What Influences Suffering in Silence: Examining Mental Health Stigma, Social-Cognitive Factors, and Age as Predictors of the Willingness to Seek Professional Psychological Help

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WHAT INFLUENCES SUFFERING IN SILENCE: EXAMINING MENTAL HEALTH
STIGMA, SOCIAL-COGNITIVE FACTORS, AND AGE AS PREDICTORS
OF THE WILLINGNESS TO SEEK PROFESSIONAL
PSYCHOLOGICAL HELP

A Thesis Presented to the Graduate Faculty
of the Fort Hays State University in
Partial Fulfillment of the Requirements for
the Degree of Master of Science

by

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ABSTRACT

Mental health and wellness are increasingly common and popular topics discussed and researched in the world today. Recent estimates suggest that one in five adults in the United States of America experience mental health issues each year; this is estimated to be approximately 51.5 million adults (NAMI, 2020). However, despite many individuals who might suffer from mental health issues, and perhaps be diagnosed with a mental health disorder, these same individuals may not seek out the help and psychological services needed. Research exploring why people do not seek out help for their mental health should be a priority. Thus, the current study examined factors that might influence a person’s willingness to seek out psychological help when needed. These factors included aspects relevant to mental health stigma (i.e., public and self-stigma of mental health), social-cognitive factors (i.e., attitudes, subjective norms, and perceived control), as well as individual differences (i.e., age and generational cohort affiliation). The Theory of Planned Behavior and relevant prior research were used as a theoretical guide. The current study included 355 participants between the ages of 18 and 75. Our results indicated that public and self-stigma did not overall predict participants’ willingness to seek treatment. However, our results showed that two of the social cognitive factors (subjective norms and perceived control) did predict willingness to seek treatment; whereas the remaining social cognitive factor, attitudes, did not predict willingness to seek treatment. The current study also analyzed these variables and their order of effect. The results from this analysis indicated that public and self-stigma indirectly impacted the willingness to seek help through the social cognitive factors of subjective norms and perceived control. This finding is important because it indicates that through this pathway, each of the variables does impact the willingness to seek help either directly or indirectly. Finally, our results also showed that the
older participants of this sample, those who belong to the Baby Boomer generational cohort, were more willing to seek out psychological help than younger generations. Overall, findings of the current study support prior literature, as well as expand on the existing mental health concepts while also exploring new avenues of potential influence. This current study also helps to mend some existing gaps in prior literature and include areas that have not yet been examined together.

*Keywords*: mental health stigma; public stigma; self-stigma; social-cognitive factors; generational cohort; willingness to seek psychological treatment
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INTRODUCTION

Mental Health and Stigma: Importance of the Problem

Mental health and wellness are increasingly common and popular topics discussed and researched in the world today. The empirical and systematic study of mental health and mental illness has not only become an important topic of investigation among researchers and academics, but also a topic that is widely-discussed and of great importance among the general public. This increase in study and general discussion of mental health and wellness may be due to increasing prevalence of mental illness, namely in the United States of America (USA). Recent estimates indicate that one in five adults experience mental health issues, such as symptoms associated with depression, anxiety, and loneliness, each year in the USA; this is estimated to be approximately 51.5 million adults. Further, one in twenty adults in the USA (~13.1 million) will experience a serious mental health illness in their lifetime (NAMI, 2020). According to the Diagnostic and Statistical Manual of Mental Disorders, 5th Edition (DSM-V), mental illness and disorders can be defined broadly as “a syndrome characterized by clinically significant disturbances in an individual’s cognition, emotion regulation, or behavior that reflects a dysfunction in the psychological, biological, or developmental process underlying mental functioning (American Psychiatric Association, 2013; p. 20).” Although not all who suffer from mental health symptoms will be formally diagnosed with a mental health disorder, it is important to consider how many people are impacted by mental health issues in the USA.

These estimates above demonstrate the importance of mental health awareness and the need for empirical study of mental health. Although it appears that mental health issues can be a common occurrence among adults, prior literature on this topic indicates that there is a significant amount of bias and discrimination surrounding mental health in general, as well as a
bias towards mental health diagnoses and treatment (Corrigan et. al., 2000). Unfortunately, this bias and discrimination has created stigma for those who may experience mental health issues and those who may be diagnosed with a mental illness (Nukala et al., 2020). This mental health stigma is detrimental in that it can have the potential to reduce an individual’s likelihood of seeking mental health services and support when needed (Hack et al., 2020). As such, understanding mental health and the stigma surrounding mental health should be a research priority. Prior research suggests that the development of stigma surrounding mental health is a complex process, but that certain factors, such as mental health awareness and literacy, as well as societal views and individual attitudes contribute to this ongoing stigma (Corrigan et al., 2000).

Education surrounding mental health is important to minimize the misconceptions of mental health diagnoses, services, and outcomes (Crowe, Mullen, & Littlewood, 2018). Mental health literacy is often defined as knowledge and beliefs about mental health diagnoses (Skinner, 2016). Increased awareness and better mental health literacy may aid in recognition, coping, and prevention of mental health stigma. For example, Skinner (2016) conducted a study to analyze why younger adults (i.e., ages ranged from 14 to 19 years old) may be hesitant to seek out help and/or do not seek mental health services when experiencing mental health distress. In addition, the researcher examined if mental health literacy could help to explain why participants may be hesitant to seek out help. To measure mental health literacy, the researchers asked the participants to review several vignettes. These vignettes described both male and female peers who were experiencing symptoms of Major Depressive Disorder (MDD) or Social Anxiety Disorder (SAD). Results suggest that fewer than two percent of the participants successfully recognized the symptoms of SAD; additionally, about half of the same participants appropriately recognized the symptoms of MDD. This finding of low recognition of mental health symptoms
and disorders among young adults is important given the connection between low recognition (or low mental health literacy) and seeking psychological treatment (Skinner, 2016). Further, the findings of this study suggest that approximately one third of all participants failed to recommend that a peer with SAD or MDD should seek mental health services to help with their symptoms (Skinner, 2016). Although mental health stigma specifically was not addressed in this work, taken as a whole, these findings indicate that a lack of mental health literacy can translate into misconceptions of the symptoms experienced by those who may have a mental health disorder. These findings also suggest that peers who were not able to recognize the symptoms of MDD and SAD also were likely not to recommend that those with mental health symptoms seek out help despite help being warranted.

In addition to general misconceptions about mental health symptoms and seeking treatment that may develop due to a lack of mental health literacy, namely identifying symptoms and accurate diagnoses, there also is a general lack of knowledge regarding certain types of symptoms associated with a particular mental illness, as well as how common certain types of disorders may be among the general public. In fact, certain mental health diagnoses may be perceived as common (e.g., Schizophrenia and Major Depressive Disorder), when they are actually relatively rare among the general population (Nukala et al., 2020). This misconception could be a result of the way popular media (including social media) misrepresents mental illness. For instance, Lauber and colleagues (2003) examined factors that influence mental health literacy and found that schizophrenia and symptoms assumed to be commonly associated with schizophrenia were more recognized than depression and depression symptoms. This finding is important given that a diagnosis of depression is often more common for members of the general population than a diagnosis of schizophrenia. The researchers suggest that misconceptions about
the prevalence of mental health disorders and associated symptoms could be due to popular portrayals of mental health via media. Media often overemphasizes the nature of the symptoms for a diagnosis of schizophrenia. Media scenes that depict hallucinations, delusions, and disorganization are captivating to the general public; as a result, schizophrenia is often depicted in television shows, movies, and other media and may perpetuate the idea that this is a common mental health disorder. Further, these depictions are often not accurate, and in some cases depict the individual diagnosed with schizophrenia as a criminal or as dangerous.

Many popular media outlets, television shows, and movies depict psychological diagnoses. For example, the increasingly popular television show *Law & Order: Special Victims Unit* has depicted several psychological disorders throughout its airtime. Season 10, Episode 22 titled “Zebras” depicts a man diagnosed with Schizophrenia. In this episode, this man suffers a psychotic break and begins to terrorize New York City, NY on a murderous killing spree. Unfortunately, episodes such as these perpetuate the assumptions that those diagnosed with Schizophrenia are dangerous and/or criminals. *Law & Order: SVU* has several episodes that depict psychosocial diagnoses as a plotline or character arch. While this popular show is one example, there are many more in the mainstream media. These inaccurate portrayals can perpetuate misunderstanding, thus, leading to misinformation and misconceptions about mental health in general. However, a more positive finding from the Lauber and colleagues (2003) study was that increased and accurate mental health literacy can positively impact recognition of mental health disorders and associated symptoms. The researchers concluded that by increasing mental health literacy and accurate information that is disseminated to the public, the response to mental health overall (and the lessening of stigma) may be improved.
Related to popular media portrayals of mental health, our society in general has an important influence on the public opinion of mental health. If the general public holds the opinion that individuals with a mental health diagnosis are dangerous, unpredictable, and criminal, then these opinions can inadvertently be taken as fact (Hocking, 2003). Importantly, research indicates that there is a significant difference between a layperson’s perspective on mental health and a psychological professional’s knowledge regarding mental health. In the field of psychology, recognizing misconceptions and becoming advocates is fundamental. The public’s beliefs about specific causes and treatments of mental health disorders appear to align more with general and unsubstantiated beliefs about mental disorders (Jorm & Kelly, 2007).

Thus, improving the public’s views, opinions, and understanding about mental health diagnoses may lead to better and more accurate overall attitudes toward mental health and alleviate, or at least reduce, the prominence of mental health stigma. However, changing attitudes and behaviors is not an easy process (Jorm & Kelly, 2007). Many factors must be considered when trying to promote an extensive attitude change, and subsequent behavioral change. More research is needed to better understand how attitudes about mental health influence associated behaviors, like seeking out help and possible treatment. Furthermore, societal or global-scale change with respect to reducing mental health stigma and enhancing mental health literacy among our society presents a difficult and time-consuming endeavor. Focusing on attitudes and behaviors at the individual-level and applying theories and models that support attitude and behavioral change may ultimately allow for a reduction in negative beliefs associated with mental health and seeking support and services.

The current study seeks to employ such an approach. At the individual-level, the current work focused on how attitudes have the power to influence our behaviors. The Theory of
Planned Behavior (Ajzen, 1991; Ajzen, 2011; see Mesidor & Sly, 2014) was used as a theoretical guide. This theory focuses not only on individual attitudes regarding a target behavior, but also on other factors like subjective norms (i.e., what do others think about the target behavior) and control beliefs (i.e., do I have the ability to enact the target behavior). Factors such as public and self-stigma attitudes about mental illness were examined in relation to behavioral aspects of intention to seek out help and treatment. In addition, age was used as a demographic variable that may further explain how stigmatic attitudes, subjective norms, and control beliefs may relate to intentions to seek help. To better understand the theoretical underpinnings of the current work, the variables of interest and relevant literature regarding those variables will be reviewed in detail in the sections that follow. The Theory of Planned Behavior and the proposed connection of this theory to mental health also will be reviewed.

