YOUNG COLLEGE MEN'S BELIEFS ABOUT NONPROFESSIONAL HELP-SEEKING FOR DEPRESSION

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ABSTRACT

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Low rates of psychological help seeking among young males with depression have received significant research attention. However, most prior studies have focused on why the population seeks or does not seek psychological help from formal/professional sources. The present study examined the beliefs of 193 young male college students to predict their intentions to seek psychological help from friends, the most preferred source of help for this group. The study assessed the constructs of the reasoned action approach and their underlying beliefs, taking two possible contributing factors to men's lower help-seeking into account: masculine ideology and perception of depression as masculine or feminine. Results revealed that intention to seek help from friends for depression was associated only with injunctive and descriptive norms and their underlying beliefs surrounding three referents: friends (injunctive and descriptive), fathers (injunctive only), and other family members (descriptive only). Relevant normative beliefs surrounding those referents were not sensitive to young male college students' masculine ideology and its interaction with depression perception. These findings, in conjunction with the results of the audience segment analyses indicating the importance of the opinions and behaviors of specific referent groups, suggest that injunctive normative beliefs with father and friend referents and descriptive normative beliefs with friend referents are key beliefs that persuasive health messages should focus more on to promote help-seeking from friends among young male college students with depressive disorders, regardless of their adherence to traditional masculine norms and perception of depression as masculine or feminine.

This dissertation is dedicated to my family — both of the human and furry variety.

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Like so many others, 2020 took me by surprise. Some in good ways, but mostly in not-that-much-good ways. It tested my patience, my resilience, and my willingness. It may not have been my greatest, but after all, I came to the conclusion that it might be the year that I really needed to see my weaknesses and start growing from them into my full potential. Because I did not accomplish this accepting-and-growing task alone, I would like to acknowledge and thank the following people for helping me throughout all of my trials and tribulations:

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CHAPTER 1

INTRODUCTION

A Look at Depression Around the World

Major depressive disorder, also known as depression, is a mental disorder that is characterized by five or more of the symptoms (e.g., depressed mood, a loss of interest or pleasure) experienced at least for a 2-week period (American Psychiatric Association [APA], 2013; Centers for Disease Control and Prevention [CDC], 2010). Depression is a common mental disorder (World Health Organization [WHO], 2017a). Past surveys have shown that approximately 264 million of the total global population of all ages were estimated to have depressive disorders in 2017 (James et al., 2018) and in the United States alone 7.2% of the total adult population (17.7 million) were estimated to experience at least one major depressive episode in 2018 (Substance Abuse and Mental Health Services Administration [SAMHSA], 2020). The rate even went up from 7.2% to 7.8% (from 17.7 to 19.3 million U.S. adults) over the year (SAMHSA, 2020). Recent studies have found the mental health burden of the public has significantly increased due to Coronavirus Disease 2019 (COVID-19), showing even higher prevalence of mental health problems (e.g., depression, anxiety, sleep disorders; Bueno-Notivol et al., 2020; Gao et al., 2020; Huang & Zhao, 2020; Liu, Zhang, Wong, & Hyun, 2020; Salari et al., 2020; Zhong, Huang, & Liu, 2021).

Depression has received much research attention because of serious consequences if left untreated. It is common that people with depression experience difficulties with normal social activities, work and family life (Brody, Pratt, & Hughes, 2018). This is because depression can influence one's cognitive ability involving concentrating, thinking, reasoning, planning, decision making, and remembering (Marazziti, Consoli, Picchetti, Carlini, & Faravelli, 2010) and cause unexplained physical symptoms such as headache and pains in back, neck, and joints (Greden,

2003; Jaracz, Gattner, Jaracz, & Górna, 2016; Trivedi, 2004). In addition to being affected cognitive and physical by depression, those who depressed are at higher risk of morbidity, disability, and mortality compared to nondepressed individuals (Cuijpers & Smit, 2002; Kessler et al., 2010; WHO, 2017a) and this suggests depression should be treated as a life-threatening illness. The World Health Organization maintained that depression would be the largest contributor to the burden of disease in the world by 2030 (WHO, 2012) and the major contributor to suicide deaths (WHO, 2017b).

Fortunately, depression is a treatable illness (Marcus, Yasamy, van Ommeren, Chisholm, & Saxena, 2012), and most people with depression see an improvement in their symptoms over time once it is treated with psychotherapy, medication, or a combination of the two (U.S. Department of Health and Human Services, National Institutes of Health, National Institute of Mental Health [USDHHS], 2015). However, the commonness and seriousness of depression is no guarantee that people with depression will actively seek treatment for their illness. In fact, a great number of people with depression go untreated. According to previous survey data collected in 2012 and 2013, for instance, among 46,417 adult respondents about 8.4% appeared to suffer from depression but approximately 71.3% of that group reported they did not receive any depression treatment (Olfson, Blanco, & Marcus, 2016). Annual national surveys conducted by the Substance Abuse and Mental Health Services Administration (SAMHSA) from 2009 through 2019 have reported better rates of reception of treatment for depression, but SAMHSA's recent report still showed that approximately 27.8% of the adult respondents with depression did not receive treatment in 2019 (SAMHSA, 2020). The large discrepancy between the need for and actual reception of treatment for depression has directed research attention towards better understanding the reasons for the low treatment rates, especially among vulnerable populations

such as women experiencing postpartum depression (e.g., Dennis & Chung-Lee, 2006), individuals living in resource-poor environments (e.g., Andersson et al., 2013; Hammer, Vogel, & Heimerdinger-Edwards, 2013; Hoyt, Conger, Valde, & Weihs, 1997), and those with low income (e.g., Hansen & Cabassa, 2012; Price & Proctor, 2009).

Young Male College Students and Depression

Men, Masculinity, and Depression

Depression rates vary by gender as well as age and income (Blanco et al., 2010). In terms of gender, past literature has found that depression is more common among women than men (Brody et al., 2018; CDC, 2010; Freeman & Freeman, 2013; USDHHS, 2015; WHO, 2008). Given that depression is roughly two times more prevalent in women than in men (Brody et al., 2018; CDC, 2010; WHO, 2008), it is not surprising that many researchers have focused on the relationship between depression and women (see Kendler et al., 1995; Kessler, 2003; Weissman & Olfson, 1995). To explain the difference in rates of depression, researchers mentioned biological and psychosocial factors that were uniquely associated with women (USDHHS, 2015). However, even with lower rates of depression diagnoses among men, some scholars have asserted that this is not an indication of better mental health in men and there are some factors that falsely make it look like men are less susceptible to depression than women (Möller-Leimkühler, 2002; Wilhelm, 2009). Their argument is, instead of talking about how they feel and reaching out for help with depression like many women, men are more likely to mask their illness, remain untreated, and cope with their problem through unhealthy behaviors. This can result in devastating consequences such as substance abuse and self-harm. Quoting higher rates of suicidal and parasuicidal behaviors in men, researchers have highlighted the possibility of many men suffering from undiagnosed depression (Call & Shafer, 2018; Fogarty et al., 2015;

