2020

Would You Date Her? How We Process Social Preferences and Social Perceptions

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by

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Presented in Partial Fulfillment of the Requirements of
Senior Independent Study Thesis

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2019-2020

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Acknowledgements

I would like to thank my advisor, Dr. Evan Wilhelms for guiding me through this, seemingly, never ending processes known as Independent Study. Dr. Will Canu and his colleagues have my gratitude for providing me with the materials to support my research. Dr. Susan Clayton, Dr. John Neuhoff, Dr. Amber Garcia, and Dr. Josephine Wright; you were all my professors or advisors who gave me the stepping stones to get to where I am today, and I cannot explain in words how much your guidance has meant to me. Finally, I would like to thank my friends and my family for listening and being present throughout my college process.

Abstract

Various trait characteristics influence perceptions and stigma toward mental disorders. The current study presented participants with three fictional profiles of individuals with attention deficit hyperactivity disorder (ADHD), depression, and perfectionism. Fictional profiles of men or women were presented as having either symptoms of the disorders or a diagnostic label of the disorders. Half of the participants were presented with men or women with a diagnostic label of the three disorders, while the other half were presented with men or women with symptoms of the disorders. We asked participants to answer questions about the fictional profiles, pertaining to acceptance of the profiled individuals in different social contexts. Participants answered a modified ADHD stigma scale questionnaire. Participants were asked to indicate their gender, race or ethnicity, age, and familiarity and knowledge of the disorders. The current study found that participants were more accepting of a diagnosed perfectionist and women with disorders.

Introduction

Mental Illness and Disorders

Psychology, as a discipline, makes an effort to study and classify various disorders. Students of psychology take courses, read materials and memorize the acronyms that represent these various disorders. If students are asked to recite the names of disorders, they would simply list off multiple names, however the challenge comes when having to specifically define the term. How society defines mental disorders affects not only the medical community but the greater community, specifically the individuals who may have these disorders (Walvisch, 2017). Unfortunately, it is not easy to define a mental disorder; not all disorders are the same.

Prior to the 19th century, it was believed that those affected by odd behaviors were possessed by spirits or other magical forces (Millon, 2004). Toward the end of the 19th century, Kraeplin and Kahlbaum developed the first system of classifications for diseases, which gained widespread acceptance due to the influence of the development of germ theories in the 1860s and 1870s. Germ theories hypothesized that diseases could be explained by underlying microorganisms (Rosenberg, 2002; Zachar & Kendler, 2007). Beginning in the 20th century, 'madness' appeared to be the result of pathological processes in certain parts of the brain, and that there were multiple forms of mental illness (Zachar & Kendler, 2007). During the 1980's the Diagnostic and Statistical Manual for Mental Disorders III (DSM-III) was born; this particular version sought to develop diagnostic criteria for mental disorders (Walvisch, 2017). Physical illnesses could reliably be classified using blood and urine tests exposing the underlying disease entities, but difficulty reliably diagnosing mental disorders occurred due to the lack of these biophysical markers. Theses biophysical markers were presented in physical illnesses, but not in mental disorders such as schizophrenia or

depression. Thus, researchers worked to create accurate descriptions of the signs and symptoms of disorders (Walvisch, 2017).

What has been considered a disorder has varied throughout the history of the DSM. The definition of what characterizes a mental disorder has changed over time but most recently states,

> "A mental disorder is a syndrome characterized by clinically significant disturbance 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).

The definition stated above incorporates a wide range of disorders including internalizing disorders, symptoms not visible to the public eye (e.g. depression), and externalizing disorders, symptoms visible to the public eye (e.g. ADHD). In general, simply being diagnosed and labeled with a disorder evokes negative attitudes, known as stigmas (Krzyzanowski, Howell, & Passmore, 2019). Stigmas held toward mental disorders are influenced partially by media reports, which link disorders with violence and danger, leading people to be fearful of disorders (Perry, Pescosolido, Martin, McLeod, & Jensen, 2007). Stigmas toward mental disorders can vary based on race and ethnicity, gender, type of disorder, as well as diagnostic label. Investigating how these differences influence negative or positive attitudes toward disorders is the research interest presented below.

ADHD

The main symptoms that characterize attention hyperactivity disorder (ADHD) are inattention, hyperactivity and impulsivity. ADHD is a disorder that would be considered an externalizing disorder (Fuermaier et al., 2012). Externalizing behaviors are those that are

easily recognizable by observers in the surrounding environment, and thus may result in misperceptions and stigmatizations toward the disorder (Fuermaier et al., 2012). Some misconceptions include that ADHD is only occurring in childhood or early adolescence, and disappears as someone ages. ADHD is also largely mistakenly associated with young white men suffering from symptoms of hyperactivity, which may lead to the misconception that other populations do not have the disorder (Fuermaier et al., 2012). The inability to understand the full set of causes of ADHD increases the risk of stigmatization toward the disorder (Fuermaier et al., 2012).

ADHD and Stigma. ADHD is largely an externalizing disorder, resulting in symptoms of the disorder being outwardly visible to the public eye. Weiner, Perry, and Magnusson (1988) found that behavioral deviance, such as externalized norm-violating behaviors, have been found to provoke stigma toward ADHD. ADHD has a stronger association with uncontrollable norm-violating behaviors, which are potential sources of stigmas that develop into stereotypes and social rejection (Fuermaier et al., 2012). The label ADHD itself may trigger automatic assumptions and result in social distancing. Martin, Pescosolido, Olafsdottir, and McLeod (2007) found that adult respondents associated the causes of ADHD with a lack of discipline and poor character, which created the desire for social distance. Will Canu, Newman, Morrow, and Pope (2008) found that when comparing ADHD, a medical problem (e.g. asthma), and an ambiguous weakness (e.g. perfectionism), undergraduate participants were more likely to give socially-negative ratings to a young adult with ADHD, which was followed by the low social ratings for depression. Social situations in Canu and colleagues (2008) experiment included group projects, getting to know the individual, becoming friends, going on a date, or forming a serious relationship. In classroom

settings, especially with children and adolescents, peers are more likely to avoid individuals with ADHD and perceive them as more violent (Fuermaier et al., 2012). Despite ADHD being a disorder listed in the DSM-5, many people believe that diagnosing ADHD is unreliable, or the disorder is all-together nonexistent (Fuermaier et al., 2012). ADHD has only recently been acknowledged to continue from childhood to adulthood, where in the past it was thought that individuals 'grew out' of the disorder (Fuermaier et al., 2012). There is a considerable lack of public knowledge surrounding ADHD (Fuermaier et al., 2012).

Teachers and ADHD. ADHD is most often visible in classroom situations, especially for children and adolescents. Recent research has taken an interest in teachers' perceptions of children and adolescents with ADHD (Bell, Long, Garvan, & Bussing, 2011). The impact of an authority figure's perception of a particular student may affect other students' perceptions of that peer (Bell et al., 2011). Research has demonstrated, teachers may perceive that students with ADHD need additional time and effort for work, and may hold negative perceptions about the academic abilities of students with ADHD (Bell et al., 2011). The negative perceptions teachers may hold toward students with ADHD may cause a self-fulfilling prophecy for children with ADHD; students with ADHD may have negative perceptions of their own academic careers (Bell et al., 2011).

Effects of Stigma in ADHD. Individuals, with ADHD, dealing with the effects of stigmatization toward the disorder, may experience a reduced self-esteem and a reduced quality of life. One of the most concerning impacts of stigma is that individuals with mental disorders may avoid treatment from mental health professionals in order to avoid the stigma associated with their diagnostic label (Bell et al., 2011). Avoidance of treatment may result in hyperactivity and inattention as well as comorbid disorders remaining untreated, which could

lead to suffering for the individual. The effects of stigma toward individuals with ADHD results in individuals feeling socially isolated, and may result in a lack of friendships. These effects occur through all ages; childhood, adolescence, and adulthood (Fuermaier et al., 2012).

Fuermaier and colleagues (2012) looked at stigmatization toward adults with ADHD, as well as overall stigma related to ADHD. Interestingly, findings revealed that teachers, physicians, and control participants (all of similar age, gender, and education level) did not differ overall in levels of stigmatization. Teachers and physicians showed lower scores than control participants on certain scales of stigma such as *Reliability and Social Functioning, Malingering and Misuse of Medication, and Norm-violating and Externalizing Behaviors* (Fuermaier et al., 2012). Although significant differences between teachers, physicians and control participants were not found, these results indicated that teachers and physicians were more understanding of ADHD (Fuermaier et al., 2012). This data suggests that more knowledge about the disorder or exposure to the disorder, may decrease stigmatization toward individuals with disorders.

Depression

Depression is a mood disorder, that is characterized by feelings of worthlessness and lack of motivation, which can affect eating habits, sleeping habits, and loss of energy (Bürkner, Renneberg, & Zetsche, 2019). The structure and function of one's brain, along with environmental effects, contributes to the development of mood disorders (Arnone, 2019). Current research implicates that dysregulation in HPA-axis, modulation of monoamines, and psychological mechanisms (self-esteem) all affect symptoms of depression (Nasstasia et al., 2019). Feelings of hopelessness, or expectations of negative outcomes, has

been considered to be a factor in developing depression (Bürkner et al., 2019). Thus, negative expectations about an individual's future may be a predictor for the recurrence of depression (Bürkner et al., 2019). The DSM-5 has the following criteria for diagnosing depression; 1) individual must experience five or more symptoms of depression for the same two-week period, 2) at least one of the symptoms should include a depressed mood or loss of interest or pleasure. Depressive, unlike ADHD, behaviors are largely internalized, that is the behaviors are not necessarily apparent to the public. When considering comorbidity of depression and ADHD, one may also want to understand the impact of stigma toward mental disorders. The influence of stigma targeted toward mental disorders may influence the rise of depression in individuals with ADHD.

Comorbidity of depression and ADHD. Attention Deficit Hyperactivity Disorder is largely associated with high rates of comorbid depression. Half of youth with ADHD have comorbid anxiety or depressive disorder; "ADHD places youth at risk for development of mental health problems" (Becker, Luebbe, & Langberg, 2012). Approximately 16% to 31% of adults with diagnosed ADHD also experience major depressive disorder (Oddo, Knouse, Surman, & Safren, 2018). Barkley, Murphy, and Fischer (2008) found, in a study of children with hyperactivity, that 27% of the sample developed major depression by young adulthood. Oddo and colleagues (2018) suggested that studies have demonstrated that ADHD is a possible risk factor for the development of depressive disorders (Oddo et al., 2018). Biederman, Faraone, Mick, Moore, and Lelon (1996) examined the similarities of symptoms between depression and ADHD. Previous research implied the possibility that the shared symptoms between depression and ADHD makes it easier for patients to meet criteria for both disorders, which presents the possibility for misdiagnosis of comorbidity. Biederman

and researchers (1996) found that although symptoms are shared, children with ADHD still show increased rates of depression when compared to non-ADHD samples. In an Oddo and colleagues (2018) study, researchers examined possible protective factors that may promote resilience to developing comorbid depression among adults with ADHD. Results indicated that adults with ADHD who engaged in less ruminative thought and cognitive-behavioral avoidance when sad, along with those with a history of ADHD treatment, were more likely to be resilient to depression comorbidity (Oddo et al., 2018). Researchers also indicated predictors that may be expected to increase risk for depression; including recent negative life events and severity of ADHD symptoms (Oddo et al., 2018). Treatment for ADHD in early childhood may limit the possibility of later comorbidity of depression (Oddo et al., 2018). The above research findings suggest that the main ADHD symptoms of inattention and hyperactivity may not drive the comorbidity of depression and ADHD. Rather, the behavioral avoidance, social isolation and ruminative thought processes, which occur as a result of stigma toward the main symptoms of ADHD, increases the likelihood of depression in adults with ADHD (Oddo et al., 2018).

Peer, Parent-child Relationships and Academic Functioning. Parent-child and peer relationships may affect depression risk for children with ADHD (Humphreys et al., 2013). Ostrander and Herman (2006) found that parent behavior, toward the child, explained the association between depression and ADHD in young children, but was not seen in older children. Humphreys and colleagues (2013) research supported findings that suggested both peer and parent-child complications independently mediated the relationship between inattention and depressive symptoms. Below, mixed research findings suggest that internalizing symptoms, or depression, may contribute to increased levels of academic

impairment, while other research found a lack of association between depressive symptoms and academic achievement.