**Review of Mental Health Stigma: Factors that Influence Seeking Help**

According to Ahmedani (2011), most general conceptualizations of stigma do not focus solely on mental health concerns; stigma is apparent in many contexts of an individuals’ life, such as being stigmatized due to; race, gender, or sexual orientation. However, mental health issues and illnesses can affect any person and stigmatization is not reliant on any race, gender, culture, or sexual orientation. In general, stigma of mental health (or mental health stigma) often can be defined as stereotypes, prejudice, and discriminatory behaviors towards individuals who experience mental health issues and/or towards individuals who are diagnosed with a mental health disorder (Lucksted & Drapalski, 2015). Because stigma may manifest as stereotypes, prejudice, and/or discrimination, it is important to distinguish between these three components that comprise stigma and how these components influence how people think about, feel about, and act towards those with mental health issues.
According to Lucksted and Drapalski (2015), general stereotypes are the internalized beliefs that a person or people may possess regarding a particular topic, such as mental illness, and/or in relation to a particular individual, such as a person diagnosed with a mental health disorder. Stereotypes often are thought of as cognitive facets that drive our beliefs regarding how we think about others; often these beliefs are cognitive generalizations that are inaccurately developed about certain individuals based on their group membership and/or particular individual characteristics (Lucksted & Drapalski, 2015). Related to mental health stigma, a stereotype could include the belief that individuals with a mental illness or mental health issues are criminals or are particularly dangerous. This represents an overgeneralization or cognitive belief about mental illness that is inaccurate; in fact, research suggests that an overwhelming majority of individuals diagnosed with a mental illness in general are no more likely to be criminals and are no more dangerous than the rest of the general population (Corrigan, 2004).

Whereas stereotypes represent more cognitive-related facets, prejudice is often related more to emotions or an affective facet. Prejudice may develop from pre-existing attitudes and affective responses that serve to drive or perpetuate a negative attitude about a person based on group membership and/or individual characteristics (Corrigan, 2004). Prejudiced attitudes regarding mental health may manifest as feeling embarrassed and/or ashamed of an individual suffering from mental health symptoms; these emotions or attitudes may also resemble things like disgust towards an individual who suffers from mental health issues. Finally, discrimination represents more of the behavioral facet or the action of acting out against mentally ill individuals. Quinn, Williams and Weisz (2015) report that discrimination experiences could be impacted by a person’s past experiences with mental illnesses. Moreover, these findings indicate that if an individual experiences mental health discrimination, it may not directly or immediately lead to
internalizing the negative stereotypes common with mental health stigma. However, such mental health discrimination may lead individuals to internalize the negative stereotypes during the experience, and afterwards, they would begin to anticipate more discrimination and more public stigma (Quinn et al., 2015). These findings are particularly impactful because they show that when discrimination is experienced, it can lead to more instances of future or anticipated discrimination.

Together, stereotypes, prejudice, and discriminatory behaviors are particularly detrimental and often are connected or accompany one another. For example, overgeneralized beliefs and attitudes paired with negative emotions felt towards an individual with mental health issues may eventually manifest into a person acting in a discriminatory way against someone who suffers from mental health issues. Unfortunately, we can see mental health stigma (including the stereotypes and prejudice attitudes) translate into discriminatory behaviors in real life. For instance, the death of Walter Wallace Jr. in October 2020 could be attributed to several heartbreaking factors. In this specific case, Walter Wallace Jr. was known to be diagnosed with bipolar disorder, and police were called for assistance during a manic episode. It is important to note that Walter Wallace Jr. was a 27-year-old African American man with a diagnosed mental health disorder. Walter’s death could have been avoided and may have been impacted as a result of discrimination and fear towards his mental health disorder and/or his ethnicity. Given Walter’s race, and partnered with his mental health diagnosis, each could have been amplified and perpetuated the stigma and associated assumption of danger/criminality. Important for the proposed work, the significant impact of mental health stigma often affects an individual’s likelihood of seeking mental health services.
Moreover, each of these components of mental health stigma, stereotypes, prejudices, and discriminatory behaviors, are often heavily tied to an individual’s personal beliefs that are thought to be true (Corrigan et. al., 2000). That is, individuals who have personal experiences with mental illness could have their beliefs influenced by said experiences. For instance, if an individual has a negative experience with someone who is diagnosed with schizophrenia, they could attribute this experience to all those who are diagnosed with schizophrenia. This occurrence has the potential to perpetuate negative stereotypes and prejudice which may evolve into discrimination based on a mental health diagnosis. Overall, mental health stigma can have a detrimental impact on those who suffer from mental health symptoms and/or those who have been diagnosed with a mental health disorder. Stigma can develop from stereotypes, prejudice, and in turn, discrimination from a society perspective as well as a more internalized or self-perspective. Schnyder and colleagues (2017) found that mental health stigma or stigma related to professional mental health services is directly associated with individuals being less likely to seek professional help for mental problems. As such, it is important to note and review the two main types of mental health stigma, public stigma and self-stigma.

**Public and Self-Stigma**

Public stigma is often defined as a normative societal response(s) to mental health disorders; whereas self-stigma is the internalized and detrimental impact of public stigma (Ahmedani, 2011). These definitions suggest that societal opinions on mental health (i.e., public stigma) influence how individuals internalize symptoms, feelings, and experiences associated with mental health (i.e., self-stigma). Previous research supports the influence of public stigma on self-stigma (Vogel et al., 2007). Individuals who seek psychological assistance for their mental health have to overcome a variety of stigmas. Corrigan and Watson (2002) argue that
stigmatized individuals could internalize the stigma they are exposed to through their mental health struggles. For instance, some individuals may be consumed by the oppression they experience at the hands of society. This type of self-stigma often leads to the individual experiencing feelings of shame and low self-esteem. These feelings are often followed by isolation, distress, and a lack of willingness to seek psychological help. Mak and colleagues (2007) conducted a meta-analysis of stigma on mental health. The results of this meta-analysis suggest a correlation between stigma and mental health. Specifically, the researchers found that the relation between stigma and mental health was strong enough to be observed in everyday situations. These findings indicate that mental health stigma is not isolated to unique events, mental health stigma produces a greater effect. Mak and colleagues (2007) also identified that different types of stigma affect each person differently. Moreover, the outcome is dependent on the individual and the type of stigma they experience. For instance, some individuals internalize the stigma they experience, and they feel a great amount of shame. This situation is unfortunate, and often reflects significant levels of self-stigma. Whereas some individuals feel energized by the stigma and they fight against such oppression (Mak et al., 2007).

As mentioned previously, stigma overall, and especially self-stigma can be particularly detrimental to the individual’s likelihood of seeking professional psychological help. Additionally, self-stigma can perpetuate the negative attitudes towards mental health. Previous research indicates that college age adults with greater self-stigma are less likely to have positive attitudes towards psychological help (Cheng et al., 2018). This finding is consistent with additional research that found self-stigma plays a powerful role with respect to influencing an individual’s likelihood of seeking professional psychological help when it is needed (Cheng et al., 2018). Based on this information, it can be inferred that self-stigma can negatively impact an
individual’s willingness to seek treatment. Moreover, self-stigma is a concept that is often greatly influenced by societal opinions. In terms of mental health, public stigma often shapes how an individual internalizes their experiences (Cheng et al., 2018).

Corrigan, Watson, and Barr (2006) describe that public stigma occurs when the general population endorses prejudice and discrimination towards individuals with mental health diagnoses. There are far too many misconceptions that individuals diagnosed with a mental disorder are dangerous or unstable. Along with this example, there is an important distinction to be made. Bathje and Pryor (2011) explain that there is a stark difference between endorsement and awareness. For instance, an individual might not agree with the stereotype that someone with a mental diagnosis is dangerous, but they are aware of this stereotype. As such, public stigma is then the endorsement of these stereotypes which lead to misconceptions and perhaps subsequent discrimination. This endorsement is detrimental to interventions aimed at diminishing mental health stigma. This is mainly due to the fact that this action of endorsement is deliberate and impactful. Corrigan and colleagues (2012) conducted a meta-analysis and found that compared with adults, adolescents show more variation in their response to stigmatic elements and hence have more room for change. This meta-analysis also found that anti-stigma education and contact both yielded significant improvements in terms of behavioral intentions. That is, the findings suggest that when individuals are well educated on the impacts of stigma, and they have contact with those who are diagnosed with a mental disorder, they are less likely to perpetuate stigmatic behaviors (Corrigan et al., 2012).

Further, public stigma also may indirectly influence the willingness to seek psychological treatment by means of self-stigma. Public stigma has been found to predict an individual’s level of self-stigma, and self-stigma has been found to influence the likelihood of seeking treatment
for mental health issues (Bathje and Pryor, 2011). Based on these findings and as previously discussed, self-stigma is the internalization of social opinions (i.e., public stigma). Together, these components of mental health stigma create a vicious cycle. For example, an individual could experience severe mental health symptoms, and as a result, they may consider seeking out professional psychological treatment or help. However, this individual also may be aware of the public stigma surrounding mental health symptoms and diagnoses (e.g., societies view that those who seek help for mental health issues are weak). Given prior research that indicates a direct connection between public stigma and self-stigma, an individual might start to develop internalized negative views of themselves because of their mental health needs (e.g., feeling inadequate for seeking out help based on societal views). As a result of both public and self-stigma, the individual may choose to suffer in their distress due to the severe shame and embarrassment of seeking help, both at a societal level and internalized level. This suffering in silence then only perpetuates the misconceptions they discovered in the first place regarding the need to seek out help. Although just an example, this kind of situation has been supported in prior research. Vogel and colleagues (2007) tested a model of mental health stigma in relation to impacting attitudes about counseling as well as a willingness to seek out counseling. More specifically, the model (see Figure 1) showed a direct connection between public stigma of mental health (or those societal stereotypes, prejudices, and discriminatory behaviors) and self-stigma of mental health (or the internalized stereotypes, prejudices, and discriminations). As a result, the self-stigma than predicted attitudes towards counseling; more self-stigma predicted more negative attitudes towards counseling. These negative attitudes then, in turn, predicted a reduced willingness to seek counseling.
Although the connection between public stigma and self-stigma is well-supported in relation to influencing the likelihood of seeking treatment for someone who suffers from mental health issues, more research is needed to further understand and explore additional factors that can further impact the willingness to seek help. Important for the proposed work, the Theory of Planned Behavior can be used as a guide to further explore additional factors that might influence the likelihood of seeking help. These factors within this theory’s framework are typically referred to or noted as social-cognitive factors.