Möller-Leimkühler, 2002; Oliffe & Phillips, 2008; Whittle et al., 2015) because depression is considered to be the most common reason for suicide (Möller-Leimkühler, 2002). While women are twice as likely as men to be diagnosed with depression (Brody et al., 2018; CDC, 2010; WHO, 2008), men are four times as likely to die from suicide (CDC, 2015) and twice as likely to show parasuicidal behaviors such as substance abuse (SAMHSA, 2014). In fact, several studies have showed a significantly greater number of men suffer from undiagnosed depression than women (see Angst et al., 2002; Magovcevic & Addis, 2008; Potts, Burnam, & Wells, 1991). As Angst and Ernst (1990; as cited in Möller-Leimkühler, 2002, p. 3) stated in their suicide prevention study in Switzerland, "women seek help – men die."

Some researchers have attributed the notable difference in the rates of depression between women and men to two reasons, in general: hidden depression and reduced help-seeking in men (Addis, 2008; Call & Shafer, 2018; Fields & Cochran, 2011; Fogarty et al., 2015; Möller-Leimkühler, 2002; Oliffe & Phillips, 2008; Whittle et al., 2015). First, depression can be hidden because *some* men's experience of, expression of, and response to depression is different (Addis, 2008) and restricted masculine norms and ideologies are frequently mentioned as a possible reason for the difference (Addis, 2008; Brownhill, Wilhelm, Barclay, & Schmied, 2005; Call & Shafer, 2018; Englar-Carlson, 2006). In Western countries, gender socialization practices have generated stereotypical masculine norms that encourage men to be self-reliant, emotionally stoic, physically tough, avoiding femininity as well as taking action instead of ruminating (Addis, 2008). Then, the learned masculine norms direct how men are supposed to respond to problems (Addis & Cohane, 2005). Because ruminating in response to depressed mood and experiencing and expressing sadness can be considered weak and vulnerable and go against standards of traditional masculinity, men endorsing traditional masculine norms are less likely to recognize

their depressed state and more likely to their mask or deny their emotional problems and display externalizing responses such as aggression and self-destructing behaviors (Addis, 2008; Brownhill et al., 2005; Cochran & Rabinowitz, 2003; Courtenay, 2000). To be specific, men who adhere more to traditional masculine norms tend to suppress their emotion by *avoiding* (e.g., overworking), *numbing* (e.g., taking self-medication and drugs), and *escaping* (e.g., taking risks using drugs and alcohol and having sexual affairs), instead of displaying mood states (Brownhill et al., 2005). And, they may eventually express their negative emotions, which have kept inside with the three *acting in* behaviors, through extreme *acting out* behaviors (e.g., anger attacks or aggression, suicidal thoughts, plans, or behaviors; Brownhill et al., 2005, p. 924; Call & Shafer, 2018; Martin, Neighbors, & Griffith, 2013). In short, some depressed men experience and express their distress in atypical ways such as aggression, substance abuse, and risk involved behaviors. In addition to men not recognizing their depression, another problem is in current depression measures. This is because the male-typical depression symptoms do not correspond to the symptoms in the current depression diagnostic criteria (Addis, 2008; Call & Shafer, 2018; Cochran & Rabinowitz, 2003; Martin et al., 2013). This means, because the current measures of depression are not sensitive enough to adequately assess symptoms of some men, professionals may experience difficulty in appropriately diagnosing men with hidden depression and therefore some men may be left undiagnosed and untreated. In their research exploring sex disparities in depression rates and measures of depression, Martin et al. (2013) used two types of depression measures and showed interesting results. Specifically, they used the Male Symptoms Scale (MSS) that included male-type depression symptoms to assess a male-type depression and the Gender Inclusive Depression Scale (GIDS) that included both male-type depression symptoms and traditional depression symptoms in their study. In the study, similar rates of depression

between men (30.6%) and women (33.3%) when assessed by the GIDS and even a significantly higher rate of depression in men (26.3%) than women (21.9%) when assessed by the MSS were observed (Martin et al., 2013). Although simply comparing men and women, treating "members of each gender category as having some uniform essence", is problematic, examining individual differences in adherence to traditional masculine norms can still be useful to understand depression in men (Addis, 2008; p. 157).

Because treatment begins with patients' initial presentation of symptoms to healthcare professionals, which is followed by diagnoses (Seidler, Dawes, Rice, Oliffe, & Dhillon, 2016), men's reduced help-seeking for psychological problems is also considered to be another possible reason for the underdiagnosis of depression in men besides hidden depression (Addis, 2008; Call & Shafer, 2018; Fields & Cochran, 2011; Fogarty et al., 2015; Möller-Leimkühler, 2002; Oliffe & Phillips, 2008; Whittle et al., 2015). In general, men are less likely to seek help for mental issues (Addis & Mahalik, 2003; Andrews, Issakidis, & Carter, 2001; Langley, Wootton, & Grieve, 2018; Vogel, Wade, Wester, Larson, & Hackler, 2007) and a substantial body of literature has attributed this low help-seeking by men to traditional masculine gender-role socialization (Addis, 2008; Addis & Mahalik, 2003; Fields & Cochran, 2011; Möller-Leimkühler, 2002; Oliffe & Phillips, 2008; Pederson & Vogel, 2007; Whittle et al., 2015; Yousaf, Grunfeld, & Hunter, 2015). According to role socialization paradigms, individuals learn gendered attitudes and behaviors from socially constructed environments (Addis & Mahalik, 2003; Addis, 2008; Englar-Carlson, 2006). In this learning process, "cultural values, norms, and ideologies about what it means to be men and women" are consistently modelled and reinforced, and therefore men and women become constrained by gender-role expectations (Addis & Mahalik, 2003, p. 7). Traditional masculine norms, in Western cultures, include several male

traits and they were labeled Winning, Emotional Control, Risk-Taking, Violence, Dominance, Playboy, Self-Reliance, Primacy of Work, Power Over Women, Disdain for Homosexuals, and Pursuit of Status (Mahalik et al., 2003). The problem is some of the masculine norms (e.g., emotional stoicism, self-reliance) do not allow men to reach out for help when men are in need of help and the help is available to them (Möller-Leimkühler, 2002) because help-seeking is not compatible with certain masculine norms (Addis & Mahalik, 2003). Help-seeking first requires executing tasks such as perceiving a need for help and admitting the need. This is a "double offence" to the stereotyped masculine norms (Möller-Leimkühler, 2002, p. 6). Prior research has found that men's attitudes towards seeking professional psychological help is negatively related to the winning-related (success/power/competition) and restriction-related (restrictive affectionate behavior and restrictive emotionality) parts of traditional masculine roles (Good, Dell, & Mintz, 1989; Good & Wood, 1995; Robertson & Fitzgerald, 1992).

