highest concentration of employment: Community Food and Housing, and Emergency and Other Relief Services (1.47 percent of industry employment and an annual mean wage of $37,530), Individual and Family Services (.55 percent of industry employment and an annual mean wage of $40,720), Federal Executive Branch -OES Designation- (.54 percent of industry employment and an annual mean wage of $71,160), Social Advocacy Organizations (.40 percent of industry employment and an annual mean wage of $44,430), and Local Government -OES Designation- (.33 percent of industry employment and an annual mean wage of $58,040) ("Occupational employment and," 2012b).

**Clinical Counseling**
In contrast to the previously described helping professions, psychology and social work, counseling is the youngest of the professions. In their book *The Introduction to the Profession of Counseling*, Nugent and Jones (2005) elaborate on significant historic landmarks in the counseling profession. Counseling first took the form of career counseling where Frank Parsons opened a vocational bureau to counsel those looking for work (Nugent & Jones, 2005). Rather than telling them what to do, Parsons’ unique approach involved listening to what young people desired as a career choice. This novel approach was considered one of the main components of counseling. During World War I (WWI), the need for mentally “fit” recruits ignited the development of group standardized psychological tests and initiated the field of psychometrics. After WWI, psychometric testing of individual differences became popular for use in schools, colleges, vocational centers and business and industry. In the 1930s, educators expanded vocational guidance into community agencies to cater to the needs of displaced and underemployed individuals (Nugent & Jones, 2005). In 1939, Williamson’s clinical counseling model, the Trait and Factor theory, became the first formalized approach to counseling which could be used with issues other than vocational counseling (Smith, 2012). Carl Rogers, however, challenged the trait and factor approach of Parsons and Williamson; “He advocated for new approaches and techniques to honor the individuals’ ability to make life choices, believing that, given certain conditions, individuals would naturally choose health and wellness” (Smith, 2012, p.3). Rogers’ work influenced the
direction that vocational guidance, education, and psychotherapy took by introducing a humanistic, person centered orientation to counseling (Smith, 2012). Roger’s influential efforts are attributed to the development of the counseling profession as distinct from both psychology and vocational guidance. According to Guindon, in 1963, the Community Mental Health Centers Act became law and mandated the creation of mental health centers in over 2,000 locations (as cited in Smith, 2012). The passage of this law paved the way for providers of prevention, substance use, other mental health services, and community outreach to receive financial support (Smith, 2012). Subsequently, master’s and doctoral level counselors occupied many of these positions; a matter that increased their exposure and viability as health care professionals. In 1975, the Community Mental Health Centers Act was expanded by the federal government to include more service areas in the community. In light of the high number of available positions, the 1970s witnessed a surge of students who sought training outside the school systems as community and mental health counselors (Smith, 2012). Subsequently, most counselor education programs were created and began training students to work in community settings (Hershenson & Berger, 2001; Smith, 2012). During the 1970s, many individuals who were prepared at the master’s and doctoral level were delivering mental health services similar to those delivered by psychiatrists, psychologists, and social workers (Smith). Thus, the need for credentialing was recognized and the state of Virginia was the first state to license professional counselors in 1976. Today, the
National Board of Certified Counselors (NBCC) provides the testing standards through which various states establish their licensure status. In addition to the National Certified Counselor (NCC) certification, the NBCC offers three specialty certifications for NCCs in addictions, clinical mental health and school counseling ("National certification and," 2012). Accordingly, the most common titles of recognized state licensure are: Licensed Professional Counselor (LPC), Licensed Mental Health Counselor (LMHC), Licensed Clinical Professional Counselor (LCPC), and Licensed Professional Clinical Counselor (LPCC) ("National certification and," 2012).

The following are work settings described by Nugent and Jones (2005) and cover traditional (schools, colleges, public and private community agencies, including mental health clinics and inpatient residential facilities) and federal and state counseling agencies (Veterans Administration (VA) hospitals, employment offices, and correctional facilities). In the elementary school setting, counselors can provide services to students individually or in groups where extracurricular psychoeducational activities are presented. At the secondary school level, counselors deliver individual and group counseling, consultation, classroom guidance, and career planning activities. In the university setting, counselors provide services to clients with normal developmental conflicts and concerns. On-campus counseling centers offer individual, couples, and group therapy with an expected guarantee of confidentiality. Additional outreach programs such as workshops and groups are offered in this counseling environment as
Counseling in community colleges differs from that in universities since community college students are generally older adults with different needs than traditional college students. Due to the fact that most universities attract a variety of culturally diverse students, counselors need training in multicultural counseling. Counselors employed in public clinics and agencies such as comprehensive community mental health clinics (CMHCs) predominantly work with individuals who are chronically ill. “Those who work in county youth agencies serve the youth that are referred by the state child protective agencies or who are wards of the state or are in foster homes” (Nugent & Jones, 2005, p. 11). These clients may suffer from substance abuse problems, have minor legal violations or be chronic runaways. Collison and Garfield described counseling services in these settings to include behavioral assessments, intake interviews, and educational guidance in addition to individual, group, or family counseling (as cited in Nugent & Jones, 2005). Counselors working in private- nonprofit agencies, generally, treat individuals, couples and families (Nugent & Jones). They offer specialized programs such as those dealing with single parenthood or loss of a loved one. Nonprofit agencies have been available in communities to aid those experiencing severe emotional distress or crisis situations; counselors working such environments are well trained in crisis intervention and short-term counseling. Counselors working in private, for profit clinics or agencies can service a variety of clients and problems varying in severity. Some private practitioners limit their practice to serve specific clients with specific concerns
only, such as eating disorders or substance abuse. Counselors who work in inpatient residential treatment centers serve individuals who are chronically emotionally disturbed but do not meet the criteria to be admitted into a state mental hospital. These clients receive counseling services, and are taught social skills to increase their independence. Halfway houses are one type of residential treatment facility. In this setting, counselors serve clients making the transition back into the community after being discharged from a state mental hospital. Counselors may monitor residents’ psychotropic drug usage or dependence, assist them in finding jobs and help them to connect with their families.

Counselors who work in federal and state counseling agencies help provide services in vocational rehabilitation centers, employment offices, and correctional facilities. VA hospitals offer disabled veterans vocational rehabilitation counseling to help them find appropriate careers. Rehabilitation counseling is a unique profession in that it was established and maintained by a legislative act of the United States Congress. Counselors in these positions have additional expectations and their unique duties entail recruitment of cases, evaluation of clients’ eligibility for services, and coordination and case management duties. Counselors working in correctional facilities provide services to “criminal offenders in state and federal penal institutions, juvenile halls, judicial courts, and parole officers. They use counseling and casework methods to help inmates adjust to living in an institution” (Nugent & Jones, 2005, p.14). Counseling jobs in federal
government agencies are stable and offer more employment benefits than those in locally run agencies.

The most recent data attained from the Bureau of Labor Statistics (BLS) regarding national estimates related to mental health counselors, suggest that the number of mental health counselor jobs in 2012 was 166,300 ("U.S. Bureau of", 2012b). Additional data suggests that the mean annual wage is $43,290 and list the following as the industries with the highest concentration of employment: Outpatient Care Centers (3.66 percent of industry employment and an annual mean wage of $43,390), Residential Intellectual and Developmental Disability, Mental Health, and Substance Abuse Facilities (3.33 percent of industry employment and an annual mean wage of $34,690), Psychiatric and Substance Abuse Hospitals (3.02 percent of industry employment and an annual mean wage of $43,230), Other Residential Care Facilities (1.86 percent of industry employment and an annual mean wage of $36,700), and Individual and Family Services (1.67 percent of industry employment and an annual mean wage of $42,660) ("Occupational employment and," 2012c).

In light of all the preceding facts regarding the three professions, the weight certain evidence may pose on the overall public perception of counselors needs to be considered. Efforts towards finding literature that compares or contrasts the three professions on any or all of the previously discussed levels, in addition to public perception of each profession, did not yield any results. While a critical observation of
the professions suggests high levels of similarity in the therapeutic services provided by psychologists, social workers, and counselors, differences between the three professions suggest that counselors are at a disadvantage in regards to salary and vocational opportunities. Amongst the 3 professions, counselors rank last with an average annual income of $43,290, while psychologists rank first with an average annual income of $86,380, followed by social workers whose average annual salary is $54,870.

Additionally, counselors are at a historical disadvantage, when compared to the two inveterate professions, due to the relatively late emergence of counseling as a mental health profession in 1939; propelled by Williamson’s Trait and Factor theory (Smith, 2012). In contrast, the birth of social work, as a profession, dates back to the mid to late 1800s (Day, 2009), and while psychology’s existence can be traced back to the Greek Civilization, however, modern psychology ages back to the use of the scientific method in 1878 (Ellis, Abrams & Abrams, 2009). Furthermore, counseling suffers from the absence of a single national accrediting body while psychology’s and social work’s accreditation is universally recognized through the APA and CSWE respectively.

Confusion regarding what counselors do and their places of employment does exist. Such confusion does not only affect the public, but it may also reach counselors themselves. Nugent and Jones (2005) suggested that counselors have been historically employed in VA hospitals. While that is accurate regarding rehabilitation counselors, however, it was not until September 28, 2010 that the Department of Veterans Affairs established
qualification standards, the last major step required for the VA’s implementation of public law 109-461- endorsed in 2006, under which Licensed Professional Mental Health Counselors can be appointed in the VA (Barstow & Holt, 2010). However, it is worth noting that as of August 2012, only 29 Licensed Professional Counselors were employed, as mental health clinicians, within the VA at the national level and that in 2012, in comparison to the 1,563 VA social worker positions posted, only 58 LPMHC positions were posted by the VA (Kaplan, Barstow & Manalang, 2013).

Watts (2004) shared that the counseling literature has been calling for a unified definition of counseling for 20 years, yet no collective identity has been attained. Watts (2004) expressed his concern for the welfare of the profession due to witnessing more significant drifts towards the fragmentation, rather than the unification, of counselor identity. A concern that has been facing the field of counseling is the public’s low perception of professional counselors’ therapeutic competencies. Firmin, Wantz, Firmin and Johnson (2012) shared what Fall, Levitov, Jennings, and Eberts (2000) described as the public’s expression of “general confidence in professional counselors’ abilities to treat “less serious” cases, but less confidence when treating cases which were perceived to be at higher levels of seriousness (e.g., psychopathology)” (p. 34). These findings echo what Fall, Levitov, Anderson, and Clay (2005) concluded when exploring the perceptions of their study’s participants. In both studies, participants expressed greater confidence in other mental health professionals’ capacities in catering to complex cases, such as
psychotic depression or Post Traumatic Stress Disorder (PTSD). Furthermore, findings from both studies suggest that doctoral-level counselors are perceived to be on par with clinical psychologists and preferred over masters-level counselors. Meyers, Sweeney, and White (2002) and Chi Sigma Iota (1999) acknowledge the public’s struggle to accept the counseling profession and call for the establishment of a legitimate status for counselors amongst other mental health professionals in order for counselors to be seen as credible. Meyers, Sweeney, and White also recognized the absence of strong advocacy on behalf of the counseling profession and called for a national advocacy plan which would entail achieving consensus concerning professional identity, promoting a positive public image, and establishing effective intra-professional and inter-professional collaboration.

