Differences in Mental Health Treatment Recommendations for Older and Younger Adults

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Differences in Mental Health Treatment Recommendations
for Older and Younger Adults

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BY
Michelle M. Smith

THESIS
SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
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Differences in Mental Health Treatment Recommendations for Older and Younger Adults

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Abstract

Failure to meet geriatric mental health needs is increasingly problematic. Research indicates that the problem is not simply a matter of insufficient numbers of mental health practitioners (MHPs), but also ageist attitudes and lack of knowledge about and training with older adults. The current study reviews the literature regarding knowledge about older people, education and training that mental health professionals receive, and the attitudes that are held by mental health professionals. The study also assessed for differences in treatment recommendations that MHP made for older versus younger clients, investigated whether MHP knowledge about the mental health of older adults, attitudes towards older people and gerontological education/training were associated with different treatment recommendations across age categories, explored the possibility of associations between knowledge about geriatric mental health and attitudes, and between gerontological training and knowledge and attitudes respectively. To achieve this, 104 participants were recruited to take an online survey comprised of 6 clinical case samples, the Facts on Aging Quiz: Part 2, Facts on Aging Mental Health Quiz, Kogan’s Attitudes toward Older People Scale, and gerontological education and training questionnaire. Results indicated that there was a significant difference between treatment recommendations made for older versus younger clients, and that attitude scores were predictive of intensity of treatment recommendation. No significant relationship was found between knowledge about the mental health of older adults and attitudes towards older adults, nor was any significant relationship found between gerontological training/education and either knowledge about the mental health or older adults or attitudes towards older adults.
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Differences in Mental Health Treatment Recommendations for Older and Younger Clients

The need to improve geriatric mental health practice is critical. Older people's mental health needs are not being adequately met. This is a cause for concern, particularly considering that the elderly are one of the fastest growing demographic groups in both global and the US populations (Aday & Campbell, 1995). Factors such as medical advances, higher standards of living, and an increased awareness of the impact of lifestyle on health have all contributed to an increase in life expectancy, (Bishop, Newman, Woolridge, Kemp, & Scott, 2000) while falling birth rates have also resulted in a greater proportion of older people in the global population (Dobriansky, Suzman & Hodes, 2007). By 2050, the number of people aged 65 and older in the global population is expected to reach approximately 1.5 billion people, up from approximately 416 million people in 2000 and in the United States, and older people are projected to account for 20% of the population by 2030 (Scherer, Bruce, Montgomery, & Ball, 2008). As the proportion of older people in the population increases, the demand for resources specific to the needs of older adults will also rise.

The demand for mental health services is also likely to increase, reflecting the increased numbers associated with this population, the increased rates of diagnosed mental health disorders across the population, and the decreased resistance that older adults have to mental health diagnoses and treatments (Holtzer, Zweig, & Siegel, 2012). Currently, the number of trained healthcare practitioners falls far short of the number of healthcare staff that is needed, with the gap between the number of healthcare professionals needed and the number that are appropriately trained expected to widen in
Differences in Treatment Recommendations Older Adults

The foreseeable future (Hyer, Leventhal, & Gartenberg, 2005). One potential reason for the lack of geriatric mental healthcare professionals may be a lack of interest on the part of students across healthcare disciplines in working with older clients, which international research indicates may stem from factors including a perceived low status of working with older clients, attitudes toward older people and the aging process, and gaps in factual knowledge (e.g., Damron-Rodriguez, Kramer, & Gallagher-Thompson, 1998; Fonseca, Goncalves, & Martin, 2009; Happell & Brooker, 2001; Stevens & Moyle, 1998).

With respect to mental healthcare, it is not just the number of mental health practitioners (MHPS) that is cause for concern. Current patterns in MHP knowledge in terms of education, training, and practice is also troubling. The level of training specific to working with older adults is typically not adequate, and MHPs do not typically spend a lot of time seeing older clients. Current attempts to incorporate specialized training for MHPs related to dealing with older people have been insufficient and are not widespread (Holtzer et al., 2012). The case also remains that many MHPs, who provide services to older people, have never been given any formalized geriatric training or education (Hyer et al., 2005). Specialized training is important because, while clinical management decisions (such as diagnosis and treatment recommendations), are broadly similar for older and younger people, additional age-specific information can play a part in improving clinical effectiveness, and also in reducing the role that ageism plays in the assessment and treatment of older people (Mei Chi, Moyle, Creedy, & Venturato, 2005). Clinicians also need to be knowledgeable about old age care because mental disorders, such as depression, in a geriatric population, are frequently comorbid with physical
disorders, sensory deficits, and lack of accurate knowledge which may contribute to the frequency with which depression is either not diagnosed or misdiagnosed in this population. (Bartels & Smyer, 2002). Symptoms may be misinterpreted as part of a typical aging process, or be minimized by the suggestion that depression is a normal part of aging. These clinician errors may contribute to the elevated suicide rate within this age range, particularly amongst older men (Bartels & Smyer, 2002). Equally notable is that variation within the geriatric population is seldom recognized and demonstrates the pervasiveness of ageism amongst clinicians (Kane, Lacey, & Green, 2009). In the same way that there is diversity between younger people and their cognitive abilities and their response to psychotherapy, this diversity exists amongst older people as well (Woods, 2003).

Ageism has been defined by Iversen, Larson, and Solem (2009) as “negative or positive stereotypes, prejudice and/or discrimination against (or to the advantage of) elderly people on the basis of their chronological age or on the perception of them as being ‘old’ or ‘elderly’” (p.15). It is similar to racism and sexism in that it is characterized by a bias against a discrete group of people, based solely on physical attributes. Cognitive, and/or affective aspects of ageism can be triggered, with or without an individual’s knowledge or awareness, as a result of that person’s perception of another as old (Iversen et al., 2009). At an individual level, this can result in that person displaying behaviors such as ignoring, patronizing, and promoting stereotypes about the older person, without necessarily realizing that ageist biases have been activated (McGuire, Klein, & Shu-Li, 2008).
In a healthcare setting, ageism may manifest as the older person receiving a shorter consultation time than younger patients (Iversen et al., 2009) or a tendency to make the assumption that the patient’s complaints are more closely related to their age than to ill-health, resulting in a reluctance to make the clinical intervention that would have been automatic if the patient had not been elderly (Kidd & Wild, 2013). It is clearly important to note that making mental health diagnoses and treatment recommendations are complex and multifaceted procedures. The practitioner must be cognizant of potential differences between clients – including possible differences in symptomology and prevalence rates across different age groups – when making decisions. However, there is a distinct difference between these attempts to make appropriate clinical decisions (i.e., taking age-related disparity into account) and age-related bias, whereby the clinician overgeneralizes to make stereotypical assumptions based on the client’s chronological age (Alspach, 2012). Since clinical diagnoses and treatment recommendations are often made when the mental health practitioners are busy, over-burdened, or under other conditions where optimal decision making may be compromised, bias may be more likely to occur (Dovidio & Fiske, 2012). For example, Gatz and Pearson (1988) theorize that mental health professionals are less likely to recommend psychotherapeutic treatment than pharmacotherapy when an older adult is diagnosed with a mental illness because of the commonly held bias that cognitive decline is an inescapable part of being “elderly”. They suggest that this misconception is commonplace because of the over-diagnosis of dementia, particularly Alzheimer’s disease, in older adults. Similarly, a qualitative study conducted by Burroughs et al. (2006) illustrated the tendency of medical doctors and nurses in their study to perceive late-life depression as typical of the normal aging
process, rather than an objective mental health diagnosis warranting treatment. This therapeutic nihilism is a cause of grave concern, considering that there is substantial evidence that depression can be successfully treated, and that there is no evidence that adults aged 65 or older are less happy than those under age 65 (Koder & Helmes, 2006). Ageism also manifests in the idea that psychotherapeutic intervention are unsuitable for, or ineffective with, older client. More and more, the literature suggests that psychotherapeutic approaches, such as cognitive behavioral therapy (CBT), are effective when treating geriatric mental illness, such a depression and anxiety (e.g., Gallagher-Thompson & Thompson, 1995; Koder, Brodaty, & Anstey, 1996; Stanley et al., 2003; Wetherell, Gatzz, & Craske, 2003). Additionally, CBT has been found to be beneficial in terms of reducing distress in older adults with long-term physical disorders, including osteoarthritis and chronic pulmonary disease (Kunik, et al., 2001). Given the benefits of psychotherapy, the age-related bias surrounding psychotherapeutic treatments is of concern, particularly when the literature quite clearly acknowledges that psychotherapy is as effective for older populations as for younger ones (e.g., Knight & McCallum, 1998; Myers & Harper, 2004; Scogin & McElreath, 1994; Thompson, Gallagher, & Breckenridge, 1987; Zarit & Knight, 1996).

**Literature Review**

**Attitudes towards Older People**

When people interact with others, we initially tend to observe things about other people based on external factors. Some of the most basic sorting that we do is based on the person's perceived sex, race, and age. This becomes negative when we make
judgments based solely on these external characteristics and even more troublesome when our behaviors are influenced by these judgments. In the United States, there has been a concerted effort to raise awareness of racism and sexism and to educate and socialize people in order to reduce incidences of these explicit biases. However, far less progress has been made with regard to ageism. In the general population of the United States, ageism appears to be pervasive (Aday & Campbell, 1995). Since the 1950’s, research on ageism has indicated that many Americans hold negative stereotypes about the elderly (Aday & Campbell, 1995; Palmore, 2009).

In the United States, age bias appears to develop when individuals are relatively young (Danzinger, 1998). For instance, by 6 years of age, children have been found to exhibit more negative attitudes towards older adults, and these attitudes are even more negative in 8 year old children (Isaacs & Bearinson, 1986). Levin (1988) investigated age stereotyping in undergraduate college student populations in California, Tennessee, and Massachusetts. Students were shown pictures of the same individual (one group saw the picture where he was aged 25, another group the picture where he was aged 52, and a third group when he was 73) and asked to make evaluations about this individual’s characteristics based the photograph and a neutral statement regarding his birthplace, current location, and interest in marketing and sales. Students across the regions consistently, and significantly, judged the older man more negatively in characteristics such as competence, intelligence, power, reliability, education, memory, and social involvement. Age bias within society may also have an impact on how older clients and people close to them view mental health treatment. Zivian, Larsen, Gekoski, Knox, and Hatchette (1994) studied 414 members of the general public in Toronto to see if the
respondents' views on the value and benefit of psychotherapy would be colored by an age bias. The researchers found a very strong age bias against psychotherapy for older adults. Respondents reported that as a person aged, psychotherapy would become less valuable to them; equally, participants expressed a belief that younger clients would benefit more from psychotherapy than older clients. They also viewed middle-aged clients as getting more benefit from psychotherapy than old clients, but less benefit than young clients. As products of their society, health and mental health practitioners carry the beliefs and biases of their society into their professional practice and these biases color their interactions with their clients. Many Americans who are healthcare practitioners (or are studying to this end) share these common negative attitudes (Aday & Campbell, 1995; Fitzgerald, Wray, Halter, Williams, & Supiano, 2003; Lun, 2011), and these attitudes may have an effect on their behavior at work and the treatment decisions they make for older clients.