Our gendered culture puts men at higher risk of health problems by encouraging men to adhere to traditional norms of masculinity and restricting how they think and act (Courtenay, 2000). Interestingly, some women that endorse masculine gender roles are equally as likely to experience negative health outcomes (Magovcevic & Addis, 2005; Zamarripa, Wampold, & Gregory, 2003). However, men may be still at greater risk in general because they appear to feel more social pressure to think, feel, and behave in the way they learn from cultural values and norms than women (Courtenay, 2000). Given that the degree of adherence to traditional masculine norms vary among individuals and change depending on the context (Addis, 2008; Addis & Mahalik, 2003), studies that examine men within and across help-seeking situations are needed.

Again, men's help-seeking behavior that involves perceiving and admitting their need for help can be viewed as committing a "double offence" against the stereotyped masculine norms (Möller-Leimkühler, 2002, p. 6). However, it may be considered a triple offence if men seek help for depression, a health problem that is typically seen as a female disorder (Möller-Leimkühler, 2002). Lower likelihood of visiting and consulting with health among men have been reported in previous studies with diverse health issues including cardiovascular disease, physical disabilities, substance abuse (Galdas, Cheater, & Marshall, 2005; Wang, Hunt, Nazareth, Freemantle, & Petersen, 2013). However, men's reluctance to seek help for health problems is much more evident when they have depression (Galdas et al., 2005; Wang et al., 2013). This is because cultural norms not only affect help-seeking behavior but also a person's perception of depression, which leads to different attitudes to expressing and seeking help for depressive symptoms (Levant et al., 2013; Magovcevic & Addis, 2005; Möller-Leimkühler, 2002; O'Brien, Hunt, & Hart, 2005). According to the research, depressive symptoms such as expressing fragile emotions tend to be viewed as stereotypically feminine, and therefore, depression is considered more socially acceptable for women and those endorsing masculine norms are more likely to perceive stigma and barriers and less likely to seek help for their depressive symptoms. What is even worse is that traditional masculine ideology not only predicted negative willingness to use to seek professional psychological help but also predicted more risk of depression (Good & Wood, 1995). This means, stereotyped masculine norms put men at risk of "double jeopardy" (Good & Wood, 1995, p. 70).

Depression in Young Male College Students

Men who are young and in college as students may be one of the subgroups of men that are particularly vulnerable. This can be explained by multiple factors, but perhaps most pertinent

is the role of age. Prior studies have highlighted that the prevalence of depression in young adults is considerable, and has increased over the recent years (SAMHSA, 2020; Mojtabai, Olfson, & Han, 2016; Twenge, Cooper, Joiner, Duffy, & Binau, 2019). For instance, according to the 2019 National Survey on Drug Use and Health report, people aged 18-25 showed the highest prevalence of a major depressive episode (MDE) among all adult age groups (SAMHSA, 2020). Furthermore, the report showed that the prevalence of depression in young adults climbed 1.4% from 2018 (13.8%) to 2019 (15.2%) (SAMHSA, 2020). This is not only because younger adults are more likely to meet diagnostic criteria for depression (CDC, 2010), but also because both being male and being younger are linked with traditional masculine endorsement (Levant et al. 1992; Pleck, Sonenstein, & Ku, 1993), which may encourage men's covert, maladaptive manifestations of depression symptoms (Brownhill et al., 2005).

Being a college student may compound the risk of developing depression for the already-vulnerable young population. Transitioning into college is a stress-ridden experience (Zaleski, Levey, Thors, & Schiaffino, 1998). Most students are geographically separated from family and friends, who used to be their go-to support system (Hurrelmann & Lösel, 1990; Mikolajczyk, Maxwell, Naydenova, Meier, & El Ansari, 2008), and this may make young male college students even more vulnerable to depression. While getting lots of opportunities to learn and develop intellectual and social skills, students also encounter lots of major challenges that they might have never experienced before (Schulenberg, Maggs, & Hurrelmann, 1997), which include academics, finances, careers and relationships (Andrews & Wilding, 2004; Dyson & Renk, 2006; Kessler, 1997; Mikolajczyk et al., 2008). Given that stressful life events in early adulthood have a strong relationship with depressive symptoms (Andrews & Wilding, 2004; Dyson & Renk, 2006; Kessler, 1997), it is reasonable that anxiety and depression are the most common, rising

problems among college students visiting college counseling centers (LeViness, Bershad, Gorman, Braun, & Murray, 2019; Reetz, Bershad, LeViness, & Whitlock, 2017). In particular, the 2018 Association for University and College Counseling Center Directors survey reported students who took college counselling services had anxiety (58.9%; up from 50.6% in 2016) and depression (48.0%; up from 41.2% in 2016; American College Health Association [ACHA], 2019). Depression negatively affects students in various ways from college students' academic performance (ACHA, 2019) to quality-adjusted life expectancy through suicide (Arria et al., 2009).

Depression in earlier life can increase risk for recurrence (Gilman, Kawachi, Fitzmaurice, & Buka, 2003; Klein et al., 1999; USDHHS, 2015) and maladaptive coping strategies to suppress depressive symptoms such as drinking and smoking can be continued to adulthood (McGee, Williams, Nada-Raja, & Olsson, 2013; Rohde, Lewinsohn, Kahler, Seeley, & Brown, 2001; Sher & Gotham; 1999). Furthermore, the non-treatment trend observed in the adult population with depression has appeared worst in the young population between 18 and 25 (SAMHSA, 2020). All of these aspects indicate increasing mental health concerns for young male college students and the need for targeted interventions for the population to encourage them to adopt adaptive coping strategies (e.g., seeking help from healthcare providers for early depression detection and treatment).

Friends as an Informal Help-Seeking Source

Depression is treatable (Marcus et al., 2012) and getting treatment at an earlier stage of depression is recommended for better health outcomes (USDHHS, 2015). Given medical diagnosis and treatment begin after patients' presentation of symptoms to healthcare professionals (Seidler et al., 2016), early help-seeking for depression mental health professionals

is crucial. Help-seeking generally means the behavior of actively communicating a need of help with other people to get "understanding, advice, information, treatment, and general support" for the communicated problem or experience (Rickwood, Deane, Wilson, & Ciarrochi, 2005, p. 4). There are various sources of help and they vary by the degree of formality (Rickwood et al., 2005). Typically, professional help can be sought from professionals who are recognized for excellence and appropriately trained in their fields such as medical doctors, psychologists, and counselors, while informal help can be sought from nonprofessional social relationships such as family and friends (Rickwood et al., 2005). Therefore, professional help-seeking involves psychotherapy, medication, or a combination of the two and informal help-seeking involves seeking advice and support from family members or friends (Berger, Addis, Green, Mackowiak, & Goldberg, 2013). Seeking help from formal sources as early as possible is optimal given that most people with depression see an improvement in their symptoms with psychotherapy, medication, or a mixture of both (psychiatry) especially when treated at an earlier stage (USDHHS, 2015) before physical pain (e.g., headache and chest pain) masks emotional symptoms of depression delaying diagnosis and treatment (Greden, 2003; Jaracz et al., 2016; Trivedi, 2004).