In light of the preceding arguments, it is reasonable to conclude that counselors are at an occupational disadvantage, when compared to psychologists and social workers, based on the absence of a clear professional identity, counseling’s lower average annual income, counseling’s young age as a profession, and the late and humble recognition of counselors by the federal government, due to late and slow recognition, as a mental health services providers. In addition to factors related to the absence of a unified professional identity and poor advocacy efforts, public perception of mental health professionals’ competency may be affected by the public’s lack of understanding of counselor’s scope of practice. Additionally, the overlap in the roles and functions of counselors, psychologists, and social workers may have added to the public confusion
regarding unique differences between these professions. It was hypothesized that regardless of the reasons, the public’s attitudes towards seeking professional mental health services from counselors and their perception of counselors’ competence are lower than that of psychologists’ and social workers’. To test these hypotheses, the current study was conducted to attain substantial and valid findings on the topic.

**Instrumentation**

In addition to three descriptive narratives depicting various mental health professionals (Appendix A) (i.e., clinical mental health counselors, clinical psychologists, and clinical social workers), a demographic questionnaire (Appendix B) developed by the investigator, 2 assessment tools- the Inventory of Attitudes toward Seeking Mental Health Services (IASMHS) (Appendix C) and a single item perception scale developed by the investigator (Appendix D) will be used in this study. The data gathering tools are described below.

The narratives used to describe four mental health professionals- clinical mental health counselor, clinical psychologist, licensed independent social worker, and a professional with a neutral identity- were created for the purpose of the current study. Each narrative provides a gender-neutral depiction of the corresponding professional, along with a description of the professional’s academic and licensing credentials. In order to describe the sample and form between groups for comparisons, a series of questions using a demographic questionnaire were asked; this is a two-page document that is
comprised of 12 questions addressing: gender (item 1), age (item 2), academic major (item 3), academic minor (item 4), academic standing (item 5), number of psychology classes taken to date (item 6), number of social work classes taken to date (item 7), number of counseling classes taken to date (item 8), current or past personal experience with mental health professional(s), and self-reported satisfaction level (favorable, neutral, unfavorable) (item 9), ethnicity (item 10), religion (item 11) and household income (item 12). Participants wrote in their answers for questions 2, 3, 4, 6, 7 and 8. As for questions 1, 5, 9, 10, 11 and 12, participants checked the box for the category or group which best described them.

Due to the lack of an instrument designed specifically to measure participants’ perceptions of the therapeutic competence of the mental health providers, a single-item perception measure comprised of a 5-point rating scale was developed. In an effort to remain consistent with the rating scales developed for the IASMHS scale, the same scale rating structure was maintained by providing participants with an identical scale format. The lowest point on the rating scale (0), reflects incompetence, and the highest point on the scale (4) reflects competence.

To assess participants’ attitudes towards seeking professional mental health services from counselors, psychologists, or social workers, The Inventory of Attitudes toward Seeking Mental Health Services (IASMHS) scale was employed. The IASMHS developed by Mackenzie, Knox, Gekoski, and Macaulay (2004), and is an adaptation and
extension of the Attitudes Towards Seeking Professional Psychological Help Scale (ATSPPHS) developed by Fischer and Turner (1970). To aid the reader in critically evaluating the IASMHS, the process used to develop the ATSPPHS is first described and then the available literature related to this instrument is reviewed. Thereafter, the methods used to modify the ATSPPHS into the IASMHS as well as review the resultant instrument’s psychometric properties are outlined.

The ATSPPHS is comprised of 29 items, with 11 positively stated items and 18 negatively stated items. The 29 items are grouped into 4 subscales: Factor I—recognition of personal need for professional psychological help (items 4, 5, 6, 9, 18, 24, 25, 26), Factor II—tolerance of the stigma associated with psychiatric help (items 3, 14, 20, 27, 28), Factor III—interpersonal openness regarding one's problems (items 7, 10, 13, 17, 21, 22, 29), and Factor IV—confidence in the mental health professional (items 1, 2, 8, 11, 12, 15, 16, 19, 23). Responses are scored using a 4-point Likert scale (0= strongly disagree, 1= disagree, 2= agree, 3= strongly agree). Scoring is reversed on the following items: 1, 3, 4, 6, 8-10, 13-15, 17, 19-22, 24, 26, & 29. Scores are computed for each subscale and as a total score. High scores (68+ for males, 75+ for females) suggest positive attitudes toward seeking psychological help from professionals.

Reliability. According to Fischer and Turner (1970), “the internal reliability of the scale (Tryon's, 1957, method), computed for the standardization sample of n = 212, was .86. The reliability estimate was .83 computed on a later sample of 406 Ss. Both
estimates suggest moderately good consistency of response within the whole scale. Five
groups of students were given the scale twice, at varying intervals, to establish test-retest
reliabilities. For testing intervals of five days, two weeks, four weeks, six weeks, and two
months, \( r = .86 \) \((n = 26)\), \( r = .89 \) \((n = 47)\), \( r = .82 \) \((n = 31)\), \( r = .73 \) \((n = 19)\), and \( r = .84 \)
\((n = 20)\), respectively. With the exception of the six-week group, the attitude scores
remained quite stable over time.” (p. 81). The following reliabilities for each factor have
been reported by Fischer and Turner; Factor I: Need \((r = .67)\); Factor II: Stigma \((r = .70)\);
Factor III: Openness \((r = .62)\); and Factor IV: Confidence \((r = .74)\). Fischer and Turner
also reported that the test-retest reliabilities ranged from 0.73 to 0.89 over five groups,
and internal consistency reliability \( \alpha = 0.86 \) \((n= 212)\) and \( \alpha = .83 \) \((n= 406)\); and average
of .85. The ATSPPHS was also found to be reliable in identifying those who have
received professional help and in distinguishing between individuals with positive
attitudes, toward seeking professional psychological help, and those with negative

Validity. Four factors were determined from the student samples attained by
Fischer and Turner (1970): Factor I—Recognition of Personal Need for Professional
Help; Factor II—Tolerance of Stigma Associated with Psychiatric (Psychological) Help;
Factor III—Interpersonal Openness; and Factor IV—Confidence in Mental Health
Professional (Al-Rowaie, 2005). “The construct validity of the ATSPPHS was found in
that the total ATSPPHS scores correlated positively and significantly \((r = 0.49)\) with
another help-seeking scale, the Help-Seeking Attitude Scale” (Al-Rowaie, p. 44).

Additionally, the construct validity of the ATSPPHS was supported by the finding that the ATSPPH-Shorten Scale (Fischer & Farina, 1995) “displayed significant point-biserial correlations between those who had sought help and those who had not, $r = -.24$, $p = 0.03$ for women, $r = -.49$, $p = 0.0001$ for men, and $r = -.39$, $p < .0001$ overall” (Al-Rowaie, p. 45).

According to Mackenzie et al. (2004), Fischer and Turner’s (1970) the ATSPPHS’ data produced high levels of uniformity when examining attitudes towards seeking mental health services. The majority of studies utilizing this measure suggested high levels of discriminative validity in distinguishing users from nonusers of mental health services, more positive attitudes for females, than males, regarding mental health services, and the association of higher scores with more positive therapist ratings, and a higher likelihood to disclose distressing information. Additionally, ATSPPHS scores significantly contributed to “the accurate prediction of intentions to seek various types of mental health services” (Mackenzie et al., 2004, p. 2412).

Despite the wide use of the ATSPPHS in the literature, Mackenzie et al. (2004) asserted that a revision of the instrument to address some conceptual and methodological concerns was overdue. The first conceptual concern for Mackenzie et al., was the use of outdated language regarding gender specific pronouns, and in referring to psychiatrists and psychologists as the exclusive mental health services providers. The second
conceptual concern was regarding item content which “predated the appearance of Fishbein and Azjen’s (1975) TRA [see below] and Azjen’s (1985) TPB [see below] that were designed to improve the prediction of behavior and behavioral intention from attitudes” (Mackenzie et al., 2004, p. 2413). According to Mackenzie, et al., the theory of reasoned action (TRA) maintains that behavior is preceded by intention which is, in turn, preceded by attitudes toward the behavior and subjective norms. Thus, its development was dedicated to predict individuals’ actions. The theory of planned behavior (TPB) expanded on TRA to include the concept of perceived behavioral control. Mackenzie et al., believed that the ATSPPHS overlooked the measure of constructs which enhance its ability to predict whether or not someone seeks mental health services. Mackenzie et al. recognize four methodological concerns regarding the ATSPPHS. First, the standardization sample consisted exclusively of students; a matter of concern when attempting to understand the attitudes of older adults due to the existence of significant generational differences, between generations, regarding seeking mental health services. The second methodological concern was about the ATSPPHS’ outdated factor structure which was replaced with principal components analysis (PCA) and exploratory factor analysis (EFA) due to the ability of the newer analyses to “more accurately represent the nature of an instrument’s underlying factor structure” (Mackenzie et al., 2004, p. 2413). The third methodological concern related to the poor reliability of the four factor subscales of the ATSPPHS, which was recognized by Fischer and Turner who advised
against the independent interpretation of their factor subscale scores (Mackenzie et al.).

The fourth methodological concern with the ATSPPHS was with its 4-point rating scale. Mackenzie et al. asserted that rating scales with less than 5 points are less reliable and more prone to type II errors. Additionally Mackenzie et al. believed that having a neutral point decreases missing data in addition to participant preference of having that option; i.e. a neutral point. Fischer’s awareness of the need to modify the ATSPPHS translated into his collaboration with Farina in 1995, with whom, rather than revising the scale, he created a shortened, 10-item version of the scale (Mackenzie et al.).

In light of ATSPPHS’ acceptability and adoption within the growing body of literature, Mackenzie et al. (2004) sought to adapt and extend the ATSPPHS rather than construct a new attitude instrument. The new adaptation aimed to address the previously discussed conceptual and methodological concerns. The first study conducted by Mackenzie et al. (2004) addressed inventory adaptation and extension. Inventory adaptation was sought by (1) replacing the 4-point rating point scale with a 5-point rating scale, and (2) making 3 types of wording changes to address the replacement of (a) all gender specific language with gender neutral pronouns, (b) profession specific pronouns (e.g., psychiatrist, psychologist) with the term “professional” thus, acknowledging several professionals, in addition to psychiatrists and psychologists, who provide mental health services, and (c) the various terms used by the ATSPPHS (mental conflicts, emotional
problems, personal worries and concerns, and emotional difficulties) to refer to mental health problems with the term “psychological problems”.