A body of research has been amassed examining the biases held by health and mental health care providers. A great deal of that research was conducted in the 1970s and 1980s, followed by an interval in which very little research about age-related attitudes was conducted, which preceded a recent resurgence of interest (e.g., Dovidio & Fiske, 2012; Ford & Sbordone, 1980; Goebel, 1984; Perlick and Atkins, 1984). The attitudes held by MHPs regarding older clients can impact the way that MHPs see their clients and the manner in which MHPs selectively attend to client symptoms and use clinical judgment to address prevention, diagnostic and treatment interventions (Davis, Bond, & Howard, 2011). There appears to be broad agreement that bias on the part of the health service provider is associated with markedly different treatment recommendations.
(e.g., Weng & Korte, 2012) and treatment outcomes (e.g., Dovidio & Fiske, 2012) for the client. Research into racial/ethnic bias suggests that, while it is improbable that primary care clinicians who currently practice in the United States would explicitly endorse racist or ethnically biased sentiments, these biases may exist on an implicit level and may influence treatment (Blair et al., 2013; Dovidio & Fiske, 2012). Clinicians whose scores suggested higher levels of implicit bias towards their African-American clients were reported as providing less client-centered health care by their African-American clients and may threaten the quality of the client-clinician relationship (Blair et al., 2013). Green et al. (2007) examined the diagnosis of thrombolysis in Black and White cardiac clients. They found that although no explicit bias was reported by physicians against African-American patients, clinicians displayed implicit bias, endorsing more negative stereotypes of African-American clients and being more likely to view African-Americans as uncooperative and resistant to treatment. Despite clinicians being extremely unlikely to openly endorse racist beliefs, race-related attitudes can have an effect on treatment. Consider then, the effect that ageist biases, which have received relatively little attention, could have on treatment recommendations.

Geriatric healthcare does not seem to be an area of popularity across healthcare professionals. Research involving nurses and nursing students, for example, has consistently indicated that geriatric patients are the group that nurses and nursing students want to work with least (Aday & Campbell, 1995; Courtney, Tong, & Walsh, 2000). Nurses and nursing students’ long-established lack of interest in working with a gerontological population is often attributed to internalization of the negative attitudes held by the wider society (e.g., Carmel, Cwikel, & Galinsky, 1992). Goebel (1984)
examined the attitudes held by nursing students towards different age groups and found that nursing students displayed significantly more negative bias towards older clients. Participants were significantly more likely to judge older clients as having less mental stability and competence than younger age groups. When nurses held negative stereotypes of older people, the geriatric clients that they care for displayed poorer health performance, such as elevated blood pressure and poorer memory, suggesting that healthcare practitioner bias can have serious repercussions for the older person in their care (Flood & Clark, 2009). Furlan, Craven, Ritchie, Coukos, and Fehlings’ (2009) cross sectional study investigated whether registered nurses (RN) had different attitudes towards elderly patients with spinal cord injury. Findings indicated a significant difference in attitudes towards elderly patients with spinal cord injury between fifteen short term care nurses and eighteen long term rehabilitation nurses. Findings suggest that higher level of education among nurses reduces negative attitudes towards older patients with spinal cord injury. Similarly, DePaola, Neimeyer, and Ross’ (1994) study with nursing professionals at different educational levels as measured by type of qualification (e.g., registered nurses categorized as more educated than nursing assistants). DePaola et al., (1994) reported a significant inverse relationship between ageism and level of educational achievement. These studies may suggest that, for nursing professionals at least, higher levels of education and training may be associated with more positive attitudes towards older clients.

Nursing professionals are not the only group that hold age-related biases. Wolk and Wolk (1971) surveyed practitioners and students of nursing, psychology, and social work on age bias and personal preference for working with an older population. These
authors reported that amongst those who preferred not to work with older adults, professionals and students alike held inaccurate perceptions of older clients and old age in general. More positive perceptions of older adults were reported amongst those who chose to work with older adults. Stewart, Giles, Paterson, and Butler (2005) also noted that students who indicated having contact with older people at least once a month showed less negative bias towards older people.

Medical students and professional also appear to hold age-related biases. Maden, Alabadi-Wahle, and Beech (2001) studied second year medical students and reported that the students displayed age bias when making recommendations regarding breast conservation and breast reconstruction in women with breast cancer. Participants were less likely to recommend the same treatment options to older women as they would recommend to young women, despite there being no biological or medical reason for this choice. This display of ageism is of concern.

Equally worrying, is that while physicians are often older adults’ first choice for mental health services, studies (e.g., Reekie & Hansen, 1992) suggest that primary care physicians are less likely to refer their older clients for specialist mental health services than their younger clients. This type of bias may have a negative impact on the quality of mental health care that older adults receive. Differences in clinical practice, in this case with treatment recommendations, were also noted by Kucharski, White, and Schratz (1979). In this study, 75 practicing physician were presented with eight clinical vignettes within which the client age was systematically varied. Kucharski et al. (1979) found that these physicians were significantly less likely to recommend psychological treatment in the older adult condition. These studies point to the notion that MHPs may recommend
different treatment options for older than younger clients, and may also indicate that MHPS typically choose a less intensive form of treatment for older clients.

Studies involving psychiatrists also indicate that age-related bias plays a role in prognosis and treatment. Ford and Sbordone’s (1980) study showed that, when psychiatrists were presented with clients whose symptoms were the same but whose ages were different, the psychiatrists predicted that the young clients had a better prognosis than the older clients, and were significantly more likely to recommend treatment with medication for older than for younger clients. The perception of cognitive impairment and mental disorder being an unavoidable part of the aging process seems to be a persistent barrier to the acceptance of psychotherapy as an appropriate and effective treatment method of mental disorder in older adults (Gatz & Pearson, 1988). Historically, the perspective that older adults are rigid, unwilling, and unable to change their thoughts and behaviors (Freud, 1963) has been dominant, and this belief continues to influence clinician decision-making (e.g., Duffy, 1992; Freud, 1963; Ford & Sbordone, 1980).

Koenig, George, and Meador (1997) conducted a study involving the treatment of people aged 60 and older who were hospitalized due to a physical condition and were also assessed by the researchers and found to be depressed. Of the 153 older medical inpatients who were diagnosed with depression by the researchers, 59% (91 clients) did not receive any treatment at any time during their hospital stay and only 10 (11%) received any treatment over the course of 45 week schedule of medical follow up. A later study by Koenig and colleagues (2006) focused on 1000 older clients who were hospitalized due to congestive heart failure and/or chronic pulmonary disease and who also were diagnosed with depression using a structured psychiatric interview. In this
sample, 56% were not receiving any treatment for depression and less than 10% of those who were receiving treatment were referred for specialized psychiatric treatment (Koenig, Vandermeer, Chambers, Burr-Crutchfield, & Johnson, 2006). Uncapher and Arean (2000) investigated the possibility of age bias amongst primary care physicians in terms of the treatment of a suicidal client. One hundred physicians received a vignette of an older, retired client who was depressed and suicidal and 115 received a vignette which was identical to the first, except that the client was younger and working. These physicians recognized both the depression and suicidality in the older and younger condition, but reported a significantly lower level of willingness to treat the older client, reporting that the suicidal ideation in the geriatric client was understandable due to the client’s age. Physicians were less likely to use psychotherapy with the older client and were more pessimistic about the likelihood that the older client would benefit from interventions from a psychologist or psychiatrist. Davis, Bond, Howard, and Sarkisian (2011) studied 357 primary care physicians with regard to the physicians’ expectations of aging. Of these physicians, approximately 15% reported a belief that becoming depressed was a normal part of aging, approximately 33% reported a belief that older people worry significantly more about issues including their own health and a further 33% reported that for every year that people age they lose more and more of their energy. These attitudes may have an effect on the manner in which physicians respond to older adults reports of symptoms of increased worry and reduced energy levels Koenig (2007) examined the attitudes of physicians toward older inpatient clients who are depressed. In Koenig’s study, approximately 8% of physicians reported the belief that anti-depressant medication does not help older clients much, approximately 20% of physicians reported that
psychotherapy does not help older clients much and 15% reported that psychiatrists do not help older medical patients much. Koenig also reported a correlation between the physician’s belief in the effectiveness of their training and more negative attitudes about older people, as well as between belief in the effectiveness of their training and lower confidence in diagnosing depression, and lower knowledge about effective treatments for depression in older adults. Overall, these physicians indicated that over 60% of their client were older, more than 80% of clinician reported seeing at least 5 depressed geriatric clients a month and approximately 44% reported seeing at least 10 depressed older clients a month. Nevertheless, only approximately 48% of physicians indicated treating 2 older clients a month with medication, only 14% indicated recommending psychotherapy to 2 clients a month and 11% indicated that they referred 2 or more clients for psychiatric consultation. Koenig also reported that fewer than half of these physicians’ depressed older clients were receiving either anti-depressant medication or counseling.

Similarly, Kane, Lacey, and Green (2009) found that social work students viewed older adults as a group that were not open to therapy as a treatment option. Kane et al. (2009) administered a survey amongst social work students to investigate whether or not there was a bias against older clients, focusing on the perceptions of how vulnerable older people are to mental illness and how well older adults are able to recover from stress or challenges (i.e. how resilient older adults are). The results suggest that social work students did see elderly adults as vulnerable to harm by social, health, and/or environmental factors, when compared to other individuals in society. Results also suggested that the same students surveyed did not see the elderly as a resilient group
when it came to mental illness or substance abuse. If these preconceptions are typical of MHPs, they could have an impact on the treatment recommendations that MHPs make for older clients. More specifically, the perception of older clients as less resilient or vulnerable may result in MHPs choosing less intensive treatment options for older people.

Messier (1997) investigated the effects of age and health of the client on the clinical decision making of practicing clinical psychologists. In his sample of 203 doctoral level psychologists, Messier (1997) found that there were age-related differences regarding the treatment recommendations that the psychologists made and their reported prognosis for the client. However, diagnosis was not significantly different between age conditions. Perlick and Atkins (1984) carried out an unusual study whereby they had participants, who were clinical psychologists, listen to an audio-recording of a real clinical assessment and make a diagnosis based on the information they heard during the interview. The age of the interviewee was manipulated with an old age condition, a middle-aged condition and a no age condition. The researchers reported that the psychologists perceived the client’s disorder as physiological or organic rather than psychological more frequently in the old-age condition than in the middle-age or no age conditions. Additionally, the client’s distress as rated as significantly less severe in the old age condition. Perlick and Atkins (1984) posit that when an older client displays intellectual or cognitive deficits as well as symptoms of depression, they are more likely to be diagnosed as having a cognitive disorder such as dementia rather than a mood disorder. This effect is not seen when the client is judged to be middle-aged. Dye’s (1978) survey of clinical psychologist suggested that clinical psychologists viewed older
clients as more rigid, less likely to respond well to therapy, possess lower levels of
motivation to change, have more difficulty learning behaviors in therapy, and as less
likely to benefit from therapy because they are closer to death than younger clients.
Responses were not significantly different between psychologists who saw older adults in
their practice and those who did not. These results indicate that age-related bias is likely
to play a role in the psychological treatment of older people, especially when considering
the perception reported in this study that older people are difficult patients, who are not
suited to therapeutic treatments, and for whom therapy is ineffective.

Ray, McKinney, and Ford (1987) sent clinical vignettes with countervaried ages
to 407 practicing doctoral-level clinical psychologists in Tennessee. The authors reported
that psychologists viewed the older clients as less ideal and as having a poorer prognosis
than the younger clients. Ray et al. (1987) reported that psychologists viewed the older
clients as less ideal and as having a poorer prognosis than the younger clients; they also
reported that treatment recommendations for clients who were described as manic were
significantly different between the age conditions in that the older clients were more
likely to be recommended for pharmacotherapy alone than younger clients.

It remains to be seen if the age-related attitudes documented in the early research
continues to have an effect on MHP clinical management decision making, particularly in
relation to treatment practices. Considering that neither general societal attitudes nor
curricula related to old age in mental health programs appear to have changed
substantially in recent years, it remains likely that MHPs today may continue to have
their treatment recommendations influenced by ageism.
Geriatric Mental Health Knowledge.