**Social-Cognitive Factors**

The Theory of Planned Behavior (ToPB; Ajzen, 1981) is a theoretical model which attempts to explain the different social-cognitive factors that influence an individual’s likelihood of engaging in a particular behavior. For our study purposes, the target behavior that will be examined is the likelihood of pursuing professional psychological treatment when suffering from mental health issues (Mesidor & Sly, 2014). Using this theory as a framework, we might better understand the factors that influence this target behavior of seeking out help. Importantly, the ToPB has been used in past research to understand the factors that contribute to the willingness to seek psychological treatment; however, to our knowledge, there is only one study connecting this theory and its related factors to the target behavior of seeking help (see Mesidor & Sly, 2014). Replicating the results of that study as well as expanding on that study by adding additional factors that can help to explain the target behavior of seeking help is an overall goal of this proposed work.

Moreover, the ToPB can be used to explain that target behaviors are not always within an individual’s control. The ToPB explains that there are several factors that can influence an individual’s intentions to seek mental health services; these influences are identified as our
general individual attitudes, subjective norms, and beliefs about behavioral control (AKA perceived control; Ajzen, 1991; 2011). For instance, attitudes can be described as feeling negatively or positively towards a specific/target behavior (Ajzen, 1991; Mesidor and Sly, 2014). From this definition, it can be inferred that if an individual holds a negative attitude towards seeking mental health treatment, they are less likely to take part in the behavior of seeking treatment. Alternatively, if an individual holds a positive attitude towards seeking treatment, they are more likely to engage in said behavior.

Social and societal pressures surrounding the target behavior are another powerful impact on an individual’s likelihood of engaging in the specified and desired behavior. Mesidor and Sly (2014) explain that subjective norms are the extent of social pressure felt to perform or not perform a particular behavior because of what others around you (and who are important to you) think about that behavior. This idea of subjective norms is similar to the information reviewed above with respect to public and self-stigma; an individual’s endorsement of stigma (both public and self) can be directly related to attitudes towards seeking mental health services (Bathje & Pryor, 2011). Importantly, individuals who face societal pressures and pressure from those around them (i.e., family; friends; spouse) to avoid behaviors are less likely to engage in said behaviors. For example, individuals who endorse mental health stigma are often fearful of the social implications that come with seeking mental health treatment. In this case, the fear associated with isolation and discrimination is too great. The concept of social and societal pressure can be based on public and self-stigma. Public stigma could lead to a fear of rejection, whereas self-stigma can lead to an internalized fear of repercussions thus, perpetuating the cycle of suffering because the individual is unwilling to seek help.
In addition to general attitudes about the target behavior and subjective norms related to the target behavior, it is important not to overlook an individual’s ability to obtain help (e.g., resources and accessibility to services) that also might influence engagement in a specified behavior. An individual’s belief about behavioral control over obstacles and potential goals clearly could impact their likelihood of pursuing a behavior (Mackenzie et al., 2006). Individuals who do not feel in control of their own goals and intentions may not spend the time and effort needed to try and change their fate. This could manifest as an individual feeling hopeless due to their mental health issues or symptoms, and potentially not seeking psychological treatment due to the fact that they feel they cannot take control of managing the situation. This lack of perceived control could once again be based on public and self-stigma, and common stereotypes or misconceptions as previously mentioned.

When examining the ToPB within a research context, Mesidor and Sly (2014) found support for its general tenets related to mental health stigma. Specifically, Mesidor and Sly (2014) found that perceived control was the strongest significant predictor for the participants’ intentions to seek professional mental health services. This factor also was the only social cognitive variable that was found to be a significant predictor. Perceived control, as previously explained, is an individual’s belief about their control regarding their mental health (e.g., a person’s perceived ability to enact a behavior like seeking out mental health services and/or a person’s perceived ideas about the resources they have to enact the target behavior). This finding suggests that individuals who believe that they possess the necessary resources and ability to seek out mental health resources/services were then more likely to actually engage in this help seeking behavior. It also is important to note that both attitudes about the target behavior and subjective norms were not significant predictors of the intended behavior (i.e., seeking out
mental health services) in this study. Overall, these results suggest that while attitudes and subjective norms are important to consider with respect to encouraging individuals to seek help, the most important predictor of actually engaging in the target behavior was perceived control (Mesidor & Sly, 2014). Based on these findings, if an individual has positive attitudes towards mental health services and if those around them also encourage the behavior, but they do not have a high perceived control, then they may be less likely to engage in help-seeking intentions.

The findings of the Mesidor and Sly (2014) study add valuable information to the mental health stigma literature; however, as mentioned previously, research connecting the ToPB to mental health is limited. To our knowledge, replication of the Mesidor and Sly study has not yet been conducted. In addition, the Mesidor and Sly study utilized a small college student sample. While student samples can be advantageous, sampling from college students alone lacks generalizability to the population as a whole. As such, the current study seeks to fill gaps in previous research by using the ToPB as a general framework to test how attitudes, subjective norms, and control beliefs related to mental health stigma impact the willingness to seek treatment. The sample used for the current study also will be more representative of the general population compared to the Mesidor and Sly study.

Replicating the findings of the Mesidor and Sly (2014) study would contribute important and valuable knowledge to existing mental health stigma literature. In addition to replication, it also is important to expand on additional factors that might serve to influence a target behavior of seeking help. Worth noting, attitudes, subjective norms, and beliefs about behavioral control (all factors within the ToPB) can be influenced by individual characteristics. For instance, characteristics such as, ethnicity and gender as well as upbringing and even culture can influence the three main tenets of the ToPB. Age (or generational differences) also is an important factor to
consider. To our knowledge, testing age as a factor that also may influence a target behavior of seeking help within the context of the ToPB is limited. Thus, age will be added as a predictor in the current study to expand information and knowledge on factors that influence a target behavior of seeking help.

**Age in Relation to Mental Health and Mental Health Stigma**

With respect to age as an individual difference variable, much of the current and past literature on this topic has explored chronological age as a continuous predictor as opposed to groupings based on generational cohorts. Unfortunately, there is a gap in the research regarding mental health stigma and how different generations are affected (Twenge, 2011). Mental health stigma research often identifies a particular group of the population (i.e., young adults), but these findings are not often compared to the different generational groups. For instance, as previously described, Skinner (2016) conducted a study which focused on young adults and their hesitation to seek mental health services. However, this study, like many others, focused on **chronological age** rather than **generational cohort**. Generational cohorts often have similarities in their types of communication, consumptions, and motivations. Additionally, different generations are exposed to their own stereotypes and stigmas. Therefore, adding mental health stigma on top of those stereotypes can be particularly detrimental. For the current study, we measured both age as a chronological, continuous variable as well as generational cohorts or generational grouping. One goal of the current study being to compare the factors mentioned above with respect to impacting health seeking behaviors among various ages and generational cohorts.

According to the Center for Generational Kinetics (2020) the primary generations include: Gen Z, iGen, or Centennials born between 1996 – TBD; Millennials or Gen Y born between 1977 – 1995; Generation X born between 1965 – 1976; Baby Boomers born between 1946 –
1964; and Traditionalists or Silent Generation born between 1945 and before. These five primary
generations are typically studied through common characteristics, thought processes,
expectations, and preferences as a cohort. Typically, different generations exhibit similarities in
these areas, and these trends often poise interesting avenues for research.

In recent years, several researchers have attempted to identify another avenue of
generational differences. The interest in such research focuses on which generations are
experiencing more mental health issues and in turn, are suffering more from these mental health
issues. Twenge (2011) presented a unique stance on the changing culture that has been occurring
in recent years. It can also be inferred there are stark differences between older and younger
generations (Twenge, 2011). This stark difference could be related to the generation to which
someone belongs to. For example, there are differences in opinions on mental health between
different generational cohorts. Older individuals in general often hold the opinion that mental
health is not to be discussed at all, especially with a mental health professional. Farrer et al.,
(2008) report that younger and middle-aged adults endorsed counseling services more than adults
over the age of 70. Farrer et al., (2008) also describe how up to 70% of individuals who are
diagnosed with a mental health disorder do not seek professional psychological treatment.
Additionally, it has been shown that seeking help improves the recognition of mental health
symptoms and struggles. Thus, there appears to be interesting differences in mental health
literacy between age groups.

Differences between age groups are not isolated to mental health literacy. According to
Siervo (2020), the Baby Boomer generational cohort suffer from mental health struggles and
stigma. Moreover, mental health disorders are reported as rising the fastest among Baby
Boomers. Specifically, it is estimated that 20% of people age 55 or older experience some type
of mental health issue, and the number of older adults with depression is expected to double between 2010 and 2030 (Siervo, 2020). This spike in mental health struggles for Baby Boomers could be attributed to the unique stigma and cultural understanding of mental health. As previously described, each generation is exposed to different cultural norms, these norms could lead to severe mental health stigma. For instance, individuals who are considered Baby Boomers were raised during a culturally difficult time. As a result, Baby Boomers often assume a “tougher attitude” overall, and specifically towards their mental health. However, it is important to note that a tougher attitude does not result in immunity towards experiencing mental health issues. Individuals who are over the age of 55 experience some form of mental health issue, but many go undiagnosed or untreated, and this is especially common in men (Siervo, 2020). These mental health issues include but are not limited to: depression; anxiety disorders; dementia; and substance abuse or misuse. However, culturally speaking, those among the Baby Boomer generation believe they should remain independent and not rely on others (Siervo, 2020). This belief may lead to a severe neglect of their mental health and not seeking out treatment when mental health issues are experienced. Interestingly, a trend is appearing that suggests that younger generations are not neglecting their own mental health. Younger generations are fortunate to grow up with a better understanding of mental health, and health in general. Older generations often had to (or have to) suffer in silence due to the lack of advancements and awareness. The term “younger generations” typically refers to an individual who belongs to either Gen Z or Millennial generations. These generations are exposed to a world with a greater understanding of mental health and its importance. As a result, younger generations are more likely to report their mental health issues. However, Gen Z is significantly more likely than other generations, including millennials and Gen X to report their mental health as fair or poor
(Bethune, 2019). Gen Z also are more likely, along with millennials, to report they have received professional mental health treatment or therapy compared with only 26% of Gen Xers and 22% of Baby Boomers. From this information it can be inferred that older generations may not be as socially or culturally supported in terms of their mental health and receiving professional mental health treatment. Although previous research has suggested that older individuals or older generational cohort affiliations are experiencing a rise in mental health issues and perhaps are more stigmatized because of their generational attitudes on mental health, there is additional research to suggest the opposite; older individuals report low stigma and better mental health seeking behaviors in some cases.