However, formal sources may not be the best option for many young male college students with depression. According to past research, young individuals (Cakar & Savi, 2014; Rickwood & Braithwaite, 1994; Rickwood et al., 2005), people with minor mental health disorders (Oliver, Pearson, Coe, & Gunnell, 2005), and men (Oliver et al., 2005) preferred their informal support network such as friends and family rather than formal/professional sources for help with psychological issues. There are some reasons for the preference for informal sources. It might be because people thought it would be more likely to be understood and shared by

someone with similar experiences (Rickwood & Braithwaite, 1994) and seeking help from friends was less likely to pose a threat to their sense of autonomy (Berger et al., 2013). For young male college students that probably live away from family going into college (Hurrelmann & Lösel, 1990; Mikolajczyk et al., 2008) and that are likely to endorse traditional masculine norms (Levant et al. 1992; Pleck et al., 1993), some of which are negatively related to seeking professional psychological help (Good et al., 1989; Good & Wood, 1995; Robertson & Fitzgerald, 1992), friends may be most applicable to their needs for help with depression among available informal source of help. Not only considered as an informal source of help for mental health disorders, friends are also considered to be an effective gatekeeper to one's mental health care (Hunt & Eisenberg, 2010). This is because friends are willing to learn about effectively ways to seek help for their friends (Rickwood et al., 2005) and play a key role in changing intentions to seek help through mental health services (Vogel, Wade, Wester et al., 2007). Although friends can be a preferred source of help due to the comfortableness to disclose psychological problems they provide as well as an effective gatekeeper that may increase the likelihood of seeking help from professionals for mental health disorders, much of the research has more focused on formal help sources such as mental health practitioners (Rickwood & Thomas, 2012; Xu et al., 2018). This indicates the necessity of examining the popular, effective but understudied source of help for depression.

CHAPTER 2

THEORETICAL DEVELOPMENT

Theories of Help-Seeking

Help-seeking for mental health disorders has received considerable research attention. Although there has been no framework that is universally accepted in research on the topic (Gulliver, Griffiths, Christensen, & Brewer, 2012), some models have been applied to studies of help seeking for health disorders more frequently than others. The health belief model (HBM) is one of the most widely used models in health-related behavior research (Carpenter, 2010; Glanz & Bishop, 2010; Harrison, Mullen, & Green, 1992; Vogel & Heath, 2016). The HBM was developed by Rosenstock and other social psychologists in the 1950s to better understand why and when people adopt or do not adopt preventative health behaviors (Rosenstock, 1966). Although some other variables such as cues to action (Rosenstock, 1966), self-efficacy (Rosenstock, Strecher, & Becker, 1988), health motivation (Becker, 1974) have been proposed as additional variables, the model originally posits that four factors predict a person's adoption of preventative behavior: perceived susceptibility, severity, benefits, and barriers (Carpenter, 2010; Rosenstock, 1966). The model assumes that when an individual perceives a high susceptibility to and severity of an illness, she or he would perceive threat. Then, they would consider various behavioral options for prevention and take action when perceived benefits of taking a particular action is high while perceived barriers to adopt the given behavior is low (Rosenstock, 1966; Rosenstock et al., 1988). The predicting value of the factors has been demonstrated in prior psychological help-seeking studies. In a cross-cultural study, researchers found perceived severity and barriers predicted intentions to seek help for psychological distress regardless of racial/ethnic differences (Kim & Zane, 2016). Other studies about help-seeking intention for

mental disorders have also indicated that the HBM variables (e.g., perceived benefits and/or perceived barriers) were useful to predict help-seeking behavior (Langley et al., 2018; O'Connor, Martin, Weeks, & Ong, 2014). Although the HBM has provided meaningful implications, it has been applied to physical health behavior more often (Vogel & Heath, 2016).

Reasoned Action Approach: Application to Men's Help-Seeking for Depression

Another commonly used model of behavior is the reasoned action approach (Gipson & King, 2012; Glanz & Bishop, 2010; Vogel & Heath, 2016). The reasoned action approach (RAA) is the latest version of the attitude theories of Fishbein and Ajzen and this integrated framework includes the theories of reasoned action (TRA; Ajzen & Fishbein, 1980) and planned behavior (TPB; Ajzen, 1985) and the integrative model (IM; Fishbein, 2000). Over 40 years ago, Fishbein and Ajzen (as cited in Fishbein & Ajzen, 2010) maintained that predicting human behavior is not that hard because social behavior is determined by a small number of factors.

The TRA, the earliest version of the theory, assumes intention, one's readiness to perform a behavior, is the most immediate predictor of behavior and it is a function of two basic determinants: attitude (one's positive or negative feeling about performing a particular behavior) and subjective norm/perceived social pressure (one's perception of the social pressures from relevant individuals or groups to engage in or not engage in a particular behavior; Ajzen & Fishbein, 1980; Fishbein & Ajzen, 2010). Ajzen and Fishbein (1980) also included background factors such as demographics, personal dispositions, and knowledge in the model assuming that they were relevant in predicting and explaining the three determinants and intention, which was the direct predictor of behavior.

Shortly after completing the book he co-authored with Fishbein (1980), Ajzen recognized that people might have limited control over many behaviors depending on the availability of