In order to provide adequate mental health services to older clients, it is critical that the professionals who provide these mental health services are competent to work with an older population. The literature to date is damning in this respect, demonstrating unacceptably low levels of knowledge about aging mental health.

Deficits in knowledge of geriatric mental health are highlighted in a study by Kane, Lacey, and Green (2009). Kane et al. surveyed bachelor of social work (BSW) and master of social work (MSW) students in Florida and found that these participants viewed substance abuse as a problem that was not common amongst older adults. However, according to Blow, Oslin, and Barry (2002) substance abuse in this population is a significant mental health problem and this issue is projected to become an even greater concern in the coming years. Knowledge deficits were also indicated by Gellis’ (2010) study. Gellis (2010) recruited female social workers who had received their master’s degree in social work (MSW). Participants’ knowledge regarding older adults and depression in later life was low. Participants had particularly low scores related to their knowledge of older people and suicidality, which could potentially have irreversible implications in practice when working with older clients. The level of contact that the social workers had with older clients was not associated with higher knowledge scores. This may indicate that specific geropsychological training, rather than mere contact with older clients, is necessary for acquisition of geropsychological knowledge.

Quality of contact, however, was found to be associated with higher levels of geropsychological knowledge in a study conducted by Zylstra and Steitz (2000) involving 52 resident physicians and faculty physicians at the University of Tennessee-
Memphis’ Department of Family Medicine. Zylstra and Steitz found that physicians who had a lower level of knowledge about late-life depression also held more negative attitudes about older adults. Results also indicated that having less contact with older people was also associated with having a lower level of objective knowledge about depression in a geriatric population. The link between attitudes towards older people and knowledge that is relevant to geriatric clinical practice is compelling.

Also relevant to effective clinical management is the ability to disentangle facts about geriatric mental health and stereotyped misconceptions. To this end, Davison, McCabe, Mellor, Karantzaz and George (2009) investigated knowledge of depression in older people amongst direct caregivers, registered nurses (RNs) and Care Managers who care for older people in residential and community settings. Fifty-nine percent of participants indicated that they had received no formal training related to late-life depression. But, overall knowledge of depression was rated as moderate in this sample, although there was considerable variation in different aspects of knowledge. Participants scored quite well on questions related to responding to depression. However, participants had difficulty identifying specific symptoms of depression and demonstrated difficulties identifying myths of late-life depression. For example, 80% of participants incorrectly identified clinical depression as a natural reaction to loss of a partner, and only 25% strongly agreed that depression is not a normal response to aging. There was no correlation between the amount of experience that participants had accrued in working with older people and level of knowledge. However, there was an association between higher scores in the knowledge of late-life depression scale and having attended formal training in depression. The results of this study may indicate that mere contact with older
clients and their mental health concerns may not be sufficient in terms of knowledge acquisition, and that specific geropsychological training may play an important role in achieving higher levels of knowledge about aging mental health.

Mei Chi, Moyle, Creedy, and Venturato (2005) also found a widespread acceptance of stereotyped misconceptions of older people and aging in their survey. Participants were 107 registered nurses, between the ages of 26 and 65, who worked in geriatric facilities, and the goal was to assess participant knowledge of basic mental health in older people, as indicated by their scores in the Mary Starke Harper Ageing Knowledge Exam (MSHAKE; Santo-Novak, Duncan, Grissom, & Powers, 2001). Eighty-one percent of participants indicated that they had taken continuing education sessions within the past calendar year, and the most common topic of study related to dementia. Results indicated serious deficits in participants’ knowledge, which could impact the level of care they provide to older people. For example, 42% of the sample indicated their belief that older people never commit suicide when research indicates that this population is more likely to commit suicide than any other group (Palmore, 1998). This gap in knowledge has the potential to compromise MHP ability to make appropriate clinical decisions for suicidal older clients and could contribute to an elevated rate of successful suicides in older adults. In addition, 37% of nurses were unaware that paranoid ideation can be a symptom of early dementia, and 35% were unaware that clients with dementia may become more disoriented in the evenings. There were no significant differences in participant knowledge between age groups, length of practice, and highest level of education. These results may indicate that general educational level, or amount of time spent working with older adults may not be the most important factors associated
with MHPs being knowledgeable about the mental health of older adults. It is possible that receiving more specific training, which focuses on older adults and their mental health, would more beneficial in terms of increasing geropsychological knowledge.

Likewise, Gendron, and Heck (2013) conducted a cross sectional study involving 159 long-term care staff, who worked exclusively with older adults, regarding their knowledge of the differences between dementia and depression in older people. The authors divided participants into two types: professional staff (social service workers, mental health workers, RNs and administrators) and paraprofessional staff (direct care workers), and by level of education (college graduate and non-college graduate). Sixty-four percent of paraprofessionals reported having had training in depression, and 68% reported having training on dementia. Sixty percent of professional staff reported attending trainings on depression and 65% reported attending trainings on dementia. Forty percent of paraprofessional staff reported receiving training on differentiating between depression and dementia with 31% of professional staff having received the same type of training. Paraprofessional staff had significantly lower scores of knowledge about depression than professional staff and in terms of knowledge about how to differentiate between depression and dementia with older clients. However, there was no significant difference between the two groups in terms of knowledge of dementia. Worryingly, the majority of both professional and paraprofessional staff indicated their belief that depression was a normal response to the aging process (76% of paraprofessionals and 53% of professionals), and both groups expressed the belief that older people are less likely than younger people to commit suicide. There was no difference in any knowledge scores between college graduates and non-college graduates.
The finding that level of academic attainment was unrelated to knowledge about the mental health of older adults in this study also supports the notion that specific geropsychological education may be more important than overall education level.

Orrell, Baldwin, Collins, and Katona (1995) assessed the knowledge of 357 geriatric psychiatrist and geriatricians about treating depression in older clients and attitudes towards aging and late life depression. Participants were given three clinical vignettes and asked to complete a questionnaire containing questions about diagnosis, treatment, knowledge, as well as attitudes towards older people and late-life depression. Orrell et al. found that very few participants held explicitly negative attitudes towards either older people or late-life depression. However, it was found that geriatricians were significantly more likely to recommend treatment that was subtherapeutic, and were less confident in their ability to effectively treat depression. It was also found that participants who were less confident in their abilities were less likely to recommend psychotherapy as a treatment option and indicated the belief that late-life depression was difficult to successfully treat. Participants who reported that they felt that they required more training/education in order to be competent to work with older clients who have depression were more likely to use less intensive treatments and to withdraw treatment too quickly after the client showed positive signs of recovery.

These studies reflect geriatric mental health knowledge deficits across mental healthcare disciplines, which can have very serious negative effects on older clients. It is not yet clear whether knowledge about geriatric mental health is associated with clinical management decisions, such as treatment recommendations, or whether there is an association between knowledge about aging mental health and the attitudes that
practitioners hold about older people. It is also not clear if there is an association between having knowledge about older people in general and having knowledge about geriatric mental health.

**Geriatric training and education**

The literature regarding the knowledge level of healthcare providers who work with older clients does not do much to alleviate concern about MHP knowledge level, but may indicate that MHPs’ knowledge can increase with geropsychological training. McCabe, Russo, Meller, Davison, and George (2008) surveyed 52 long-term health care providers (direct care-givers, registered nurses, and case managers) who worked exclusively with older clients, in order to ascertain their level of knowledge about depression in older people, their belief in their personal ability to care for older people who are depressed, and the barriers that they perceive exist in relation to working with people who are depressed. Participants were surveyed prior to taking part in a six-session training, upon completion of the six training sessions, and at 6 month follow up. Approximately two-thirds (64%) of participants reported that they had no formal specialized training or education related to depression at the start. However, participants displayed a statistically significant increase in their level of knowledge from pre-test to post-test, and this effect remained significant at a six month follow up. Results also indicated a significant increase in participants’ perceptions of their self-efficacy from pre to post-test. But, there was no significant change in self-efficacy reports from post-test to six month follow up. Interestingly, participants also showed a significant reduction in their reports of barriers to care of older people who are depressed post-training, compared to pre-training. This reduction remained significant at a six month follow up. McCabe et
al.’s (2008) findings indicate that specialized training may be effective in increasing mental health workers level of knowledge regarding the mental health of older people in their care. And, increase in knowledge may be associated with a decrease in age-related bias, as evidenced by the reduction in perceived barriers to the care of older individuals who are depressed. The increase in self-efficacy is also noteworthy.

In order for MHPs to best serve older adults, particularly those with mental health issues, it stands to reason that MHP training and education needs to incorporate specialist geriatric and geropsychological training. However, the literature to date appears to agree that most starting MHPs, and the overwhelming majority of MHPs who see older clients as part of their practice, have not received any formal geropsychological training in either the form of coursework or clinical supervision (e.g., Hyer et al., 2005; Qualls, Segal, Norman, Niederehe, & Gallagher-Thompson, 2002). Qualls et al. (2002) surveyed 1227 American Psychological Association members; only 3% of those practicing psychologists indicated that they had received formal clinical training with older adults. The authors also reported that those who had not received formal geropsychology training were less likely to choose to work with a geriatric population in practice. This association may be related to MHP self-efficacy, in that MHPs who have not had any training may believe that they are underqualified to work with a geriatric population, may indicate that MHPs who were interested in working with older adults actively sought out further training specific to working with this population, or may point to an association between training and more positive attitudes towards older people and the aging process.

One study which aimed to investigate if there was a relationship between attitudes towards older adults, and training about working with older adults was conducted by
Mayall, Oathamshaw, Lovell, and Pusey (2004). This study was designed to ascertain the effectiveness of a 12 hour training course on late-life depression for 40 healthcare professionals and individuals who volunteer with older adults. Individuals completed a survey which assessed knowledge of late-life depression, confidence in working with older people who have depression and by responding to a short vignette about an older person who is showing signs of depression. Mayall et al. (2004) found that there were significant differences both in knowledge of late-life depression between pre-test and post-test, and in confidence related to diagnosis and management of late-life depression. Again, this study appears to indicate that training MHPs about clinical management for aging mental health issues is advantageous in terms of increasing clinical knowledge and potentially improving geriatric clinical practice. However, the sample size was very small and no follow up took place, which makes it difficult to assess the generalizability of the findings and also to evaluate the effectiveness of the study in the longer term.

Another important part of clinical decision making is recommending effective treatments, unencumbered by age-related bias or misconceptions. In order to discover if a brief training session could have a positive effect on MHP treatment recommendations, Butler, Collins, Katona, and Orrell (1997) conducted a small scale study with 21 primary care physicians on whether a short educational program could help improve physician clinical practice when working with geriatric clients who have depression. Participants were presented with clinical vignettes and required to complete an associated questionnaire. Butler et al. found that a half day training improved physician knowledge about treating late-life depression, particularly in terms of anti-depressant medication and on the benefits of recommending cognitive-behavioral therapy for older clients who have
depression. These advances in knowledge as a result of the educational intervention remained apparent at a six week follow up. These results indicate that specific training, even over a short time period, can be useful in terms of increasing MHPs’ knowledge about working with older clients who present with mental health issues. The idea that effective, short, educational interventions can increase the quality of mental health service for older adults is encouraging. However, the sample size in this case was extremely small and the follow up data were collected relatively close in time to the original data collection, so viewing this study as a cause for cautious optimism is prudent.