For instance, Mackenzie and colleagues (2019) found that generally older adults held more positive attitudes towards seeking professional help than younger adults. Moreover, Mackenzie and colleagues (2019) identify that these results could be attributed to the older adults in this study perhaps not endorsing self-reliant social roles as much as was previously considered. These social roles are often defined as a particular self-reliance and strength, this could also be seen as “pulling yourself up by your bootstraps” which is a common thought or prescribed ideology for older adults. Overall, Mackenzie and colleagues (2019) appear to conclude that older adults may not experience as much stigma about mental health as other sources might suggest. However, Mackenzie and colleagues did measure age as a continuous variable, whereas other previous research has used age as a grouped variable based on generational cohort. The participants’ ages within this study ranged from 18–101 years old, with a mean of around 51 years old. In this study, “older adults,” is based on a mean of 51 years old. These findings are in line with Generation X (typically ages 41-56 years old), as opposed to the Baby Boomer generation (typically ages 57-71 years old). The current study seeks to expand on
Mackenzie and colleagues work by sampling from a full range of ages that will include individuals who can be categorized as the Baby Boomer generation.

Furthermore, the contradictory findings of the Mackenzie and colleagues study in comparison to other prior research could be attributed to the participants in that study being described as relatively well-educated. As previously discussed, prior research has shown that the more education and awareness an individual has pertaining to mental health, the more open they may be regarding mental health or less stigmatic. Mackenzie and colleagues (2019) report that if older adults are more educated, then they are more likely to have the necessary financial and lifestyle resources needed to seek professional psychological help; this perhaps relates to more perceived control as previously discussed in the social-cognitive section. Overall, perhaps the differences in the age variable measurement account for the differing findings here, but it is important to further explore this variable in relation to mental health stigma. In summary, given these contradictory findings, more research is needed to better understand how seeking mental health services can be influenced by an individual’s age and their generational cohort affiliation.

Overview of Current Study

The main goal and purpose of this current study was to examine variables that may influence an individual’s willingness to seek out mental health services. The Theory of Planned Behavior (ToPB), as well as existing literature on the topic, was used as a guide when selecting the variables of interest and designing the research hypotheses and research questions. Overall, the willingness to seek treatment (or services) for mental health issues served as the dependent variable in the study. Six main independent variables were used to predict (or in one case to compare) the likelihood of seeking out mental health services. These independent variables include: public stigma, self-stigma, attitudes (about seeking help), subjective norms,
behavioral/perceived control, and age/generational cohort. For a complete list of these variables as well as the operational definitions used in the current study, please see Table 1.

As previously discussed throughout the literature review portion of this document, there are some gaps in the current literature pertaining to factors that influence the willingness to seek out mental health services. While variables such as public and self-stigma have been linked to the willingness to seek out psychological services, other factors, such as social-cognitive (i.e., individual attitudes, subjective norms, and control beliefs) are more limited with respect to empirical investigation. Furthermore, how age and/or generational cohort affect mental health should be explored more fully. Prior studies appear to have a focus on chronological age, and even given this focus there are inconsistent findings. As a result, this current study served as a support to prior literature, as well as expanded on the existing concepts while also exploring new avenues of potential influence.

**Hypotheses and Research Questions**

**Hypothesis 1: Public and Self-Stigma.** Based on previous research (Ahmedani, 2011) indicating that public stigma is often derived from a societal response(s) to mental health disorders, symptoms, and experiences and that self-stigma is identified as an internalized impact of public stigma that might prevent people from seeking help, we hypothesized the following:

*H1a:* Public stigma will significantly predict the participants’ willingness to seek professional psychological help. Participants reporting more public stigma also will report less willingness to seek out psychological treatment.

*H1b:* Self-stigma will significantly predict the participants’ willingness to seek professional psychological help. Participants reporting more self-stigma also will report less willingness to seek out psychological treatment.
**Hypothesis 2: Social-Cognitive Factors.** The following hypotheses were based on prior research which indicates that there are several social-cognitive factors which might influence an individual’s likelihood of participating in a target behavior, such as seeking out psychological help. As previously discussed, this study aimed to utilize aspects of prior research and also to adapt said aspects to make findings more generalizable. Mesidor and Sly (2014), employed the Theory of Planned Behavior and their findings suggest that perceived control was the strongest significant predictor for the participants’ intentions to seek professional mental health services. However, it is important to note that within this Mesidor and Sly (2014) research, this factor was the only variable that was found to be a significant predictor. Importantly, the participants sampled for this study add to the difficulty of generalizing the findings. Participants consisted of 111 international and African American college students only. This sample size and the limited demographics of participants create an issue with generalizing the findings to the population as a whole. The current study aims to recruit a larger and more diverse sample, and as such, we anticipated that all three variables will significantly predict willingness to seek help (as opposed to only one significant predictor).

*H2a:* Attitudes about help seeking will significantly predict the participants’ willingness to then engage in seeking professional psychological help. Participants who report more negative attitudes also will report less willingness to seek out psychological help.

*H2b:* Subjective Norms will significantly predict the participants’ willingness to seek professional psychological help. Participants who report more social pressure (or less support from those close to them) will also report less willingness to seek out psychological help.

*H2c:* Perceived Control will significantly predict the participants’ willingness to seek professional psychological help. Participants who report less perceived control regarding their
ability and resources to engage in psychological treatment will report less willingness to seek out psychological help.

_H2d:_ Similar to Mesidor and Sly, we anticipate that the strongest predictor of the participants’ willingness to seek professional psychological help will be perceived control.

**Research Question 1: Age.** Based on the previous literature and information discussed thus far, it is apparent that there are relevant inconsistencies with respect to age and seeking help. As a result, we found it particularly beneficial to explore the influence of age (as both a continuous predictor and grouped variable) on an individual’s willingness to seek psychological treatment, and to frame this exploration as research questions instead of hypotheses. Based on previous research, we posed the following research questions:

*RQ1a:* Does chronological age of the participants serve as a continuous predictor for their willingness to seek professional psychological treatment?

*RQ1b:* Does generational cohort affiliation serve as a group variable and effect participants’ willingness to seek professional psychological treatment?

**Research Question 2: Possible Order Effects.** There was a unique opportunity within this study to explore the influence of the variables previously explained individually. Additionally, this study had the opportunity to identify if there might be distinctive order effects present, accordingly we pose the following supplemental research question.

*RQ2:* Is there a specific order effect of the predictor variables within this study? Do each of the variables predict the DV separately or is there an apparent order? For example, as depicted in Figure 1, public stigma predicts self-stigma which in turn predicts the socio-cognitive factors (i.e., general attitudes, subjective norms, and perceived control). Together, does this specific ordering of the variables influence the willingness to seek treatment?
METHODS

Participants

Recruitment of Participants and Sample Size

For the current study, we made efforts to recruit a diverse sample with respect to age and awareness of mental health. To achieve as diverse a sample as possible, we recruited our participants through three main sampling methods. We utilized the convenience sampling method of Fort Hays State University to obtain participants who can be categorized in younger generational cohorts; thus, fulfilling our younger ages in the Generation Z cohort requirement (i.e., 18-24 years old). We also utilized Amazon’s Mechanical Turk (MTurk) to obtain more participants who fit into the Generation Y/ Millennial cohort (i.e., 25-40 years old) and Generation X cohort (i.e., 41-56 years old). And finally, we utilized various social media platforms (e.g., Facebook) to obtain our participants who are relatively older compared to the rest of the sample, which would fit the Baby Boomer generation (i.e., 57-75 years old). This decision was based on the likelihood of older adults being engaged through the previous two forms of recruitment much more than a convenience sampling method.

We did not recruit participants from the Traditionalist generational cohort. This is due to constraints with being able to recruit such a population as well as IRB concerns of working with a more vulnerable population with respect to age. Each of these sampling methods helped to ensure that we recruited participants with an age range of approximately 18-75 years old. Additionally, by utilizing these three different sampling methods, we obtained a more diverse population of participants with respect to diversity of not only age, but also race and ethnicity, gender identity, geographical location, educational experiences, and mental health-related experiences and education. Doing so helped add to the generalizability of our overall findings.
and also may have helped to control for extraneous variables (e.g., previous education and heightened awareness of mental health in some areas among some populations).

To determine how many participants were needed to achieve acceptable levels of statistical power, we calculated a power analysis using the software program G*Power. For the regression analyses (or statistical tests completed with the continuous predictor variables), using a medium effect size with six predictors and a $p$-value set at .05 (~95% statistical power), the target sample size was 146 participants. For the ANOVA that was done on the generational cohort variable, using a medium effect size and four groups, the target sample for 95% power is 280 participants. Based on these G*Power estimates, we were able to recruit 355 participants for the current study; this sample size suggests acceptable levels of power for the main analyses. More information on the data analytic strategy used for the current study can be found below.

**Sample Demographic Information**

In the current study we had a total of 355 participants complete the survey materials. The mean age of the sample was 37.8 years old, and the age range consisted of people between 18 and 75 years old. This sample consisted of 107 participants in the Generation Z cohort, 118 participants in the Millennial generational cohort, 86 participants in the Generation X cohort, and 44 participants in the Baby Boomer generational cohort.

Of those who responded to the race/ethnicity item on the survey, the current study consisted of 259 participants who identified as white or Caucasian (73%), 15 participants who identified as Black or African American (4.2%), 16 participants who identified as Native American or Alaska Native (4.5%), 32 participants who identified as Asian (9%), 22 participants who identified as Latino or Hispanic (6.2%). Whereas several participants utilized the open-ended option and identified their racial identity in their own words (3.1%). This included two
participants who identified as African American/ Japanese, two participants who identified as Caucasian and Hispanic, four participants who identified as mixed raced, one participant who identified as White and Italian, and one participant who identified as Caucasian, Hispanic, and Native American.

Participants indicated their highest level of education at the time of taking the survey. Of those who responded to this item, one hundred and thirty participants indicated they earned a high school diploma (36.8%), 59 participants indicated they earned a associates degree (16.7%), 62 participants indicated they earned a B.A./ B.S. degree (17.6%), 28 participants indicated they completed some graduate studies (7.9%), 53 participants indicated they earned an MBA/ M.A./ M.S degree. (15%), six participants indicated they earned a J.D./ Ph.D./ Ed.D./ M.D. (1.7%). Whereas 15 participants utilized the open-ended option and identified their educational level in their own words (4.2%).