To arrive at a psychometrically sound instrument, Mackenzie et al., (2004) conducted three studies (Study 1: Inventory Adaptation and Extension, Study 2: Inventory Replication and Preliminary Validation, and Study 3: Test- Retest Reliability).

1. *Inventory Adaption and Extension*

Inventory extension was the result of Mackenzie, et al.’s concern with the scale’s ability to accurately predict behavior such as seeking mental health services; thus, the creation of items measuring the two constructs of subjective norms and perceived behavioral control. “Subjective norms refer to perceptions that various important individuals or groups think that a behavior should or should not be performed.” (Mackenzie et al., 2004, p. 2416). Six items (immediate family members, people within social or business circles, close friends, significant others, neighbors, and general important others) were created by Mackenzie, et al. to assess subjective norms regarding other’s reaction to learning that the subjects were seeking professional mental health services. Perceived behavioral control “refers to subjective beliefs about control over potential obstacles to achieving goals.” (Mackenzie et al., 2004, p. 2416). To measure for perceived behavioral control, Mackenzie et al., (2004, p. 2416) developed four assessment items related to the following barriers: “personal reservations, knowledge of what to do and who to talk to, finances, and time.” A fifth and sixth item were later
developed to assess perception about influences beyond a person’s control and the aptitude to attain professional help; respectively. The community sample for the first study had a mean age of 45.6 years with ages ranging from 15 to 89 years. Participant ages fell into 4 quadrants, those under the age of 30, those between 30 and 46, those between 47 and 59, and those 60 years of age or older. The data set was analyzed with respect to three aspects; item evaluation, factor analysis of the adapted and extended attitude inventory, and scale consistency and intercorrelations.

Item evaluation. Attaining internal consistency which harbors an interpretable and replicable factor structure was the aim of Makenzie et al. To attain this objective all items on the final inventory had to satisfy four criteria; a total-item correlation higher than .30; item deletion must not cause an increase in internal reliability within the inventory; factor loadings must be greater than .30; and item loading on a second factor must not exceed .30. Cronbach’s coefficient alpha was calculated to inspect the first two set of criteria. The result of the total item-inventory and item-total correlations exposed 5 items which exhibited item-total correlation below .30, and revealed the increase of the overall alpha coefficient of the inventory in light of the deletion of 4 items. The latter two criteria were examined by administering a factor analysis of the 41 items. Two fit indexes were used to conduct the factor analysis; the root mean square error of approximation (RMSEA) and the expected cross-validation index (ECVI). The analysis yielded one-, two-, three-, and four- factor solutions where the three-factor model was “substantially better than the two-
factor solution and was not improved upon by the addition of the fourth factor.”
(Makenzie et al., 2004, p. 2419).

Factor analysis of the adapted and extended attitude inventory. All items in the final inventory had to satisfy four inclusion criteria- item-total correlations had to be higher than .30., deleting an item should not have increased the inventory’s internal reliability, factor loadings had to be greater than .30., and items must not have loaded higher than .30 on a second factor. Out of the 41 items, 16 items were in clear violation of the inclusion criteria and were thus deleted. The remaining 25 items were submitted, again, to an “exploratory maximum likelihood factor analysis with direct quartimin rotation.” (Makenzie et al., 2004, p. 2419). Due to having the lowest overall factor loading, one more item was dropped, thus, the creation of three factors with equal number of items which permits “direct unadjusted comparisons of scores across the factor subscales.” (Makenzie et al., 2004, p. 2419). The final composition of the 24 item inventory is comprised of, and includes 17 of 29 items on the ATSPPHS, with 10 items revised, in addition to 7 out of the 12 items created to “measure subjective norms and perceived behavioral control regarding seeking mental health services.” (Makenzie et al., 2004, p. 2419). Makenzie et al., described the inventory as statistically and conceptually resounding. The first factor accounted for 25% of the variance, where the second and third factors accounted for 9%, and 8% respectively. Makenzie et al. (2004, p. 2419) shared that RMSEA of .039 is suggestive of excellence in goodness of fit, and ECVI of


2.25 is indicative of higher chance of cross-validation than the 41-item factor analysis. Makenzie et al. labeled the factors as follows: (1) psychological openness- reflects the level of openness which individuals acknowledge mental health problems and the likelihood of seeking professional assistance; (2) help-seeking propensity- reflects the extent to which persons are willing and able to seek professional psychological assistance; and (3) indifference to stigma- which reflects the level of concerns persons have regarding important figures, in their lives, learning that they are seeking professional help regarding mental health matters.

Scale consistency and intercorrelations. Makenzie et al. (2004) used Cronbach’s alpha to account for the level of item internal consistency. The internal consistency of the IASMHS scale was .87, where the psychological openness, help-seeking propensity, and indifference to stigma subscales’ alpha score was .82, .76, and .79 respectively; hence the three factors are positively correlated with one another.

2. Inventory Replication and Preliminary Validation

To confirm the data structure of the IASMHS, Makenzie et al. (2004) collected data in second- and third- year undergraduate psychology classes. 297 students (144 male and 153 female) participated in this study. The mean age of the sample was 21 years with a standard deviation (SD) of 2.7. Confirmatory factor analyses were used to test a correlated three-factor model. The results were suggestive of the variables’ significant loading on the appropriate factor and lead Makenzie et al. to conclude that the three
factors were significantly, positively correlated with one another. RMSEA and the standardized root mean square residual (SRMR) were the two indexes used to assess for model fit. Both indexes suggested “a very good fit between undergraduate students’ responses and the three-factor model: RMSEA was .040 (90% CI = .030 to .048), and SRMR was .057.” (Makenzie et al., 2004, p. 2423). Factors were also significantly positively correlated for both genders and analyses attained from RMSEA and SRMR were indicative of good to very good model fit. In general, there are high levels of similarity in the pattern of correlations and mean scores when compared to the community sample; from study 1.

**Preliminary validity analyses.** Due to the absence of psychometrically valid and reliable measures of attitudes regarding seeking mental health services, tests of convergent and discriminant validity were limited. Additionally, criterion validity relying on subjects from study 1, and replication samples, was determined by inquiring about participants’ past use and future intent of utilizing mental health services. A positive response to either of following questions indicated past use of mental health services: (1) “Have you ever discussed psychological problems with your family physician? and (2) Have you ever discussed psychological problems with a mental health professional?” (Makenzie, 2004, p. 2425). Future intent towards using mental health services were measured by calculating the mean score of the following questions: (a) “If you were to experience significant psychological problems how likely are is it that you would
consider talking to a family physician? and (b) How likely is it that you could consider talking to a mental health professional (e.g., psychiatrist, psychologist, social worker)?” (Makenzie, 2004, p. 2425). A 7-point rating scale (from 1; very unlikely, to 7; very likely) was used to score intentions.

Scores on IASMHS, for all samples, positively correlated with past use of and intention to use mental health services. In regards to past use of professional psychological help, psychological openness and help seeking propensity displayed moderate correlations, as opposed to the weaker correlations between past use and indifference to stigma. With respect to intentions to seeking mental health services, a moderate correlation was exhibited by psychological openness and indifference to stigma, while help-seeking propensity exhibited high correlation.

Convinced that males and females may differ in attitudes towards seeking mental health services Makenzie et al., conducted an independent sample t-test to determine whether such discrepancy did exist on the IASMHS. The results of this t-test were statistically significant regarding the total scores on the IASMHS and the 3-factor subscales. In fact females scored higher than males on all subscales; the psychological openness, help seeking, and indifference to stigma subscales. These findings held true on the undergraduate replication sample except for the help seeking propensity scale which did not show any significant differences between the two genders. The IASMHS’ discriminant validity was assessed by comparing scores on the IASMHS with
participants’ self-reported likelihood to talk to a family member/friend or taking care of
the problem themselves in case they were to experience significant psychological
distress. There was a strong negative correlation between each IASMHS’ subscales
scores and self-reported intentions to take care of one’s own problems. Further, a weak
relationship between intentions to talk to family/friends and help-seeking attitudes.

3. Test-Retest Reliability

Mackinzie et al., (2004) gathered test-retest reliability data from students (4 males
and 19 females, with a mean age of 21.1 years) in an undergraduate course in
psychometrics. Data collection took place at two points in time separated by 3 weeks
where students were provided a questionnaire package containing demographic
information, and the IASMHS. “Pearson correlation coefficients between test and retest
scores were calculated for the total scale and for each of the IASMHS subscales. Test-
retest reliabilities were as follows: total IASMHS score, \( r = .85, p < .01 \); psychological
openness, \( r = .36, p < .01 \); help-seeking propensity, \( r = .64, p < .01 \); and indifference to
stigma, \( r = .91, p < .01 \).” (Makenzie, 2004, p. 2427).

For many years the ATSPPHS proved to be an instrument of value when
exploring the attitudes of participants and was considered an instrument which enhanced
the scientific literature on the matter of attitudes towards seeking professional mental
health services. Despite the wide use of the ATSPPHS in the literature, Mackenzie et al.
(2004) asserted that a revision of the instrument to address some conceptual and
methodological concerns was overdue. Outdated language, gender specific pronouns, and limiting the identity of mental health professionals to psychiatrists and psychologists were conceptual concerns which Mackenzie et al. saw a need to remedy. Additionally, Mackenzie et al., believed that the ATSPPHS overlooked the measure of constructs which enhance its ability to predict whether or not someone seeks mental health services; namely, the theory of reasoned action (TRA) and the theory of planned behavior (TPB). Also, Mackenzie et al., recognized four methodological concerns with the ATSPPHS pertaining to the standardization sample only consisting of students, outdated factor structure, poor reliability of the four factor subscales, and use of a 4-point rating scale. In light of ATSPPHS’ acceptability and adoption within the growing body of literature, Mackenzie et al. sought to adapt and extend the ATSPPHS rather than construct a new attitude instrument. The new adaptation aimed to address the previously discussed conceptual and methodological concerns. The first study conducted by Mackenzie et al. addressed inventory adaptation and extension. Inventory adaptation was sought by (1) replacing the 4-point rating scale with a 5-point rating scale, and (2) making 3 types of wording changes to address the replacement of (a) all gender specific language with gender neutral pronouns, (b) profession specific pronouns (e.g., psychiatrist, psychologist) with the term “professional” thus, acknowledging several professionals, in addition to psychiatrists and psychologists, who provide mental health services, and (c) the various terms used by the ATSPPHS (mental conflicts, emotional problems, personal
worries and concerns, and emotional difficulties) to refer to mental health problems with the term “psychological problems”. Furthermore, Mackenzie et al., conducted three studies (Study 1: Inventory Adaptation and Extension, Study 2: Inventory Replication and Preliminary Validation, and Study 3: Test- Retest Reliability) to arrive at a psychometrically sound instrument. The final composition of the 24 item inventory is comprised of, and includes 17 of 29 items on the ATSPPHS, with 10 items revised, in addition to 7 out of the 12 items created to “measure subjective norms and perceived behavioral control regarding seeking mental health services.” (Makenzie et al., 2004, p. 2419). Participant total mean scores of 61 or higher on the IASMHS are suggestive of positive attitudes towards seeking mental health services, while total mean scores below 61 are suggestive if negative attitudes. Makenzie et al. (2004) used Cronbach’s alpha to account for the level of item internal consistency. The internal consistency of the IASMHS scale was .87, where the psychological openness, help-seeking propensity, and indifference to stigma subscales’ alpha score was .82, .76, and .79 respectively; hence the three factors are positively correlated with one another. An assessment of the IASMHS’ discriminant validity yielded a strong negative correlation between each IASMHS’ subscales scores and self- reported intentions to take care of one’s own problems. Further, a weak relationship is found between intentions to talk to family/friends and help-seeking attitudes. Furthermore, Test-retest reliabilities were as follows: total IASMHS score, \( r = .85, p < .01 \); psychological openness, \( r = .36, p < .01 \); help-seeking
propensity, \( r = .64, p < .01 \); and indifference to stigma, \( r = .91, p < .01 \).” (Makenzie, 2004, p. 2427). Makenzie et al., described the inventory as statistically and conceptually resounding.