Another direction for improving MHP clinical practice is to incorporate geriatric and geropsychological training into existing undergraduate and graduate curricula. One study which addressed this was carried out by Baumbusch, Dahlke, and Phinney (2012). Baumbusch and colleagues (2012) investigated whether integrating content on care of older adults can have a positive influence on nursing students’ knowledge and beliefs about older adults. The authors hypothesized that these nursing students would show improved knowledge and beliefs about caring for older adults at the end of the one semester integrated course, compared to their scores before they started the course. Students did show a higher level of knowledge and more positive beliefs regarding the care of older adults after their course. However, the student response rate was 36%, which may have an impact on the generalizability of the findings. The low response rate may indicate that the students who were not confident in answering chose not to participate. Additionally, the students completed the measures of knowledge and belief scales within an eight week period which may have introduced test bias. Similarly, Cottle, and Glover (2007) investigated whether taking a course in lifespan human
development would lead to changes in undergraduate students’ knowledge of and attitudes to older adults. Late adulthood accounted for approximately 20% of the course content. An assessment of knowledge of aging and an assessment of attitudes towards people in late adulthood was undertaken at the beginning and again at the end of the course. Cottle and Glover (2007) hypothesized that students would hold more positive attitudes towards younger than older people and this was found to be the case. The difference between attitudes towards older and younger adults decreased at post-test and attitudes towards older adults significantly improved at the end of the lifespan class, but students still retained a significantly more positive attitude towards younger than older clients after completing the course. Cottle and Glover (2007) also found a significant increase in students’ scores on the measure of knowledge at pre-test and post-test. These studies suggest that more formal, specific geropsychological training is associated with higher levels of knowledge and more positive attitudes towards older adults.

Another way to improve clinical management may be to incorporate practical training (as opposed to a more theoretical program) into MHP curricula. To this end, Damron-Rodriguez, Kramer, and Gallagher-Thompson (1998) carried out a study to assess if a geriatric clinical rotation had an effect on healthcare students and trainees’ knowledge about older adults, attitudes towards older adults, and interest in working with older adults. The 197 healthcare students and trainees included geriatric medicine trainees, physician assistant students, psychology interns, pharmacy trainees, and advanced practice nursing trainees. It was found that the geriatric clinical training resulted in an increased interest in working with older clients, increased participants’ knowledge of general geriatrics, reduced the number of misconceptions that participants
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held about older people and the aging process and had a positive effect on participants’
attitudes towards older people. Similarly, Hinrichsen and McMeniman (2002)
investigated the effect of a geropsychology placement on 90 psychology interns and
externs, approximately half (48%) of whom had a geriatric placement. Data were
collected at the beginning of the placement, and nine months later at the end of the
placement. Hinrichsen and McMeniman collected data over 4 years with four different
groups of trainees. Participants who completed the geropsychological training had a
higher interest in geropsychology, increased knowledge about geriatric mental health, and
decreased negative attitudes towards older adults when compared to those who did not
complete a geropsychological placement.

These studies reflect the potential for geropsychological training to have an effect
on mental health students and practitioners in terms of more positive attitudes towards
older people and the aging process, and greater knowledge about older people and aging.
Questions still remain as to whether the gerontological education or training that MHPS
have received has an effect on clinical management in general, and treatment
recommendations in particular.

Current Study

The current study examined four research question about MHPs’ knowledge of
and attitudes towards older clients, their gerontological training, and treatment
recommendations.

1. Do mental health practitioners make different treatment recommendations for
   older and younger clients? It was hypothesized that MHPs are more likely to
recommend lower intensity treatment options for older clients than for younger
clients.

2. Are MHP’s knowledge of and attitude towards older adults, and
geropsychological training predictive of the intensity of treatment
recommendations for older clients? It was hypothesized that MHP knowledge
level, attitude towards older adults, and level of geropsychological training would
be predictive with the intensity of treatment recommendations, and that attitudes
towards older adults would be the strongest predictor of intensity of treatment
recommendations.

3. Is the level of knowledge about the mental health of older adults associated with
the attitudes that MHPs hold towards older adults? It was hypothesized that the
higher the levels of knowledge about the mental health of older clients that MHPs
have, the more positive their attitudes towards older people.

4. Is the level of formal geropsychological training associated with higher levels of
knowledge about the mental health of older people and more positive attitudes
towards older adults? It was hypothesized that the more specialized training,
related to the mental health of older people that MHPs have undertaken, the more
knowledge about the mental health of older adults and the more positive their
attitudes would be.

**Method**

**Participants**

Participants were health and mental health practitioners who work primarily with
an adult clientele and who are responsible for making clinical decisions, which include
diagnosis and treatment planning. Eligible participants included clinical psychologists, counseling psychologists, counselors, mental health therapists, clinical social workers, medical doctors, registered nurses and graduate level students of clinical or counseling psychology, social work or mental health counseling who have clinical experience.

Participants were selected via convenience sampling from mental health agencies, medical clinics, university student counseling centers, and university graduate courses primarily in Illinois and Indiana. A snowball sampling method was also employed.

A total of 104 participants participated in this web based study. Data were retained for 77 participants. The data collected from twenty seven respondents were removed due to missing data.

Of the remaining 77 participants, 16% were aged 18-24, 60% were aged 25-39, 13% were aged 40-55, 10% aged 56-65 and 1% were older than 65. Approximately 66% of participants were female and approximately 33% were male. The majority of participants identified as non-Hispanic White (85%), 7% identified as Black/African-American, 4% as Asian or Asian-American, 3% Hispanic or Latino, and 1% as American Indian or Alaskan Native.

In terms of educational level, 29% of participants held a Bachelor’s Degree, 53% held a Master’s degree, 13% held a Doctorate, and 5% indicated that their highest level of education was not listed in the survey (but identified as Medical Doctorate (MD) and general/specialist nursing qualifications). With regard to area of practice, 44% were from a psychological background, 22% were nurses, 17% were counselors, 10% of participants were from a medical background, 4% indicated that they were graduate level students who were currently gaining clinical experience and 3% were social workers.
Materials

Sample Clinical Cases. Six sample clinical cases detailing presentations of common mental health concerns were developed. The details included within the sample clinical cases were aligned with the diagnostic criteria for the specific mental disorder as specified by the Diagnostic and Statistical Manual of Mental Disorders, fourth edition, revised (DSM-IV-TR; American Psychiatric Association, 2000). This edition was chosen, rather than the newest edition (DSM 5; American Psychiatric Association, 2013), because the DSM-IV-TR is currently the most common in use by MHPs. Each sample clinical case contained approximately 200 words and related to three common mental disorders (Major Depressive Disorder, Panic Disorder with Agoraphobia, Adjustment Disorder) as described in the DSM-IV-TR. The three common mental disorders were presented with two sample clinical cases, one of older clients and one of younger clients, to comprise a total of six sample clinical cases. A clinical case questionnaire (CCQ) was also developed to accompany each sample clinical case to assess treatment recommendations. See Appendices A and B for the sample cases and clinical case questionnaire, respectively.

The Facts of Aging Quiz: Part 2 (FAQ2) Multiple Choice (Harris, D. K., & Changas, P. S. (1994). The FAQ2 is a 25 item measure which was developed in order to measure knowledge and misconceptions about aging and older adults. It is scored by assigning 1 point for a correct answer with a potential range of 0 - 25. The multiple choice FAQ2 was developed (Harris & Changas, 1994) as a response to the criticism that
the original true/false FAQ2 (Palmore, 1981a) may have had problems with inaccuracy
due to the forced choice response and the potential for participant guessing correct
answers to items. Palmore (1998) reported that the multiple choice version was
consistently and significantly more reliable than the original true/false version. The FAQ2
was chosen because it is one of the two versions of the most widely utilized measure of
knowledge of physical, mental and social aspects of old age and the aging process
(Seufert & Carroza, 2002). The test-retest reliability of the quiz has been reported as
between .70 to .80 for healthcare and mental health professionals (Palmore, 1998). The
face validity of this measure also appears to be high, with participants who have geriatric
training scoring higher than members of the general public (Palmore, 1998). Similarly,
group score reliability is also high, as indicated by groups with similar educational areas
consistently displaying similar mean scores and having similar test-retest scores
(Palmore, 1998). Harris and Changas (1994) indicated that the mean score for the FAQ2
multiple choice was 10.98 (44% correct) (SD = 2.65). Gellis, Sherman, and Lawrence
(2003) reported that for 96 graduate level social work students the mean score was 12.18
(49% correct). Hinrichsen and McMeniman (2002) administered the FAQ2 to 90
graduate level psychology students, and reported that students who had not had
geropsychology training had a mean score of 9.22 (37% correct) on the FAQ2 and
students who had received geropsychology training had a mean score of 10.16 (41%
correct).

The Facts on Aging and Mental Health Quiz (FAMHQ; Palmore, 1998). The
FAMHQ was developed to be helpful to healthcare professional who have adult clients
and to be of use to family members of older individuals who have mental disorders
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(Palmore, 1998). It is used to determine the level of knowledge participants possess regarding the mental health of older adults. The multiple choice FAMHQ (Palmore, 1998) was developed following the development of multiple choice versions of the Facts on Aging Quiz: Part 1 (FAQ1) (1996) and the FAQ2 (1994), which were found to be significantly more reliable than the original true/false versions of these measures (Palmore, 1998). The multiple choice version of the FAMHQ consists of 25 items which evaluate knowledge of geriatric mental health and is comparable in both design and use to the multiple choice FAQ2, except that it focuses on knowledge specifically about the mental health of older adults, rather than general geriatric knowledge. Each correct answer receives a score of 1 point with a potential range of 0 – 25. The FAMHQ was chosen because it is one of the only instruments which exclusively measures knowledge of aging mental health, it is of reasonable length, has face validity, and answers for each item have been validated by statistical or empirical evidence (Duerson et al., 1992; Palmore, 1998). The multiple choice format was chosen because this is the version that Palmore (1998) recommended when using the quiz to test knowledge. See Appendix C for the FAMHQ.

Duerson, Thomas, Chang, and Stevens (2002) reported that the mean score on the FAMHQ in their sample of medical students was 17.35 (69% correct) (N = 88) with a standard deviation of 2.58. Van Zuilen, Rubert, Silverman, and Lewis (2001) gave the FAMHQ to junior and senior medical students, reporting a mean score on the FAMHQ of 19.45 (78% correct) (SD = 1.98; N= 261). Hinrichsen and McMeniman (2002) administered the FAMHQ to 90 graduate level psychology students, and reported that students who had not had geropsychology training had a mean score of 15.04 (60%
correct) and students who had received geropsychology training had a mean score of 15.60 (62% correct).

**Kogan's Attitudes towards Older People Scale (KAOP; Kogan, 1961).** The KAOP was used to measure the attitudes that participants hold towards older people. The KAOP is a 34 item scale with 17 matched positive and negative statements (e.g., “Most old people get set in their ways and are unable to change”. This negative statement is matched with the positive “Most old people are capable of new adjustments when the situation demands it”). In developing the scale, Kogan conceptualized older people as a minority group and this informed scale construction. The scale is scored on a 6 point Likert scale: 6 = highly positive, 5 = positive, 4 = slightly positive, 3 = slightly negative, 2 = negative, and 1 = highly negative. The negative statements are reverse scored so that the higher the score, the more positive the attitude of the participant towards older people. A total score is obtained by adding both positive and negative scores together. Gallagher, Bennet and Halford (2006) reported findings that this scale is reliable, reporting Cronbach's alpha coefficients of 0.75 and 0.73 for the negative and positive scales, respectively. Soderhamn and Lindencrona (2000) reported a Cronbach’s alpha coefficient of 0.79 for overall KAOP. See Appendix D for the items of the KAOP.

**Education Questionnaire (EdQ).** This questionnaire was developed by the researcher. It aimed to collect information on participants’ education, years of clinical experience, and information regarding the extent of specialized training that the participant had undertaken related to working with older adults, as well as older adults with mental health disorders. Participants were asked to provide information regarding classes, seminars, and workshops related to the mental health of older adults, or practical
clinical training with older adults. Participants received a gerontology education score, with higher scores indicating higher levels of gerontological education. In addition, participants were asked to indicate the extent to which they believed their training had prepared them for working with older clients, to indicate their belief in their personal ability to work competently with older people, and to indicate their interest in working with older adults. Information about participants’ age, sex, and ethnicity were also collected. See Appendix E for the EdQ.