As stated previously, youth and adolescents with ADHD experience a range of academic impairments (DuPaul & Stoner, 2003). Children and adolescents with ADHD typically perform worse, socially and academically, compared to their non-ADHD peers (Humphreys et al., 2013). Children with ADHD, in comparison with peers, have significantly lower school grades and achievement scores, as well as higher dropout rates; between 10% and 35% drop out of school (Langberg & Becker, 2012). Prescription medication is the most common treatment for children with ADHD, and is shown to significantly improve classwork productivity, quality of work, and improve quiz scores. Although, research indicates that ADHD medication may have a long-term impact on academic achievement in areas listed above, the size of academic improvement is small (Langberg & Becker, 2012). Medication use accompanied with school based services, such as counseling, is an integral part of ADHD treatment. Approximately, ¼ of those students diagnosed with ADHD receive school-based services (Green, Forehand, Beck, & Vosk, 1980; Wentzel, 1991). Even after intensive intervention, like counseling, and long-term medication use, adolescents with ADHD still struggle with normalized academic functioning (Becker & Langberg, 2012; McQuade & Hoza, 2008).

Children who struggle with academic functioning may begin to internalize their underachievement in the classroom. Research by Massetti and colleagues (2008) found that internalizing symptoms, resulting in depression and anxiety, predicted underachievement in academics in youth with ADHD. Childhood stressors and internalized symptoms are risk factors that compromise social and academic adjustment (Alva & Los Reyes, 1999).

Research indicates that one's perceived self-competence and social problem-solving skills plays a major role in academic achievement (Green, Forehand, Beck, & Vosk, 1980; Wentzel, 1991). Thus, children who have a higher rating of self-competence are not only accepted by peers, but also tend to be high achievers in academic settings. Children who are socially rejected are especially at risk for academic failure (Green et al., 1980; Wentzel, 1991). Continued research on academic impairment in adolescents with ADHD is necessary to understand increased risk factors for underachievement in academic environments, as well as understanding how decreased achievement relates to social isolation.

Race, ADHD, Depression. In general, examining mental health among minority youth is extremely important to understand the applicability of mental health/disorder theories that were largely built based on research with non-Hispanic, White youth (Becker et al., 2014). It is important to take into account that very few studies have looked into ADHD and depression, specifically within minority groups. Among young children and adolescents, several studies have reported lower rates of ADHD and ADHD symptoms among Hispanic youth when compared to individuals who are non-Hispanic (Becker et al., 2014). This may be due to multiple cultural factors, such as parental perceptions of psychiatric diagnoses and the levels of willingness to discuss symptoms with a medical professional (Becker et al., 2014). For example, in a study by Abdullah and Brown (2019), findings suggested that mental illness stigma was a major barrier for minority groups, including Black Americans, to receive mental health treatment and information. Thus, Hispanic youth in the United States may be less likely to receive treatment for ADHD compared to peers. This is important, given that research has demonstrated that academic and social problems have been documented specifically in Hispanic youth with ADHD, compared to other races (Becker et

al., 2014). For example, Hispanic youth, compared to other major racial and ethnic groups, are less likely to enroll in college and more likely to drop out of high school. This may contribute to the high rates of comorbid mental health disorders among Hispanic youth with ADHD. Becker and researchers (2014) theorized that these differences between Hispanic youth, and non-Hispanic youth would make comorbid depressive symptoms notably detrimental for Hispanic youths social functioning. Their results indicated that a significant correlation exists between ADHD symptoms and academic and social struggles among Hispanic adolescents, where depression acts as a mediator. Alva and Los Reyes (1999) studied the relationship between internalized symptoms of stress, stressful life events and academic achievement. Researchers found a strong link between increase in psychosocial stress, and an increase in internal symptomatology (anxiety and depression), which resulted in a decrease in academic achievement among Hispanic adolescents. Students who reported high levels of stress were more likely to report depressive symptoms and lower grades (Alva & Los Reyes, 1999).

Perfectionism

Perfectionism has been consistently linked to a multitude of mental health conditions (Magson, Oar, Fardouly, Johnco, & Rapee, 2019). Perfectionism can be defined as a personality trait that is characterized by the obsession over making errors, setting unrealistic standards, a tendency to be highly critical of oneself and others, and the fear of negative social evaluation (Magson et al., 2019). There are a number of classifications of perfectionism, including self-oriented perfectionism (SOP), socially prescribed perfectionism (SPP), and other-oriented perfectionism (OOP). SOP is described as adhering to extremely strict standards, attempting to avoid failure, and being extremely harsh in self-evaluation of behavior (Magson et al., 2019). SPP can be described as the belief that others hold unrealistic

expectations of an individual, and due to those expectations that individual experiences pressure to be perfect (Magson et al., 2019). OOP can be described as holding unrealistically high expectations of other individuals. Research has investigated the role of perfectionism as a possible cause for the development of psychological disorders, which include internalizing and externalizing disorders (Magson et al., 2019).

Psychological Distress and Perfectionism. Research has consistently demonstrated that high levels of perfectionist characteristics are associated with emotional and social difficulties (Magson et al., 2019). These emotional and social difficulties result in a risk of future psychological distress, which can occur at a young age. These psychological disorders include, but are not limited to; eating disorders, depression, and anxiety (Magson et al., 2019). It should be noted that perfectionism is not a classified Disorder in the DSM-5 manual, but rather perfectionism should be thought of as characteristics that can lead to development of psychological disorders.

Combating Stigma

The use of the word stigma originated from the Greek practice of branding slaves who were caught attempting to escape (Weiner et al., 1988). From this, the meaning of stigma expanded to mean a mark or sign of condition(s) that deviated from the societal norm (Abdullah & Brown, 2019). Deviations from the norm, whether seen in physical attributes or behavior, represent unwanted effects (Weiner et al.,1988). Stigmatizations arise based on stereotypes, or falsely assumed perceptions, directed toward a group of individuals based off of their attributes or behaviors (Fuermaier et al., 2012). The core of stigmas rest on the notion of individual differences; people are inclined to notice differences between themselves and others. (Bell et al., 2011). When these differences are not understood, biases may arise

leading to stigmatizing beliefs (Bell et al., 2011). Stigmatizing beliefs may grow from inaccurate assumptions about a particular group, which creates fear and exclusion. For example, there is a common misconception that ADHD is a made up disorder; it is an excuse for children and adults to act out or not pay attention. This inaccurate assumption often results in exclusion and dislike of those who identify as having ADHD. Stigmatization of a group of individuals can result in self-stigma within that group. Self-stigma is when individuals begin to internalize the stigmatizing beliefs held by the public (Fuermaier et al., 2012). Public stigma represents the larger communities' beliefs or negative attributes directed toward the stigmatized target (Fuermaier et al., 2012). Familiarity with the stigmatized individual may result in courtesy-stigma. Courtesy-stigma results in family members, friends, or peers becoming the focus of the stigma due to association with the stigmatized individual (Fuermaier et al., 2012). For example, this focus may result in being blamed for having caused the stigmatized characteristic due to lack of or inadequate parenting. Misconceptions about mental disorders perpetuate stigmas that have existed from the past, to today. Public views toward different mental disorders vary far and wide; for example, researchers in the National Stigma Study found that more participants see depression as a serious disorder, meaning it is less likely to improve, when compared to Attention-Deficit/Hyperactivity Disorder. In the same study, less than half of the participants were able to identify what ADHD is, and approximately one in five participants dismissed mental illness as a label for ADHD (Bell et al., 2011).

Stigma Programs

Honest, Open, Proud is a peer-led intervention group for individuals who identify as living with a mental disorder. The program goal is to reduce public stigma and self-stigma, as well as how to disclose one's mental health status to others (Conley et al., 2019). Intervention

programs, allow safe spaces for revealing experiences with mental disorders, and promote personal development and empowerment in individuals. (Conley et al., 2019). This type of environment has proven to provide resources for coping with stigma stress, because members feel better equipped to handle challenging stigmatization of mental disorders. This form of program is extremely beneficial for those looking for a safe space to openly discuss the impact of stigmas toward mental disorders and what life is like with a mental disorder (Conley et al., 2019).

In a research study by Dupont-Reyes, Link, Painter, Phelan, and Villatoro (2019), fourteen school's sixth-grade classes were randomized to receive none, one, or a combination of three anti-stigma interventions. Interventions consisted of either: a) teacher-led curriculum, b) contact with two young adults with a mental disorder who shared their experience, or c) materials with anti-stigma message. Assessments were given, which tested the student's mental health knowledge, attitudes, stigmas, and desired social distance in response to two fictional adolescent vignette characters with bipolar disorder and social anxiety disorder (Dupont-Reyes et al., 2019). Results indicated that individuals identifying as either non-Latina/o Black and Latina/o reported wanting significantly greater social distance toward individuals with mental disorders compared to non-Latina/o White participants (Dupont-Reyes et al., 2019). Participants identifying as Latina/o Black and Latina/o were less likely to believe that the vignette character with bipolar disorder would improve with treatment, in comparison to non-Latina/o White youth. Overall, the results indicated that non-Latina Black boys were less knowledgeable and held less positive attitudes toward mental disorders in comparison with non-Latina White girls and non-Latina Black girls (Dupont-Reyes et al., 2019). The lack of knowledge toward mental disorders can be detrimental to

populations experiencing mental illness, especially those who hold strong negative stigmas toward mental disorders, which may prevent them from seeking treatment.

Labels and stigma

The relationship of disorder labels and mental illness stigma has been heavily researched as well as extensively debated (Abdullah & Brown, 2019). In 2010 the American Psychological Association suggested that we avoid the use of noun-based labels of mental disorders, such as ‘depressed person’, and replace the term with phrases such as ‘a person with depression’ (Krzyzanowski et al., 2019). In the United States, person-first language is the use of post-modified nouns, as in the phrase “people with mental illnesses.” The presentation of what the APA (2010) notes as ‘people-first’ descriptors allows the mental disorder to be secondary to a person’s identity (Kryzanowski et al., 2019). Jensen and colleagues (2013) literature review argues that noun-based labels tend to create conclusions or stigmatizations about said individual; ‘people-first’ descriptors separate individuals from their disorders. Age is a large contributing factor when referring to negative attitudes toward mental health and mental health treatment. Adolescents and young adults, ranging from 18 to 24, hold less positive attitudes toward seeking help and hold strong beliefs about resiliency, and more desire for confidentiality, whereas older individuals are more open to seeking mental health treatment (Gonzalez, Alegria, & Prihoda, 2005). Young adults and adolescents dislike the idea of having to share personal information with a medical professional or have that information be shared with others, such as friends or family (West, Kayser, Overton, & Saltmarsh, 1991). A majority of young adults and adolescents do not seek mental health treatment, even when psychiatric treatment may be necessary (Gonzalez et al., 2005). The implication that older adolescents and young adults want to avoid mental health care, may indicate that this population seeks to avoid association with disorder labels.

The people-first linguistic structure is designed to place emphasis on the individual and not the disability (Granello & Gibbs, 2016). Person-first language is grounded in the Sapir-Whorf hypothesis; language has the ability to shape perceptions of the world and influences cognitive processes (Granello & Gibbs, 2016). Thus, how we label disorders may affect our perceptions of the disorders and how we think about those disorders. Granello and Gibbs (2016) researched perceptions of labels on psychological disorders. Undergraduate students, adult community members, and professional counselors were presented with either noun-based labels ('the mentally ill") or with people-first phrases ('people with mental illness'). Participants were divided into two groups, and received the Community Attitudes Toward the Mentally Ill Survey (CAMI). This self-report survey is a measure of people's attitudes toward mental disorders. The survey was either in pre-modified (noun-based labels) or post-modified (people-first phrases) versions. Statements included "The mentally ill" (pre-modified) or "People with mental illnesses" (post-modified) which, "…refers to people needing treatment for mental disorders but who are capable of independent living outside a hospital" (Granello & Gibbs, 2016). Results demonstrate that participants who received noun-based label (pre-modified) reported greater stigmatization attitudes than participants who received people-first (post-modified) phrases. In all cases, participants who encountered the term "The mentally ill" responded with lower levels of tolerance on the CAMI survey (Granello & Gibbs, 2016). Researchers have also discovered the effects of labels in social media. Joseph and colleagues (2015) found that Twitter users, used the '#Schizophrenic' to display negative and medically inappropriate messages to followers (Howell, Krzyzanowski, & Passmore, 2019). The hashtag was also found to often be used in a sarcastic manner to display negative messages. Using mental disorder labels as a form of humor perpetuates

stigma by possibly belittling the symptoms of schizophrenia and marginalizing individuals with the mental disorder (Joseph et al., 2015). These findings suggest that the colloquial use of schizophrenia, when used as an adjective, may lead to misunderstanding. The finding in this study demonstrates that the term ‘schizophrenia’ has drifted away from medical use and is used as a label to describe ‘madness’. Thus, negative representation of people with mental disorders are associated with these noun-based labels, which can lead to misconceptions and stigmas (Joseph et al., 2015).