According to Mackenzie et al., (2004) research examining perceptions towards seeking mental health services and the effect such perceptions have on propensity (attitudes) of use has only begun. Such knowledge is necessary for the benefit of the consumer as well as concerned mental health professional organizations. Furthermore, the ability to discriminate consumers’ perceptions and attitudes based on the professional identity of the mental health service provider will serve as a benchmark for a young profession, counseling, to understand its current status in the minds of the general public, in comparison to sister professions, and for counseling professional organizations to better allocate resources aimed at professional advocacy efforts. As potential consumers of mental health services, it is of great merit to understand college students’ perceptions of mental health professionals. Having provided an overview, in this chapter, of the three helping professions- counseling, psychology, and social work -, the circumstances surrounding the origination of each discipline and their governing bodies, current vocational opportunities and average salaries for members of each discipline, the rationale for conducting this study and the psychometric instruments utilized by this study; the next step was to test the hypotheses about students’ perceptions and attitudes about clinical mental health counselors with respect to other professionals.
Chapter 3

Research Method

Overview of Method

Collection of data for this study commenced upon attaining Institutional Review Board (IRB) approval. Data was collected during the spring semester of 2014 at The University of Toledo where instructor permission was sought to recruit participants from assembled undergraduate classes within the counseling, psychology, and social work programs. The study included a sample of 131 participants (undergraduate students) from 11 undergraduate courses in the fields of counseling, psychology, and social work. After obtaining instructor consent, instructors were asked to randomly assign their students to one of four groups. Each group received a recruitment email (Appendix E) which only varied from one group to the other by the attached web-link which participants were prompted to follow in order to complete the online surveys via Survey Monkey®. Upon following the electronic link, students were directed to the electronic surveys which included a voluntary statement and consent form, a demographic questionnaire, and a unique professional profile description, depending on which recruitment email the
student received, upon which participants were asked to evaluate that helper’s therapeutic competence level (Appendix D) and complete the Inventory of Attitudes Towards Seeking Mental Health Services (IASMHS). The electronic links were active for a period of 1 week and participants had the liberty to complete the online surveys at their leisure. Due to the open nature of these classes, students varying in age, gender, and academic foci were present.

The IASMHS survey was developed by Mackinzie et al., (2004) and is comprised of 24 items and 3 internally consistent factors (psychological openness, help-seeking propensity, and indifference to stigma). The 3-factor model was replicated with 293 university undergraduate students and test-retest reliability was established with 23 student volunteers. Of most importance for this study, was the IASMHS’ ability to distinguish between those who would and wouldn’t utilize professional mental health services in the future; thus, demonstrating satisfactory psychometric validity. The internal consistency of the IASMHS estimate for this sample was: Cronbach’s alpha = .86.

All documents (consent form, survey, demographic questionnaire, IASMHS, professional competence item, and one of the four professional profile descriptions) were compiled into one document which was posted on Survey Monkey ®. Four different versions of this document were created, varying only in regards to the professional profile description within. Participants were asked to complete and submit the survey only once. Upon completion, the documents were electronically retrieved and the collected data was
analyzed. A one-way-Analysis of Variance (ANOVA) test was utilized to analyze any variance in attitudes and perceptions between the groups with respect to the identity of the professional. In the event where significance is observed from the ANOVA tests, an analysis of covariance (ANCOVA) was utilized to account for any co-variance with respect to the following categories: gender, religious affiliation, academic major, number of classes taken through either field. The IBM Statistical Package for the Social Sciences (SPSS) software program was utilized to carry out the ANOVA tests.

**Research Design**

This study utilized a true experimental design due to it applying random assignment of participants to either of the control or one of the three experimental groups. This is a type of experimental design in which the research participants were randomly assigned to different groups and then tested on the dependent variable (attitudes and perceptions) after the experimental group had received the experimental treatment condition (professional profile description document). This design assumes that the groups are equivalent and between-group differences are used to determine treatment effects. The advantages of utilizing this type of research design are that it provides the opportunity to have a control group and comparison groups and that it utilizes random assignment. Additionally, such research design controls for all standard threats to internal validity such as, history, researcher bias and maturation- which are elaborated upon in the limitations section of this chapter. It is worth noting that the absence of a pretest of the
dependent variables (attitudes and perceptions) may be of concern, but this does not affect its internal validity due to the utilization of random assignment (Dawson, 1997) and the use of a control group. A one-way-Analysis of Variance (ANOVA) test was used to analyze any variance in perception between the groups with respect to the identity of the professional. A diagram of the design is depicted below. The G symbol represents the group or condition to which students were randomly [R] assigned. The X symbol represents the treatment or exposure of the vignette about which participants’ reactions were observed (O) using the aforementioned instruments.

\[
\begin{align*}
G1: & \ [R] \quad X1 \rightarrow O1 \\
G2: & \ [R] \quad X2 \rightarrow O2 \\
G3: & \ [R] \quad X3 \rightarrow O3 \\
G4: & \ [R] \quad X3 \rightarrow O4
\end{align*}
\]

**Description of Participants**

The study relied on a sample of the undergraduate student population that was accessible through courses offered by the departments of School Psychology, Higher Education and Counselor Education; Psychology; and Social Work. A total number (N) of 131 students participated in this study. Due to the open nature of the classes from which the participants were drawn, many academic majors and minors were represented as well as a diversity of age groups. Detailed descriptive data about the participants are as follows: gender (113 identified as females and 17 identified as males), religious
affiliation (33 identified as Protestant Christians, 30 identified as Roman Catholic Christians, 6 identified as Evangelical Christians, 1 identified as Jewish, 7 identified as Agnostic, 8 identified as Atheist, and 43 identified as other), and race (93 identified as White, 30 identified as African American, 3 identified as Asian, and 2 identified as American Indian), most reported academic majors (Social Work, 47; Psychology, 38; Interdisciplinary Studies, 10; and Criminal Justice, 6). The mean age of participants was about 23 years of age, where the youngest age reported was 18 years of age, and the oldest was 52 years of age. It is worth noting that for academic minors, 46 participants identified with Counseling, 7 participants identified with Psychology, and 1 participant identified with Social Work.

**Sampling Procedures**

This study utilized pre-assembled classes to gain access to students, i.e., potential participants. After obtaining instructor consent, the researcher had asked the instructors to randomly assign their students to four groups. Each group received a recruitment email (Appendix A) which only varied from one group to the other by the attached web-link which participants were prompted to follow in order to complete the online surveys via Survey Monkey®.

**Instrumentation**

In addition to four descriptive narratives depicting various mental health professionals (Appendix A) (i.e., clinical mental health counselor, psychologist, licensed
independent social worker, and a neutral mental health professional), a demographic
questionnaire (Appendix B) developed by the investigator and the assessment tools- the
Inventory of Attitudes toward Seeking Mental Health Services (IASMHS) (Appendix C),
and the single-item competence scale (Appendix D), will be used in this study.

The narratives used to describe four mental health professionals - clinical mental
health counselor, clinical psychologist, licensed independent social worker, and a
professional with a neutral identity- were created. Each narrative provides a gender-
neutral depiction of the corresponding professional, along with a description of the
professional’s academic and licensing credentials. In order to describe the sample and
form between groups for comparisons, a series of questions using a demographic
questionnaire was asked; this is a 2-page document that is comprised of 12 questions
addressing: gender (item 1), age (item 2), academic major (item 3), academic minor (item
4), academic standing (item 5), number of psychology classes taken to date (item 6),
number of social work classes taken to date (item 7), number of counseling classes taken
to date (item 8), current or past personal experience with mental health professional(s),
and self- reported satisfaction level (favorable, neutral, unfavorable) (item 9), ethnicity
(item 10), religion (item 11) and household income (item 12). Participants will write in
their answers for questions 2, 3, 4, 6, 7 and 8. As for questions 1, 5, 9, 10, 11 and 12,
participants will check the box for the category or group which best describes them.
Due to the lack of an instrument designed specifically to measure participants’ perceptions of the therapeutic competence of the mental health providers, a single-item perception measure comprised of a 5-point rating scale was developed. In an effort to remain consistent with the rating scales developed for the IASMHS scale, the scale rating structure was maintained by providing participants with an identical scale format. The lowest point on the rating scale (0), reflects incompetence, and the highest point on the scale (4) reflects competence.

To assess participants’ attitudes towards seeking professional mental health services from clinical mental health counselors, psychologists, social workers, or mental health helpers with neutral identities, The Inventory of Attitudes toward Seeking Mental Health Services (IASMHS) scale was employed. The IASMHS is a psychometrically sound instrument which was developed by Mackenzie, Knox, Gekoski, and Macaulay (2004), and is an adaptation and extension of the Attitudes Towards Seeking Professional Psychological Help Scale (ATSPPHS) developed by Fischer and Turner (1970). The IASMHS has produced psychometrically valid and reliable data. “Test-retest reliabilities were as follows: total IASMHS score, $r = .85, p < .01$; psychological openness, $r = .36, p < .01$; help-seeking propensity, $r = .64, p < .01$; and indifference to stigma, $r = .91, p < .01$” (Makenzie, 2004, p. 2427). The author conducted a measure of internal consistency (Cronbach’s alpha) using the data collected from this sample. The results of that analysis were $\alpha = .86$. 