Procedure

Administration was online, and participation was anonymous and voluntary. Participants were emailed a request to participate in an online “survey” which was about the treatment recommendations made by mental health practitioners. They were then asked for consent by indicating that they had read and understood the information provided and that they consented to participate in the study.

Participants were then presented with the six sample clinical cases, in random order, and asked to complete the clinical case questionnaire following each case. Next, participants were presented with the FAMHQ, FAQ2, and the KAOP also in a randomized order. Following this, participants completed the EdQ. Finally, participants were presented with a debriefing form, and asked to check a box to confirm that they had read this information.

Results

The first research question was concerned with whether mental health practitioners make different treatment recommendations for clients on the basis of their age alone. It was hypothesized that mental health practitioners would be more likely to
recommend a lower intensity of treatment for older than for younger clients. Participants were asked to rank order the likelihood that they would recommend the four presented treatment options (Psychotherapy alone, a combination of psychotherapy and medication, medication alone and neither psychotherapy nor medication). Participants were scored only on their first choice treatment recommendation. Recommendations (CCQ B.4) of “psychotherapy alone” and “combined psychotherapy and medication” were conceptualized as higher intensity treatments, and received scores of 10 and 6 respectively. Responses (CCQ B.4) of “medication alone” and “neither psychotherapy nor medication” were conceptualized as lower intensity treatments, receiving scores of 0 and 4 respectively. Each participant’s three treatment recommendations for older clients were summed to receive an overall score for treatment recommendations for older clients (with a potential range of 0-30) and the treatment scores for the three younger clients were summed to generate each participant’s overall score for treatment recommendations for younger clients (also with a potential range of 0-30).

A paired samples t-test was conducted comparing treatment recommendations that MHPs made for older clients and for younger clients. Results showed that MHPs were significantly more likely to recommend lower intensity treatments for older clients ($M=22.68$, $SD=6.30$), than for younger clients ($M=18.63$, $SD=7.47$), $t(76)=5.19$, $p<.001$ (one-tailed).

The second research question was concerned with whether mental health practitioner knowledge of the mental health of older adult, their attitudes toward older adults, and overall gerontology education were predictive of the intensity of treatment recommendations that the MHPs made for older clients.
Treatment recommendation scores were calculated by converting each treatment recommendation to a numerical score (10 for psychotherapy alone, 6 for a combination of psychotherapy and medicine, 4 for medication alone, and 0 for neither psychotherapy nor medication), and then adding the scores that participants gave across the three older adult sample clinical cases together, to give each participant an overall treatment recommendation score for older clients, with a potential range from 0 – 30.

Scores for MHPs’ knowledge of aging mental health were calculated by scoring the Facts on Aging Mental Health Quiz (FAMHQ; Appendix C). Each correct answer received a score of 1 with each incorrect score receiving a score of 0, with a potential range of 0 – 25 ($M = 13.75; SD = 2.79$). Scores for MHPs’ attitudes toward older people were based on the scores on Kogan’s Attitude toward Older People Scale (KAOP; Appendix E). In accordance with the structure of the scale, the items were divided into positive statements (items 1, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 33) and negative statements (2, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27, 29, 31, 34) items and scored. Positive statements were scored 6 5 4 3 2 1 from Strongly Agree to Strongly Disagree on the Likert Scale whereas negative statements were scored 1 2 3 4 5 6 across the Likert Scale from Strongly Agree to Strongly Disagree. The scores were added together to obtain a total score, with a potential range of 34 to 204. A higher score indicated a more positive attitude toward older people.

MHPs’ gerontological education scores were generated based on combining scores from the education questionnaire (EdQ; Appendix F; items12.2, 12.3, and 12.4) and a shortened version of the Facts on Aging Quiz 2 (FAQ2; Appendix D).
EdQ scores calculated based on participant answers about formal educational experiences. For item F.2 which pertained to undergraduate classes, participants were given a score of 0 for “No” answers and a score of 4 for a class which primarily focused on mental health of older adults, 2 for a class which focused on older adults, and 1 for a class which included a section about older adults. For item F.3 which related to graduate classes, participants were given a score of 0 for “No” answers and a score of 6 for a class which primarily focused on mental health of older adults, 4 for a class which focused on older adults, and 2 for a class which included a section about older adults.

For item F.4, scores were calculated based on both the type of educational activities they had undertaken related to working with old and the length of time the participant had spent engaging in these activities. In terms of clinical training, participants received a score of 4 if they indicated that they had received training with older adults, which lasted for 1 academic year or longer, or 2 if the training was shorter than this time frame. If the training was related to a specific mental health concern and with older adults, scores of 6 were awarded for training that was equal to or greater than 1 academic year, or 3 if shorter than this timespan. If the training had been in a geriatric mental health setting, participants received a score of 8 points for training which was 1 academic year or longer, or 4 if shorter than this. In addition, points were allocated for reported workshop attendance. Participants who indicated that they had attended a workshop about specific mental health issues which lasted for one day or less was awarded 1 point and if the workshop was longer than this a score of 2 was awarded. If the workshop pertained to the general mental health of older people, a score of 2 was
assigned for a short (one day or less) workshop and 4 for a longer workshop. This resulted in a potential range of scores from 0 – 43 ($M = 6.92; SD = 7.00$).

FAQ2 scores were calculated by assigning 1 point for a correct answer and 0 for an incorrect answer, with a potential range of 0 – 23, ($M = 10.04; SD = 1.92$).

Gerontological education scores were calculated by summing scores from EdQ items (F.2, F.3 and F.4) and the FAQ2 scores and had a potential range of 0 – 66. ($M = 16.99, SD = 7.37$).

A multiple regression analysis was conducted with the knowledge about aging mental health (FAMHQ), attitudes towards older people (KAOP) and gerontological education (relevant EdQ items and FAQ2) as predictors and treatment intensity as the predicted variable. Using the enter method, this set of predictors accounted for 13% of the variance in the intensity of treatments recommended for older clients ($F (3, 73) = 3.68, p = .01$). Attitudes towards older people as measured by the KAOP accounted for the highest amount of variance (11%), $p = .01$. Participants who displayed more positive attitudes towards older people were more likely to recommend treatments that were higher in intensity. A summary of results of the multiple regression analysis is found in Table 1.

The third research question pertained to whether MHPs’ knowledge about the mental health of older adults was associated with MHPs’ attitude toward older people. A Pearson’s product-moment correlation was conducted between MHPs’ scores on the FAMHQ and the KAOP. There was no significant relationship between knowledge about the mental health of older people (FAMHQ) and attitudes towards older people (KAOP), $r (73) = .02, p = .44$ (one-tailed).
The fourth research question pertained to whether knowledge about the mental health of older people and attitudes towards older people were associated with the amount of gerontological training MHPs received. Two Pearson's product-moment correlations were conducted, one to test for an association between scores on the FAMHQ and gerontological education scores (i.e. combined scores from EdQ items F.2, F.3 and F.4 and FAQ2 as described above) and the second to test for an association between scores on the KAOP and gerontological education scores. There was no significant relationship between knowledge of aging mental health (FAMHQ) and gerontological education (relevant EdQ and FAQ2 combined), $r(73) = .86, p = .23$ (one-tailed), nor was there a significant relationship between the attitudes towards older people (KAOP) and gerontological education (combined EdQ and FAQ2), $r(73) = .12, p = .16$ (one-tailed).

**Exploratory Analysis**

**Intensity of psychological treatment recommendations.** A t-test for dependent means was carried out to investigate whether there was a difference in the intensity of psychological treatment that MHPs recommend for older, compared to, younger clients.

Participants rated their likelihood of employing different types of psychotherapy (cognitive-behavioral—CBT, psychodynamic, client-centered, or “another” therapy which MHPs were asked to specify) (CCQ B.5) on a 6 point Likert scale, ranging from Very Unlikely to Very Likely. For the purposes of analysis, CBT was considered the most intensive and a response of Very Likely was scored 6, Likely = 5, Somewhat Likely = 4 while client-centered was considered the least intensive with a response of Very Likely meriting a score of 3, Likely = 2, and Somewhat Likely = 1. Most (what percent?)
of the participants who chose “another” specified that they would choose Adlerian therapy (which received identical scores to those who chose “client-centered). Others chose behavioral (which was scored 5 = very likely, 4 = somewhat likely, and 3 = likely) and interpersonal process, which was scored in the same way as behavioral therapy.

A t-test for dependent means was conducted to compare psychological treatment recommendations that MHPs made for older clients and for younger clients. Results showed that MHPs were significantly more likely to recommend lower intensity psychological treatments for older clients ($M = 10.77; SD = 5.00$) than for younger clients ($M = 12.40; SD = 4.54$), $t(76) = -2.57, p = .006$.

**Diagnostic Considerations.** A t-test dependent means was carried out to investigate whether there was a difference in how likely the MHP was to diagnose that the client’s symptoms were primarily psychological for older versus younger clients. For the purposes of analysis, a score of 16 (CCQ B.3b) indicated that the MHP believed that the client symptoms described in the clinical case was Highly Unlikely to be primarily psychological, 17 = Unlikely to be primarily psychological, 18 = Somewhat Unlikely, 19 = Somewhat Likely, 20 = Likely, and 21 = Very Likely to be primarily psychological in etiology. Participants scores for each of the three older clients were summed to get an overall psychological diagnosis score, with a potential range of 54 – 63).

MHPs were significantly more likely to diagnose the client’s disorder as primarily psychological when the client was younger ($M = 59.87; SD = 2.48$) than when the client was older ($M = 56.61; SD = 2.26$), $t(76) = 2.76, p = .004$ (one-tailed).

A second t-test for dependent means was carried out to investigate if there was a difference in how likely the MHP was to diagnose that the client’s symptoms were
primarily physiological in etiology for older versus younger clients. For the purposes of analysis, responses to CCQ item 3a ("what is the likelihood that the symptoms presented are primarily of a physiological etiology?") were scored on a 6 point Likert scale from “Highly Unlikely” to be primary physiological scoring 16 to “Highly Likely” scoring 21. Participants scores for each of the three older clients were summed to get an overall physiological diagnosis score, with a potential range of 54 – 63).

MHPs were significantly more likely to diagnose the client’s disorder as primarily physiological when the client was older ($M = 54.65; SD = 3.35$) than when the client was younger ($M = 52.99; SD = 2.48$), $t(76) = 4.28, p < .001$ (one-tailed).

**Prognosis.** A t-test for dependent means was conducted to assess if there was a difference between the prognoses that MHPs made for the older clients compared to prognoses for younger clients. For the purposes of analysis, participants’ answers to the question “How likely is it that the client's concerns can be successfully resolved?” (CCQ item B.7) were scored from 1 to 6 across a 6 point Likert Scale of “Very Unlikely” to “Very Likely”. Each participant’s prognoses for the three adult clients were summed, allowing for a potential range of 3-18. Participant prognoses for the three younger clinical case samples were summed in the same way, also with a potential range of 3-18.

MHPs were significantly more likely to answer that the client’s concerns could be successfully resolved if the client was younger ($M = 15.73; SD = 1.76$) than when the client was older ($M = 13.79, SD = 2.21$), $t(76) =, p < .001$ (one-tailed).

**Confidence in Training.** A Pearson’s product-moment correlation was conducted to test for an association between MHPs’ belief in the effectiveness of their education/training and their level of overall gerontological education and training. There
was a significant relationship between MHP confidence in their education (CCQ item B.8a) and overall gerontological education (combined relevant EdQ and FAQ2), with MHPs who had a higher level of confidence in their education also having higher levels of gerontological education, $r(75) = .45, p<.001$ (one-tailed).