Researchers integrated the above findings and theorized that external and internal contexts affect the degree of negative bias toward out-group members. External contexts are the extent that an out-group member, or in this case a person with a mental disorder, is portrayed negatively. Internal context is how the in-group member, or perceiver, varies in attributes such as empathy or stigmatizing attitudes (Wright & Lopez, 2002). With this theory in mind, Howell and colleagues (2019) hypothesized that the use of noun-based labels of disorders can be predicted by the external context of violent behavior and the internal contexts of low empathy and high stigmatizing attitudes. Researchers used four mock newspaper stories, two violent and two nonviolent versions, that portrayed a male with schizophrenia committing a crime due to his symptoms. Participants were asked to choose a headline for the newspaper stories, based on pairings of a person-first (e.g. “Person with Schizophrenia Snaps”) or a noun-based label (e.g. Schizophrenic Snaps”) headline. Two sub-scales from the Interpersonal Reactivity Index (IRI) measured trait empathy; and The Perceived Dangerousness/Social Distance scale was used to measure stigmatizing attitudes toward mental disorders (Howell et al., 2019).

Ultimately, stigma toward individuals with psychiatric disorders is embedded in the misconception that these individuals are dangerous, violent and unpredictable (Aragoès, López-Muntaner, Ceruelo, & Basora, 2014). Negative portrayals of individuals with disorders are associated with noun-based labels, suggesting that the former causes the latter (Joseph et al., 2015; Halmari, 2011). As stated above, noun-based labels are related to negative stigmatization attitudes. The continued use of labels implies unpredictability and violence toward those with mental disorders, which may increase the use of noun-based labels (Howell et al., 2019). The stigmatization of violence among individuals with mental disorders may facilitate the use of noun-based labels as a dehumanization process (Howell & Wooglar, 2013). Howell and colleagues (2019) research, mentioned previously, supports these hypotheses stated above. Their findings suggest that stigmatizing attitudes toward mental disorders were stronger predictors of noun label use than empathy was. These findings support the hypothesis that individual differences effect the application of noun labels to people with psychological disorders. Howell and colleagues (2019) demonstrated that participants were more likely to apply noun-based headlines to experimental news stories depicting a violent man with a mental disorder (e.g. schizophrenia) compared to a nonviolent man with the same disorder. These findings are consistent with previous findings by Halmari (2011) which indicated that newspapers tend to use noun labels to describe belittled or outcast individuals in society.

Howell and colleagues (2019) study investigated the effects of dehumanization toward individuals depicted as violent with a psychological disorder. Previous research has found that individuals labeled with mental disorders leads to an increase in dehumanization and perceived threat (Martinez, Piff, Mendoza-Denton, & Hinshaw, 2011). Results indicated

support for dehumanization as an acting mediator of the effect of violence on noun-based label usage (Howell et al., 2019). Violence, low empathy, and stigmatizing attitudes all predict the use of noun based labels used to describe people with mental disorders. Dunn and Andrews (2015) suggested that ownership of a disability as an identity and using noun-based labels is a celebration of diversity and as a point of pride. These authors emphasize the use of a combination of noun-based label with people-first language, in order to, not perpetuate stigmatization around mental disorders, but rather to celebrate disorders. From this point of view one is an "autistic person" or "autistic", but not a "person with autism" (Dunn & Andrews, 2015). Although this may be the case for some, psychiatric noun-based labels are not favored by everyone (Howell et al., 2019). As research states above, stigmatization and negative perceptions of individuals with mental disorders, increases with the use of noun-based labels.

Familiarity effects on stigmatization

The indication that an individual's stigmatization of noun-based psychiatric disorders increases with less empathy and higher association of violence with disorders, implies that other factors may affect how individuals view mental disorders. Corrigan and Nieweglowski (2019) indicate that stigmatization of mental disorders is still a huge barrier for clinical psychologists' therapeutic goals directed toward individuals with mental disorders. Individuals avoid mental disorder labels, for fear of stigmatization, which may affect academic, social, or work life (Corrigan & Nieweglowski (2019). Recent research has examined how familiarity effects public stigma; public stigma defined as harm that occurs when a population stereotypes or devaluates a stigmatized group (e.g minorities, individuals with disorders), resulting in discrimination (Corrigan & Niewglowski, 2019). Ciarrochi, Deane, Wilson, and Rickwood (2002) reported that having social support systems, including

marriage and quality family and friend support, results in positive attitudes toward disorders. Corrigan and Nieweglowski (2019) argue that familiarity can result in positive attitudes as well as negative attitudes.

Public stigma and familiarity. Corrigan and Nieweglowski (2019) hypothesize that familiarity and stigma share an inverse relationship; the more informed, or the better people know individuals with mental illness, the less likely those individuals will stigmatize. Corrigan and Nieweglowski (2019) argue that although familiarity is beneficial, the more intimate the relationship results in an increase in stigma toward the disorder; and the researchers propose a U-shaped relationship to explain this finding. As previously stated public stigma endorses discrimination by the population, which harms a specific set of individuals within that population. As suggested by Crocker, Major, and Steele (1998), those labeled with a psychiatric disorder are a population potentially at risk for the harm of public stigma. Stereotypes are born from stigmatizations, and are the formed beliefs and expectations about the group. Holding prejudices toward stigmatized groups, are agreements with stereotypes of the group. Discrimination is the behavior, that results from prejudices held toward stigmatized groups (Corrigan & Nieweglowski, 2019).

Measures of familiarity are based on continuous measures of familiarity with mental disorders. This scale ranges from least familiar, somewhat familiar, to very familiar. Intimate relationships can be defined as nuclear family members; parents, siblings, children, spouses; or mental health care providers (Corrigan & Nieweglowski, 2019). Intimacy between nuclear family members is generally a two-way path, whereas intimacy between a patient and mental health providers is generally a one-way relationship (Hook, Gerstein, Detterich, & Gridley, 2003).

U-shaped relationship between familiarity and stigma. Interesting findings suggest that there may be a positive relationship between stigma and familiarity: greater familiarity may lead to more stigma, which results in a U-shaped curve (Corrigan & Nieweglowski, 2019). Half the distribution is represented by the inverse relationship between public stigma and familiarity; whereby, less familiarity results in more stigma. This public stigma lessens as an individual moves from no experience or knowledge of mental disorders, to familiarity with an individual with a mental disorder, such as a classmate. However, the correlation between stigma and family seems to reverse when relationships become more intimate. As this familiarity increases, and the relationship becomes more intimate, this may lead to more stigma. This is the inflection point, in the U-shaped curve, where the inverse relationship switches to a positive relationship (Corrigan & Nieweglowski, 2019).

Nuclear Family, Family Burden, and Stigma by Association. Moses (2010), gave light to stigma that adults with mental disorders experience from close nuclear family members; a third of his participants experienced stigmatizing behaviors from parents.

> "My family were treating me like I was the outsider because I was the only one in my family that was ADHD and their mostly – that thought I was unsafe around my brothers and sisters because I was hyperactive and always being impulsive and stuff… They would say like I was always like crazy." (Moses, 2010, p. 988).

One reason stigma from family members may arise is due to family burden. Family burden has previously been defined as subjective and objective reactions that family members have toward the relative with a mental disorder (Caqueo-Urízar et al., 2014). Nuclear family stigmatization is largely associated between the parent, and/or adult child relationship.

Parents may experience extra challenges, such as medical finances, due to the mental health of their child. These challenges may lead to stress, depression, or resentment (Corrigan & Nieweglowski, 2019). Family members that report a higher burden may admit to greater public stigma (Van der Sanden, Stutterheim, Pryor, Kok, & Bos, 2014). Burden may also be apparent due to associative stigma; the prejudice and discrimination that is experienced by family members because of the relationship they hold with the individual with a mental disorder (Goffman, 1963). Associative stigma may come in the form of blame, friends and acquaintances blaming family members for their relative's mental health (Corrigan & Nieweglowski, 2019). Increasing intimate relationships with the individual with mental illness may increase family burden and stigma by association. All can be contributing factors of stigmatization toward the individual with mental illness.

Race and stigmatization

Stigma, as reported above, is a major barrier for many individuals to receive appropriate health care for mental disorders and mental health problems (Alvidrez, Snowden, & Kaiser, 2008). Many researchers believe that negative attitudes are the reason for underutilization of mental health services (Gonzalez, Alegria, & Prihoda, 2005). The effort to understand differences across gender, race and ethnicity in relation to mental disorder stigma can aid in populations that may need intervention in the form of anti-stigma efforts (DuPont-Reyes et al., 2019). Stigma toward mental disorders varies across gender, ethnicity, and race. The ability to examine stigmas across all groups can help researchers understand how perceptions of disorders vary based on a person's social and cultural identity (DuPont-Reyes et al., 2019). Research by Furnham, and Sheikh (2000) looked at the relationship between cultural beliefs about causes of mental health and attitudes related to seeking professional mental health services. Furnham & Sheikh (2000) distributed *The Orientations for Seeking*

Professional Help (OSPH) questionnaire and *The Mental Distress Explanatory Model Questionnaire (MDEMQ)* to a sample of 287 adults; backgrounds consisting of British Asians (those with origins in the Indo-subcontinent), white Westerners (English and Europeans) and Pakistanis (those born in the subcontinent and still living in Pakistan). Results demonstrated that culture was not a significant predictor of attitudes for seeking professional mental health services. These results did not support the hypothesis that Asian groups would have less positive attitudes toward seeking services when compared to Western groups, but this result is not necessarily surprising (Furnham & Sheikh, 2000). There is an increasing acceptability of psychological and psychotherapeutic practices in the Indo-subcontinent due to mass media coverage of life and health practices (Furnham & Sheikh, 2000). Culture was not a significant predictor of positive attitudes toward seeking professional help, but researchers found that beliefs about the causes of mental distress were significant predictors of attitudes toward seeking help for British Asian and Pakistani groups, but not the Western group (Furnham & Sheikh, 2000). Furnham & Sheikh (2000) discussed that in a culture where a range of treatment options exist, not all of those options for treatment lead to a medically trained professional. For example, Asians living in Pakistan may seek help from a range of therapies and professionals, where multiple medical treatments are the norm; this is different from a Westerner who may seek only professional advice (Furnham & Sheikh, 2000). There are, however, additional studies that suggest potential differences between race, or ethnicity, perceptions of disorders and mental health treatment.

The studies listed below specifically highlight how different races view mental disorders. All studies described below, similar to the current study, did not control for how

people of different races with disorders are viewed. Minority groups, specifically Black Americans, are less likely to seek education about mental health and disorders (Abdullah & Brown, 2019). In DuPont-Reyes and colleagues (2019) research, results found that Latino Black boys reported less mental disorder knowledge and less positive attitudes toward mental disorders, in comparison to non-Latina White girls and non-Latina Black girls. Stigma associated with mental disorders can prevent individuals from seeking to learn more about mental health and disorders, which in turn promotes false stigmas about mental disorders. A study comparing Black and White Americans' perception of mental illness demonstrated that Black Americans perceive individuals with mental illness as more dangerous, as well as being less likely to associate with individuals with mental disorders (Whaley, 1997). Results imply the possibility that perceptions of people with disorders are often more stigmatizing for minority groups compared to the majority (DuPont-Reyes et al., 2019).

Abdullah and Brown (2019), researched, the often debated, stigmatization surrounding mental disorder labels. Researchers thought that previous research lacked representation among Black Americans, and believed there were failures in experimental design in previous research. Participants were assigned to one of two conditions: a labeling condition, where participants read four vignettes describing a person's symptoms; or the alternative-explanation condition, where participants read the same four vignettes, but instead of a label there was a different explanation offered for experienced symptoms (Abdullah & Brown, 2019). The goal of this research was to understand the potential effects of the type of disorder and use of diagnostic label on stigma of mental disorders (Abdullah and Brown, 2019). Overall, results indicated that both the type of disorder and use of a diagnostic label have an influence on the stigma of mental disorders for Black Americans. Findings showed

that schizophrenia was, overall, the most stigmatized disorder, regardless of whether a diagnostic label was included. Participants held the most negative attitudes and desired the most social distance from vignettes depicting schizophrenic symptoms (Abdullah & Brown, 2019). Symptoms of social anxiety was the least stigmatized, regardless of whether there was a diagnostic label. A diagnostic label in the vignette was a predictor of an increased desire for social distance, specifically toward subjects with depressive symptoms (Abdullah & Brown, 2019). These findings are not unanticipated considering that previous research has demonstrated that mental disorders with more severity of symptoms, such as schizophrenia, have been found to predict more negative beliefs toward people with the mental disorder (Socall & Holtgraves, 1992). Overall, the existence or nonexistence of a diagnostic label did not predict willingness of Black Americans to discriminate or, hold feelings of negative emotions, toward mental disorders. (Abdullah & Brown, 2019). Thsee findings may support Corrigan's (2000) theory that both a diagnostic label and behavior are signals indicating mental disorder. For Black Americans, diagnostic labels may not be the most important predictor of mental disorder stigma, but the combination of label, behavior and other characteristics may influence stigma (Abdullah & Brown, 2019).