The current study also asked participants to identify the region of the United States of America where they currently live. Among those who answered this questions, this resulted in 157 participants indicating they live in the Midwest region (45%), 35 participants in the Northeast region (10%), 67 participants in the Southeast region (19.2%), 35 participants in the Southwest region (10%), 55 participants in the West region (15.8%), and six participants did not indicate the region where they currently live.

Materials

All participants completed the following questionnaires using the online software system Qualtrics, and the presentation of the questionnaires were given in a randomized order. However, the demographic questions were the first questionnaire presented to ensure the participants over the age 65 possessed the capacity to consent (see below for more details).
**Age.** To measure the age of our participants we asked specific demographic questions. This variable was divided into two parts, the participants’ chronological age and their generational cohort affiliation. For example, we asked the participants to indicate their current chronological age (in years), which was a fill-in-the-blank option. For their generational cohort, we asked them a question related to their birth year. The answers to these questions allowed for us to group the participants by generational cohort and identify their chronological age. It is important to note that much of the final analysis for this study relies on the participants’ responses to the age-related questions. As such, participants were required to answer these two questions before being able to complete the rest of the survey. This also helped us to ensure that no one under the age of 18 and over the age of 75 completed the study. For a complete list of demographic items, see Appendix A.

**Public stigma.** To measure public stigma, we used the *General Public Stigma for Receiving Psychological Help Scale* (Komiya, Good, & Sherod, 2000). This scale is made up of five items, which are assessed on a 5-point Likert Scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). An example question from this scale is, “People tend to like less those who are receiving professional psychological help.” Higher scores on this scale would indicate higher feelings of public mental health stigma specific to seeking out psychological help. A composite score was created by averaging the responses to the five items. Past research studies which have utilized this scale indicate reliable psychometric properties, such as an internal consistency or Cronbach’s alpha (α) of .75 and above. For the current study, Cronbach’s Alpha was .85, indicating a strong reliability. For a complete list of items, see Appendix B.

**Self-Stigma.** To measure self-stigma, we utilized the *Self-Stigma of Seeking Help Scale* (Vogel, Wade, & Hackler, 2006). This scale consists of 10-items, which are assessed on a 5-
point Likert Scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). An example question from this scale is, “Seeking psychological help would make me feel less intelligent.” Higher scores on this scale would indicate higher feelings of self-stigma related to seeking psychological help. A composite score was created by averaging the responses to the ten items. Past studies that have utilized this scale indicate reliable psychometric properties, such as $\alpha = .86$ and above. Cronbach’s Alpha for the current study was .75, indicating acceptable reliability. For a complete list of items, see Appendix C.

**Social-Cognitive Factors.** To measure the social-cognitive factors, we used the *Inventory of Attitudes toward Seeking Mental Health Services* (Mackenzie et al., 2004). This inventory consists of three subscales used to explore the three social-cognitive factors, which are attitudes, subjective-norms, and perceived control. In total, there are 24 questions, which are assessed on a 5-point Likert Scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). An example question from the attitudes subscale is, “Psychological problems, like many things, tend to work out by themselves.” When measuring attitudes using this particular subscale, higher scores on this subscale indicate less positive attitudes about mental health and mental health services. To align the direction of scores to other scales used in this study (i.e., higher scores indicate higher/more of an outcome), we reverse scored these items. A composite score was created by averaging the responses to the items measuring attitudes; Cronbach’s Alpha was .88, indicating strong reliability. An example question from the subjective norms subscale is, “I would not want my significant other (spouse, partner, etc.) to know if I were suffering from psychological problems.”. Higher scores on the subjective norms subscale indicate less support (or more stigma from others who we are close to). Similar to the attitudes subscale, we reverse scored these items as well to align with higher scores indicating more support or better subjective norms. A
composite score was created by averaging the responses to these items; Cronbach’s Alpha was .87, indicating strong reliability. Finally, an example question from the perceived control subscale includes, “It would be relatively easy for me to find the time to see a professional for psychological problems.” Higher scores on the perceived control subscale indicate better ability and more resources to seek out help. A composite score was created by averaging the responses to these items; Cronbach’s Alpha was .88, indicating strong reliability. Prior research which utilized this scale (including all three subscales) indicated it possess reliable psychometric properties, such as $\alpha = .83$ and above; our reliability estimates support this scales fitness at measuring the social-cognitive factors. For a complete list of items, see Appendix D.

**Willingness to Seek Treatment.** To measure the participants’ willingness to seek treatment, we used the Psychological and Interpersonal Concerns subscale from the *Willingness to Seek Counseling Scale* (Cash et al., 1978). This scale consists of 10-items, which are assessed on a 4-point Likert-type rating scale ranging from 1 (Very Unlikely) to 4 (Very Likely). This scale prompts the participants’ answers by asking, “How likely would you be to seek counseling if you were experiencing the following problems?” and then is followed with a series of problems such as, difficulties dating, difficulty sleeping, depression, etc.\(^1\). Higher scores on this scale indicate the participants likelihood (or intention) of seeking professional treatment when they express mental health distress. A composite score was created by averaging the responses to the ten items. Past research studies which have utilized this scale indicate reliable psychometric properties, such as $\alpha = .90$ and above. We found a similar result with Cronbach’s Alpha estimate being equal to .89, indicating strong reliability. For a complete list of items, see Appendix E.

\(^1\) Some of the items on this scale (e.g., difficulties dating) may not be relevant for all participants. As such, a “not applicable” response options were added.
**Additional Questions.** We asked two additional questions. The first question consisted of “Yes” and “No” options. While the second question was assessed on a 5-point Likert Scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). These questions were adapted by the researchers to assess the participants’ past with pursuing professional psychological treatment. Additionally, these questions assessed the participants’ intentions when pursuing psychological services if they experienced psychological distress in general and not specific to a type of issue or problem. For a complete list of these items, see Appendix F.

In general, participants in the current sample appear to be almost equal with respect to who had/had not sought psychological help in the past. Specifically, about 54% of the sample indicated that they had sought psychological help in the past, and about 46% of the sample indicated that they had not ever sought psychological help in the past. In terms of general intentions to seek help in the future should a mental health concern arise, the average for the sample was 3.73 (on a 5-point scale). This suggests that, in general, the sample might seek help in the future if needed as the average score was above the mid-point of the scale.

**Procedure**

In order to obtain younger participants, we used convenience sampling through Fort Hays State University. We began by contacting the instructors of non-psychology general education courses. We chose to utilize non-psychology courses due to the past research findings that suggest that the more aware and educated someone is about mental health and mental health stigma, the more accepting (less stigmatic) they may be of mental health related issues (Corrigan et al., 2012). Using this logic, students enrolled in general education psychology courses were likely to be more accepting, interested, and understanding regarding mental health concerns compared to the general population. As a result, we contacted instructors who teach general
education courses, but courses not involved with psychology. For instance, courses like HHP 200: Personal Wellness, MUS 161: Listening to Music, COMM 100: Fundamentals of Oral Communication, and other commonly enrolled general education courses. For their participation, these college-age participants may been offered extra credit towards their overall course grade; however, this was at the discretion of each instructor. Convenience sampling through the student population at Fort Hays State University resulted in obtaining younger participants, who ranged in age between 18-24 years old on average. This form of recruitment and convenience sampling method resulted in obtaining the necessary Generation Z cohort requirement.

Amazon’s MTurk was also utilized to obtain participants who are older than 24 years old (or participants who are not simply the traditional college-age). We have chosen to use MTurk to increase the age range of our study’s participant sample. This form of recruitment resulted in obtaining the necessary Generation Y/ Millennial cohort and Generation X requirement. Additionally, we financially compensated the participants who take part in the study via MTurk. This financial compensation depended on the Institutional Review Board (IRB) process, for the participants using Amazon’s MTurk, we compensated participants $0.75. Additionally, we applied for the necessary funding/compensation for this current study from the Graduate Association for Students in Psychology (GASP), which is an on-campus Fort Hays State University student organization. From this student organization we were awarded $250 which was used to financially compensate the participants from Amazon’s MTurk, as well as funding the $50 via gift card from the social media sample.

We also administered this study online through a social media platform (i.e., Facebook) to engage with older adults. This decision was made since it is unlikely our key older adults (i.e., 57-75 years old) would be a part of our college sample and were less likely to be active utilizing
Amazon’s MTurk. Participants recruited from the social media method had the opportunity to win an online raffle for a gift card as compensation for their participation. However, this gift card and the overall amount awarded depended on the Graduate Association for Students in Psychology (GASP), and approved budget. Based on the approved funding, the gift card awarded was a $50 visa gift card. All forms of recruitment and procedure for this research study occurred online due to the current health concerns present due to the novel coronavirus and global pandemic of SARS-CoV-2 (COVID-19). This decision ensured the health and safety of the researchers and participants. Overall, these three main forms of recruitment helped to ensure as best as possible a full range of ages and generational cohort affiliation.

All IRB and APA standards and regulations for safe and ethical data collection occurred (e.g., participants received an informed consent and debriefing and were reminded that their participation is voluntary). Because we sampled from participants who are over the age of 65 – a protected population according to IRB standards – we made it clear in our recruitment materials that anyone over the age of 65 must not have a diminished intellectual capacity and was able to answer the survey questions online. Given the method of recruiting using social media, it is our assumption that older participants who agreed to take part in this study were not of diminished intellectual capacity given their ability to use social media. However, this is merely an assumption, and we took extra precautions by including questions about intellectual capacity, capacity to consent, and willingness to continue the survey for those who identify as over 65 years of age. See Appendix G for these survey questions.
RESULTS

Data Analytic Plan

Based on the hypotheses and research questions of this current study, we analyzed our results through a series of statistical tests. First, a regression analysis was used. This analysis is viewed as the most appropriate based on Hypotheses 1 (1a and 1b), Hypothesis 2 (2a – 2d), and Research Question 1a assessing if the independent variables (i.e., public stigma, self-stigma, social-cognitive factors, and chronological age) served as predictors of our dependent variable (the willingness to seek professional psychological treatment). We also conducted a one-way between-subjects ANOVA to assess if the participants’ generational cohort affiliation (measured as a grouped or categorical variable) impacted the willingness to seek treatment as mentioned in Research Question 1b.