**Self-efficacy.** A Pearson’s product-moment correlation was conducted to test for an association between the MHP self-efficacy and MHPs’ overall gerontological education and training. There was a significant relationship between MHPs’ self-efficacy (CCQ item 8b) and overall gerontological education (combined relevant EdQ and FAQ2), with MHPs who had a higher level of confidence in their ability to work effectively with older adults also having higher levels of gerontological education and training, $r(75) = .31, p=.004$ (one-tailed).

**Interest in working with older people.** A Pearson’s product moment correlation was conducted to test for an association between MHPs’ interest in working with older adults (CCQ item B.8c) and MHP’s bias score (KAOP). There was a significant relationship between these two variables, with MHPs who were interested in spending more time working with older adults being significantly more likely to have a more positive attitude to older adults, $r(75) = .45, p = <.001$ (one-tailed).

**Sex and Bias.** An independent samples t-test was conducted to compare the effect of the sex of the participant on overall attitude scores (KAOP). Women were significantly more likely to have more positive attitudes toward older people ($M = 153.96; SD = 10.10$) than men ($M = 147.88, SD = 14.55$), $t(75) = 1.90, p = .03$.

**Discussion**
This study investigated potential differences between the treatment recommendations made for older clients (aged 65+) and the recommendations made for younger clients (aged 64 and younger) by mental health professionals, explored potential variables (knowledge about the mental health of older adults, gerontological education and attitudes towards older adults) which may have an effect on the intensity of treatments recommended for older adults, and examined whether these variables were associated with each other. In this section we consider the findings of the current study as well as limitations of the study, and some directions for further research.

Intensity of treatment recommendations

The first research question posed was “Do mental health practitioners make different treatment recommendations for older and younger clients?” It was hypothesized that MHPs are more likely to recommend lower intensity treatment options for older clients than for younger clients. A recommendation of “psychotherapy alone” or “combination medication and psychotherapy” were categorized as higher intensity treatment recommendations, whereas “medication alone” or “no treatment” were categorized as lower intensity treatment recommendations. The hypothesis was supported.

Findings confirmed that MHPs were more likely to recommend a less intensive treatment for older clients than for younger clients. This means that they were less likely to recommend a psychotherapeutic treatment – even when combined with medication - for mental illness when clients were aged 65 or older. This is in line with previous research (e.g., Burroughs et al., 2006; Dovidio & Fiske, 2012; Koder & Helmes, 2006; Kucharski et al., 1979), which suggests that MHPs across disciplines are less willing to
treat older clients with psychotherapy. The current study shows that MHPs are less likely to use psychotherapy for older clients even when the active symptomology presented in the clinical case studies was virtually identical in the matched young and old conditions. Exploratory analysis which compared the types of psychological treatments recommended for older clients (CCQ item B.5) indicated that among participants who had chosen a high intensity treatment option (i.e., psychotherapy alone or combination medication and psychotherapy), there was still a tendency to recommend a less intensive psychotherapeutic option for older clients than for younger clients. This was evident in the types of psychotherapies chosen, with MHPs more likely to choose a more active approach, such as CBT, with younger clients and a more passive talk therapy, such as client-centered, with older clients. This difference in the types of treatments selected may suggest that even amongst MHPs who choose a higher intensity treatment option, there still remains a lingering doubt about the ability of older adults to cope with a more intensive treatment option, or possibly a doubt about the ability of older adults to make cognitive changes or learn new skills.

**Predictors of intensity of treatment recommendation**

The second research question asked was “Are MHP’s knowledge of and attitude towards older adults, and geropsychological training predictive of the intensity of treatment recommendations for older clients?” Based upon the literature, it was hypothesized that the attitudes held by MHPs about older people, MHP knowledge about aging mental health, and the level of general training and education that MHPs have had about older adults, would all be predictive of intensity of treatment recommendations for
older adults. It was also hypothesized that attitudes towards older adults would be the strongest predictor of intensity of treatment recommendations.

A review of the literature indicated that the attitudes that MHPs hold about older adults effect treatment practices (e.g., Duffy, 1992; Koenig, 2007; Kucharski et al., 1979; Maden et al., 2001; Uncapher & Arean, 2000). There have also been a small number of studies which indicate an association between geriatric mental health knowledge, overall geriatric education and clinical practice deficits (e.g., Baumbusch et al., 2012; Cottle & Glover, 2007; Gendron & Heck, 2013).

The current study found that attitudes that MHPs held about older adults were predictive of the intensity of treatment recommendations, with MHPs who held more negative attitudes about older people being more likely to recommend lower intensity treatments. However, the study also found that MHP knowledge about geriatric mental health and overall geriatric knowledge were not predictive of the intensity of treatment recommendations. Although it had been expected that attitudes towards older people would be the strongest of the predictors, the finding that the MHP’s attitude were the only significant predictor was somewhat surprising. However, this study was exploratory in nature, given that there has been a dearth of specific research on what factors predict treatment recommendations, so it may be the case that knowledge of aging mental health and general geriatric education are not associated with intensity of treatment recommendations in general. However, caution should be exercised when extrapolating from this result. Further research is needed to understand the predictors of treatment recommendations for older clients more fully.
Associations between geriatric mental health knowledge, attitudes towards older people and gerontological education

Research questions three and four dealt with associations between the predictive variables in this study.

The third research question asked “Is the level of knowledge about the mental health of older adults associated with the attitudes that MHPs hold about older adults?” Based on a review of the literature (e.g. Kane et al, 2009; Orrell et al., 1995; Zylstra et al. 2000), it was hypothesized that there would be an association between knowledge about aging mental health and attitudes towards older people. This hypothesis was not supported.

The fourth research question asked “Is the level of knowledge about the mental health of older adults associated with the attitudes that MHPs hold about older adults?” Based on a review of the literature (e.g. Baumbusch et al., 2012; Cottle & Glover, 2007, Hinrichsen & McMeniman, 2002), it was hypothesized that there would be an association between knowledge about aging mental health and gerontological education, and between attitudes towards older people and gerontological education. This hypothesis was not supported.

The current study found that there was no significant association between knowledge about aging mental health and attitudes towards older people, no significant association between knowledge about aging mental health and general gerontological education, and no significant association between attitudes towards older people and general gerontological education. These findings are not in line with previous research. It can be speculated that this failure to obtain meaningful correlations may be due to the
The diverse nature of MHPs sampled in this study. Previous studies tend to have focused on either one specialist discipline within mental healthcare (e.g., psychologists alone) (e.g. Baumbusch et al., 2012; Gellis, 2010; Henderson et al., 2008; Qualls et al., 2002) or on pairings of disciplines that were relatively close in nature, such as geriatricians and geriatric psychiatrists, (e.g., Davison et al., 2009; Stewart et al., 2005; Orrell et al., 1995). The current study aimed to capture a snapshot of the different specialty areas which collectively work to provide mental health services to older adults. It is possible that the participants in this study were too disparate in terms of education, background, and numbers within each professional category (See Tables 2 and 3 for breakdown) to support accurate and sensitive analysis.

**Differences in other areas of clinical judgment**

The present study also explored other areas of clinical judgment (diagnostic considerations and prognosis) to assess if there were differences between how MHPs made clinical management decisions, outside of treatment practices. Of interest was the finding that MHPs were significantly more likely to assess that symptoms of the older clients were physiological and that the symptoms of the younger clients were psychological, even though the active symptoms in both the old age condition and the young age condition were the same (see Table 4 for a summary of these findings). These findings indicate that MHPs’ perceptions of older clients may be biased by age-related stereotypes and that MHPs may minimize or dismiss symptoms such as depressed mood, lack of energy, and excessive worry as a normal part of the aging process, or as a side effect of physiological decline. The notion that practitioners may be likely to presume that older clients’ symptoms (such as depressed mood, reduced energy, difficulty
concentrating etc.) are physical responses, typical of the aging process is in line with a recent research into the expectation that primary care physicians have regarding their older clients (Davis et al., 2011).

Also of note was the finding that MHPs were significantly more likely to report that the prognosis for younger clients was more optimistic than the prognosis for older clients (see Table 4). In this study, MHPs concluded that the issues described for older clients were less likely to be successfully resolved than the issues facing the younger clients, despite symptoms being virtually identical in the young and old matched conditions. The belief that older individuals are less likely to recover from mental health concerns may have very a negative impact on the client, on the professional relationship between the client and the MHP, and may also foster therapeutic nihilism.

**Additional findings**

The current study indicated that there was an association between MHP interest in working with older people and their attitudes towards older people. MHPs who had a greater interest in working with older clients were also more likely to have positive attitudes towards older people (see Table 5). This makes a certain amount of intuitive sense, and may point the way in terms of closing the gap between the demand for MHPs who work with older adults and the numbers who choose to do so.

Another finding was a correlation between scores on overall geriatric education and MHP confidence in their training (see Table 5). This too makes intuitive sense; the more education that the MHP had received, the more confident the MHP felt regarding how effective their education and training was. Gerontological education was also linked to MHP self-efficacy, with higher scores in gerontological education associated with a
higher levels of confidence in terms of personal ability to work effectively with older people. These findings are interesting, when considering previous research which indicates that lower levels of self-efficacy and lower levels of confidence in MHP training are associated with less effective treatment management (e.g., Orrell et al., 1995). It may be that it is not only the gerontological education that is important, but also MHP evaluation of the gerontological education they have received.
Limitations and future directions

The limitations for the current study should be note. The most salient of these, perhaps, is that of the 104 initial participants, 27 were deleted for various reasons, the most common of which was missing data. The sample size was small, and sampling was not random, which may call the generalizability of the findings into question. In addition, the amount of time that it took participants to complete the study was highly variable, ranging from 14 minutes and 11 seconds to 3 days (participants were allowed to begin the study and return to it at a later time). That participants did not complete the study in one sitting may raise some concerns about the accuracy of some of the response. A further limitation is that although the FAMHQ is one of the only instruments which exclusively measures knowledge of geriatric mental health, has face validity, and answers for each item have been validated with empirical evidence, it has not been widely tested, which may be a cause for some concern or caution. It is noteworthy that the current study recorded materially lower mean scores in the FAMHQ ($M = 13.75; SD = 2.79$) than had been recorded in other studies which utilized the measure. Additionally, the KAOP is a self-report measure which has high face validity and responses may have been influenced by a drive for social desirability.

There are also several recommendations for future research. One such recommendation would be to administer the study in person, rather than online. This would make it more likely that participants would complete the study, and would also encourage participants to finish the study in one sitting. It may also reduce the variability in study completion time, or at least allow the administrator to gain insight into the reason for the variability. Secondly, administering a measure of implicit aging bias, rather than
DIFFERENCES TREATMENT RECOMMENDATIONS OLDER ADULTS

an explicit attitudes measure, may be advantageous in terms of obtaining a more accurate score of age-related bias. Recent research related to racial bias indicates that implicit measures may be more effective when measuring bias because healthcare professionals may be more cognizant of what responses are socially undesirable and may underreport negative attitudes in an explicit measure as a result (e.g. Blair et al., 2013; Dovidio & Fisk, 2012). Furthermore, recruiting similar numbers of participants from each mental healthcare area might be a positive direction for future research. This would allow for comparisons across mental healthcare specializations which may have some important clinical implications. Finally, replicating the study using different measures to investigate knowledge of geriatric mental health and overall geriatric training may be beneficial. This may help to either confirm that these two factors do not predict level of treatment intensity, or allow room for further investigation.