Age effects on stigmatization

Among other factors indicated in previous research, and factors listed above, age is a large contributing factor to stigmas related to mental health care and perceptions of disorders. Studies have shown that older adolescents and young adults, ranging from 18-24 years old, report less positive attitudes toward seeking mental health treatment than older adults (Gonzalez, Alegria, & Prihoda, 2005). This is not due to a lack of disorders in older adolescents and young adults, as initial signs of mental illness and disorders tend to occur around early adulthood (Kessler et al., 1994). The lack of seeking mental health care may be

due to negative attitudes held toward disorders and the stigma associated with seeking help. Azjen (1991) proposed the theory of planned behavior; one's attitude can predict their intention to engage in a behavior. This theory can also be applied to help seeking. For example, interventions that seek to improve attitudes toward mental health for adolescents and young adults, have been successful. Research suggested that improvement in attitudes, through these interventions, was likely to promote entry into mental health care (Gonzalez et al., 2005). Previous studies indicated that age, race and ethnicity, gender, and other factors play a role in stigmatization of disorders. Previous studies have indicated that young adults, specifically males in minority groups, report more negative attitudes toward seeking mental health treatment and disorders (Gonzalez et al., 2005).

In a research study by Gonzalez and colleagues (2005) researchers examined the effects of age, gender, race and ethnicity on the perceptions of mental health treatment. In particular age was an interesting factor; some studies argue that young adults hold more positive attitudes in comparison to older adults, while other studies argue the opposite (Gonzalez, et al., 2005). One may presume that older generations are generally more conservative, holding more stigmatizing beliefs toward mental disorders, while younger generations are more progressive. For Gonzalez and colleagues (2005) study, ages ranged from youngest, 15 years old, to oldest, 54 years old. Results indicated a positive relationship between age and positive attitudes toward mental health care and mental disorders; as age increased so did positive attitudes. When looking at willingness to seek mental health care, 15 to 17 year olds and 18 to 24 year olds, were less willing to seek mental health treatment in comparison with older participants (Gonzalez, et al., 2005). This research upholds past findings about the influence of age on positive and negative perceptions of mental health

care. The implication that older adolescents and younger adults, compared to adults, hold negative attitudes toward willingness to seek treatment as well as negative attitudes toward mental health care in general, suggests that this age group may hold negative stigmas toward disorders. This suggests that studies should focus research investigating stigma and attitudes amongst young adults in the age range of 18-to-24 years of age.

Heightened rates of stigma toward disorders are detrimental to treatment efforts. In a study by Sirey and colleagues (2001) higher stigma toward disorders among adult patients, predicted discontinuation of mental health treatment. The need for mental health care has increased over time, with 22% of adolescents reporting having a mental disorder (Bor, Dean, Najman, & Hayatbakhsh, 2014). Suicide rates are rising, especially among Latina girls who consistently have higher rates of suicide-related behaviors compared to peers (Zayas, Lester, Cabassa, & Fortuna, 2005). Previous research has indicated that Latinas/os and Black individuals hold greater stigmas toward mental disorders despite evidence that suggests these individuals have better mental health education compared to non-Latina/o White adults (Anglin, Link, & Phelan, 2006).

Gender effects on stigmatization

Gender is another contributing factor to perceptions of disorders. Gender effects are generally seen as early as adolescence (Raviv, Sills, Raviv, & Wilansky, 2000). Although there is some controversy surrounding this topic due to differing results, Furnham and Andrew (1996) in a study of British adults, and Deane, Wilson, and Ciarrochi (2011), found no gender difference in perceptions or attitudes toward seeking psychological treatment from a licensed medical doctor. Other studies have indicated that females report a higher willingness to seek mental health treatment compared to males (Fischer & Turner, 1970;

Leaf, Livingston-Bruce, Tischler, & Holzer, 1987; Sanchez & Atkinson, 1983). In general, findings have suggested that young adult males report the most negative attitudes toward disorders and seeking mental health treatment.

Gonzalez and colleagues (2005) results supported previous gender findings indicating that males were 32% to 54% less likely to have a positive attitude toward mental health treatment. In the same study, males were also 50% less likely to be willing to seek mental health treatment compared to females. Leaf and colleagues (1987) study results supported Gonzalez and colleagues (2005) study findings. Leaf and colleagues (1987) results indicated that women were more open-minded than men to the idea of mental health treatment, and women were also less concerned about what families would think about treatment.

Study results have generally supported that males and females differ in their attitudes toward seeking out mental health treatment and general attitudes toward mental health. Societal pressure may influence gender role behaviors toward disorders and mental health (Gonzalez et al., 2005). In general females are socialized in a manner to be more accepting of seeking help, whereas men are taught to hold self-reliant attitudes and show less emotional expression (Gonzalez et al., 2005). The indication that males more often demonstrate negative attitudes toward mental health treatment may indicate gender differences in stigmas toward disorders in general.

Age and Gender interaction. Multiple studies have investigated the interaction between age and gender as it relates to perceptions of mental disorders and mental health treatment. Gonzalez and colleagues (2005) results indicated that young males were 48% (ages 15-17) and 46% (ages 18 to 24) less likely to report willingness to seek mental health

treatment. The older male age groups (35 to 54 years old) did not indicate less willingness to seek mental health treatment compared to 18 to 24-year-old females. Eighteen to 24-year-old females did not significantly differ from 15-to-17 year-old females, but they did report worse attitudes than 25 to 34-year-olds and 45- to 54-year-old females (Gonzalez et al., 2005). Overall, young males hold the most negative attitudes toward mental health treatment. Thus the results demonstrate that young age, along with gender, influences attitudes toward seeking mental health treatment, and likely toward disorder in general.

Current Study

The current study seeks to investigate stigmatization toward the disorders of ADHD and depression, as well as perfectionism. Previous research suggests that ADHD along with depression are heavily stigmatized disorders. Stereotypes related to ADHD result in social rejection as well as social isolation. Rejection and social isolation have been found to contribute to the early development of depression for individuals with ADHD. The above literature emphasizes the multitude of factors that can affect stigmatization toward mental disorders; including race and ethnicity, gender, age, familiarity and diagnostic labels. The current research looks to investigate how these factors influence stigmatization toward mental disorders.

The current study will have participants read three profiles of fictional characters, with descriptions (e.g. the individual is from Ohio) of the individual, as well as whether the individual is diagnosed, or presents symptoms, of one of the three disorders (ADHD, depression or perfectionism). Based on previous research, I hypothesize that exposure to diagnostic labels creates preemptive judgements about the individual, and will therefore result in higher amounts of stigmatization, and less acceptance of the profiled individual.

Additionally, if participants are presented with profiles of fictional individuals only presenting symptoms of the disorders, those profiles will be less stigmatized because of the lack of a diagnostic label.

Results from multiple studies, such as Abdullah and Brown (2019) and Dupont-Reyes and colleagues (2019), demonstrated that minority groups, specifically Black and Hispanic individuals, were more likely to express desire for social distance from an individual labeled with a disorder. I predict that individuals in minority groups will express higher amounts of stigmatization, and less acceptance, toward profiles with diagnostic labels compared to profiles only presenting symptoms.

Corrigan and Nieweglowski (2019) findings suggested that a U-shaped relationship is associated with increased familiarity, specifically in intimate relationships. The U-shaped curve shows an inverse and a positive relationship; greater familiarity leads to less public stigma, but in some cases increased familiarity in groups can lead to more public stigma, which results in a U-shape. Based on previous research, I predict familiarity with depression, ADHD, and perfectionism, in some capacity, will result in empathy toward individuals labeled or presenting symptoms of the mental disorders. Individuals who are familiar or have some capacity of knowledge about the disorders will be more accepting of those individuals. I predict the current research will show only an inverse relationship between familiarity and stigma; as familiarity increases, stigma decreases.

A number of studies indicate gender differences between men and women; individuals are more likely to associate mental health help seeking tendencies with women, while associating resiliency to mental health issues and lack of emotion, with men. Influence

of gender roles on a participant's perception of the profiled individual, may influence stigma towards specific disorders when presented with different genders. I predict that, overall, participants will be more accepting and more willing to associate with a woman with a disorder.

Perfectionism is not classified as DSM-5 disorder, but rather, is considered to be a risk factor for a wide variety of disorders, including but not limited to; obsessive compulsive disorder, eating disorders, and social anxiety. Whereas, both ADHD and depression are classified as disorders according to the DSM5. Due to perfectionism not being classified as a disorder, I predict that more people will stigmatize ADHD and depression compared to perfectionism.

With all factors considered influencing stigmatization toward individuals with disorders, I hypothesize that participants will hold higher stigmas toward profiles of men with a diagnostic label of depression or ADHD, and overall less stigma toward profiles only presenting symptoms.

Methods

Sample Size

An a priori power analysis was conducted using G*Power 3.1.9.3. The current study was influenced by a combination of studies, but largely by Canu and colleagues (2008) research. Due to similar methodologies the current study based the estimate of effect size on Canu and colleagues (2008) previous research. An approximate effect size of $d = 0.20$ was used in Canu and colleagues (2008) research. An a priori analysis determined that the current research, to detect a small effect size of $d = 0.20$, at a power of 0.80, and an alpha level of .05, required 788 participants. This sample size was not met.

A post hoc analysis was conducted using G*Power 3.1.9.3. With a small effect size of $d = 0.20$, and a sample size of 120 (60 in group one and 60 in group two), the power of the current study is approximately 21%.

Participants

The College of Wooster population was used to research stigmatization among behavioral and mental disorders. The study included 120 students from the College of Wooster. All students were currently enrolled in the College, ages ranging from 18-23. Students were recruited using SONA recruitment system. Participants gender identification consisted of man (28.3%), woman (58.7%), Nonbinary (1.4%), Genderqueer (.7%), and Genderfluid (0%). Participants were allowed the option to not indicate gender, as well as the option to select multiple genders. Participants race or ethnicity consisted of *White* (56.5%); *Hispanic, Latino or Spanish* (8%); *Black or African American* (9.4%); *Asian* (13%); *American Indian or Alaska Native* (2.2%); *Middle Eastern or North African* (1.4%), *Native Hawaiian or Other Pacific Islander* (0%), or *Some Other Race or Ethnicity* (3.6%). Participants were allowed to select multiple races or ethnicities, and were allowed the option to not indicate race or ethnicity. Participants received two SONA credits, upon completing the survey.

Design

Social Appraisal of Adult ADHD Profiles

The current study is largely modeled off of Canu, Newman, Morrow & Pope's (2008) research that looked at the influence of participants' Big Five Personality Traits on acceptance of young adult ADHD in various social contexts. Canu and colleagues (2008) profiles provided fictional information of individuals with ADHD, minor medical problems, or what they refered to as no appreciable weakness. As a modification to the original study,

impairments in the current study, or what Canu and colleagues (2008), noted as 'weaknesses', included ADHD, perfectionism, and depression. Participants were randomized in to a 3 x 2 x 2 experimental design, in which participants responded to three descriptive profiles of fictional individuals. The first factor is within subject, where three different profiles were presented to each participant, each describing a person with a different *condition*: depression, perfectionism, or ADHD. The second factor is *model gender*, a between subject effect; the three profiles of fictional individuals were presented to participants as either men or women. The third factor is *status*, a between subject effect; the three profiles of fictional individuals were presented to participants as having either a diagnostic label of ADHD, perfectionism and depression, or symptoms of the disorders.

Survey questions

After presentation of the three fictional profiles, participants were asked five questions pertaining to the profile that was just presented. All questions were based on Canu and researchers (2008) "Social Appraisal of ADHD*"* study. For the purposes of this study, specific questions related to attractiveness or serious dating from the original profiles, were excluded. The questions excluded were, "How likely would you be to have a serious dating relationship with him/her" and "On a 1 (very unattractive) to 10 (very attractive) scale, how handsome/pretty is this man/woman" (Canu et al., 2008). The profiles contained an image of the fictional individual as reference.