We also assessed the specific order effect of the stigma and social cognitive predictor variables within this study. To assess Research Question 2, we utilized a regression model approach in which the predictors and dependent variable were regressed in a particular order. Similar to Figure 1, we assessed the prediction pathways of public stigma predicting self-stigma; self-stigma then predicting the social cognitive factors; and finally, the social-cognitive factors predicting willingness to seek help.

Data Screening

Data were screened using the explore function of SPSS. First, missing data and irrelevant responding were assessed. Participants were deleted from the analyses for either not meeting the requirements of the study or for not completing the study in full. Deleted participants consisted of three participants from college sample, eight from the social media sample, 15 from the MTurk sample (i.e., 10 from Gen X and five from Millennial), and one participant due to not
meeting the required age range (i.e., one-person age 17). This left us with a total sample size of 355. Examination of boxplots indicated no outliers were present for the main variables of interest. Examination of histograms indicated that the distribution shape for the variables of interest may be normally distributed; however, skewness and kurtosis scores were examined to further assess these distributions. Skewness and kurtosis scores were within the acceptable range (-1 to 1) for all main variables.

**Simultaneous Regression Analyses**

For each hypothesis using a simultaneous regression (i.e., hypotheses 1 and 2; research question 1a), the data were screened to test the assumptions of a multiple regression including the assumption of multicollinearity. Results suggest that all assumptions were met; collinearity diagnostics for tolerance and VIF indicated that multicollinearity was not an issue when assessing the predictor variables for the analyses below, and all predictor variables were entered simultaneously when testing each hypothesis and research question.

**Hypothesis 1**

It was hypothesized that public and self-stigma would serve as significant predictors of the willingness to seek psychological treatment. Overall, the regression model testing these predictors was not significant \([F (2, 352) = 1.48, p = .23; R = .91; Adjusted R^2 = .01]\). These findings suggest that public and self-stigma were not significant predictors of the willingness to seek treatment for this sample. Thus, our first hypothesis was not supported.

**Hypothesis 2**

It also was hypothesized that the social cognitive factors would serve as predictors for willingness to seek treatment. Overall, the regression model testing these predictors was significant \([F (3, 351) = 46.14, p < .001; R = .53; Adjusted R^2 = .28]\). About 28% of the variance
for the willingness to seek professional mental health treatment was explained by these predictors; however, when assessing each predictor individually, results suggest that the social cognitive factor of attitudes was not a significant predictor of willingness to seek treatment \(t (351) = -.36, p = .71; \beta = -.02\). However, subjective norms was a significant predictor of willingness to seek treatment \(t (351) = -1.80, p = .007; \beta = .18\). Perceived control also was a significant predictor of willingness to seek treatment \(t (351) = 11.71, p < .001; \beta = .48\). These findings suggest that attitudes are not a significant predictor of willingness to seek treatment for this sample, but subjective norms and perceived control are significant predictors. Important to note, perceived control uniquely predicts more of the variance in willingness to seek treatment than the other social cognitive factors; however, both subjective norms and perceived control contribute useful predictive information about the willingness to seek treatment for this sample. Our second hypothesis was partially supported. We did find that perceived control was the best predictor of willingness to seek help; however, not all three factors were significant predictors.

**Research Question 1a: Age as a Continuous Predictor**

A bivariate regression was performed to examine if age serves as a predictor for the willingness to seek treatment. A scatterplot indicated that the relation between age and willingness to seek treatment was positive and reasonably linear. The correlation between age and willingness to seek treatment was statistically significant, \(r (352) = .15, p = .004\). The \(R^2\) for this equation was .02 for this sample, suggesting that about 2% of the variance in willingness to seek treatment was predicted from age. Overall, as age increased for the sample, the willingness to seek out psychological help also increased.

**Research Question 1b: Generational Cohort**
A one-way between subjects ANOVA was conducted to compare the effect of generational cohort on willingness to seek treatment. Four generational cohorts were included (i.e., Gen Z, Millennial, Gen X, and Baby Boomer). Results of the omnibus test indicated that there was a significant difference between the generational cohort and willingness to seek mental health treatment, $F(3, 351) = 7.93, p < .001$. The assumption of homogeneity of variance was assessed by Levene’s test, $F = 2.73, p = .04$. This indicated significant violation of the equal variance assumption. To correct for this violation, the Games-Howell post-hoc test was used.

Post-hoc comparisons using the Games-Howell multiple comparison procedure were used to determine significant differences between the generational cohort groups. Results of the regression analysis using age as a continuous predictor did indicate that older participants were more likely to seek help; results of the post-hoc test for this analysis revealed a similar finding. The post-hoc test revealed that participants in the Baby Boomer cohort ($M = 3.12, SD = .80$) reported greater willingness to seek treatment than the Gen Z cohort ($M = 2.52, SD = .69; p < .001$) and Gen X cohort ($M = 2.56, SD = .85; p = .01$). However, there was no difference between the Baby Boomer cohort and Millennial cohort ($M = 2.81, SD = .78; p = .12$). Overall, the results support the tested hypothesis that there would be differences between the generational cohorts; however, our original prediction that younger individuals would report more willingness to seek help compared to older individuals was not supported. In fact, it was the older participants in the sample who reported more willingness to seek out psychological help.

**Additional Analyses: Order of Influence**

Given a lack of support for our first hypothesis regarding public and self-stigma, an analysis to test for potential order effects helped shed more information on how stigma may be related to the willingness to seek help for this sample. A series of regression pathways suggested
a potential order or sequence of variables that predict the willingness to seek treatment. Specifically, results suggest that public stigma is a significant predictor of self-stigma \( F(1, 353) = 107.11, p < .001 \). Self-stigma was then predictive of attitudes about seeking help for mental health concerns \( F(1, 353) = 241.69, p < .001 \), subjective norms related to seeking help for mental health concerns \( F(1, 353) = 451.26, p < .001 \), and perceived control to seek out psychological help \( F(1, 353) = 17.93, p < .001 \). Finally, subjective norms and perceived control predicted willingness to seek help \( F(3, 351) = 46.14, p < .001 \), but attitudes towards seeking help were not a significant predictor. See Figure 2.
DISCUSSION

Based on the previous research discussed in the literature review, it is apparent there are some gaps in the existing literature pertaining to factors that influence the willingness to seek out mental health services. While variables such as public and self-stigma have been studied in relation to willingness to seek out psychological services, other factors, such as social-cognitive (attitudes, subjective norms, and control beliefs) are more limited with respect to empirical evidence. In addition, demographic factors, such as age, in connection to seeking out help should be examined further. Past research covering age can be inconsistent and/or contradictory based on how this variable is measured. Prior studies appear to have a focus on chronological age, and even given this focus, there are still often inconsistent findings. This current study explored how age and generational cohort affects mental health. As a result, this study serves as a support to prior literature, as well as expands on the existing mental health concepts while also exploring new avenues of potential influence. This current study also presents opportunities to mend some existing gaps and include areas that have not yet been examined together. For example, the influence of social-cognitive factors and their role on an individuals’ willingness to seek professional mental health treatment. Overall, findings of the current study suggest some support for our original hypotheses and help to answer some of our research questions. Below, we discussed each finding in relation to our original hypothesis (or research question) and how the current findings align with previous research.

Hypothesis 1: Mental Health Stigma

With respect to hypothesis one regarding public and self-stigma of mental health, we did not find support that these two variables significantly predict the willingness to seek psychological help for this particular sample. This finding appears contrary to previous research
indicating that both public and self-stigma may influence the willingness to seek help. Although preliminary and speculative, these findings could be due, in part, to the participant’s general exposure to mental health stigma as well as their previous exposure and willingness to seek help in general. For this sample, about half (~54%) indicated that they had sought help in the past; perhaps this previous exposure may mitigate or reduce the impact of stigma if a majority of participants had sought help previously.

In connection with previous literature, public stigma is the societal opinion towards mental health struggles, diagnoses, etc. Whereas self-stigma is the internalized feeling towards someone’s own mental health concerns. As previously discussed, self-stigma is often influenced by societal opinions. Moreover, public stigma often shapes how an individual internalizes their experiences (Cheng et al., 2018). According to Jorm and Kelly (2007), the general public needs to have an increased knowledge about mental health disorders and difficulties. When individuals have an increased mental health literacy, awareness, and knowledge this allows for appropriate interventions to be sought out when needed. The results of the current study are important because they infer that the participants in this study may have possessed accurate knowledge about mental health (perhaps given their previous exposure to a mental health professional) and may not have been as subjected to stigma. This finding could also be due to the increased societal approval of mental health acceptance. Jorm and Kelly (2007) report that although there is some evidence for an association between an individual’s behaviors, it is still unknown whether the improvements in mental health literacy in the general population are directly leading to changes in behavior. The current study’s findings could be used for future studies to further analyze the role that mental health stigma has on willingness to seek out psychological treatment. Moreover, it would be beneficial to include materials or variables to assess the participants level
of mental health literacy to accurately analyze the connection. Finally, while we did not find support that public and self-stigma of mental health on their own (or individually) predicts the willingness to seek help, we did find support for potential order effects or indirect effects of stigma when considering the social cognitive factors. This finding and connection back to stigma is discussed in more detail below (see research question two).

**Hypothesis 2: Social Cognitive Factors**

Our results showed that two of the social cognitive factors (*subjective norms* and *perceived control*) predicted the participants willingness to seek psychological treatment. However, the social cognitive factor, *attitudes*, did not predict the participants willingness to seek treatment for this sample. While this finding does not fully support our original prediction that all three factors would significantly predict the willingness to seek help, these findings do support the previous work of Mesidor and Sly (2014). Specifically, in their study, Mesidor and Sly (2014) found that *perceived control* was the strongest significant predictor for the participants’ intentions to seek professional mental health services. The current study came to the same conclusion. This finding is important since *perceived control* is considered the strongest significant predictor of the social cognitive factors. As previously discussed, *perceived control*, is an individual’s belief about their control regarding their mental health. An example of perceived *control* could be a person’s perceived ideas about the resources they must have in order to enact the target behavior. The current study’s finding suggests that individuals who believe that they possess the necessary resources and ability to seek out mental health resources/services were then more likely to engage in this help seeking behavior.