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**Procedures**

The recruitment process for this study took place at the University of Toledo in previously assembled classes through the departments of School Psychology, Higher Education and Counselor Education, Psychology, and Social work. Support for this study was solicited from instructors, who were asked to randomly assign their students to four groups. Each group received a recruitment email (Appendix A) which only varied from one group to the other by the attached web-link which participants were prompted to follow in order to complete the online surveys via Survey Monkey®. Upon following the electronic link, students were directed to the electronic surveys which included a voluntary statement and consent form, a demographic questionnaire, and a unique professional profile description, depending on which recruitment email the student received, upon which participants were asked to evaluate that helper’s therapeutic competence level (Appendix D) and complete the Inventory of Attitudes Towards Seeking Mental Health Services (IASMHS). The electronic links were active for a period of 1 week and participants had the liberty to complete the online surveys at their leisure. All submitted surveys were securely saved under the department’s password protected Survey Monkey® account.

**Statistical Hypotheses**

The purpose of the proposed study was to examine student perception of the mental health professional’s therapeutic competence. Of interest also, were factors that
may shape students’ perception with regards to the therapeutic competence of the mental health professional.

1A. Do participants’ attitudes towards seeking professional mental health services differ with respect to the identity of the professional?

H₀: There is no significant difference in participant attitudes towards seeking professional mental health services with respect to the identity of the professional.

H₁: There is significant difference in participant attitudes towards seeking professional mental health services with respect to the identity of the professional.

1B. Does participant perception of the mental health professional’s therapeutic competence level differ with respect to the identity of the professional?

H₀: There is no significant difference in participant perception of the mental health professional’s level of competence with respect to the identity of the professional.

H₁: There is significant difference in participant perception of the mental health professional’s level of competence with respect to the identity of the professional.

2A. Are participants’ attitudes towards seeking professional mental health services from a professional helper, more favorable for counselors than social workers?

H₀: There is no significant difference in participant attitudes towards seeking professional mental health from a professional helper with respect to counselors and social workers.
H₁: There is significant difference in participant attitudes towards seeking professional mental health from a professional helper with respect to counselors and social workers.

2B. Is participant perception of counselors more favorable than their perception of social workers?

H₀: Participant perception of counselors is not more favorable than their perception of social workers.

H₁: Participant perception of counselors is more favorable than their perception of social workers.

3A. Are participants’ attitudes towards seeking professional mental health services from a professional helper, more favorable for counselors than psychologists?

H₀: There is no significant difference in participant attitudes towards seeking professional mental health from a professional helper with respect to counselors and psychologists.

H₁: There is significant difference in participant attitudes towards seeking professional mental health from a professional helper with respect to counselors and psychologists.

3B. Is participant perception of counselors more favorable than their perception of Psychologists?
H₀: Participant perception of counselors is not more favorable than their perception of psychologists.

H₁: Participant perception of counselors is more favorable than their perception of psychologists.

4A. Do participants’ attitudes towards seeking professional mental health services differ with respect to the participant’s gender?

H₀: There is no significant difference in participant attitudes towards seeking professional mental health from a professional helper with respect to the participant’s gender.

H₁: There is significant difference in participant attitudes towards seeking professional mental health from a professional helper with respect to the participant’s gender.

4B. Does participant perception of the mental health professional’s therapeutic competence level differ with respect to student gender?

H₀: There is no significant difference in participant perception of the mental health professional’s level of competence with respect to participant gender.

H₁: There is significant difference in participant perception of the mental health professional’s level of competence with respect to participant gender.

5A. Do participants’ attitudes towards seeking professional mental health services differ with respect to the participant’s religion?
H$_0$: There is no significant difference in participant attitudes towards seeking professional mental health from a professional helper with respect to the participant’s religion.

H$_1$: There is significant difference in participant attitudes towards seeking professional mental health from a professional helper with respect to the participant’s religion.

5B. Does participant perception of the mental health professional’s therapeutic competence level differ with respect to the student’s religion?

H$_0$: There is no significant difference in participant perception of the mental health professional’s level of competence with respect to participant religion.

H$_1$: There is significant difference in participant perception of the mental health professional’s level of competence with respect to participant religion.

6A. Do participants’ attitudes towards seeking professional mental health services differ with respect to the student’s academic major?

H$_0$: There is no significant difference in participant attitudes towards seeking professional mental health from a professional helper with respect to the participant’s academic major.

H$_1$: There is significant difference in participant attitudes towards seeking professional mental health from a professional helper with respect to the participant’s academic major.
6B. Does participant perception of the mental health professional’s therapeutic competence level differ with respect to the participant’s academic major?

H₀: There is no significant difference in participant perception of the mental health professional’s level of competence with respect to participant academic major.

H₁: There is significant difference in participant perception of the mental health professional’s level of competence with respect to participant academic major.

7A. Is there a significant relationship between participants’ attitudes towards seeking professional mental health services with respect to the number of classes participants have taken within either of the three fields?

H₀: There is no significant difference in participant attitudes towards seeking professional mental health from a professional helper with respect to the number of classes the participant has taken within either field.

H₁: There is no significant difference in participant attitudes towards seeking professional mental health from a professional helper with respect to the number of classes the participant has taken within either field.

7B. Is there a significant relationship between participants’ perceptions of the mental health professional’s therapeutic competence level and the number of classes participants have taken within either of the three fields?
H₀: There is no significant difference in participant perception of the mental health professional’s level of competence with respect to number of classes participants have taken within either field.

H₁: There is significant difference in participant perception of the mental health professional’s level of competence with respect to number of classes participants have taken within either field.

Data Analysis

This study is comprised of a continuous dependent variable (scores on IASMHS survey and on the single-item perception scale) and a categorical independent variable (professional’s identity) where the clinical mental health counselor was coded with 1, the psychologist was coded with 2, the licensed independent social worker was coded with 3, and the professional helper with neutral identity was coded with 4. Due to the presence of such variables, a one-way-Analysis of Variance (ANOVA) was utilized to analyze any variance between the groups. In the event where significance was found in the analysis of variance, an analysis of covariance (ANCOVA) was utilized to account for any variance with respect to the following categories: gender, religious affiliation, academic major, and the number of classes taken through either field.

Power Analysis

Estimates of power were conducted based upon the most conservative estimates and a total sample size of 132. Power estimates provide an estimate of the Type II error.
rate for different size effects that may exist in the population. Cohen’s (1998) suggested three levels of effect sizes ($\eta^2$) for one-way analysis of variance (Research questions 1a, 1b, 5a, 5b, 6a, and 6b) are: small (.10), medium (.25), and large (.40). Power estimates were calculated for each suggested effect size. Based upon these estimates, if there is a significant relationship in the population and the effect size is small, power will be .81. If the effect size is medium, power will be .99, and for a large effect size, power will be .99. Therefore, if differences exist between the populations tested in Research Questions 1a, 1b, 5a, 5b, 6a, and 6b, the one-way ANOVA statistical procedures and the research design will be able to detect them. Cohen (1992) suggested three levels of effect sizes ($d$) for independent means (Research questions 4a and 4b): small (.20), medium (.50), and large (.80). As before, power estimates were calculated for each suggested effect size. Based upon these estimates, if there is a significant relationship in the population and the effect size is small to large, power will be .99. Therefore, if differences exist between the populations tested in Research Questions 4a and 4b, the $t$-test statistical procedures and the research design will be able to detect them. Cohen’s suggested three levels of effect sizes ($r$) for Pearson product-moment correlations (Research questions =7a and 7b) are: small (.10), medium (.30), and large (.50). The power analyses for these effect sizes provides 99% confidence that even if the relationship between the variables tested in Research Questions 7a and 7b is small, the Pearson correlation test of relationships will detect them.
Chapter 4

Results

Introduction

Chapter 4 provides the reader with descriptive data as they apply to the instruments used in this study, including frequencies, ranges, and standard deviations. The study’s research questions are then addressed using the appropriate statistical procedures. Finally, the chapter concludes with a summary of the data and findings.

Descriptive Data

Scores on the Inventory of Attitudes toward Seeking Mental Health Services (IASMHS) were used to operationally define and measure participants’ attitudes towards seeking professional mental health services. The total mean, standard deviation and range scores for the total sample ($N = 131$) were $X = 62.34$ ($SD = 12.8$, range = 37-90).

Additionally, the participants were asked, using a range of scores from 0 to 4 (with zero being low and 4 being high), to rate the level of competence of the professional based on the description provided. As a group, the mean professional’s competence score was 3.6 ($SD = .64$, range = 1-4).
To understand these outcome variables on a group level, the author presents the following analyses in text and table formats (Table 1). The total number of participants randomly assigned into the counselor profile group was 38. The mean, standard deviation and range scores for the counselor profile group were 65.47, 13.2, and 45-90, respectively. The total number of participants randomly assigned into the social work profile group was 32, and the mean, standard deviation and range scores for the social work profile were 60.15, 12.35, and 37-90, respectively. The total number of participants randomly assigned into the psychology profile group was 32, and the mean, standard deviation and range scores for psychology profile group were 60.15, 12.35, and 37-90, respectively. The total number of participants randomly assigned into the neutral (control) profile group was 29, and the mean, standard deviation and range scores for the neutral (control) profile were 63.03, 12.94, and 42-84, respectively.

**Table 1.**

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>( \bar{X} )</th>
<th>SD</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMHCs</td>
<td>38</td>
<td>65.47</td>
<td>13.2</td>
<td>45-90</td>
</tr>
<tr>
<td>Clin Psych</td>
<td>32</td>
<td>60.15</td>
<td>12.35</td>
<td>37-90</td>
</tr>
<tr>
<td>CSWs</td>
<td>32</td>
<td>60.15</td>
<td>12.35</td>
<td>37-90</td>
</tr>
<tr>
<td>Control</td>
<td>29</td>
<td>63.03</td>
<td>12.94</td>
<td>42-84</td>
</tr>
</tbody>
</table>
With respect to the participants’ rating of the level of competence of the professional, based on the profile description provided, the following results were obtained, and are shared in text and table formats (Table 2). The total number of participants randomly assigned into the counselor profile group was 38. The mean, standard deviation and range scores for the counselor profile group were 3.55, .72, and 1-4, respectively. The total number of participants randomly assigned into the social work profile group was 32. The mean, standard deviation and range scores for this sample were 3.71, .58, and 2-4, respectively. The total number of participants randomly assigned into the psychology profile group was 32. The mean, standard deviation and range scores for this sample were 3.71, .58, and 2-4, respectively. The total number of participants randomly assigned into the neutral (control) profile group was 29. The mean, standard deviation and range scores for this sample were 3.4, .63, and 2-4, respectively.

Table 2.