opportunities and resources (Ajzen, 1985; Fishbein & Ajzen, 2010). To overcome the inherent limitation of the TRA, the assumption of total volitional control, Ajzen (1985) formulated the TPB adding the concept of perceived behavioral control (one's perception of the degree to which they are capable of, or have control over, performing a particular behavior) as a third determinant of intention and behavior (Fishbein & Ajzen, 2010). Later, Fishbein (2000) took another step forward and presented the integrative model (IM). The TPB and the IM are almost identical. As the TPB assumes, the IM rests on the assumption that behavioral intention is the most proximal determinant of behavior, which is generally formed after deliberation, and attitudes, perceived norms, and perceived behavioral control are determinants of intention (Ajzen, 2012; Fishbein, 2008; Fishbein & Ajzen, 2010; Gerrard, Gibbons, Houlihan, Stock, & Pomery, 2008; Lannin, Guyll, Vogel, & Madon, 2013). The ability of the three determinants to predict individuals' intentions to seek mental help have been shown in literature examining all or some of the TPB constructs in psychological help-seeking contexts with diverse populations such as U.S. College students, male inmates from New Zealand prisons, Chinese and German community samples (Codd & Cohen, 2003; Hess & Tracey, 2013; Mo & Mak, 2009; Schomerus, Matschinger, & Angermeyer, 2009; Skogstad, Deane, & Spicer, 2006; Smith, Tran, & Thompson, 2008; Tomczyk, Schomerus, Stolzenburg, Muehlan, & Schmidt, 2020; Zorrilla et al., 2019). However, the Fishbein's IM, theoretically rooted in the TPB, refines two concepts of the prior versions of the reasoned action approach: the concepts of subjective norm and perceived behavioral control (Fishbein & Ajzen, 2010). Fishbein recognized that subjective norm (perceived social pressure) in the theories of reasoned action and planned behavior only represented one's perception of whether or not they were expected to perform a certain behavior by important others, while people also felt pressure to conform what other people were doing in reality (Fishbein, 2000;

Fishbein & Ajzen, 2010). To reflect an individual's perception on whether or not important others perform a given behavior as well, Fishbein added the concept of descriptive norm as another source of perceived social pressure and termed the perceived normative pressure that was already included in the initial work of the RAA as injunctive norm (Fishbein, 2000; Fishbein & Ajzen, 2010). In addition, Fishbein's IM included Bandura's (1977) concept of self-efficacy in social cognitive theory instead of the Ajzen's (1985) notion of perceived behavioral control in the TPB because Fishbein was concerned about the diverse interpretations of perceived behavioral control in empirical research (Fishbein, 2000; Fishbein & Ajzen, 2010). After a period of independent work, Fishbein and Ajzen started working together again to reunite and advance earlier iterations of the reasoned action approach in 2001 (Fishbein & Ajzen, 2010).

Overall, the TPB and the RAA posit that people make decisions "in a reasonable, consistent, and often automatic fashion" on the basis of salient beliefs associated with engaging in a certain behavior and, logically, more positive attitudes towards, perceived norms towards, and perceived behavioral control over a behavior can lead to stronger intentions to engage in the behavior and therefore greater likelihood of perform the behavior than less favorable attitudes, perceived norms, and perceived behavioral control (Fishbein & Ajzen, 2010, p. 24). Therefore, understanding the determinants of intentions provides some insight into why people do or do not seek psychological help (Fishbein & Ajzen, 2010; Fishbein & Middlestadt, 1987).

However, Fishbein and his colleagues have argued that merely examining the determinants of intentions is not enough. Their claim is that researchers should go deeper underneath the determinants' surface and identify what beliefs are salient for seeking psychological help in the specific population of interest, because substantive information about why people perform or not perform a certain behavior is at the level of beliefs (Ajzen, 2012).

Thus, by examining beliefs that predict each of the three determinants, researchers would be able to fully understand the behavioral determinants and to avoid ineffective messages with redundant information that is already in respondents' belief systems (Fishbein & Ajzen, 2010). This argument is valid because individuals' attitudes, perceived norms, and perceived behavioral control are functions of their beliefs about a given behavior, which are formed by learning about the world they live in (Albarracín, Johnson, Fishbein, & Muellerleile, 2001; Fishbein, 2008; Fishbein & Ajzen, 2010; Fishbein & Middlestadt, 1987).

According to Fishbein's (1963) expectancy-value model, one's attitude toward performing a behavior is based on their behavioral beliefs or outcome expectancies (performing the behavior would result in certain outcomes) weighted by their evaluation of those outcomes (as cited in Fishbein & Ajzen, 2010). On the basis of the expectancy-value model, prior researchers have attempted to obtain the advantages and disadvantages of certain behaviors and used the most frequently mentioned outcomes as the modal salient beliefs (Fishbein & Ajzen, 2010; Fishbein & Middlestadt, 1987). Fishbein and fellow researchers have then maintained that like attitudes are said to be determined by one's salient behavioral beliefs, perceived norms (injunctive norms: "perceptions concerning what should or ought to be done with respect to performing a given behavior" / descriptive norms: "perceptions that others are or are not performing the behavior in question", p. 131) and perceived behavioral control (people's perceptions of their ability to perform a given behavior or their control over perform the behavior in question) are also assumed to be based on a set of a person's salient beliefs (Fishbein & Ajzen, 2010). To be specific, perceived norms are based on salient normative beliefs weighted by either motivation to comply with or identification with a given referent, while perceived behavioral control is based on salient control beliefs (beliefs about the presence of control factors that

facilitate or impede performance of a given behavior) weighted by the perceived power of a certain control factor (Fishbein & Ajzen, 2010; Fishbein & Middlestadt, 1987). According to the researchers, these beliefs vary by behavior and by population, meaning researchers should design different intervention messages to change the different intentions in the same segment of population or to change the same intention in the different segment of the population (Fishbein & Ajzen, 2010; Fishbein & Middlestadt, 1987).

The RAA and the earlier versions of the theoretical ideas of Fishbein and Ajzen have been widely used to predict variability in individuals' various health-related behaviors across diverse populations such as exercise behavior of young children or of seniors (Gretebeck et al., 2007; Hagger et al., 2007; Theodorakis, Doganis, Bagiatis, & Gouthas, 1991), contraceptive use of South African or U.S. university students (Montanaro & Bryan, 2014; Protogerou, Flisher, Wild, & Aarø, 2013), and breast or testicular self-examination (Dewi & Zein, 2017; McGilligan, McClenahan, & Adamson, 2009). Several meta-analyses of research about health protection and risk behaviors have provided strong support for the effectiveness of the theories. Specifically, McEachan and her colleges conducted a meta-analysis of prior studies using the TPB and found that the TPB components were useful independent predictors, explaining 43.3% and 19.3% of the variance in intention and behavior, respectively (McEachan, Conner, Taylor, & Lawton, 2011). In a more recent meta-analysis of health research using the RAA, researchers found that all components of the RAA except autonomy were strong predictors of intention and they explained more variance in intention (58.7%) and behavior (32.3%) than the components in the TPB (McEachan et al., 2016).