Furthermore, the social cognitive factor *subjective norms*, as previously outlined, is the social pressure felt to perform or not perform a particular behavior because of what others
around you (and who are important to you) think about that behavior. When considering subjective norms, individuals who face societal pressures from relationships around them (i.e., family; friends; spouse) may be less likely to engage in said behaviors. For instance, individuals’ opinions on the behavior of seeking help can influence their willingness to seek help. The findings of this study indicate that subjective norms did impact the participants’ willingness to seek psychological help in addition to perceived control. Overall, these findings both support previous research (i.e., Mesidor & Sly, 2014) and add new knowledge to this existing literature with respect to how others we are close to and our own perceptions of control influence our willingness to seek help. This finding might be used by clinicians and/or professionals in the field of mental health to help better inform how we motivate and encourage individuals to seek help when needed. For example, speaking to those who are close to the individual seeking help to motivate them to encourage a loved one to get help when needed might beneficial. Also, providing resources that might help a person to have better perceptions of control (or enhance the ability to get psychological help) would be beneficial.

**Research Question 1: Age**

The results of this study also suggest that older participants, who belonged to the Baby Boomer generational cohort were more willing to seek professional mental health treatment. This finding allows for more research to be applied to studying the impact that generational cohort and age may have on mental health. As previously discussed, according to Siervo (2020), mental health disorders are reported as rising the fastest among Baby Boomers. Specifically, it is estimated that 20% of people aged 55 or older experience some type of mental health issue (Siervo, 2020). This finding and the results of the current study indicate that older adults might feel more comfortable reaching out with their mental health concerns. There could be many
factors leading to this outcome. As previously explained, Mackenzie and colleagues (2019) found that older adults actually held more positive attitudes towards seeking professional help than younger adults. Mackenzie and colleagues (2019) also identify that these results could be attributed to the older adults in this study perhaps not endorsing self-reliant social roles as much as was previously considered. Overall, Mackenzie and colleagues (2019) and the current study’s findings appear to conclude that older adults may not experience as much stigma about mental health as other sources might suggest.

The current findings also provide important insight into the generational divide of mental health treatment. According to the results of this study, younger adults are less likely to reach out for help when they struggle with mental health concerns. There could be many factors impacting this decline, and future researchers should consider the impact of this division. While older adults indicate a higher willingness to seek treatment, younger adults and younger generations might need more specific interventions. In recent years, there has been a move towards societal acceptance regarding mental health. However, younger generations, who are growing up in this era of acceptance, in the current study were less likely to seek mental health treatment. While older generations grew up in different times, the difference in life experiences could impact these findings. For example, the role of social media and other media outlets that are popular among young adults has been studied as a factor relevant to increased need for mental health services. While these outlets might show an increased need for mental health services, younger generations might not engage in this increased need for treatment. While differences in life experiences, such as the influence of social media, were not tested in the current study, the findings of this work suggest that more research is needed regarding age and factors that might influence differences between generational cohorts with respect to seeking help. In addition,
researchers and clinicians should aim to understand and analyze the division between age groups and be prepared to adapt treatment towards age groups who are most vulnerable and in need.

**Research Question 2: Order Effects**

Finally, the pathway analysis indicated that there could be an order of effects to predict an individual’s willingness to seek mental health treatment. This analysis and finding are both important because without the pathway, the mental health stigmas (public and self) did not predict willingness to seek treatment alone for this sample. However, both public and self-stigma do predict the three social-cognitive factors, which in turn predicted willingness to seek mental health treatment. The pathway and the results of this analysis indicate that there is a distinctive order of effects present for the current study. This finding has the potential to benefit future clinicians and researchers; while individually variables might not predict an outcome, there could still be an order of influence. Moreover, this type of finding could be beneficial for client settings as there are rarely times when one variable is not impacted by another. Given the overall findings of the current study, continued research on these variables and the pathways used to predict seeking mental health treatment are warranted.

**Limitations and Future Directions**

The current study’s findings have the potential to contribute to future research and practice. However, as with any empirical research, there are limitations present. First, the sample of participants with respect to age and generational cohort was somewhat skewed with respect to group size. As previously discussed, we were only able to recruit 44 participants from the Baby Boomer generational cohort, which was much less than our other cohorts. The recruitment for these older participants was conducted using social media and an anonymous gift card raffle as incentive. Whereas the other age groups were more readily available, this demographic was not.
While our findings for age and generational cohort were significant, a larger sample of participants in this demographic may be beneficial for future research. It is important to note, however, that we did meet the overall sample size needed to suggest adequate levels of statistical power for most of our main analyses, and statistical tests (such as between-groups ANOVA) have been shown to be robust to large differences in group size. We also performed a post-hoc correction (i.e., use of the Games-Howell) to the ANOVA upon discovering a violation in the homogeneity of variance assumption. With these considerations in mind, finding a positive result (or significance with respect to age and generational cohort) with a small sample is encouraging, but these findings should be interpreted cautiously due to the limitations mentioned.

More research with a more equal sample size with respect to age is needed. It also is important to note that while we did find a difference between our generational cohorts, when examining the mean differences between our groups, these differences, albeit significant, do appear to be small. For example, the mean value for the Baby Boomer cohort was 3.12 (indicating a general willingness to seek help) but the mean score for the Gen Z and Gen X cohort was approximately 2.50. While our statistical test was significant, the difference between a score of 3.12 and a score of 2.50 is small. Even a small mean difference can be impactful; however, future researchers should replicate the current findings before we more definitively indicate differences between generational cohorts on the willingness to seek psychological help.

An additional limitation for the current study may be that the data were collected during the global pandemic of the novel coronavirus of SARS-CoV-2 or COVID-19. This unprecedented year led to complications in terms of collecting empirical data and also may have influenced results given the unordinary disruption of daily life caused by the global pandemic. As previously discussed, we only collected data using online formats which may also be added
as a limitation for the current study. For example, by only using online formats we could not ensure that all participants read through the materials thoroughly and fully understood the study/questions; however, it should be noted that several of the studies cited in the introduction section also used similar methods of online data collection. Additionally, given the complex nature of the COVID-19 pandemic, future research might benefit from replicating the findings of this work when the world resumes normal (or close to normal) functioning; at this time, it could be helpful to revisit this study and/or attempt replicate these findings in the future.

Although collecting data during the COVID-19 pandemic may present as a potential limitation for this study, we also note that the situation may have provided a means for participants to get more psychological help in ways that may have been difficult or non-existent just a few years ago. For instance, an interesting consideration may be how the COVID-19 pandemic has propelled the world into the realm of utilizing online forms of communication, remote services, and telehealth. These factors and overall awareness have allowed for an increased accessibility for mental health services. There is a possibility that more people were willing to reach out for psychological help because there were more efficient options with telehealth (e.g., better perceived control through telehealth or other means that influenced willingness to seek help). Moreover, the increased need for remote and telehealth services were more promoted during the pandemic. The consistent encouragement of seeking mental health services is another societal move that has shifted with the pandemic. This discussion and open dialogue about mental health struggles has recently become more normalized with so many individuals struggling with their mental health during the pandemic and times of isolation. Services such as BetterHelp are often promoted in podcasts and on television commercials which also leads to a better understanding of accessibility.
This consideration could be particularly impactful for older adults. For instance, if older adults have more trouble with getting to a location for services (e.g., perhaps limited driving ability and/or limited ability to get away from other obligations), increased telehealth options made available because of the pandemic may have helped them to get the services they need. Because we did not measure specific limitations associated with perceived control (such as the examples provided above), the increase in willingness to seek out for older participants because of more accessible resources due to the pandemic is speculative. More research on this consideration is needed, but this research could be utilized to further explain how the COVID-19 pandemic may have impacted factors relevant to seeking help.

Overall, the results and implications of this study have the potential for adaptation and future directions. The impact of this study’s findings allows for current empirical research to be supported as well as pose new insights and questions for future research. For instance, considering younger adults (i.e., Generation Z) as a vulnerable population in terms of mental health deserves to be analyzed further. Similarly, it would be beneficial to explore the finding that older adults (i.e., Baby Boomers) indicated a higher willingness to seek out psychological help. Moreover, with a larger older adult sample, the results of the current study can be examined further. In sum, these findings support aspects of prior literature, as well as explore new avenues of potential influence. This current study also helps to connect existing gaps in literature and explore areas that have not yet been examined together. Although not all of the hypotheses were supported (or were not in the original direction we anticipated), the findings regarding order effects and multiple variables that may impact seeking mental health services warrant further investigation. From an applied perspective, the findings of the current work may help to better inform how we understand and motivate people (of all ages) to seek out mental health services.
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Table 1

Identifying and operationalizing the variables of this study.

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Description of IVs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Public Stigma</strong></td>
<td>Identified as the opinion that society holds regarding mental health. As previously discussed, this could be the common belief that those who are diagnosed with a mental disorder are particularly criminal or dangerous.</td>
</tr>
<tr>
<td>(Ahmedani, 2011)</td>
<td></td>
</tr>
<tr>
<td><strong>Self-Stigma</strong></td>
<td>Often derived from Public Stigma; however, this is the internalized feelings regarding one’s mental health. Public Stigma often leads to the internalized impact if Self Stigma.</td>
</tr>
<tr>
<td>(Vogel et al., 2007)</td>
<td></td>
</tr>
<tr>
<td><strong>Attitudes</strong></td>
<td>Used to describe an individual’s feelings towards a target behavior. For this study, said target behavior will be seeking our professional psychological treatment.</td>
</tr>
<tr>
<td>(Mesidor &amp; Sly, 2014)</td>
<td></td>
</tr>
<tr>
<td><strong>Subjective Norms</strong></td>
<td>Refers to the social pressure that individual’s feel to perform or not perform certain behaviors. Subjective norms are directly based on what others around you think about that behavior.</td>
</tr>
<tr>
<td>(Mesidor &amp; Sly, 2014)</td>
<td></td>
</tr>
<tr>
<td><strong>Behavioral Control</strong></td>
<td>Used to identify an individual’s perceived control regarding their mental health. For example, if an individual does not feel in control of their mental health goals then they will likely not seek out services.</td>
</tr>
<tr>
<td>(Mesidor &amp; Sly, 2014)</td>
<td></td>
</tr>
<tr>
<td><strong>Age/ Generations</strong></td>
<td>Refers to an individual’s chronological age and their generational cohort affiliation. Generational cohort will be determined based on their birth year and in relation to the existing primary generational cohorts.</td>
</tr>
<tr>
<td>(Mackenzie et al., 2019)</td>
<td></td>
</tr>
<tr>
<td><strong>Dependent Variable</strong></td>
<td><strong>Description of DV</strong></td>
</tr>
<tr>
<td><strong>Willingness to Seek Psychological Treatment</strong></td>
<td>Refers to an individual’s likelihood that they would seek out professional mental health services if they experienced the need. This could be a result of a mental health diagnosis, symptoms or any psychological distress.</td>
</tr>
</tbody>
</table>
Figure 1

*Indirect and direct effect of stigma on willingness to seek counseling*

Public Stigma → Self-Stigma → Attitudes Towards Counseling → Willingness to Seek Counseling

*Note.* Figure taken from Vogel et al., (2007).
Figure 2. Regression pathway diagram with beta weights. ***p < .001.
Appendix A: Demographic Questions

*Instructions:* Please respond to the following questions.