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>( \bar{X} )</th>
<th>SD</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMHCs</td>
<td>38</td>
<td>3.55</td>
<td>.72</td>
<td>1-4</td>
</tr>
<tr>
<td>Clin Psych</td>
<td>32</td>
<td>3.71</td>
<td>.58</td>
<td>2-4</td>
</tr>
<tr>
<td>CSWs</td>
<td>32</td>
<td>3.71</td>
<td>.58</td>
<td>2-4</td>
</tr>
<tr>
<td>Control</td>
<td>29</td>
<td>3.4</td>
<td>.63</td>
<td>2-4</td>
</tr>
</tbody>
</table>

Research Questions
Research question 1a asked: Do participants’ attitudes towards seeking professional mental health services differ with respect to the identity of the professional? To answer this question, a one-way between-subjects analysis of variance (ANOVA) was conducted to compare the effect of group membership on participants’ attitudes toward seeking professional mental health services. There were no significant differences across the four groups, \[ F(3, 127) = 1.422, p = .239 \]. The calculated effect size (\( \eta^2 \)) was .03. According to Cohen (1988), such effect size is considered between small and medium in magnitude.

Research question 1b asked: Does student perception of the mental health professional’s therapeutic competence level differ with respect to the identity of the professional? A one-way between-subjects ANOVA was used to compare the effect of group membership on participants’ perceptions of the mental health professional’s therapeutic competence. There were no significant differences across the four groups, \[ F(3, 126) = 1.479, p = .223 \]. That is, all four groups rated the professionals’ therapeutic competence to be equal. The calculated effect size (\( \eta^2 \)) was .03. According to Cohen (1988), such effect size is considered between small and medium in magnitude.

Research Question 2ab and 3ab asked, respectively, is student perception of counselors’ therapeutic competence more favorable than their perception of social workers, and is student perception of counselors more favorable than their perception of psychologists? Research Questions 2 and 3 required post-hoc analyses of the ANOVA.
used to address Research Question 1. Because the ANOVA used to test Research Question 1 was non-significant, it was unnecessary to conduct post-hoc analyses since no differences between the groups were found.

Research Question 4a asked, do participants’ attitudes towards seeking professional mental health services differ with respect to the student’s gender? To answer research question 4a, the researcher employed a one-way between subjects ANOVA to compare the effect of sex on participants’ attitudes toward seeking professional mental health services. The mean, standard deviation, and range scores for 17 male participants were 54.65, 15.98, and 37-90, respectively. The mean, standard deviation, and range scores for the 114 female participants were 63.48, 11.92, and 45-90, respectively. There was a statistically significant effect on the participants’ sex on their attitudes toward seeking professional mental health services \([F(1,129) = 7.39, p = .007, \eta^2 = 0.88]\). That is, the females in this sample reported much higher scores on their attitudes toward seeking help. The magnitude of the difference between the males’ and females’ propensities towards seeking mental health services was large.

**Table 3.**

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>(\bar{X})</th>
<th>SD</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Males</td>
<td>17</td>
<td>54.65</td>
<td>15.98</td>
<td>37-90</td>
</tr>
<tr>
<td>Females</td>
<td>114</td>
<td>63.48</td>
<td>11.92</td>
<td>45-90</td>
</tr>
</tbody>
</table>
Research question 4b asked, does student perception of the mental health professional’s therapeutic competence level differ with respect to student gender? A one-way between subjects ANOVA was used to compare the effect of sex on participants’ perception of the mental health professional’s therapeutic competence. The mean, standard deviation, and range scores for the 17 male participants were 3.47, .51, and 3-4, respectively. The mean, standard deviation, and range scores for the 113 female participants were 3.62, 0.66, and 1-4, respectively. There was not a significant difference between the sexes in their rating of the mental health professional’s therapeutic competence, [\( F(1,128) = .894, p = .346, \eta^2 = 0.007 \)]. The magnitude of the difference between these two mean scores is small.

### Table 4.

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>( \bar{X} )</th>
<th>SD</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Males</td>
<td>17</td>
<td>3.47</td>
<td>.51</td>
<td>3-4</td>
</tr>
<tr>
<td>Females</td>
<td>114</td>
<td>3.62</td>
<td>.66</td>
<td>1-4</td>
</tr>
</tbody>
</table>

Research Question 5a asked, do participants’ attitudes towards seeking professional mental health services differ with respect to the student’s religion? To answer research question 5a, the researcher employed a one-way between-subjects ANOVA to compare the effect of religion on participants’ attitudes toward seeking professional mental health services. The mean, standard deviation, and range scores for
Protestant participants were 60.51, 11.53, and 37-90, respectively. The mean, standard deviation, and range scores for Roman Catholic participants were 60.83, 13.24, and 39-90, respectively. The mean, standard deviation, and range scores for Evangelical participants were 69.33, 12.27, and 59-87, respectively. The mean score for the single Jewish participant was 51. The mean, standard deviation, and range scores for Agnostic participants were 56.14, 9.78, and 37-66, respectively. The mean, standard deviation, and range scores for Atheist participants were 66.62, 16.38, and 48-87, respectively. The mean, standard deviation, and range scores for participants that identified with other religions were 64.20, 13.24, and 39-90, respectively. There were no significant differences across the religions, \( F(7,121) = 1.021, \ p = .420 \). That is, all four groups share similar attitudes regarding seeking professional mental health services. The calculated effect size (\( \eta^2 \)) was .06. According to Cohen (1988), such effect size is considered medium.

Table 5.

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>( \bar{X} )</th>
<th>SD</th>
<th>Range</th>
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</thead>
<tbody>
<tr>
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<td>60.51</td>
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<td>30</td>
<td>60.83</td>
<td>13.24</td>
<td>39-90</td>
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<tr>
<td>Evangelical</td>
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<td>69.33</td>
<td>12.27</td>
<td>59-87</td>
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<tr>
<td>Jewish</td>
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<tr>
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<td>Range</td>
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<td>-----</td>
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</tr>
<tr>
<td>Agnostic</td>
<td>7</td>
<td>56.14</td>
<td>9.78</td>
<td>37-66</td>
</tr>
<tr>
<td>Atheist</td>
<td>8</td>
<td>66.62</td>
<td>16.38</td>
<td>48-87</td>
</tr>
<tr>
<td>Other</td>
<td>43</td>
<td>64.20</td>
<td>13.24</td>
<td>39-90</td>
</tr>
</tbody>
</table>

Research Question 5b asked, does student perception of the mental health professional’s therapeutic competence level differ with respect to the student’s religion? To answer research question 5b, the researcher employed a one-way between subjects ANOVA was used to compare the effect of religion on participants’ perception of the mental health professional’s therapeutic competence. The mean, standard deviation, and range scores for Protestant participants were 3.68, .59, and 2- 4, respectively. The mean, standard deviation, and range scores for Roman Catholic participants were 3.6, .67, and 2- 4, respectively. The mean, standard deviation, and range scores for Evangelical participants were 3.66, .51, and 3- 4, respectively. The mean score for the single Jewish participant was 3. The mean, standard deviation, and range scores for Agnostic participants were 3.4, .53, and 3- 4, respectively. The mean, standard deviation, and range scores for Atheist participants were 3.5, .75, and 2- 4, respectively. The mean, standard deviation, and range scores for participants that identified with other religions were 3.6, .64, and 1- 4, respectively. There were no significant differences across the religions, \[F (7,120) = .356, p = .926\]. That is, all participants from all reported religions rated the professionals’ therapeutic competence to be equal. The calculated effect size \(\eta^2\) was .02.
According to Cohen (1988), such effect size is considered between small and medium in magnitude.

**Table 6.**

<table>
<thead>
<tr>
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<th>$\bar{X}$</th>
<th>SD</th>
<th>Range</th>
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</thead>
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<td>33</td>
<td>3.68</td>
<td>.59</td>
<td>2-4</td>
</tr>
<tr>
<td>Roman Catholic</td>
<td>30</td>
<td>3.6</td>
<td>.67</td>
<td>2-4</td>
</tr>
<tr>
<td>Evangelical</td>
<td>6</td>
<td>3.66</td>
<td>.51</td>
<td>3-4</td>
</tr>
<tr>
<td>Jewish</td>
<td>1</td>
<td>3</td>
<td></td>
<td>3-3</td>
</tr>
<tr>
<td>Agnostic</td>
<td>7</td>
<td>3.4</td>
<td>.53</td>
<td>3-4</td>
</tr>
<tr>
<td>Atheist</td>
<td>8</td>
<td>3.5</td>
<td>.75</td>
<td>2-4</td>
</tr>
<tr>
<td>Other</td>
<td>43</td>
<td>3.6</td>
<td>.64</td>
<td>1-4</td>
</tr>
</tbody>
</table>

Research Question 6a asked, do participants’ attitudes towards seeking professional mental health services differ with respect to the student’s academic major?

To answer research question 6a, the researcher employed a one-way between-subjects ANOVA to compare the effect of academic major on participants’ attitudes toward seeking professional mental health services. Only the mean, standard deviation, and range scores for the three highest majors reported by participants are reported. The mean, standard deviation, and range scores for participants majoring in social work were 64.1, 12.8, and 60-68, respectively. The mean, standard deviation, and range scores for
participants majoring in psychology were 61.38, 15.56, and 56-66, respectively. The mean, standard deviation, and range scores for participants majoring in interdisciplinary studies were 61.7, 9.82, and 55-69, respectively. There were no significant differences across the academic major, \( F(19,111) = .716, p = .796 \). That is, all academic major shared similar attitudes regarding seeking professional mental health services. The calculated effect size \((\eta^2)\) was .11. According to Cohen (1988), such effect size is considered to be between medium and large in magnitude.

**Table 7.**

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>( \bar{X} )</th>
<th>SD</th>
<th>Range</th>
</tr>
</thead>
<tbody>
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<td>Social work</td>
<td>47</td>
<td>64.1</td>
<td>12.8</td>
<td>60-68</td>
</tr>
<tr>
<td>Psychology</td>
<td>38</td>
<td>61.38</td>
<td>15.56</td>
<td>56-66</td>
</tr>
<tr>
<td>Interdisciplinary</td>
<td>10</td>
<td>61.7</td>
<td>9.82</td>
<td>55-69</td>
</tr>
</tbody>
</table>

Research Question 6b asked, does student perception of the mental health professional’s therapeutic competence level differ with respect to the student’s academic major? To answer research question 6b, the researcher employed a one-way between subjects ANOVA was used to compare the effect of academic major on participants’ perception of the mental health professional’s therapeutic competence. Only the mean, standard deviation, and range scores for the three highest majors are reported. The mean, standard deviation, and range scores for participants majoring in social work were 3.54,
.62, and 3-4, respectively. The mean, standard deviation, and range scores for participants majoring in psychology were 3.60, .71, and 3-4, respectively. The mean, standard deviation, and range scores for participants majoring in interdisciplinary studies were 3.3, .82, and 2.7-3.8, respectively. There were no significant differences across the academic major, \[ F(19,110) = .657, p = .853 \]. That is, all academic majors groups rated the professionals’ therapeutic competence to be equal. The calculated effect size \( \eta^2 \) was .10. According to Cohen (1988, such effect size is considered to be between medium and large in magnitude.