The five questions pertaining to the profiles (dependent variables) in the current study included: "How likely would you be willing to work with this woman/man on a group project?", "How likely would you be to talk with this woman/man to get to know her/him better?", "How likely would you be to become friends with her/him after a while?", "How

likely would you be to get along with this woman/man if you were roommates?" and, "How likely would you be to interact well with her/him if you worked at the same job?".

Materials and Procedure

Measurement of Stigmatization towards Adults with Attention Deficit Hyperactivity Disorder was used as a survey measurement devised to assess stigmatization levels pertaining to ADHD. The thirty-seven question survey from Fuermaier and colleagues (2012) was modified for the purpose of the current study. The current study only contained twelve survey questions from the stigmatization questionnaire. Sentence structures for two out of the twelve questions from the current study, were modified from the original study. The original questions were "I would mind if my investment advisor had ADHD" and "If I had a business, I would not hire a person with an ADHD diagnosis" (Fuermaier et al., 2012). The current two questions were modified to pertain to group projects; "I would mind if my group project had someone with ADHD", and "If I had to pick people for a group project I would not pick a person with ADHD diagnosis". An SPSS analysis indicated a Cronbach's Alpha of .756 for the current study's survey measurement.

Familiarity. Corrigan and Nieweglowski (2019) reviewed multiple studies on how familiarity of mental illness effects public stigma. Their findings suggest a U-shaped relationship; greater familiarity leads to less public stigma, but in some cases increased familiarity in groups can lead to more public stigma. Based on this proposal, the current research asks two questions of familiarity in order to assess if this affects stigma toward disorders. Survey questions also included knowledge of the disorder, for example, "I know the symptoms of ADHD". Survey questions related to familiarity, with the disorders, were framed as "How close are you with anyone diagnosed with ADHD".

Results

Five ANOVAs were used to analyze the five dependent variables presented in the experimental design. These questions analyzed stigma toward ADHD and depression, as well as perfectionism.

Working On a Group Project

The first ANOVA determined how likely participants would be willing to work with an individual on a group project. Significance was found for three main effects, one, 2-way interaction, as well as a three-way interaction. Significant F-tests for all interactions and main effects can be viewed in Table 1.

Table 1

Group Project F tests

Source	df	F	Sig.
Condition	2	23.8***	.000
Model gender	1	4.73*	.032
Status	1	6.92*	.010
Condition * model gender	2	2.19	.114
Condition * status	2	6.19**	.002
Model gender * status	1	1.36	.246
Condition* model gender * Status	2	10.5***	.000
Error(Condition)	238		

Note. $*p < .05$. $**p < .01$. $***p < .001$.

The main effect of *model gender* tells us that participants wanted to work more with a woman ($M = 4.05$, $SE = .086$) on a group project, than with a man ($M = 3.79$, $SE = .085$). The main effect of *status* indicated that participants were significantly more willing to have worked on a group project with an individual who had a diagnosis ($M = 4.08$, $SE = .087$) than symptoms ($M = 3.76$, $SE = .085$). The main effect of *condition* indicated that significantly more people wanted to work on a group project with a perfectionist ($M = 4.20$, $SE = .065$),

than compared to an individual with depression (*M* = 3.73, *SE* = .079) or ADHD (*M* = 3.83, *SE* = .075). No significant difference was found between depression and ADHD.

The main effects were further qualified by a two-way interaction between *condition* and *status*; participants were significantly more willing to have worked on a group project with an individual who was a diagnosed perfectionist, than an individual who was diagnosed with depression. The two-way interaction was further qualified by a significant three-way interaction which supports all above findings, indicated in Figure 1.

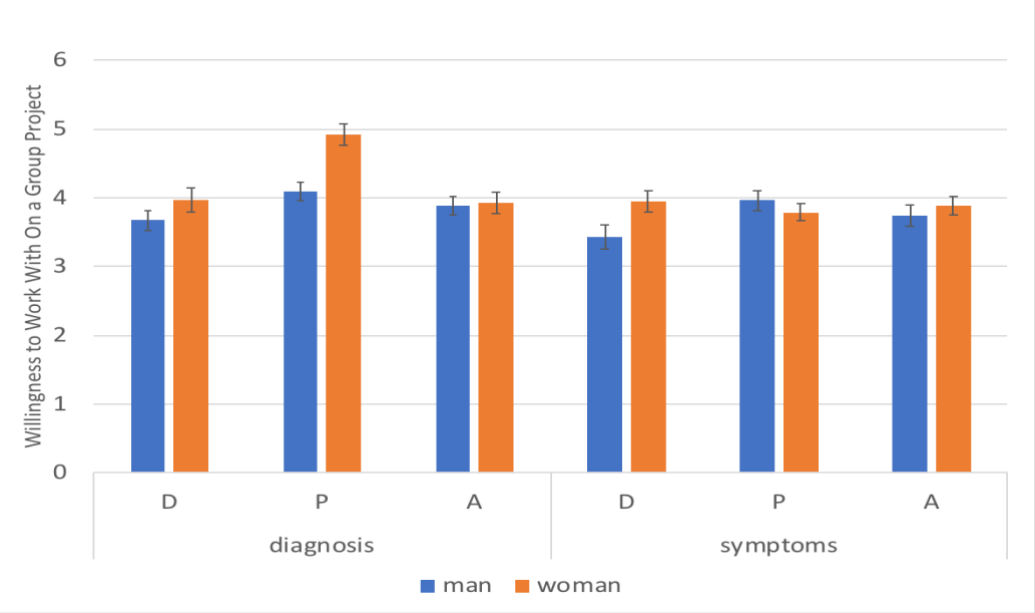

Figure 1. Willingness to work on a group project with the individual. Higher scores on dependent measures indicated more acceptance of the fictional profile of the individual. Error bars are 95% confidence intervals.

The three-way interaction illustrated that participants, overall, wanted to work on a group project with a perfectionist individual. Men wanted to work with a perfectionist whether they were diagnosed (*M* = 4.09, *SE* = .126), or if they only displayed symptoms (*M* = 4.00, *SE* = .134). Men were least likely to have worked with an individual with depression; diagnosed (*M* = 3.67, *SE* = .152) or displaying symptoms (*M* = 3.41, *SE* = .162). Participants

were significantly more likely to have worked with a woman, only if she was a diagnosed perfectionist (*M* = 4.93, *SE* = .139). There were no significant differences between symptoms for a woman. Participants are significantly more willing to have worked on a group project with a woman diagnosed with perfectionism than a man diagnosed with perfectionism ($p <$ .001). Participants are significantly more willing to have worked on a group project with a woman with depressive symptoms than a man with depressive symptoms ($p <$ .036).

Get to Know Better

The second ANOVA determined how likely participants would be to get to know the individual better. Significance was found for one main effect and two, 2-way interactions, as well as a three-way interaction. Significant F-tests for all main effects and interactions can be viewed in Table 2.

Table 2

G*et to Know Better*

Source	df	F	Sig.
Condition	2	10.7***	.000
Model gender	1	1.87	.174
Status	1	1.95	.165
Model gender * status	1	9.72**	.002
Condition * model gender	2	8.93***	.000
Condition * status	2	1.96	.143
Condition* model gender * Status	2	14.2***	.000
Error(Condition)	236		

Note. *$p < .05$. **$p < .01$. ***$p < .001$.

The main effect of *condition* indicated that participants would have gotten to know an individual better if they were a perfectionist (*M* = 3.87, *SE* = .086) compared to if the person had depression (*M* = 3.51, *SE* = .086) or ADHD (*M*= 3.68, *SE* = .077). More people were

also more likely to have gotten to know someone better if the individual had ADHD compared to depression ($p < .001$).

The main effect of *condition* is qualified by two, 2-way interaction between *model gender* and *status*, as well as *condition* and *model gender*. The interaction between *model gender* and *status* indicated that participants were more likely to get to know a man better with symptoms ($M = 3.71$, $SE = .145$) than a diagnosis ($M = 3.48$, $SE = .133$). Participants were more willing to have gotten to know a woman with a diagnosis ($M = 4.10$, $SE = .147$) than with symptoms ($M = 3.47$, $SE = .131$). The two-way interaction between *condition* and *model gender* indicated that participants were more willing to have gotten to know a man with perfectionism ($M = 3.89$, $SE = .122$) and least willing to have gotten to know a man with depression ($M = 3.23$, $SE = .122$). Participants were more willing to have gotten to know a perfectionist woman ($M = 3.86$, $SE = .122$) and were least willing to have gotten to know a woman with ADHD ($M = 3.70$, $SE = .109$).

The two, 2-way interactions are further qualified by the significant three-way interaction. Results for this interaction indicated that participants were more likely to have gotten to know someone better if it was a man with symptoms of perfectionism compared to a diagnosis ($p = .040$). Participants were more likely to have gotten to know a woman with a perfectionist diagnosis than symptoms ($p < .001$). Participants were more likely to have gotten to know a woman with ADHD diagnosis than if the woman only had symptoms of ADHD ($p = .039$). All data for the three-way interaction is shown in Figure 2 below.

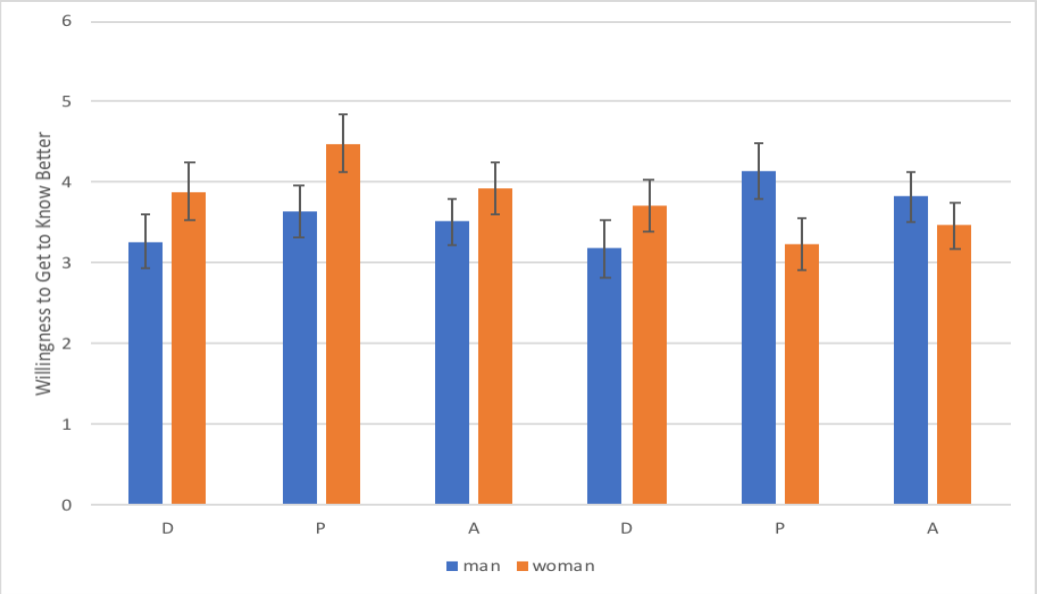

Figure 2. Willingness to get to know the individual better. Higher scores on the dependent measures indicated more acceptance for the fictional profile of the individual. Error bars are 95% confidence intervals.

Become Friends With

The third ANOVA determined how likely participants would be to become friends with an individual after a while. Significance was found for one main effect, all two-way interactions, as well as a three-way interaction. All significant F-tests are presented in Table 3.

Table 3

B*ecome Friends With*

Source	df	F	Sig.
Condition	2	8.42***	.000
Status	1	3.22	.075
Model gender	1	1.66	.200
Model gender * status	1	5.88*	.017
Condition * status	2	5.52**	.005
Condition * model gender	2	7.61**	.001
Condition* model gender * Status	2	6.02**	.003
Error(Condition)	234		

Note. *p < .05. **p < .01. ***p < .001.

Significance for the main effect of c*ondition* shows that participants were significantly more willing to have become friends with an individual if they were a perfectionist (*M* = 3.82, *SE* = .082) compared to if they had depression (*M* = 3.52, *SE* = .075) or ADHD (*M* = 3.58, *SE* = .076). No significant difference between depression and ADHD was found.

This main effect was qualified by significance for all three two-way interactions. All two-way interactions were qualified by a significant three-way interaction. All data can be viewed in Figure 3.