1. What is your age in years? (e.g., 33) ______

2. What year were you born? (e.g., 1987) ______

3. What is your preferred gender identity?
   a. Male
   b. Female
   c. Transgender male
   d. Transgender female
   e. Gender variant/non-conforming
   f. Other: Please Specify: ____________________________

4. Which racial group or groups do you consider yourself to be in? You may choose more than one option.
   a. White
   b. Black or African American
   c. American Indian or Alaska Native
   d. Asian
   e. Native Hawaiian or Pacific Islander
   f. Hispanic/Latino
   g. Other, please specify: ____________________________________________

5. What is your highest level of education? Select one.
   a. High school
   b. Associates degree
   c. B.A./B.S.
   d. Some graduate studies
   e. MBA/MA/MS degree
   f. J.D./Ph.D./Ed.D/M.D.
   g. Other, please specify: ____________________________________________

6. Which region of the country do you live in?
   a. Midwest - IA, IL, IN, KS, MI, MN, MO, ND, NE, OH, SD, WI
   b. Northeast - CT, DC, DE, MA, MD, ME, NH, NJ, NY, PA, RI, VT
   c. Southeast - AL, AR, FL, GA, KY, LA, MS, NC, SC, TN, VA, WV
   d. Southwest - AZ, NM, OK, TX
   e. West - AK, CA, CO, HI, ID, MT, NV, OR, UT, WA, WY
Appendix B: Public Stigma

General Public Stigma for Receiving Psychological Help Scale
(Komiya, Good, & Sherod, 2000)

Instructions: The following questions pertain to general/societal views of seeking out mental health services. Please respond to each item as accurately and honestly as possible. There are no right or wrong answers.

Please rate your level of agreement using the scale below:

1 = Strongly disagree
2 = Disagree
3 = Neutral (neither agree not disagree)
4 = Agree
5 = Strongly agree

1. Seeing a psychologist for emotional or interpersonal problems carries social stigma.

2. In general, society indicates that it is a sign of personal weakness or inadequacy to see a psychologist for emotional or interpersonal problems.

3. People will see a person in a less favorable way if they come to know that this person has seen a psychologist.

4. It is advisable for a person to hide from people that they have seen a psychologist.

5. People tend to like less those who are receiving professional psychological help
Appendix C: Self-Stigma

Self-Stigma of Seeking Help Scale
(Vogel, Wade, & Hackler, 2006)

Instructions: The following questions pertain to your own views on mental health and seeking psychological help. Please respond to each item as accurately and honestly as possible. There are no right or wrong answers.

Please rate your level of agreement using the scale below:

1 = Strongly disagree
2 = Disagree
3 = Neutral (neither agree nor disagree)
4 = Agree
5 = Strongly agree

1. I would feel inadequate if I went to a therapist for psychological help.
2. My self-confidence would NOT be threatened if I sought professional help.
3. Seeking psychological help would make me feel less intelligent.
4. My self-esteem would increase if I talked to a therapist.
5. My view of myself would not change just because I made the choice to see a therapist.
6. It would make me feel inferior to ask a therapist for help.
7. I would feel okay about myself if I made the choice to seek professional help.
8. If I went to a therapist, I would be less satisfied with myself.
9. My self-confidence would remain the same if I sought help for a problem I could not solve.
10. I would feel worse about myself if I could not solve my own problems.
Appendix D: ToPB Attitudes, Subjective Norms, and Perceived Control

Inventory of Attitudes toward Seeking Mental Health Services
(Mackenzie, Knox, Gekoski, & Macaulay, 2004)

Instructions: The statements below pertain to views on mental health services. Please respond to each item as accurately and honestly as possible. There are no right or wrong answers. Please keep in mind the following while responding:

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

Please rate your level of agreement using the scale below:

1 = Strongly disagree
2 = Disagree
3 = Neutral (neither agree not disagree)
4 = Agree
5 = Strongly agree

Attitudes/Psychological Openness Subscale

1. There are certain problems which should not be discussed outside of one’s immediate family.
2. Keeping one’s mind on a job is a good solution for avoiding personal worries and concerns.
3. It is probably best not to know everything about oneself.
4. People should work out their own problems; getting professional help should be a last resort.
5. Psychological problems, like many things, tend to work out by themselves.
6. There are experiences in my life I would not discuss with anyone.
7. There is something admirable in the attitude of people who are willing to cope with their conflicts and feats without resorting to professional help.
8. People with strong characters can get over psychological problems by themselves and would have little need for professional help.

Subjective-Norms/Indifference to Stigma Subscale

9. I would not want my significant other (spouse, partner, etc.) to know if I were suffering from psychological problems.
10. Having been mentally ill carries with it a burden of shame.
11. Important people in my life would think less of me if they were to find out that I was experiencing psychological problems.
12. I would be uncomfortable seeking professional help for psychological problems because people in my social or business circles might find out about it.
13. Having been diagnosed with a mental disorder is a blot on a person’s life.
14. I would feel uneasy going to a professional because of what some people would think.
15. Had I received treatment for psychological problems, I would not feel that it out to be “covered up.”
16. I would be embarrassed if my neighbor saw me going into the office of a professional who deals with psychological problems.

**Perceived Control/Help-Seeking Propensity Subscale**
17. I would have a very good idea of what to do and who to talk to if I decided to seek professional help for psychological problems.
18. If good friends asked my advice about a psychological problem, I might recommend that they see a professional.
19. If I were experiencing a serious psychological problem at this point in my life, I would be confident that I could find relief in psychotherapy.
20. If I were to experience psychological problems, I could get professional help if I wanted to.
21. It would be relatively easy for me to find the time to see a professional for psychological problems.
22. I would want to get professional help if I were worried or upset for a long period of time.
23. If I believed I were having a mental breakdown, my first inclination would be to get professional help.
24. I would willingly confide intimate matters to an appropriate person if I thought it might help me or a member of my family.
Appendix E: Intentions to Seek Help

Willingness to Seek Counseling for Psychological and Interpersonal Concerns
(Cash, Begley, McCown, & Weise, 1978)

Instructions: Below is a list of issues people commonly bring to counseling. Please respond to each item as accurately and honestly as possible. There are no right or wrong answers.

Please use the following rating scale:

1 = Very unlikely
2 = Unlikely
3 = Likely
4 = Very Likely
NA = Not Applicable

How likely would you be to seek counseling if you were experiencing the following problems?

1. Relationship difficulties
2. Concerns about sexuality
3. Depression
4. Conflict with parents
5. Difficulties dating
6. Difficulty sleeping
7. Inferiority feelings
8. Difficulties with friends
9. Self-understanding
10. Loneliness
Appendix F: Additional Questions/Potential Control Variables  
(Developed for Current Study)

1. Have you ever seen a mental health professional (e.g., school counselor, counselor, social worker, psychologist, psychiatrist) to get help for a mental health concern?
   a) Yes
   b) No

2. In general, if I had a mental health concern, I would *intend* to seek help from a mental health professional.
   a) Strongly disagree
   b) Disagree
   c) Neutral (neither agree not disagree)
   d) Agree
   e) Strongly agree
Appendix G: Conditional Questions about the Capacity to Consent

***These questions are conditional and will appear after the participant has entered their age. People over the age of 65 will be routed to these questions***

1. You indicated on the previous question that you are over the age of 65. Please respond to the following question. Do you currently have a surrogate, or a person with the legal responsibility for making choices on your behalf (e.g., spouse or family member)?
   a. Yes
   b. No

*If “Yes” is selected, participants will not be able to continue with the survey. This decision is an effort to protect any person who may be at a diminished capacity to consent on their own (must have an advocate or surrogate) to this research.
*If “No” is selected, participants will be routed to the following questions.

2. Do you understand that you are being asked to participate in a research study and that it is your choice to participate?
   a. Yes
   b. No
   c. Not sure

3. Do you understand that research is voluntary and that you can stop participating in this study at any time without penalty?
   a. Yes
   b. No
   c. Not sure

4. Do you understand that you may skip or decide not to answer questions on this survey that make you feel uncomfortable and/or that you do not want to answer?
   a. Yes
   b. No
   c. Not sure

5. Do you understand that this study is about mental health and you will be asked questions relevant to your attitudes and behaviors relevant to mental health?
   a. Yes
   b. No
   c. Not sure

*Any participant who selects “No” or “Not sure” will not be allowed to continue with the survey. This decision was informed by IRB regulations that indicate at a basic level, people with the capacity to consent should be able to respond to yes or no questions pertaining to their understanding of research and the research study.
*Any participant who selects “Yes” to all questions will be routed to the rest of the online survey.
Appendix H: Letter of approval from the Institutional Review Board (IRB)

OFFICE OF SCHOLARSHIP AND SPONSORED PROJECTS

DATE: March 11, 2021

TO: Bobbie Call
FROM: Fort Hays State University IRB

STUDY TITLE: [1732205-1] Perceptions of Mental Health and Seeking Psychological Help
IRB REFERENCE #: 21-0094
SUBMISSION TYPE: New Project

ACTION: DETERMINATION OF EXEMPT STATUS
DECISION DATE: March 11, 2021

Thank you for your submission of New Project materials for this research study. The Fort Hays State University IRB Administrator has determined that this project is EXEMPT FROM IRB REVIEW according to federal regulations.

Please note that any changes to this study may result in a change in exempt status. Any changes must be submitted to the IRB for review prior to implementation. In the event of a change, please follow the Instructions for Revisions at http://www.fhsu.edu/academic/gradschl/irb/.

The IRB administrator should be notified of adverse events or circumstances that meet the definition of unanticipated problems involving risks to subjects. See http://www.hhs.gov/ohrp/policy/AdvEvntGuid.htm.

We will put a copy of this correspondence on file in our office. Exempt studies are not subject to continuing review.

If you have any questions, please contact Leslie Paige at IRB@fhsu.edu. Please include your project title and reference number in all correspondence with this committee.
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Thesis: WHAT INFLUENCES SUFFERING IN SILENCE: EXAMINING MENTAL HEALTH STIGMA, SOCIAL-COGNITIVE FACTORS, AND AGE AS PREDICTORS OF THE WILLINGNESS TO SEEK PROFESSIONAL PSYCHOLOGICAL HELP

Author: Bobbie Call

Signature: ________________________________

Date: 11/9/2021