**Table 8.**

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>( \bar{X} )</th>
<th>SD</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social work</td>
<td>47</td>
<td>3.54</td>
<td>.62</td>
<td>3-4</td>
</tr>
<tr>
<td>Psychology</td>
<td>38</td>
<td>3.60</td>
<td>.71</td>
<td>3-4</td>
</tr>
<tr>
<td>Interdisciplinary</td>
<td>10</td>
<td>3.3</td>
<td>.82</td>
<td>2.7-3.8</td>
</tr>
</tbody>
</table>

Research Question 7a asked, is there a significant relationship between participants’ attitudes towards seeking professional mental health services with respect to the number of classes students have taken in the psychology, counseling, or social work fields? To answer research question 7a, the researcher calculated a Pearson product moment correlation to test for a relationship between participants’ attitudes towards seeking professional mental health services and the number of classes students have taken.
within either field. A significant correlation was found between these two variables ($r = .312$, $n = 131$, $p < .001$). That is, there is a significant relationship between the participants’ attitudes regarding seeking professional mental health services and the number of classes taken regardless field. The calculated effect size ($r^2$) was .01. According to Cohen (1992), such effect size is considered small.

Research Question 7b asked, is there a significant relationship between participants’ perceptions of the mental health professional’s therapeutic competence level and the number of classes students have taken within either field? To answer research question 7b, the researcher calculated a Pearson product moment correlation to test for a relationship between participants’ perceptions of the mental health professional’s therapeutic competence level and the number of classes students have taken in the three fields. The findings suggested an inverse relationship between the two variables. Furthermore, no significant correlation between these two variables was detected, $r = -.029$, $n = 130$, $p = .745$. That is, there is no significant relationship between participants’ perceptions of the mental health professional’s therapeutic competence level and the number of classes students have taken within either field. The calculated effect size ($r^2$) was .008. According to Cohen (1992), such effect size is considered small.

Summary

Chapter four reported the tests of significance and associated effects sizes for the research questions posed in Chapters one and three. The results of question 4a indicated
that a significant difference existed between the sexes and their propensity to seek mental health services such that the females in this sample were more likely to seek mental health services than were the male participants. Additionally, a statistically significant and moderate relationship existed between the number of courses taken in a helping discipline and participants’ attitudes towards seeking professional mental health services such that as the number of courses completed increased, so did the positive manner in which participants viewed seeking mental health services. There were no statistically significant differences between groups on any of the remaining hypotheses tested and no relationships between the remaining variables tested.
Chapter 5

Discussion

Introduction

Chapter 5 begins with a brief summary of the available literature which justifies the research presented and then conducted in this study. Next, the purpose of this study, the procedures, and the findings, which are then integrated into the current literature base are summarized. Then, the implications of the study are stated for the intended audiences: researchers, higher education administrators, and practicing counselors. Furthermore, the limitations of the current study are discussed. Finally, the chapter concludes with suggestions for future research and a general summary of the study conducted.

Background and Study Findings

The purpose of this study was to better understand college students’ opinions of counselors in comparison to their opinions of other helpers; social workers and psychologists. Also, the study explored the perception of college students regarding the competence of counselors in comparison to the other helpers. Furthermore, the study’s aim was to capture and compare college students’ attitudes towards receiving mental
health services from counselors, social workers and psychologists. To accomplish these goals, data was collected during the spring semester of 2014 at The University of Toledo. Upon attaining the Institutional Review Board (IRB) approval, the permission of instructions to recruit participants from within their classes was sought. The study included 131 participants from 11 undergraduate courses in the fields of counseling, psychology, and social work. After obtaining instructor consent, instructors were asked to randomly assign their students to four groups. Each group received a recruitment email (Appendix A) which only varied from one group to the other by the attached web-link which participants were prompted to follow in order to complete the online surveys via Survey Monkey®. Upon following the electronic link, students were directed to the electronic surveys which included a voluntary statement and consent form, a demographic questionnaire, and a unique professional profile description, depending on which recruitment email the student received, upon which participants were asked to evaluate that helper’s therapeutic competence level (Appendix D) and complete the Inventory of Attitudes Towards Seeking Mental Health Services (IASMHS). The electronic links were active for a period of one week and participants had the liberty to complete the online surveys at their leisure. All submitted surveys were securely saved under the department’s password protected Survey Monkey® account. This study utilized a true experimental design in which participants were randomly assigned to either the control group or one of three experimental groups. This study utilized both descriptive
and inferential statistical analyses. To answer this study’s research questions pertaining to participants’ attitudes towards seeking mental health services, a one-way, between-subjects analysis of variance (ANOVA) was employed to compare the effect of group membership on participants’ attitudes toward seeking professional mental health services. To answer this study’s questions pertaining to participants’ perceptions of the mental health professional’s therapeutic competence level differing with respect to the identity of the professional, a one-way between-subjects ANOVA was also used to compare the effect of group membership on participants’ perceptions of the mental health professional’s therapeutic competence. The results suggested a significant difference existed between the sexes with respect to their propensity to seek mental health services where females in this sample were more likely to seek mental health services than male participants. Additionally, a statistically significant and moderate relationship existed between the number of courses taken in a helping discipline and participants’ attitudes towards seeking professional mental health services where as the number of courses completed increased, so did the positive manner in which participants viewed seeking mental health services. There were no statistically significant differences between groups on any of the remaining hypotheses tested and no relationships between the remaining variables tested.

**Integration of Findings into the Literature**
The purpose of this study was to better understand college students’ opinions of counselors in comparison to their opinions of other helpers; social workers and psychologists. To complete this, the author sought the findings from studies conducted by Firmin, Wantz, Firmin and Johnson (2012), Fall, Levitov, Anderson, and Clay (2005), Meyers, Sweeney, and White (2002) and other scholars and professional entities. The findings acknowledge the public’s struggle to accept the counseling profession and call for the establishment of a legitimate status for counselors amongst other mental health professionals in order for counselors to be seen as credible and competent mental health providers.

The findings of this study differ from the long standing view which researchers have held about the public’s view of clinical mental health counselors. Contrary to previous published work, this study’s results indicate the fact that no significant differences were found between the four groups of participants with respect to their ratings of the therapeutic competence of the three professionals and participants’ willingness to seek help from all of them. This allows for the conclusion that this sample of participants does not view counselors in a less favorable light in comparison to psychologists or social workers. Such results conflict with the hypothesis of the current study, that clinical mental health counselors will be viewed in a less favorable light when compared to other mental health service providers, and the previously discussed literature findings. It is possible that the divergence between the findings of previous studies and
the findings of the current study is the result of two indigenous factors which may have contributed to the enhanced view of clinical mental health counselors in this sample; i.e., the presence of a counseling minor and the counseling center at The University of Toledo.

Counseling Minor. While most counseling programs are designed for the graduate level, some programs, such as the counseling program at The University of Toledo, have provided undergraduate students the opportunity to take counseling classes and to choose counseling as an academic minor. In fact, out of the 73 participants that reported having an academic minor, 46 participants identified counseling as their academic minor. This particular program provides undergraduate students with a variety of courses which offer an extensive view on various counseling issues such as, fundamentals of mental health, family and cultural influences on the family structure, substance abuse, and theories and techniques of individual and group therapy. Furthermore, exposing students to the counseling field at the undergraduate level, as opposed to the graduate level only, could serve the important function of early-undergraduate-student-guidance towards the counseling field; hence, the establishment of a counseling-tailored early intervention mechanism which all counseling programs ought to heed.

On-Campus Counseling Center. The University Counseling Center is identified by the University of Toledo’s Division of Student Affairs, as the primary university-based mental health service provider for University of Toledo students. As a main faction
of the Division of Student Affairs, the Counseling Center has heavy presence during student orientation events, where clinical mental health counselor amongst other helpers, educate incoming freshman students about mental health issues and the services provided to students. Additionally, the University Counseling Center offers a variety of psycho-educational programs, and is host to the university’s sexual assault education and prevention program, and the alcohol, tobacco, and other drug prevention program. These programs are not solely located at the counseling center. Clinical mental health counselors and counselor trainees, regularly, engage students with similar outreach programs in the student union and in student dormitories. The awareness created by the efforts of the counseling center staff, counselors, and counselor trainees, may have led to the better education of students about the availability of counselors and the nature of services they provide.

**Implications**

A number of implications can be deduced from this study. The researcher would like to highlight the positivity in the findings with respect to the sample’s opinions of clinical mental health counselors; an outlook which placed clinical mental health counselors on par with psychologists and social workers. The current study like that by Meyers, Sweeney, & White (2002), encourages current and future counselors and counselor educators to abandon the sense of inferiority that has loomed over this profession and adopt a more positive sense of professional identity. It is of vital
importance to reflect a positive and confident sense of identity, especially in a setting 
where inter-professional interactions occur on a daily basis; a venue where other mental 
health service providers and professionals can learn more about clinical mental health 
counselors. While the current findings are limited to the population of which the sample 
reflects, the suggested factors to enhance the participants’ views of clinical mental health 
counselors- presence of an on-campus counseling center and the availability of 
counseling minor to undergraduate students- may be universally implemented.

If having graduate students teach in an undergraduate counseling minor is 
supported by future researchers, the model created at The University of Toledo through 
the education and exposure of undergraduate students to counselors and counseling could 
be recognized as a successful model and implemented by counselor educators on various 
campuses. The early academic exposure of undergraduate students to counseling prior to, 
or at least in parallel with, their exposure to other helping fields, in an effort to avoid 
confusion or misinformation about the counseling field, cannot be overemphasized. 
While student induction to the counseling’s honor society, Chi Sigma Iota (CSI), is 
encouraged at the graduate level, counselor educators are urged to lobby for the 
expansion of CSI’s membership laws to allow undergraduate students that meet the GPA 
requirements to join. Such measures could help counseling programs attract students with 
high grade point averages into the field, and promote an early sense of belonging for such 
desirable prospects, in order to instill an early and strong sense of professional identity

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for aspiring professionals. Furthermore, the American Counseling Association (ACA) is implored to expand its membership categories to also include undergraduate students. Such measure could contribute to the early exposure of young prospects; a matter which should only serve in favor of the profession.

**Limitations**

As in any study, limitations regarding the internal validity and generalizability do exist. Internal validity refers to the degree to which the intervention being used really caused the observed effect in a study. “Threats to internal validity are problems that threaten our ability to draw correct cause-and-effect inferences” (Creswell, 2008, p. 308). In his article: “Expanding the framework of internal and external validity in quantitative research”, Onwegbuzie (2000) suggests that threats can be classified into three categories: participant-related, treatment-related, and procedural threats. Procedural and participant-related threats are discussed here. The procedural effect of potential concern for this study is instrumentation. Instrumentation occurs if the instruments used to measure participants’ performance change over the life of the study; thus, changes in participants’ performance may not be due to the treatment but to changes in the instruments used to measure performance. To reduce this threat, the same survey (IASMHS) and single-item perception scale, along with the various profile descriptions which students received, were utilized. During the time this study was conducted, the IASMHS was the best instrument available. However, despite the good reliability of this
instrument in this sample, it may not be the best instrument to explicitly capture attitudes and perceptions of participants. It is worth noting that there is only one study which offered any interpretive guidelines for investigators using this instrument to follow when interpreting scores.