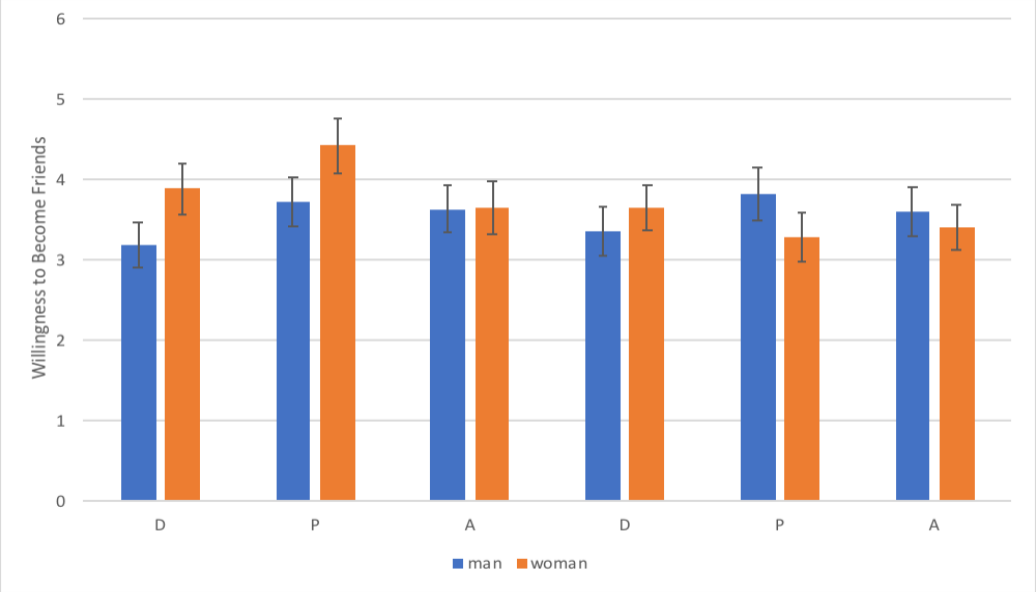

Figure 3. Willingness to become friends with the individual. Higher scores on the dependent measures indicated more acceptance for the fictional profile of the individual. Error bars are 95% confidence intervals.

The three-way interaction showed that people were significantly more likely to have become friends with a woman who was diagnosed with perfectionism compared to only showing symptoms. Participants were significantly more likely to have become friends with a woman diagnosed with perfectionism than depression or ADHD. When looking at

symptoms, participants were significantly more likely to have become friends with a woman with symptoms of depression than symptoms of perfectionism. When looking at a man's fictional profile, participants were significantly more likely to have become friends with a man diagnosed with perfectionism than depression, as well as significantly more likely to have become friends with a man if diagnosed with ADHD than depression.

Get Along if Roommates

The fourth ANOVA determined how likely participants would get along with an individual if they were roommates. Significance was found for one main effect and one two-way interaction. The three-way interaction was not significant. All significant F-tests are presented in Table 4.

Table 4

Get Along if Roommates

Source	df	F	Sig.
Condition	2	6.85**	.001
Model gender	1	2.22	.139
Status	1	1.35	.248
Condition * model gender	2	4.85**	.009
Condition * status	2	1.92	.148
Model gender * status	1	2.74	.101
Condition * model gender * status	2	1.67	.191
Error(Condition)	236		

Note. *$p < .05$. **$p < .01$. ***$p < .001$.

Significance for the main effect *condition* indicated that participants were significantly more likely to have gotten along with an individual as a roommate if they were a perfectionist ($M = 3.80$, $SE = .089$) compared to if they were depressed ($M = 3.55$, $SE = .077$) or had ADHD ($M = 3.51$, $SE = .084$). There were no significant differences found between depression and ADHD.

The significant two-way interaction was between *model gender* and c*ondition.* Participants were more likely to have gotten along as roommates with a man who was a perfectionist (*M* = 3.66, *SE* = .125) and least likely to get along as roommates if he was depressed (*M* = 3.34, *SE* = .108). If the profile was a woman, participants were more likely to have gotten along as roommates with the individual if she was a perfectionist (*M* = 3.93, *SE* = .128), and least likely to have gotten along with her if she had ADHD (*M* = 3.46, *SE* = .120).

Worked at The Same Job

The fifth ANOVA determined how likely a participant would interact well with an individual if they worked at the same job. Significance was found for two main effects and two, 2-way interactions, as well as a three-way interaction. All significant F tests are presented in Table 5.

Table 5

W*orked at the Same Job*

Source	df	F	Sig.
Condition	2	13.6***	.000
Status	1	9.45**	.003
Model Gender	1	1.18	.280
Model gender * status	1	5.31*	.023
Condition * status	2	11.4***	.000
Condition * model gender	2	2.27	.106
Condition* model gender * Status	2	13.2***	.000
Error(Condition)	236		

Note. $*p < .05$. $**p < .01$. $***p < .001$.

The main effect of *condition* indicated that participants were significantly more likely to have interacted well at a job with a perfectionist individual (*M* = 4.19, *SE* = .066), than an individual with ADHD (*M* = 3.94, *SE* = .064), or depression (*M* = 3.86, *SE* = .069). There

was no significant difference between ADHD and depression. Significance for main effect *status* indicated that participants were more likely to have interacted well at a job with a diagnosed individual (M = 4.16, SE = .078) than an individual presenting symptoms (M = 3.83, SE = .075).

All main effects were further qualified by two, 2-way interactions. The interaction between *status* and *model gender* showed that participants are significantly more likely to have interacted well at a job with a diagnosed woman (M = 4.35, SE = .116), compared to a woman presenting symptoms (M = 3.77, SE = .102). There was no significant difference between symptoms and diagnosis for a man. The significant interaction between *status* and *condition* showed that participants were more likely to have interacted well at a job with an individual who was a diagnosed perfectionist (M = 4.54, SE = .095) and least likely to have worked well with an individual diagnosed with depression (M = 3.91, SE = .099). There were no significant differences for symptoms.

The significant two-way interactions were further qualified by a significant three-way interaction indicated in Figure 4. The significant three-way interaction showed that participants would have worked better with a diagnosed perfectionist woman than a diagnosed perfectionist man. Participants would have interacted better at a job with a man who had symptoms of perfectionism, than a woman who presented symptoms of perfectionism.

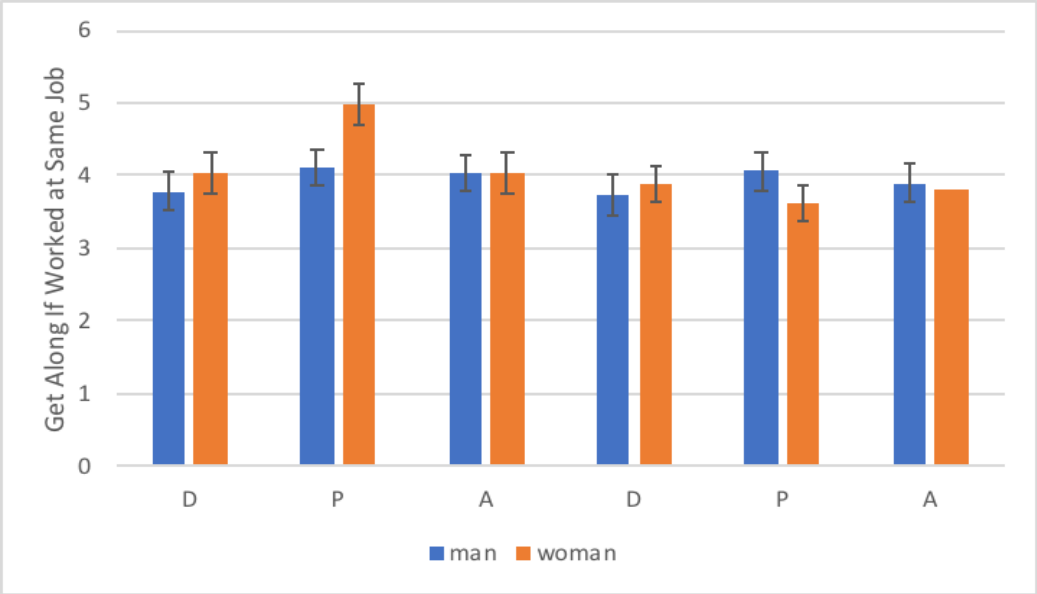

Figure 4. Get along if you worked at the same job with the individual. Higher scores on the dependent measures indicated more acceptance for the fiction profile of the individual. Error bars are 95% confidence intervals.

Correlation

A correlation for means of all five dependent variables—*Depression means, ADHD means, Perfectionism means*—together known as *acceptance*, as well as means for the *ADHD Stigma Scale* and all three familiarity measures—*ADHD familiar, Depression familiar, Perfectionism familiar*—together known as *familiarity*, was run in SPSS and can be viewed in Table 6. Indication of symptom knowledge of the disorders was combined with familiarity measures. The correlation indicated that the more familiar an individual was with ADHD, resulted in a decrease in stigmatization toward ADHD. The test showed that the more *acceptance* participants demonstrated, resulted in a decrease in stigmatization in the *ADHD Stigma Scale*. The more familiar participants were with ADHD, resulted in an increase in familiarity with perfectionism and depression. The more familiar participants were with depression, resulted in an increase in familiarity with perfectionism. The more familiar participants were with perfectionism resulted in an increase in *acceptance* of perfectionism. The more accepting participants were of profiles with depression, increased

participants' *acceptance* of ADHD and perfectionism. The more accepting participants were of profiles with ADHD, increased participants' *acceptance* of profiles with perfectionism.

Table 6

Descriptive Statistics and Correlation

	Mean	Std. Deviation	1	2	3	4	5	6	7
1. ADHD stigma	2.4254	0.54259	1						
2.ADHD familiar	3.5369	0.96887	-.321**	1					
3.Depression familiar	4.1107	0.78601	-.0114	.339**	1				
4.Perfectionism familiar	3.4344	0.97267	0.049	.180*	.334**	1			
5.Depression means	3.6219	0.69868	-.305**	-.0.075	0.013	-0.02	1		
6.ADHD means	3.7	0.6586	-.438**	0.118	0.12	-0.035	.606**	1	
7.perfectionism means	3.9317	0.77197	-.249**	0.073	0.151	.221*	.530**	.495**	1

Note. ** Correlation is significant at the 0.01 level (2-tailed). * Correlation is significant at the 0.05 level (2-tailed). Descriptive statistics for all dependent means are included in the table.

Race and Ethnicity

A one-way ANOVA analyzed how race and ethnicity influenced participants' *acceptance* means. All F tests are indicated in Table 7.

Table 7

C*orrelation between Race/Ethnicity and acceptance*

	df	F	Sig.
Depression means	4	2.37	.056
ADHD means	4	1.17	.329
Perfectionism means	4	1.82	.130
Total	120		

Note. *$p < .05$. **$p < .01$. ***$p < .001$.

No significance was found for any of the F, but *acceptance* means for depression were trending toward significance. Means indicate that black participants on average indicated lower *acceptance* ratings for depression (M = 3.13, SE = .700). Latino participants reported highest *acceptance* ratings for depression (M = 3.82, SE = .763). Latino and black individuals were significantly different in reporting *acceptance* ratings for depression (p = .022). White and black individuals were significantly different in reporting *acceptance* ratings for depression (p = .007).

Discussion

Findings for the current study support some past research while also demonstrating new findings. Overall, data in the current study suggested that increased knowledge and familiarity of ADHD, depression and perfectionism decreased stigmatization toward ADHD: *acceptance* ratings of profiles of individuals with depression, ADHD and perfectionism. Findings in this study indicated that participants who had greater familiarity with one disorder (e.g. ADHD), had a greater familiarity with all three of the disorders and disorder symptoms presented in the profiles.

The results demonstrated, that on average, participants favored fictional profiles with perfectionist characteristics; whether the profiled individual was presented with symptoms or a diagnostic label. Gender presented in the profile did not influence participants' favoritism toward profiles of perfectionist individuals. However, when profiles of women and men were compared, participants were more likely to want to associate with a woman, regardless of presenting the profiled individual with symptoms or a diagnostic label. The desire of participants to associate with profiles presented with diagnostic labels, versus symptoms, varied based on the five questions (dependent measures) asked at the end of each profile

presentation. Data indicated, in general, that participants favored an individual with a diagnostic label. The current research, and previous studies, suggested that presentation of a diagnostic label has a significant impact on an individual's stigmatization toward a person with a disorder. Research by Granello and Gibbs (2016) presented participants with noun-based ('the mentally ill') or with people-first labels ('people with mental illness'). Participants were far more likely to show lower levels of tolerance, or acceptance, when presented with the noun-based terms ('mentally ill'). Stigma is embedded in the misconception that individuals with disorders are dangerous or unpredictable (Aragoès et al., 2014). Given previous findings, the current research focused on the implications of presenting participants with profiles, either with diagnostic labels or symptoms of the disorders. The current study hypothesized that participants would indicate higher stigmatization toward profiles containing diagnostic labels, compared to symptoms. Findings in this study did not support the hypothesis, and indicated that participants were more likely to be accepting of individuals with a diagnostic label. These findings also do not support previous research, such as Granello and Gibbs (2016). It is surmised that this was largely due to a skew in the data based on the introduction of the perfectionist profile. Participants' desire to associate with a diagnosed perfectionist, influenced the data to indicate that, overall, participants favored profiles with a diagnostic label compared to only showing a profile with symptoms. Data was likely influenced due to the significant desire to specifically associate and accept a perfectionist.