Conclusion

The current study aimed to investigate differences between the mental health treatments recommended for older clients and younger clients, to assess whether MHP knowledge about geriatric mental health, gerontological education, and attitudes towards older people were predictive of recommendations of different treatments for older than for younger adults, and to explore the possibility that MHP knowledge about geriatric mental health, gerontological education, and attitudes towards older people were associated with each other. Results suggest that there are differences in the treatment recommendations made for older clients when compared to younger clients, and that attitudes towards older adults play a role in the type of treatments recommended for older adults. The role played by geriatric mental health knowledge, and gerontological
knowledge, remains to be seen. Associations between the proposed predictive variables (MHP knowledge about geriatric mental health, gerontological education, and attitudes towards older people) were not found. Further research is warranted to identify additional predictive factors of treatment recommendations, and to increase understanding about MHP treatment practices with older adults.
References


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training and need for continuing education. *Professional Psychology: Research and Practice, 33,* 435-442.


doi:10.1080/13607860055946
Table 1

Summary of Multiple Regression Analysis for Variables Predicting Intensity of Treatment Recommendations (N = 77)

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>SE B</th>
<th>β</th>
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<tr>
<td>Attitude towards older people</td>
<td>.21</td>
<td>.07</td>
<td>.34*</td>
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<tr>
<td>Aging mental health knowledge</td>
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<tr>
<td>Gerontological Education</td>
<td>.01</td>
<td>.11</td>
<td>.01</td>
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</table>

*Note: R^2 = .13; adjusted R^2 = .10

*p=.02
Table 2

*Training background of participants (frequencies)*

<table>
<thead>
<tr>
<th>Training Background</th>
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<td>Psychology</td>
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<td>Nursing</td>
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<td>Counseling</td>
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<tr>
<td>Medical</td>
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<td>Graduate Students</td>
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<td>Social Workers</td>
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Table 3

*Highest Level of Education (frequencies)*

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<td>Master’s Degree</td>
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<tr>
<td>Bachelor’s Degree</td>
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<tr>
<td>Doctorate</td>
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<tr>
<td>Other</td>
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Table 4

*Descriptive Statistics for Clinical Judgment Variables (Exploratory Analysis)*

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<th>Clients</th>
<th>Younger</th>
<th>Older</th>
<th>Observed t</th>
<th>p-value</th>
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<tr>
<td>Intensity of psychological treatment</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>recommendations</td>
<td>10.77 (5.00)</td>
<td><strong>12.40</strong> (4.54)</td>
<td>2.57</td>
<td>.006</td>
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<td>Diagnose a physiological disorder</td>
<td><strong>54.65</strong> (2.26)</td>
<td>52.99 (2.48)</td>
<td>4.28</td>
<td>.000</td>
</tr>
<tr>
<td>Diagnose a psychological disorder</td>
<td>56.61 (2.26)</td>
<td><strong>59.87</strong> (2.48)</td>
<td>2.76</td>
<td>.004</td>
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<td>Prognosis</td>
<td>13.79 (2.21)</td>
<td><strong>15.73</strong> (1.76)</td>
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Table 5

*Pearson correlations (r) with Gerontological Education*

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<tr>
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<tr>
<td>Confidence in Education</td>
<td>.13**</td>
</tr>
<tr>
<td>Interest in Working</td>
<td>.45</td>
</tr>
<tr>
<td>with Older People</td>
<td></td>
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</tbody>
</table>

\[ p<.001 \]

\[ p = .004 \]
Appendix A

Sample Clinical Cases

Sample Case 1. David is an 83 year old Caucasian male who reported that he was feeling as though he was getting “upset” very easily. He noted that once his mood was low it continued to be low for several days. He reported being more tired than usual but also reported that his sleep was very disturbed. He described a pattern of sleeping for two-three hours at night and then waking and not being able to get back to sleep. He compensated for this lack of sleep by taking naps during the day. He reported that he was spending less time socializing with his friends and that his wife had remarked that he was more “distant” with her. He attributed these changes to his decreased energy levels. David also reported that he had also stopped doing the daily newspaper crosswords which he used to enjoy. He reported that he had difficulty concentrating and would often read the clues a number of times but not retain the information. He also reported a difficulty in remembering words which he had previously known and that this was very frustrating for him. He shared that he felt as though his brain was “in a fog” and that this was having a negative impact on his memory and ability to make decisions. David convincingly denied any suicidal ideation, intent or planning.

Sample Case 2. John is a 36 year old Caucasian male who initially presented at the behest of his wife who had noticed a change in his mood, and behavior. John reported that he had been feeling “down”, has gained weight, and has been much more irritable that usual. He has been spending a lot more time alone recently, has declined several social invitations from family, friends, and colleague, and has stopped cycling, which he had previously participated in approximately four times a week. He reported feeling very stressed and overwhelmed at work over the past two months, due to an increase in his
work-related responsibilities. John noted that he was more indecisive at work, that he had recently been making more “careless” mistakes and that he had had to be reminded to complete some recent work-related tasks by colleagues over the last number of weeks. John has also had difficulty sleeping through the night and that, as a result, he is more tired than usual. John convincingly denied any suicidal ideation, intent or planning.

Sample Case 3. Isabella is a 71 year old, widowed woman with a 6-month history of episodic chest tightness, shortness of breath, pain that “moves all over my body,” and numbness in her legs. These attacks, which occur once or twice weekly, occur suddenly, reaching peak intensity within a few minutes. During an attack, pain travels from her chest to her abdomen, groin, and legs. The pain is often accompanied by a sensation of being choked. She also describes feeling as if she is in a closed room or small space. She reported that she had experienced similar symptoms on a number of occasions throughout her lifetime, beginning after a car accident that she was involved in as a teenager. However, she reported that the symptoms are worse on this occasion. Isabelle is anxious and frustrated about her symptoms and thinks she might have a serious medical problem. She has been medically evaluated on a number of occasions but no cause for her symptoms has been uncovered. Isabella reported that she avoids going out more than absolutely necessary because she is concerned about becoming unwell in public and about having to be hospitalized.

Sample Case 4. Rachel is a 29 year old, single, female who presented with symptoms of racing heart, tightness in her chest, dizziness, sweating, and feeling as if she is detached from the world. These symptoms begun approximately three months previously and occur approximately once a week. She reported that her symptoms began
when she was driving home for work one day and had become caught in a traffic jam.
Fearing that she was having a heart attack, she drove to the nearest emergency room and
was medically evaluated. However, by that time, her discomfort had abated and no reason
for her symptoms was discovered. Since then, she has had a number of similar episodes
when driving. She reported that she has started taking public transportation as an
alternative to driving in order to get to work, to partake in social activities, and to
complete activities such as grocery shopping.

Sample Case 5. Eric is a 65 year old, married, man who lost his job six months
before he presented for services. He had worked for the same company for forty years.
He reported that he had been feeling confused and lost since he has lost his job. Eric
reported that he has been spending his days watching television, and eating. He has
gained twenty pounds since he lost his job. He also reported an increase in the amount of
alcohol that he consumes, drinking 4-5 beers daily. He reported that he has been arguing
with his wife a great deal because she wants them both to go and partake in activities and
he has no desire to do so. On the occasions that he does go out, he feels very
uncomfortable and looks forward to returning to his home. He does not enjoy spending
time with former colleagues with whom he used to enjoy socializing because he feels sad
and resentful that he is not working and they are. Eric reported that he does not know
what to do with himself anymore and that he no longer knows what his role in life is. His
wife, who works as a teacher, is concerned, reporting that he is a different person since he
lost his job. Eric reported that he does not wish to discuss his feelings with her.

Sample Case 6. Lauren is a sixteen year old female who lives with her biological
parents and attends high school. She is an only child. She reported that for the past two
months she has been feeling angry, resentful and confused and she is having difficulty
dealing with these feelings. She reported that her mother, who she is close to, was
diagnosed with breast cancer approximately three months and is receiving treatment. Her
father is having difficulty coming to terms with her mother’s illness and also has serious
health concerns. Lauren reported that she feels that she has to take care of the household
and that she has to appear happy and well-adjusted to prevent additional stress to her
parents. Lauren works hard at school and is maintaining good grades. However, she
worries that she is not doing well enough and reported that she constantly worries about
her grades and about getting into a good college so that she can get a good job and
support herself. She reported that she feels alone because she cannot discuss her feelings
with her friends because they get overwhelmed because of the depth what she is
discussing and she cannot speak to her family because she does not want to burden them.
Lauren also reported that showing emotion was a sign of weakness, and that she wanted
to be a stronger person.
Clinical Case Questionnaire (CCQ)

QB.2 How likely to you think it is that this client has a disorder?
- Very Unlikely
- Unlikely
- Somewhat Unlikely
- Somewhat Likely
- Likely
- Very Likely

QB.3 In your opinion, what is the likelihood that the symptoms presented are

<table>
<thead>
<tr>
<th></th>
<th>Very Unlikely</th>
<th>Unlikely</th>
<th>Somewhat Unlikely</th>
<th>Somewhat Likely</th>
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<td>physiological etiology?</td>
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<td>primarily of a</td>
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<tr>
<td>psychological etiology?</td>
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</table>

QB.4 When considering your treatment recommendations for this client, please rank order the likelihood of you recommending each of the following: Click on a button for each option to indicate your ranking from most likely (#1) to least likely (#4).

- Psychotherapy alone
- A combination of medication and psychotherapy
- Medication alone
- Neither psychotherapy nor medication

QB.5 How likely is it that you would recommend each of the following therapies for this client?

<table>
<thead>
<tr>
<th></th>
<th>Very Unlikely</th>
<th>Unlikely</th>
<th>Somewhat Unlikely</th>
<th>Somewhat Likely</th>
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<td>Client-centered</td>
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<tr>
<td>Psychodynamic</td>
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<tr>
<td>Another psychotherapy:</td>
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</tbody>
</table>
QB.7 How likely is it that the client's concerns can be successfully resolved?

- Very Unlikely
- Unlikely
- Somewhat Unlikely
- Somewhat Likely
- Likely
- Very Likely
Appendix C

The Facts on Aging and Mental Health Quiz Multiple-Choice Version (FAMHQ)

C.1 About the Mental Health of Older Adults

C.2 Severe mental illness among persons over 65 afflicts
   - The majority
   - About half
   - About 15% - 25%
   - Very few

C.3 Cognitive impairment (impairment of memory, disorientation, or confusion)
   - Is an inevitable part of the aging process
   - Increases in old age
   - Declines with age
   - Does not change with age

C.4 If older mental patients make up false stories, it is best to
   - Point out to them that they are lying
   - Punish them for lying
   - Reward them for their imagination
   - Ignore or distract them

C.5 The prevalence of anxiety disorders and schizophrenia in old age tends to
   - Decrease
   - Stay about the same
   - Increase somewhat
   - Increase markedly

C.6 Suicide rates among women tend to
   - Increase in old age
   - Stay about the same
   - Decrease somewhat in old age
   - Decrease markedly
C.7 Suicide rates among men tend to
- Increase markedly
- Increase somewhat
- Stay about the same
- Decrease

C.8 When all major types of mental impairment are added together, the elderly have
- Higher rates than younger persons
- About the same rates as younger persons
- Lower rates than younger persons
- Higher rates for ages 65 to 74 than for those over 75

C.9 The primary mental illness of the elderly is
- Anxiety disorders
- Mood disorders
- Schizophrenia
- Cognitive impairment

C.10 Alzheimer’s disease is
- The most common type of cognitive impairment
- An acute illness
- A benign memory disorder
- A form of affective disorder

C.11 Alzheimer’s disease usually
- Can be cured with psychotherapy
- Can be cured with pharmacology
- Goes into remission among the very old
- Cannot be cured