The participant threats addressed include history, researcher bias and maturation. History refers to an event that occurs at the same time as the treatment and may become an alternative explanation for the outcome; thus, participants’ “history” includes events other than treatment. Maturation refers to changes that occur naturally over time and not due to the treatment; however, it is not possible to prevent such natural occurrences from taking place. To reduce this threat, classes which had not addressed in-depth, similarities/differences, duties and professional roles of counselors, psychologists, and social workers were targeted. The fact that participants were students that were enrolled in counseling, psychology, and social work courses may suggest a bias towards their academic major or minor when providing their input. This is also known as response bias. An additional threat to internal validity is researcher bias where the researcher either consciously or subconsciously can influence participant behavior (Onwegbuzie). To reduce this threat, the researcher for the current study was not in direct contact with the participants. Instead, course instructors sent out the emails soliciting student participation on behalf of the researcher. It is worth noting that researcher bias may also affect the study’s external validity, making the findings un-generalizable (Onwegbuzie). Population
validity is another concern regarding external validity and it refers to “the extent to which the findings are generalizable from the sample of individuals on which a study was conducted to the larger target population of individuals, as well as across different subpopulation within the larger target population” (Onwegbuzie, p. 30). The population involved in this study was university students, most of whom were females (87%), the findings of this study cannot be generalized to both male and female students from other universities or to the general public. This study only recruited participants from specific classes at the University of Toledo which is in Northwest Ohio; a matter which may hinder the results from being generalized to the general student body at the University of Toledo and other universities in other geographic locations that may have a different demographic composition.

**Suggestions for Future Research**

Despite the fact that college students may be considered a fair representative segment of the general population, future research should expand beyond this study’s sample to community samples, for instance. Exploring the perceptions and attitudes of the general public and primary healthcare providers, such as primary care physicians, should provide counselor educators and other concerned entities with vital information. As a main source for client referrals, primary care physicians should be a main audience for any educational or advocacy efforts carried out by professional clinical counselors and counselor educators. Based on the findings of the current study, it is recommended
that the American Counseling Association, and other concerned parties, engage the American Academy of Family Physicians in order to establish a professional accord or partnership. This could increase clinical mental health counselors’ exposure and positively reflect on the counseling field in general. An additional suggestion to be considered by future researchers pertains to the administration and collection of the data. Despite the ease and speed in data attainment in online administration of surveys, it is recommended that future researchers administer and collect surveys in person. While this may require more time from the researcher(s), such measure will ensure that only one submission per participant has been collected. The final suggestion pertains to the use of IASMHS, where future researchers are encouraged to develop an instrument which is specifically designed for capturing subjects’ perceptions and attitudes. Finally, future researchers should seek the use of a single psychometrically valid instrument, rather than using several instruments (IASMHS and the perception single item scale), to operationalize either outcome variable; perceptions or attitudes towards seeking professional mental health services.
References


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doi:10.1037//0003-066X.47.2.111


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Appendix A

Professional Profiles

Counselor Professional Profile

Elliot is a clinical mental health counselor who is delivering mental health services at a private practice in your area. Elliot is a Licensed Professional Clinical Counselor (LPCC) whose license is recognized at the state and national levels. Elliot’s educational credentials entail a bachelor’s degree in psychology and a master’s degree in community counseling with a concentration on clinical mental health. Elliot’s scope of practice includes the assessment and diagnosis of emotional and psychological disorders pertaining to individuals, couples, and groups. Additionally, Elliot is also able to administer and interpret psychological assessment instruments.

Psychologist Professional Profile

Elliot is a psychologist who is delivering mental health services at a private practice in your area. Elliot is a licensed clinical psychologist and whose license is recognized at the national and state levels. Elliot’s educational credentials entail a
bachelor’s degree in psychology and a masters and doctoral degree in clinical psychology. Elliot’s scope of practice includes the assessment and diagnosis of emotional and psychological disorders pertaining to individuals, couples, and groups. Additionally, Elliot is also able to administer and interpret psychological assessment instruments.

Social Worker Professional Profile

Elliot is a licensed independent social worker who is delivering mental health services at a private practice in your area. Elliot is a Licensed Independent Social Worker (LISW) whose license is recognized at the state and national levels. Elliot’s educational credentials entail a bachelor’s degree in psychology and a master’s degree in social work. Elliot’s scope of practice includes the assessment and diagnosis of emotional and psychological disorders pertaining to individuals, couples, and groups.
Appendix B

Demographic questionnaire

1. What is your gender?
   □ Male
   □ Female
   □ Transgender

2. What is your age? _____

3. What is your academic major? _______________________________

4. What is your academic minor (if applicable) _______________________________

5. What is your academic standing?
   □ Freshman   □ Sophomore   □ Junior   □ Senior

6. How many psychology classes have you taken so far? _____________

7. How many social work classes have you taken so far? _____________

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8. How many counseling courses have you taken so far? ____________

9. If applicable, identify the mental health professional(s) whose services you sought/seek, and provide your overall satisfaction with that experience:

- Psychologist
  - Unfavorable
  - Neutral
  - Favorable
- Social Worker
  - Unfavorable
  - Neutral
  - Favorable
- Counselor
  - Unfavorable
  - Neutral
  - Favorable
- Not Sure
  - Unfavorable
  - Neutral
  - Favorable

10. How would you describe yourself? (Choose one or more from the following racial groups)

- American Indian or Alaska Native (A person having origins in any of the original peoples of North and South America (including Central America), and who maintains a tribal affiliation or community attachment.)
- Asian (A person having origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent including, for example, Cambodia, China, India, Japan, Korea, Malaysia, Pakistan, the Philippine Islands, Thailand, and Vietnam.)
- Black or African American (A person having origins in any of the Black racial groups of Africa – includes Caribbean Islanders and other of African origin.)
☐ Native Hawaiian or Other Pacific Islander (A person having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands.)

☐ White (A person having origins in any of the original peoples of Europe, the Middle East, or North Africa.)

11. What is your religious affiliation?

☐ Protestant Christian       ☐ Roman Catholic       ☐ Evangelical Christian

☐ Jewish                   ☐ Muslim                 ☐ Hindu

☐ Buddhist                 ☐ Agnostic               ☐ Atheist

☐ Other ____________

12. What is your total household annual income? (you and your parents combined)

☐ Less than $10,000       ☐ $10,000- $20,000       ☐ $20,000- $30,000

☐ $30,000- $40,000       ☐ $40,000- $50,000       ☐ $50,000- $60,000

☐ $60,000- $70,000       ☐ $70,000- $80,000       ☐ $80,000- $90,000

☐ $90,000- $100,000      ☐ $100,000- $150,000     ☐ More than $150,000
Appendix C

Inventory of Attitudes toward Seeking Mental Health Services (IASMHS)

The term professional refers to individuals who have been trained to deal with mental health problems (e.g., psychologists, psychiatrists, social workers, and family physicians). The term psychological problems refers to reasons one might visit a professional. Similar terms include mental health concerns, emotional problems, mental troubles, and personal difficulties.

For each item, indicate whether you disagree (0), somewhat disagree (1), are undecided (2), somewhat agree (3), or agree (4):

1. There are certain problems which should not be discussed outside of one’s immediate family.

<table>
<thead>
<tr>
<th></th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disagree</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
2. I would have a very good idea of what to do and who to talk to if I decided to seek professional help for psychological problems.

   Disagree  0  1  2  3  4  Agree

3. I would not want my significant other (spouse, partner, etc.) to know if I were suffering from psychological problems.

   Disagree  0  1  2  3  4  Agree

4. Keeping one’s mind on a job is a good solution for avoiding personal worries and concerns.

   Disagree  0  1  2  3  4  Agree

5. If good friends asked my advice about a psychological problem, I might recommend that they see a professional.

   Disagree  0  1  2  3  4  Agree

6. Having been mentally ill carries with it a burden of shame.

   Disagree  0  1  2  3  4  Agree

7. It is probably best not to know *everything* about oneself.
8. If I were experiencing a serious psychological problem at this point in my life, I would be confident that I could find relief in psychotherapy.

Disagree 0 1 2 3 4 Agree

9. People should work out their own problems; getting professional help should be a last resort.

Disagree 0 1 2 3 4 Agree

10. If I were to experience psychological problems, I could get professional help if I wanted to.

Disagree 0 1 2 3 4 Agree

11. Important people in my life would think less of me if they were to find out that I was experiencing psychological problems.

Disagree 0 1 2 3 4 Agree

12. Psychological problems, like many things, tend to work out by themselves.
13. It would be relatively easy for me to find the time to see a professional for psychological problems.

14. There are experiences in my life I would not discuss with anyone.

15. I would want to get professional help if I were worried or upset for a long period of time.

16. I would be uncomfortable seeking professional help for psychological problems because people in my social or business circles might find out about it.

17. Having been diagnosed with a mental disorder is a bolt on a person’s life.
18. There is something admirable in the attitude of people who are willing to cope with their conflicts and fears without resorting to professional help.

   Disagree  0  1  2  3  4  Agree

19. If I believed I were having a mental breakdown, my first inclination would be to get professional attention.

   Disagree  0  1  2  3  4  Agree

20. I would feel uneasy going to a professional because of what some people would think.

   Disagree  0  1  2  3  4  Agree

21. People with strong characters can get over psychological problems by themselves and would have little need for professional help.

   Disagree  0  1  2  3  4  Agree

22. I would willingly confide intimate matters to an appropriate person if I thought it might help me or a member of my family.

   Disagree  0  1  2  3  4  Agree
23. Had I received treatment for psychological problems, I would not feel that it ought to be “covered up.”

Disagree 0 1 2 3 4 Agree

24. I would be embarrassed if my neighbor saw me going into the office of a professional who deals with psychological problems.

Disagree 0 1 2 3 4 Agree
Appendix D

The Single-Item Perception Rating Scale

Based on the description of the professional above, please rate the professional's competence level.

Incompetent 0  1  2  3  4  Competent
Appendix E

Recruitment Email

You are invited to participate in the research project entitled “College Students’ Attitudes and Perception of the Therapeutic Competence of Counselors and Other Mental Health Professionals.” which is being conducted at the University of Toledo under the direction of John M. Laux, PhD, and Mohamed Badra M.A. LPC. If you wish to participate in this study, please click on the link below and follow the instructions.

https://www.surveymonkey.com/s/PROFP