Perfectionism is not classified as a disorder in the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-5), but it has been consistently linked to many mental health conditions ranging from eating disorders to depression (Magson et al., 2019). Participants'

high acceptance ratings of individual profiles with perfectionism, either with diagnostic labels or only presenting symptoms, may be due to the fact that perfectionism itself is not actually viewed as a true disorder. ADHD and depression, are both widely recognized as diagnosable disorders, while perfectionism may be viewed as a personality trait. It is possible that a lack of understanding, or knowledge, of perfectionism may have skewed the data to indicate favored acceptance of profiles of perfectionism, compared to ADHD or depression.

The five dependent measures indicated that participants showed higher acceptance of a man with either perfectionism or ADHD, than a man with depression. For profiles of women, participants were more likely to have associated with a woman who had depression, than a woman who had ADHD. When comparing the five dependent measures participants were, overall, least willing to have associated with a man with depression. These results may have been influenced by gender differences with disorders. Previous research findings suggested that societal pressures may influence gender role behaviors toward disorders and mental health (Gonzalez et al., 2005). Leaf and colleagues (1987) found that, in general, women were more open-minded than men about the idea of mental health treatment. Women were also less concerned about an outsider's perspective of mental health treatment (Leaf et al., 1987). Results indicating preference for associating with a woman with a disorder may largely be due to these societal gender roles. Participants apply these roles to the profiled individual; women are more aware of their emotions and mental health, while men are taught to be less emotional and resilient (Leaf et al., 1987). These preconceived ideas of gender roles in relation to disorders may have influenced the outcome of the results; people generally prefer to associate with women with disorders.

Due to misconceptions about the disorders, ADHD and depression are both heavily stigmatized. The current research hypothesized that ADHD and depression would be more stigmatized, and show lower acceptance ratings, in comparison to perfectionism. ADHD is classified as an externalizing disorder, which results in outwardly visible symptoms. Weiner and colleagues (1988) suggested that externalized norm-violating behaviors may provoke stigma toward ADHD. Depression symptoms and behaviors are largely internalized, meaning that behaviors are not necessarily visible to the public. Thus, as hypothesized, people may be less likely to associate with an individual with the externalizing behaviors of ADHD, and more likely to associated with the internalized behaviors of depression. Current study findings indicate that a profile's gender played a significant role in whether participants wanted to associate with a person with depression or ADHD. The current study made no predictive hypothesis related to these gender results. Findings demonstrated that participants preferred to associate with a woman with depression over a woman with ADHD, and associate with a man with ADHD over a man with depression.

The current study examined the relationship between the participant's racial and ethnic identity, with stigma toward mental disorders. The current study's results on race and ethnicity indicated no significant findings, but acceptance ratings of depression were trending toward significant. Participants who identified as *Hispanic, Latino, or Spanish* showed the highest ratings of acceptanc*e* toward depressed individuals, regardless of diagnostic label or symptoms. There was a significant difference of acceptance ratings for depression between *Black, or African American,* and *White* participants, as well as *Hispanic, Latino, or Spanish* and *Black, or African American*, participants. *Black, or African American*, participants had the lowest acceptance ratings of profiles with depression. Findings from these results concur

with some prior research, while differing with other studies. DuPont-Reyes and colleagues (2019) previous research indicated that Black Americans reported the desire for social distance from individuals with a mental disorder, and is supported by findings in this study, specifically related to acceptance ratings of depression. Contrary to Becker and colleagues (2014) prior findings, the current study found that *White* participants, when compared to participants identifying as *Hispanic, Latino or Spanish,* were less likely to be accepting of individuals with depression. Findings in the current research did not fully support the hypothesis that minority groups would desire more social distance; results on the influence of race and ethnicity on stigmatization toward disorders are mixed. *White* participants were not as accepting of disorders compared to *Hispanic, Latino or Spanish* participants. Findings in this study may have been impacted by the lack of diversity in the sample population of College of Wooster students, with 56.5% of the participants identifying as *White*, and only 8% of participants identifying as *Hispanic, Latino or Spanish,* and 9.4% as *Black or African American.* Additionally, the study allowed for the selection of multiple race and ethnicity categories, which may have resulted in an even smaller percentage of participants in each minority group.

Stigmatization of disorders, in the current study, was largely influenced by familiarity and knowledge of perfectionism, ADHD, and depression. Results demonstrated that individuals who were familiar and indicated more knowledge of the disorder showed more *acceptance* toward ADHD, perfectionism, and depression. This supports the hypothesis, and previous findings, that indicate an inverse relationship between familiarity and stigma; as familiarity increases, stigma decreases. Findings in the current study did not demonstrate Corrigan and Nieweglowski's (2019) U-shaped curve, thus no positive relationship between

stigma and familiarity was observed. More participants may be necessary in order to observe a U-shaped curve.

Indicated in the power analysis, the current study did not obtain the necessary number of participants. This is a large limiting factor that can contribute to the lack of significance in some of the tests, as well as skewed data in other tests. The small number of participants may have impacted the ability to detect an effect of acceptance ratings based on the participant's race or ethnicity. Generally, the small number of participants resulted in a lack of diversity within the study, which likely impacted the results for the influence of race or ethnicity on stigma toward disorders. Another limiting factor to be considered is the phrasing presented in the perfectionist profiles. Perfectionism is not a classified psychological disorder, thus in the phrasing presented in the profiles, the current study could not say "has perfectionist disorder", unlike the ADHD or depression profiles. The wording in the perfectionist profiles used the phrase "a bit too much of a perfectionist", as the indication of "diagnosis" of perfectionism. The difference between perfectionism "diagnosis" phrasing, from ADHD and depression may have influenced participants' perception of perfectionism.

Future studies may consider excluding the perfectionist profile in order to obtain a more distinct analysis of perceptions toward disorders located in the DMS-5. Eliminating the perfectionist profile may allow future researchers to obtain more accurate results pertaining to the influence of diagnostic label versus symptoms on perceptions of disorders. Future research may also want to examine disorders with similar symptoms; this may eliminate the aspect of differences between the 'severity' of the disorders.

When looking at the relationship between a participant's race and stigma toward disorders, the current studies results were trending toward significant findings; a participants

race influenced perceptions of the disorders. The trend towards significance suggests that future studies should explore the influence of race on perceptions of mental disorders and health. Future studies should not only examine the influence of a participant's race, but also how individual's perceptions change based on different races with disorders.

Understanding how specific individual characteristics can influence perceptions of mental disorders and mental health, is important for future implications of combating stigma. Education about mental health and disorders is a key step in combating stigma. Future studies should use stigma research to understand how to best format stigma prevention programs for all individuals. As indicated above, individual differences can influence stigma and acceptance of individuals with disorders. In order to optimize educational programs for combating stigma, we must understand how all characteristics can shape perceptions.

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Appendix A

CONSENT TO PARTICIPATE IN A RESEARCH STUDY

THE COLLEGE OF WOOSTER

Principal Investigator: Madeline Smith, Department of Psychology

Purpose

You are being asked to participate in a research study. A research study on how people process social preferences and social information.

Procedures

Participants will read fictional descriptive stories of three individuals, and answer survey questions about the stories as well as a set of survey questions about social preferences. Participants will be asked to report demographic information. The experiment will take approximately 15 to 20 minutes to complete and participants will receive two SONA credits for participation.

Risks

There are no conceivable risks.

Benefits

There are no direct benefits to you for your participation. An indirect benefit is that we learn more about how people process social preferences and social information.

Compensation

There will be no compensation. If you are enrolled in a course that offers credit for social participation you will receive two SONA credits.

Confidentiality

Any information you give will be held confidential. We will not be collecting personally identifying contact information for this study.

Costs

There is no cost to you beyond the time and effort required to complete the procedure described above.

Right to Refuse or Withdraw

You may refuse to participate in the study. If you decide to participate, you may change your mind about being in the study and withdraw at any point during the experiment.

Questions

If you have any questions, please ask me. If you have additional questions later, you can contact me by email at msmith20@wooter.edu . You may also contact my advisor, Dr. Evan Wilhelms, at ewilhelms@wooster.edu .

Consent

Your signature below will indicate that you have decided to volunteer as a research subject, that you have read and understand the information provided above, and that you are at least 18 years of age. Signature of participant _____ Date _____

You will be provided a copy of this form.

Appendix B

Please read the description of this young woman, written from her perspective.

- Age: 19 years old
- Job: full-time college student
- Family: parents, brother, and sister live in Ohio
- Travel: hopes to someday visit Ireland or Japan
- A weakness: has symptoms similar to a perfectionist
- Future: still exploring her career options
- Hobbies: kayaking, watching reality TV, collecting bumper stickers
- Social: almost joined a sorority but got involved in student council
- Home: has two apartment mates that she gets along with fine for the most part
- Future interests: focus on applied sciences and education (undecided major)

This young woman included a picture of herself, included here:

Please answer the following questions using the following scale:

	Very Unlikely	Unlikely	Somewhat Unlikely	Likely	Very Likely
How likely would you be willing to work with this woman on a group project?					
How likely would you be to talk with this woman to get to know her better?					
How likely would you be to become friends with her after a while?					
How likely would you be to get along with this woman if you were roommates?					
How likely would you be to interact well with her if you worked at the same job?					

Appendix C

Please read the description of this young woman, written from her perspective.

- Age: 19 years old
- Job: full-time college student
- Future interests: interested in courses in physics and psychology (undecided major)
- Future: wants a career in human services
- A weakness: has symptoms similar to Attention-Deficit/Hyperactivity Disorder
- Home: has three apartment mates that she rarely sees
- Social: didn't like first sorority, thinking about trying another
- Family: sister in Phoenix, sister in Cape Girardeau, and parents in Jefferson City
- Travel: would love to visit Thailand or Italy
- Hobbies: likes playing poker, listening to music, and comedy

This young woman included a picture of herself, included here:

Please answer the following questions using the following scale:

	Very Unlikely	Unlikely	Somewhat Unlikely	Likely	Very Likely
How likely would you be willing to work with this woman on a group project?					
How likely would you be to talk with this woman to get to know her better?					
How likely would you be to become friends with her after a while?					
How likely would you be to get along with this woman if you were roommates?					
How likely would you be to interact well with her if you worked at the same job?					

Appendix D

Please read the description of this young woman, written from her perspective.

- Age: 20 years old
- Job: full-time college student
- Future interests: focus on applied sciences and education (undecided major)
- Hobbies: likes playing tennis, watching movies, listening to bands
- A weakness: has symptoms of depression
- Social: has considered joining a sorority, might do so in the future
- Family: brother in Milwaukee, sister and parents in Illinois
- Travel: would love to visit Indonesia, Greece
- Home: has two apartment mates that she gets along with pretty well
- Future: wants a career in community development

This young woman included a picture of herself, included here:

Please answer the following questions using the following scale:

	Very Unlikely	Unlikely	Somewhat Unlikely	Likely	Very Likely
How likely would you be willing to work with this woman on a group project?					
How likely would you be to talk with this woman to get to know her better?					
How likely would you be to become friends with her after a while?					
How likely would you be to get along with this woman if you were roommates?					
How likely would you be to interact well with her if you worked at the same job?					

Appendix E

Please read the description of this young woman, written from her perspective.

- Age: 19 years old
- Job: full-time college student
- Family: parents, brother, and sister live in Ohio
- Travel: hopes to someday visit Ireland or Japan
- A weakness: a bit too much of a perfectionist
- Future: still exploring her career options
- Hobbies: kayaking, watching reality TV, collecting bumper stickers
- Social: almost joined a sorority but got involved in student council
- Home: has two apartment mates that she gets along with fine for the most part
- Future interests: focus on applied sciences and education (undecided major)

This young woman included a picture of herself, included here:

Please answer the following questions using the following scale:

	Very Unlikely	Unlikely	Somewhat Unlikely	Likely	Very Likely
How likely would you be willing to work with this woman on a group project?					
How likely would you be to talk with this woman to get to know her better?					
How likely would you be to become friends with her after a while?					
How likely would you be to get along with this woman if you were roommates?					
How likely would you be to interact well with her if you worked at the same job?					