C.12 Most patients with Alzheimer’s disease
- Act pretty much the same way
- Have confusion and impaired memory
- Wander during the day or at night
- Repeat the same question or action over and over
C.13 Organic brain impairment
- Is easy to distinguish from functional mental illness
- Is difficult to distinguish from functional mental illness
- Tends to be similar to functional mental illness
- Can be reversed with proper therapy

C.14 When talking with an older mental patient, it is best
- To avoid looking directly at the patient
- To glance at the patient occasionally
- To ignore the patient’s reactions
- To look directly at the patient

C.15 Talking with demented older patients
- Tends to increase their confusion
- Is usually pleasurable for the patient
- Should be confined to trivial matters
- Should be avoided as much as possible

C.16 When demented patients talk about their past, it usually
- Is enjoyed by the patient
- Depresses the patient
- Increases the patient’s confusion
- Has no effect

C.17 The prevalence of severe cognitive impairment
- Is unrelated to age
- Decreases with age
- Increases with age after age 45
- Increases with age only after age 75

C.18 The primary cause of paranoid disorders in old age are
- Isolation and hearing loss
- Persecution and abuse
- Near death experience
- None of the above
C.19 Poor nutrition may produce
- Depression
- Confusion
- Apathy
- All of the above

C.20 Mental illness in elders is more prevalent among
- The poor
- The rich
- The middle-class
- None of the above

C.21 The prevalence of mental illness among the elderly in long-term care institutions is:
- About 10%
- About 25%
- About 50%
- More than 75%

C.22 Elders tend to have
- Less sleep problems
- More sleep problems
- Deeper sleep
- The same sleep patterns as younger persons

C.23 Major depression is
- Less prevalent among elders
- More prevalent among elders
- Unrelated to age
- A sign of senility

C.24 Widowhood is
- Less stressful among elders
- More stressful among elders
- Similar levels of stress at all ages
- Least stressful among young adults
C.25 Elders use mental health facilities
- More often than younger people
- Less often than younger people
- At about the same rate as younger people
- Primarily when they have no family to care for them

C.26 Psychotherapy with older people is
- Usually ineffective
- Often effective
- Effective with Alzheimer's patients
- A waste of the therapist's time

Appendix D

The Facts on Aging Quiz: Part 2 (Multiple Choice Version) (FAQ2)

D.1 Knowing about Younger and Older Adults

D.2 In old age, a person's height

☐ Does not change
☐ Only appears to change
☐ Tends to decline
☐ Depends on how active one is

D.3 Compared with younger persons, more older persons (65 or older) are limited in their activity by which type of illnesses?

☐ Acute illnesses (short term)
☐ Colds and flu
☐ Infections
☐ Chronic illnesses

D.4 Which type of illness do older persons have less frequently than younger persons?

☐ Chronic illness
☐ Arthritis
☐ Stroke
☐ Acute illness

D.5 Compared with younger persons, older persons have

☐ More injuries in the home
☐ About the same number of injuries in the home
☐ Fewer injuries in the home
☐ Twice the likelihood to be injured in the home

D.6 Older workers' absenteeism rates

☐ Are higher than among younger workers
☐ Cannot be trusted
☐ Are about the same as younger workers
☐ Are lower than among younger workers
D.7 The life expectancy of African Americans at age 65
- Is higher than that of whites
- Is lower than that of whites
- Is about the same as that of whites
- Has not been determined

D.8 Men's life expectancy at age 65 compared with women's
- Is lower
- Is dropping
- Is about the same
- Is higher

D.9 What percentage of medical expenses for the aged does Medicare pay?
- About 20 percent
- About 45 percent
- About 75 percent
- Nearly 100 percent

D.10 As for income
- The majority of elderly live below the poverty level
- The elderly are the poorest in our society
- The elderly get their proportionate share of the nation's income
- The income gap between the elderly and younger people is widening

D.11 Compared with younger persons, rates of criminal victimization among the elderly are
- Higher
- Lower
- About the same
- Steadily increasing

D.12 Fear of crime among the elderly
- Is higher than among younger persons
- Is about the same as among younger persons
- Is lower than among younger persons
- Is not significant
D.13 The most law abiding adults are
- Those in their 20s
- Those in their 30s
- Those 45 to 65
- Those over 65

D.14 Comparing widows to widowers among the aged
- Their numbers are about equal
- There are about twice as many widows as widowers
- There are about five times as many widows as widowers
- There are about twice as many widowers as widows

D.15 Voter participation rates are usually
- Highest among those over 65
- Highest among those age 55 to 64
- Highest among those age 40 to 54
- Highest among those age 20 to 39

D.16 Being elected or appointed to public office is
- Rare among those over 65
- More frequent among those under 65
- More frequent among those over 65
- Similar in frequency among older and younger persons

D.17 The proportion of African Americans among the aged is
- Growing
- Declining
- Staying about the same
- Small compared with most other minority groups

D.18 Participation in voluntary organizations usually
- Does not decline among healthy older persons
- Declines among healthy older persons
- Increases among healthy older persons
- Is highest among healthy youth
D.19 The majority of old people live
- Alone
- In long-stay institutions
- With their spouses
- With their children

D.20 The rate of poverty among the elderly is
- Lower than among those under 65
- Higher than among those under 65
- The same as it is for other age groups
- High as a result of their fixed income

D.21 The rate of poverty among aged African Americans is
- Less than that of whites
- About the same as that of whites
- Double that of whites
- Almost triple that of whites

D.22 Older persons who reduce their activity tend to be
- Happier than those who remain active
- Not as happy as those who remain active
- About as happy as others
- Healthier

D.23 When the last child leaves home, the majority of parents
- Have serious problems of adjustment
- Have higher levels of life satisfaction
- Try to get their children to come back home
- Suffer from "empty nest" syndrome

D.24 The proportion widowed among the aged
- Is gradually decreasing
- Is gradually increasing
- Has remained the same
- Is unrelated to longevity

Appendix E

Kogan's Attitudes Towards Older People Scale (KATOP)

Please indicate your level of agreement or disagreement with each of the following statements.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Somewhat Disagree</th>
<th>Somewhat Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>It would probably be better if most old people lived in residential units that also housed younger people.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
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</tr>
<tr>
<td>There is something different about most old people: it's hard to figure out what makes them tick.</td>
<td>☐</td>
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<tr>
<td>Most old people get set in their ways and are unable to change.</td>
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<tr>
<td>Most old people are capable of new adjustments when the situation demands it.</td>
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<tr>
<td>Most old people prefer to quit work as soon as pensions or their children can support them.</td>
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<tr>
<td>Most old people would prefer to continue working just as long as they possibly can rather than be dependent on anybody.</td>
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<tr>
<td>Most old people tend to let their homes become shabby and unattractive.</td>
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<tr>
<td>Most old people can be counted on to maintain a clean, attractive home.</td>
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<tr>
<td>It is foolish to claim that wisdom comes with old age.</td>
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<tr>
<td>People grow wiser with the coming of old age.</td>
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<tr>
<td>Old people have too much power in business and politics.</td>
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<td>☐</td>
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</tr>
<tr>
<td>Old people should have more power in business and politics.</td>
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<tr>
<td>Most old people make one feel ill at ease.</td>
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<td>☐</td>
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<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Most old people are very</td>
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</tbody>
</table>
Most old people bore others by their insistence on talking about the “good old days”.

One of the most interesting and entertaining qualities of most old people is their accounts of their past experiences.

Most old people spend too much time prying into the affairs of others and giving unsought advice.

Most old people tend to keep to themselves and give advice only when asked.

If old people expect to be liked, their first step is to try to get rid of their irritating faults.

When you think about it, old people have the same faults as anybody else.

In order to maintain a nice residential neighborhood, it would be best if too many old people did not live in it.

You can count on finding a nice residential neighborhood when there is a sizable number of old people living in it.

Most old people should be more concerned with their personal appearance; they’re too untidy.

Most old people seem to be quite clean and neat in their personal appearance.

Most old people are irritable, grouchy, and unpleasant.

Most old people are cheerful, agreeable, and good humored.

Most old people are constantly complaining about the behavior of the younger generation.
One seldom hears old people complaining about the behavior of the younger generation.
Most old people make excessive demands for love and reassurance.
Most old people need no more love and reassurance than anyone else.
Most old people are really no different from anybody else: they're as easy to understand as younger people.
It would probably be better if most old people lived in residential units with people of their own age.
Education Questionnaire (EdQ)

F.1 These next few questions ask a bit about yourself and about your formal education, training, preparation, etc. for working with older adults.

F.2 Tell us a little bit about UNDERGRADUATE classes you have taken focusing on older adults. I have taken an undergraduate class which

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Yes</th>
<th>No</th>
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</thead>
<tbody>
<tr>
<td>primarily focused on the mental health of older adults.</td>
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</tr>
<tr>
<td>primarily focused on older adults.</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>included a section about older adults.</td>
<td>☐</td>
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</tr>
</tbody>
</table>
F.3 Tell us a little bit about GRADUATE classes you have taken focusing on older adults. I have taken a graduate class which
- primarily focused on the mental health of older adults.
- primarily focused on older adults.
- included a section about older adults.

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
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<tbody>
<tr>
<td>primarily focused on the mental</td>
<td>○</td>
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<tr>
<td>health of older adults.</td>
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<tr>
<td>primarily focused on older adults.</td>
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<tr>
<td>included a section about older</td>
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<tr>
<td>adults.</td>
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</table>

F.4 Please tell us about other activities you have completed which focused on older adults. I have...
- completed clinical training specific to working with older adults.
- completed clinical training specific to working with older adults who have mental health concerns.
- completed clinical training specific to working with a specific mental health concern in older adults. (Please specify.)
- completed other training/education related to older people and/or their mental health concerns. (Please specify)
- attended a workshop pertaining to the general mental health of older adults.
- attended a workshop pertaining to a specific mental health disorder in older adults. Please specify (e.g., dementia, depression).

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
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</thead>
<tbody>
<tr>
<td>completed clinical training specific to working with</td>
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<tr>
<td>older adults.</td>
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<tr>
<td>completed clinical training specific to working with</td>
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<tr>
<td>older adults who have mental health concerns.</td>
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<tr>
<td>completed clinical training specific to working with</td>
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<tr>
<td>a specific mental health concern in older adults.</td>
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<tr>
<td>(Please specify.)</td>
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<tr>
<td>completed other training/education related to older</td>
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<td>○</td>
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<tr>
<td>people and/or their mental health concerns. (Please</td>
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<td>specify)</td>
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<tr>
<td>attended a workshop pertaining to the general mental</td>
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<tr>
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<tr>
<td>health disorder in older adults. Please specify (e.g.,</td>
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<tr>
<td>dementia, depression).</td>
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</tbody>
</table>

F.5 I work (or have previously worked) primarily with older adults.
- ○ Yes
- ○ No

F.6 What was your job title when you were working with older adults?

F.7 Please specify the length of time you have spent working primarily with older adults.

F.8 Please indicate your level of agreement or disagreement with each of the following statements.
My education/formal training has been effective in preparing me to work with older adults and their mental health needs.
I feel confident in my ability to work effectively with older adults who present with mental health issues.
I would like to spend more time working with older adults.

F.9 What is your highest level of education?
- Bachelor's Degree
- Master's Degree
- Doctorate
- Other (Please Specify) ______________________

F.10 Which of the following do you consider your primary area of education or training?
- Medical
- Psychiatry
- Psychology
- Counseling
- Nursing
- Social Work
- Other (Please Specify) ______________________

F.11 What is your age?
- 18-24
- 25-39
- 40-55
- 55-65
- 65+

F.12 What is your sex?
- Male
- Female
F.13 How do you describe yourself? (Please check the option which BEST describes you.)

- American Indian or Alaskan Native
- Hawaiian or other Pacific Islander
- Asian or Asian American
- Black or African American
- Hispanic or Latino
- Non-Hispanic White