All of the example studies listed above have represented that the RAA is one of the most effective frameworks in predicting various health-related behavior regardless of contexts and

sample characteristics. Some of research has recently tried to apply the approach to the prediction of help-seeking behavior for mental disorders among men because they are known to be less likely to seek help for psychological issues due to traditional masculine norms. Research using the RAA in psychological help-seeking contexts has also reported reassuring results. In an experimental study where researchers tested the RAA using several help-seeking messages with different responsibility cues, the attitudinal, normative, and control components of the RAA explained approximately 42% of the variance in U.S. college students' intentions to seek help for depression and instrumental attitudes and descriptive norms were particularly strong predictors of intention (Lueck & Yzer, 2018). However, the available literature on the approach has not fully incorporated masculinity (Vogel & Heath, 2016). To better understand reduced help-seeking patterns among young male college students, this study attempts not just to integrate the contextual factor into the framework of the approach, but also to fully understand the role of masculinity in college student men's decisions to seek psychological help and how traditional masculine gender norms interacts with the RAA components by looking at college student men's underlying beliefs about help-seeking for depression. To understand young male college students' help-seeking behavior for depression even better, the current study incorporates their perception of depression. Based on the findings from previous research showing individuals have perceptions of different health problems as masculine or feminine (Boysen, Ebersole, Casner, & Coston, 2014) and depression tends to be viewed as a female-typical disorder (Danielsson, Bengs, Samuelsson, & Johansson, 2011; Hammen & Peters, 1978; Michniewicz, Bosson, Lenes, & Chen, 2016; O'Brien et al., 2005; O'Brien, Hart, & Hunt, 2007), the current study investigates how college student men's perception of depression as being masculine or feminine interacts with their conformity to masculine ideology in terms of seeking help for depression.

Hypotheses

The first interaction of masculinity and perceived gender of depression needed to be examined is with behavioral beliefs and its corresponding construct. As reviewed earlier, attitudes are one of the strongest predictors of intention to seek psychological help (Codd & Cohen, 2003; Hess & Tracey, 2013; Mo & Mak, 2009; Schomerus et al., 2009; Skogstad et al., 2006; Smith et al., 2008; Tomczyk et al., 2020; Zorrilla et al., 2019). In masculinity embedded psychological help-seeking literature, a stronger adherence to masculine gender roles has predicted more negative attitudes and in turn lower intentions towards psychological help-seeking (Berger, Levant, McMillan, Kelleher, & Sellers, 2005; Hammer et al., 2013; Robertson & Fitzgerald, 1992; Smith et al., 2008; Vogel, Heimerdinger-Edwards, Hammer, & Hubbard, 2011). The negative relationship between masculine ideology and attitudes towards seeking psychological help might be explained by certain masculine norms such as emotional stoicism and self-reliance that is not compatible with help-seeking behavior (Addis & Mahalik, 2003; Möller-Leimkühler, 2002). In line with this, researchers have found the negative relationship between attitudes and intentions are mediated by some barriers such as self-stigma associated with seeking counseling (the internalized negative images of an individual seeking psychological help transmitted from society) and resistance to self-disclosing and emotional control and self-reliance among various male traits are particularly closely related to the barriers (Hammer et al., 2013; Heath, Brenner, Vogel, Lannin, & Strass, 2017; Pederson & Vogel, 2007; Vogel et al., 2011). Building on the previous findings and Fishbein and fellow researchers' assumption that behavioral beliefs direct one's behavior serving as the foundation for their attitudes (Azjen, 2012; Fishbein & Ajzen, 2010; Fishbein & Middlestadt, 1987), it is hypothesized:

H1: Young male college students' attitudes towards seeking psychological help from friends will be positively related to their intention to seek help from friends for depression.

H2: Behavioral beliefs (outcome expectations) about seeking psychological help from friends will be positively associated with attitudes towards seeking help from friends for depression.

H3: Masculine ideology adherence will be negatively associated with behavioral beliefs about seeking psychological help from friends.

H4: Perception of depression as being feminine will strengthen the inverse relationship between masculine ideology and behavioral beliefs about seeking psychological help from friends.

The intersection of masculinity and gendered perception of depression with normative beliefs and its corresponding construct, perceived norms, should be investigated as well. Along with attitudes, perceived norms predict intentions to seek psychological help (Codd & Cohen, 2003; Hess & Tracey, 2013; Mo & Mak, 2009; Schomerus et al., 2009; Skogstad et al., 2006; Tomczyk et al., 2020; Zorrilla et al., 2019). Smith et al. (2008) suggested, in their study about the mediation effect of attitudes on the relationship between masculine ideology and men's intentions to seek psychological help, further research to investigate how traditional masculine norms interact with the other RAA constructs than attitudes. Although many researchers have applied the reasoned action approach to men's psychological help-seeking since then, much still remains unknown (Vogel & Heath, 2016). Instead of measuring perceived norms following Fishbein and Ajzen's measurement guidelines (2010), most of the prior studies assessed the concept indirectly by examining other variables associated with it such as stigma (Vogel & Heath, 2016). However, as Vogel and Heath (2016) stated, previous research showing that men's

beliefs about other men's health behaviors predict their own health behaviors (Mahalik, Burns, & Syzdek, 2007) and showing that men are less likely to seek help for mental disorders (Addis & Mahalik, 2003; Andrews et al., 2001; Langley et al., 2018) can be used as a basis to assume the relationship of masculine ideology with normative beliefs and perceived norms. Therefore, it is hypothesized that:

H5: Young male college students' perceived norms about seeking psychological help from friends will be positively related to their intention to seek help from friends for depression.

H6: Normative beliefs about seeking psychological help from friends will be positively associated with perceived norms towards seeking help from friends for depression.

H7: Masculine ideology adherence will be negatively associated with normative beliefs about seeking psychological help from friends.

H8: Perception of depression as being feminine will strengthen the inverse relationship between masculine ideology and normative beliefs about seeking psychological help from friends.

Perceived control, which has been found to predict help-seeking intentions of people with mental disorders to seek help (Hess & Tracey, 2013; Mo & Mak, 2009; Schomerus et al., 2009; Skogstad et al., 2006; Tomczyk et al., 2020; Zorrilla et al., 2019), and its underlying beliefs have been under-researched in relation to masculine norms and psychological help-seeking, and therefore remains quite nebulous (Smith et al., 2008; Vogel & Heath, 2016). However, how masculinity would interact with perceived control and control beliefs can be assumed given that perceived control is not a new construct, but conceptually equivalent to Bandura's (1977) concept of perceived self-efficacy, which was defined as "beliefs in one's capabilities to organize and execute the courses of action required to produce given attainments" (Bandura, 1997, p. 3),

in social cognitive theory (Ajzen, 2012; Fishbeing & Ajzen, 2010; Vogel & Heath, 2016). Because men more strongly adhering to traditional masculine norms are more likely to feel self-stigma associated with depression or psychological help-seeking (Hammer et al., 2013; Magovcevic & Addis, 2005; Pederson & Vogel, 2007; Vogel et al., 2011) and self-stigma can lead to poor self-efficacy as well as low self-esteem (Ritsher, Otilingam, & Grajales, 2003; Watson, Corrigan, Larson, & Sells, 2007), it can be hypothesized:

H9: Young male college students' perceived behavioral control over seeking psychological help from friends will be positively related to their intention to seek help from friends for depression.