Appendix F

Please read the description of this young woman, written from her perspective.

- Age: 19 years old
- Job: full-time college student
- Future interests: interested in courses in physics and psychology (undecided major)
- Future: wants a career in human services
- A weakness: has Attention-Deficit/Hyperactivity Disorder
- Home: has three apartment mates that she rarely sees
- Social: didn't like first sorority, thinking about trying another
- Family: sister in Phoenix, sister in Cape Girardeau, and parents in Jefferson City
- Travel: would love to visit Thailand or Italy
- Hobbies: likes playing poker, listening to music, and comedy

This young woman included a picture of herself, included here:

Please answer the following questions using the following scale:

	Very Unlikely	Unlikely	Somewhat Unlikely	Likely	Very Likely
How likely would you be willing to work with this woman on a group project?					
How likely would you be to talk with this woman to get to know her better?					
How likely would you be to become friends with her after a while?					
How likely would you be to get along with this woman if you were roommates?					
How likely would you be to interact well with her if you worked at the same job?					

Appendix G

Please read the description of this young woman, written from her perspective.

- Age: 20 years old
- Job: full-time college student
- Future interests: focus on applied sciences and education (undecided major)
- Hobbies: likes playing tennis, watching movies, listening to bands
- A weakness: has symptoms of depression
- Social: has considered joining a sorority, might do so in the future
- Family: brother in Milwaukee, sister and parents in Illinois
- Travel: would love to visit Indonesia, Greece
- Home: has two apartment mates that she gets along with pretty well
- Future: wants a career in community development

This young woman included a picture of herself, included here:

Please answer the following questions using the following scale:

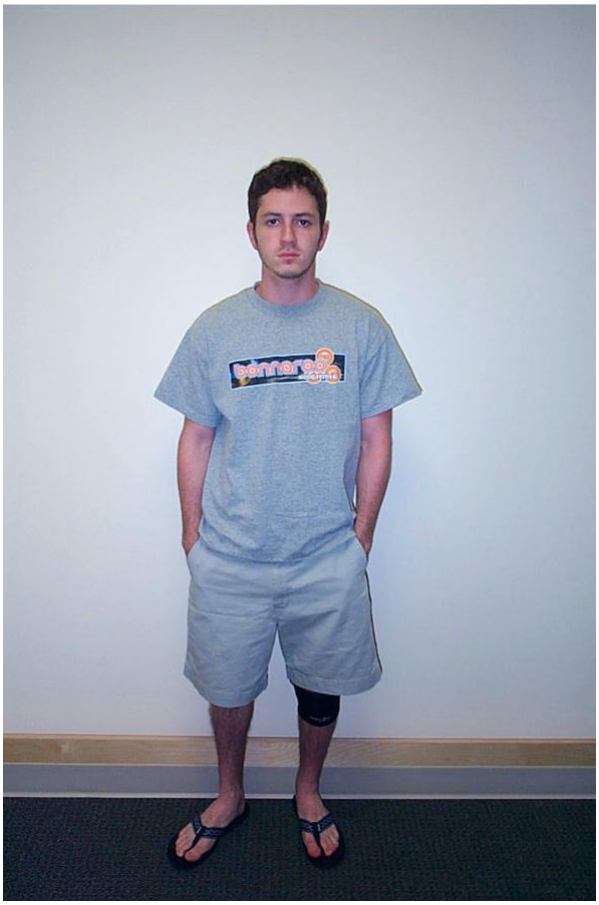
	Very Unlikely	Unlikely	Somewhat Unlikely	Likely	Very Likely
How likely would you be willing to work with this woman on a group project?					
How likely would you be to talk with this woman to get to know her better?					
How likely would you be to become friends with her after a while?					
How likely would you be to get along with this woman if you were roommates?					
How likely would you be to interact well with her if you worked at the same job?					

Appendix H

Please read the description of this young woman, written from her perspective. When you are finished, please turn the page and continue.

- Age: 19 years old
- Job: full-time college student
- Home: has two house mates that he gets along with
- Travel: would love to visit Japan, Germany
- A weakness: has symptoms of depression
- Family: brother in Baltimore, brother in Seattle, parents in Columbia
- Hobbies: like triathlons, reading current fiction, and playing the trumpet
- Social: first fraternity took too much time, maybe try another later
- Future interests: focus on engineering and anthropology (undecided major)
- Future: wants a career that makes interesting discoveries

This young man included a picture of himself, included here:



Please answer the following questions using the following scale:

	Very Unlikely	Unlikely	Somewhat Unlikely	Likely	Very Likely
How likely would you be willing to work with this woman on a group project?					
How likely would you be to talk with this woman to get to know her better?					
How likely would you be to become friends with her after a while?					
How likely would you be to get along with this woman if you were roommates?					
How likely would you be to interact well with her if you worked at the same job?					

Appendix I

Please read the description of this young woman, written from her perspective. When you are finished, please turn the page and continue.

- Age: 19 years old
- Job: full-time college student
- Family: sister and parents in Nevada
- Future interests: focus on psychology and biology (undecided major)
- A weakness: has symptoms similar to a perfectionist
- Future: wants a career in which he can help people
- Home: has a roommate that he gets along with OK
- Hobbies: likes board games, watching movies, and hiking
- Travel: would love to visit Russia, China
- Social: does a lot of activities through student union board

This young man included a picture of himself, included here:

Please answer the following questions using the following scale:

	Very Unlikely	Unlikely	Somewhat Unlikely	Likely	Very Likely
How likely would you be willing to work with this woman on a group project?					
How likely would you be to talk with this woman to get to know her better?					
How likely would you be to become friends with her after a while?					
How likely would you be to get along with this woman if you were roommates?					
How likely would you be to interact well with her if you worked at the same job?					

Appendix J

Please read the description of this young woman, written from her perspective. When you are finished, please turn the page and continue.

- Age: 20
- Job: full-time college student
- Travel: would love to visit Brazil, Turkey
- Future interests: focus on applied sciences and foreign language (undecided major)
- A weakness: has symptoms similar to Attention Deficit/Hyperactivity Disorder
- Hobbies: likes IM, running 5K's and sleeping late on weekends
- Home: has two apartment mates that he gets along with pretty well
- Future: wants a career that "makes a difference"
- Family: brother and sister in St. Louis, parents in New Orleans
- Social: has fraternity friends, considering joining

This young man included a picture of himself, included here:

Please answer the following questions using the following scale:

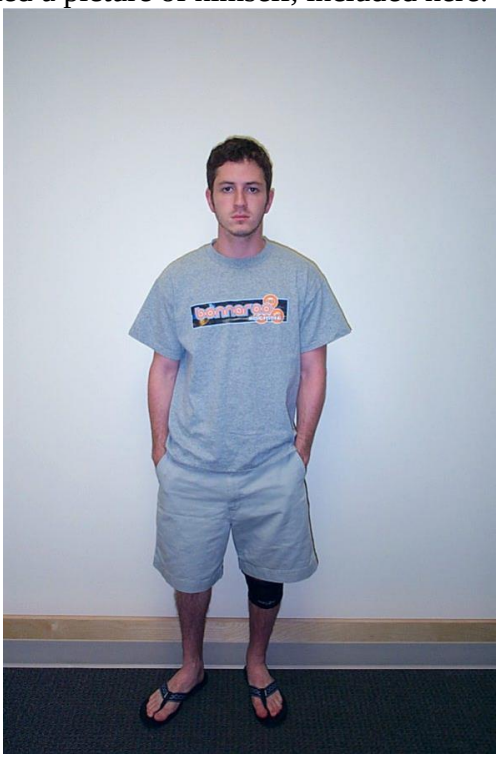
	Very Unlikely	Unlikely	Somewhat Unlikely	Likely	Very Likely
How likely would you be willing to work with this woman on a group project?					
How likely would you be to talk with this woman to get to know her better?					
How likely would you be to become friends with her after a while?					
How likely would you be to get along with this woman if you were roommates?					
How likely would you be to interact well with her if you worked at the same job?					

Appendix K

Please read the description of this young woman, written from her perspective. When you are finished, please turn the page and continue.

- Age: 19 years old
- Job: full-time college student
- Home: has two house mates that he gets along with
- Travel: would love to visit Japan, Germany
- A weakness: has depression
- Family: brother in Baltimore, brother in Seattle, parents in Columbia
- Hobbies: like triathlons, reading current fiction, and playing the trumpet
- Social: first fraternity took too much time, maybe try another later
- Future interests: focus on engineering and anthropology (undecided major)
- Future: wants a career that makes interesting discoveries

This young man included a picture of himself, included here:



Please answer the following questions using the following scale:

	Very Unlikely	Unlikely	Somewhat Unlikely	Likely	Very Likely
How likely would you be willing to work with this woman on a group project?					
How likely would you be to talk with this woman to get to know her better?					
How likely would you be to become friends with her after a while?					
How likely would you be to get along with this woman if you were roommates?					

How likely would you be to interact well with her if you worked at the same job?					

Appendix L

Please read the description of this young woman, written from her perspective. When you are finished, please turn the page and continue.

- Age: 19 years old
- Job: full-time college student
- Family: sister and parents in Nevada
- Future interests: focus on psychology and biology (undecided major)
- A weakness: a bit too much of a perfectionist
- Future: wants a career in which he can help people
- Home: has a roommate that he gets along with OK
- Hobbies: likes board games, watching movies, and hiking
- Travel: would love to visit Russia, China
- Social: does a lot of activities through student union board

This young man included a picture of himself, included here:

Please answer the following questions using the following scale:

	Very Unlikely	Unlikely	Somewhat Unlikely	Likely	Very Likely
How likely would you be willing to work with this woman on a group project?					
How likely would you be to talk with this woman to get					

to know her better?					
How likely would you be to become friends with her after a while?					
How likely would you be to get along with this woman if you were roommates?					
How likely would you be to interact well with her if you worked at the same job?					

Appendix M

Please read the description of this young woman, written from her perspective. When you are finished, please turn the page and continue.

- Age: 20
- Job: full-time college student
- Travel: would love to visit Brazil, Turkey
- Future interests: focus on applied sciences and foreign language (undecided major)
- A weakness: has Attention Deficit/Hyperactivity Disorder
- Hobbies: likes IM, running 5K's and sleeping late on weekends
- Home: has two apartment mates that he gets along with pretty well
- Future: wants a career that "makes a difference"
- Family: brother and sister in St. Louis, parents in New Orleans
- Social: has fraternity friends, considering joining

This young man included a picture of himself, included here:

Please answer the following questions using the following scale:

	Very Unlikely	Unlikely	Somewhat Unlikely	Likely	Very Likely
How likely would you be willing to work with this woman on a group project?					
How likely would you be to talk with this woman to get					

to know her better?					
How likely would you be to become friends with her after a while?					
How likely would you be to get along with this woman if you were roommates?					
How likely would you be to interact well with her if you worked at the same job?					

Appendix N

Please answer the following questions using the following scale:

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
Adults with ADHD care less about other's problems						
You cannot rely on adults with ADHD						
I would go on a date with someone with ADHD						
Adults with ADHD have no problems making friends						
Adults with ADHD are less successful than adults without ADHD						
Adults with ADHD are able to lead a group of people						
Adults with ADHD have a lower IQ than adults without ADHD						
Adults with ADHD are less capable of giving advice						
I would mind if my group project had someone with ADHD						
If I had to pick people for a group project I would not pick a person with ADHD diagnosis						
People's attitudes about ADHD make people with ADHD feel worse about themselves						
Adults with ADHD have lower self-esteem than adults without ADHD						

Appendix O

	Very Uninformed	Uninformed	Somewhat Informed	Informed	Very Informed
I know the symptoms of ADHD					
I know the symptoms of depression					
I know the symptoms of perfectionism					

Appendix P

	Very Distant	Distant	Somewhat Close	Close	Very Close
How close are you with anyone diagnosed with ADHD?					
How close are you with anyone diagnosed with depression?					
How close are you to anyone exhibiting perfectionist characteristics?					

Appendix Q

Please answer the following demographic questions

How old are you?

1. 18
2. 19
3. 20
4. 21
5. 22
6. 23

What is your gender identity?

a. Man
b. Woman
c. Nonbinary
d. Genderqueer
e. Genderfluid
f. I'd prefer not to say

What is your race or ethnicity

a. White
b. Hispanic, Latino, or Spanish
c. Black or African American
d. Asian
e. American Indian or Alaskan Native
f. Middle Eastern or North African
g. Native Hawaiian or Other Pacific Islander
h. Some Other Race or Ethnicity