H10: Control beliefs about seeking psychological help from friends will be positively associated with perceived behavioral control over seeking help from friends for depression.

H11: Masculine ideology adherence will be negatively associated with control beliefs about seeking psychological help from friends.

H12: Perception of depression as being feminine will strengthen the inverse relationship between masculine ideology and control beliefs about seeking psychological help from friends.

Findings from previous research examining the RAA in other health domains would provide useful information in terms of understanding young male college students' psychological help-seeking patterns. However, Fishbein and Ajzen (2010) claimed that the RAA should not only be population-specific but also be behavior-specific to have a better understanding as to why a certain group of individuals perform (or do not perform) a particular behavior of interest, pointing out the weak association between general attitudes and the performance of specific behaviors. Therefore, along with the set of hypotheses stated above, the following research

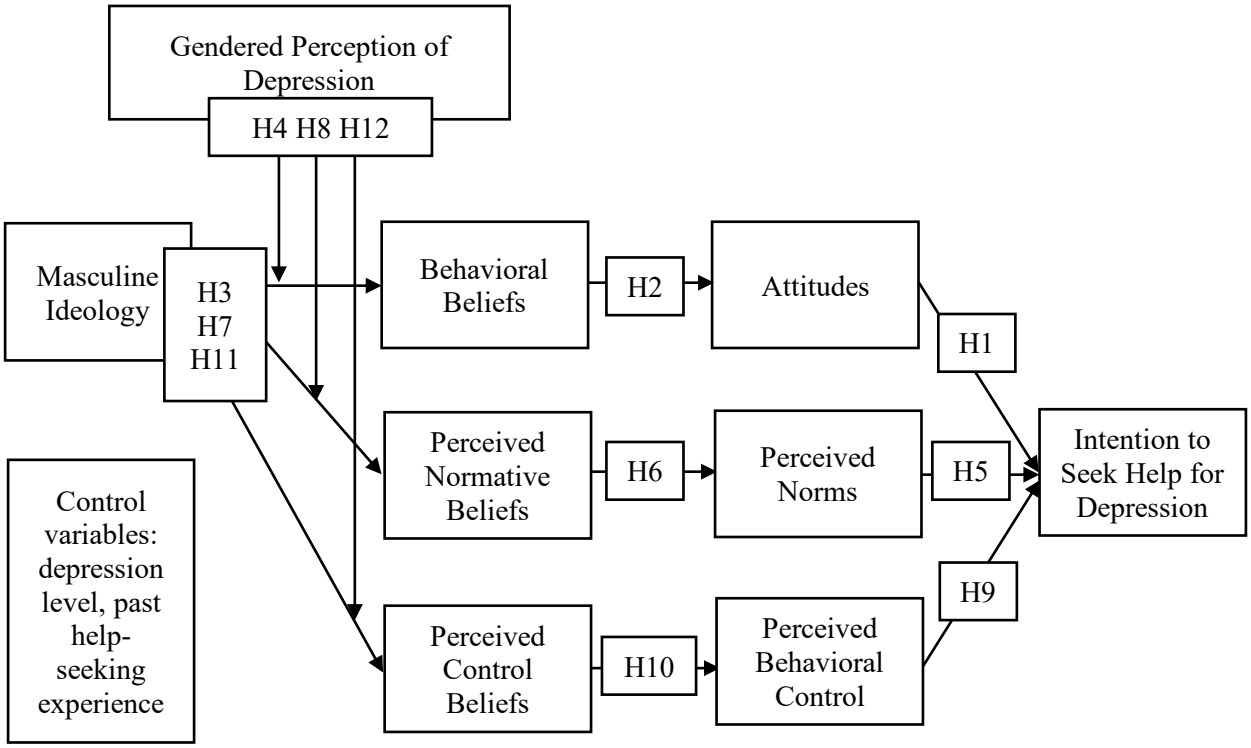
question addresses among proximal predictors of intention which determinant would be most useful in changing young male college students' reduced help-seeking patterns.

RQ: Which theoretical determinant is the most important in predicting young male college students' intentions to seek help from friends for depression?

The conceptual framework and the hypotheses for this research is included in Figure 1.

Figure 1

Research Model and Hypotheses



Rationale

Anxiety and depression are the most prevalent, growing concerns among U.S. college students and they contribute to various health disorders. However, a great number of people with depression go untreated. Based on the results from this study looking at men's belief system about informal psychological help-seeking behavior, which directs the main determinants of

intentions (attitudes, perceived norms, perceived behavioral control), message designers may be able to create intervention messages that can better persuade the target audience to seek psychological help. As salient beliefs vary by behavior and by population, this study focuses specifically on young male college students as a study subject, considering that many of them are in stress-inducing, uneasy situations to seek help for their mental disorders. Given that friends, one of the most preferred sources of help for mental disorders by young people and of the most effective gatekeepers to their mental health care, are understudied compared to professional sources in previous studies, this study focuses on friends as psychological help sources for depression. With the completion of the study focusing on underlying beliefs that specific groups of men think he should or should not seek help from friends for depression and their corresponding constructs, the relationship between masculinity and young college men's psychological help-seeking behavior would be better understood. By designing health messages using modifiable underlying beliefs of the corresponding RAA constructs and intention, professional communicators may be able to lower perceived barriers to mental health help in men and ultimately lead young male college students to reach out to their friends for help. Not only that, lay health communicators, such as friends of those experiencing depression, may also use this research to create messages that encouraging their friends to express their depressed mood states to and seek help from them. By promoting and encouraging psychological help-seeking from friends, this study may contribute to increasing the community well-being and decreasing social and economic burden of depression.

CHAPTER 3

METHOD

Sample

Research data was collected through two online surveys. The first survey was to obtain a list of people or groups that were most frequently identified as specific referents for normative beliefs by the research population. The survey was conducted because information about a particular referent individual or group within the context of young male college students seeking help from friends for depression were less available in the literature than the other two belief categories (behavioral and control). The survey was conducted via the SONA research pool for undergraduate/graduate students at a Midwestern university during February of 2019. Seventy male college students aged 18 to 25 (M = 20.60, SD = 1.42) were recruited and received 0.25 research credit in exchange for participation. The racial breakdown of the 70 participants was: 33 (47.14%) White (including Middle Easterners), 23 (32.86%) Asians, 7 (10.0%) Black or African Americans, 4 (5.71%) Hispanic or Latino Americans, and 3 (4.29%) Native Americans or Alaska Natives.

The second online survey to gather quantitative data regarding beliefs and other determinants of intentions was conducted as a part of another research project that examined young male college students' intention to seek psychological help from their friends via the Amazon's Mechanical Turk during April of 2019. A total of 200 male college students whose ages were between 18 and 25 years old were recruited based on a suggested typical sample size for structural equation modeling (Kline, 2016), and they received $2.50 in exchange for participation. After all data screening procedures (see the Preliminary Data Analysis section) were completed, the final sample size was 193 (M = 23.11, SD = 1.74). The racial breakdown of

those who indicated their racial identities (n = 178) was: 78 (43.82%) Whites (including Middle Easterners), 52 (29.21%) Asians, 20 (11.24%) Black or African Americans, 18 (10.11%) Hispanic or Latino Americans, and 10 (5.62%) Native Americans or Alaska Natives.

Scale Development

The participants who volunteered to participate in the first referent survey were received a set of screening questions that were created to filter out unqualified volunteers. The questions checked if they were male, and if they were college students whose ages were between 18 and 25 years old. Qualified participants were asked to list their personal injunctive and descriptive referents (individuals or groups) regarding psychological help-seeking from friends for depression. After answering the referent questions, they answered questions asking about their year in college, prior formal/informal psychological help-seeking experience, and race.

After identifying the frequently mentioned normative referents with the first survey data, questions about behavioral and control beliefs for the second survey were created based on the multiple past studies about factors influencing people's psychological help-seeking behaviors (e.g., Busiol, 2016; Gilchrist & Sullivan, 2006; Hui, Wong, & Fu, 2014; Jorm, Wright, & Morgan, 2007; Savage et al., 2016; Timlin-Scalera, Ponterotto, Blumberg, & Jackson, 2003; Wilson & Deane, 2001) and the recommendations of Fishbein and Ajzen (2010).

Main Study Design

Procedure

For the second online survey, the participants who consented to being in the study were asked to answer the same screening questions used in the first referent survey to be qualified. Those who passed the qualifications received questions looking at respondents' masculine ideology (the Conformity to Masculine Norms Inventory-22; Hamilton & Mahalik, 2009) and

gendered perception of depression (Galinsky, Hall, and Cuddy, 2013; Michniewicz et al., 2016). Then, given that the sample of individuals was not limited to those with clinically diagnosed with depression, the participants were presented with an instruction before going into the main questionnaire. The following instruction was designed to make the respondents' possible depression symptoms salient in their mind and have them responded to the survey with regards to their current symptoms (Hammer & Vogel, 2013, p. 88):

"We've all had times when we've felt depressed, anxious, or worried about something. Think about a time when you struggled with one of the most intense, significant, and psychologically difficult issues in your life (e.g., a significant loss, a traumatic event, a dark period, etc…). Take a minute to think about that time."

The instruction was followed by the Center for Epidemiologic Studies Depression Scale-Revised (CESD-R; Eaton, Smith, Ybarra, Muntaner, & Tien, 2004) measuring the respondents' current level of depression as a manipulation check. As soon as they answered the CESD-R scale, participants answered questions measuring their (behavioral, normative, and control) beliefs, attitudes, perceived norms, perceived behavioral control, and intentions regarding seeking or not seeking psychological help from friends. After answering the questions related to the beliefs and other determinants of intentions, participants answered remaining questions asking about their intentions to seek psychological help, their prior psychological help-seeking experience, and demographics such as race/ethnicity, income level, health coverage plan. Those completing all the questions saw the debriefing page that provided detailed study information and useful resources for psychological help-seeking. See appendix for actual measures.

Measures

Precursors and Control Variables

Masculine Ideology. The Conformity to Masculine Norms Inventory-22 (CMNI-22; Hamilton & Mahalik, 2009) was used to measure masculine ideology. The CMNI-22 is a revision of one of the popular measurements of traditional masculine ideology, the Conformity to Masculine Norms Inventory (Vogel & Heath, 2016). Unlike other measures only examining cognitive conformity, Mahalik et al. (2003) also included items to measure affective conformity in the original scale with 94 items (Thompson & Bennett, 2015). To reduce the CMNI with an 11-factor structure, Hamilton and Mahalik (2009) took 2 top loaded items for each of the 11 factors from the original scale. The 11-factor structure includes risk-taking, disdain for homosexuality, violence, winning, emotional control, power over women, dominance, playboy, self-reliance, primacy of work, and pursuit of status (Hamilton & Mahalik, 2009). The reduced version was found to be highly correlated with the original CMNI scale at .92 and reliable in previous research (Alpha < .73; Hamilton & Mahalik, 2009). The scale showed strong convergent validity with other scales measuring masculinity (Mahalik et al., 2003). The CMNI-22 asked participants to rate each item on a Likert-type scale ranging from 1 (strongly disagree) to 4 (strongly agree). Nine items were reversed coded for analysis such that higher scores indicated more conformity to masculine ideology. In the present study, the internal consistency reliability was adequate ($\alpha = .70$). The twenty-two items were combined into an overall masculine ideology scale ($M = 2.41$, $SD = .33$).

Gendered Perception of Depression. Participants' gendered perception of depression was assessed with 2-items, each taken from Galinsky et al. (2013) and Michniewicz et al. (2016). The first item adapted from Galinsky et al. (2013) asked how participants perceived depression

on a 7-points Likert scale (1= “extremely masculine”, 7=“extremely feminine”) and the second item adapted from Michniewicz et al. (2016) asked how they perceived the gender stereotypicality of depression on a Likert-type scale ranging from 1 (men much more likely to have this) to 7 (women much more likely to have this). Pearson correlation coefficient was used as a measure of reliability and it was .50, and the two items were combined into an overall gendered perception of depression scale (M = 4.26, SD = .93).

Current Level of Psychological Depression. To check the manipulation of the instructions designed to make distress become salient in minds of participants when answering the survey questions, participants’ current levels of depression were measured with the CESD-R (Eaton et al., 2004). The CESD-R is the revision of the Center for Epidemiologic Studies Depression Scale (CES-D; Radloff, 1977), which is one of the most widely used self-administered depression scales (Van Dam & Earleywine, 2011). Unlike the CES-D, the revised version reflects currently used diagnostic criteria for major depression (APA, 1994). The creators of the revised version of the CES-D stated the revision reflects the nine primary symptoms of a major depressive episode according to DSM-IV criteria for depression more closely (Eaton et al., 2004). The CESD-R consists of 20 items asking participants to answer how often they felt in certain ways during the past week (e.g., “I was bothered by things that usually don't bother me”) on a 5-points Likert scale (“Not at all or less than one day,” “1-2 days,” “3-4 days,” “5-7 days,” “Nearly every day for 2 weeks”). The total CESD-R score is calculated by summing all 20 responses and values for each question are from 0 to 3 (the top two responses have the same value). Scores range from 0 to 60, and those with a CESD-R score of 16 or greater (the suggested cut-point; Eaton et al., 2004) are considered at risk for clinical depression. Because the measure is for manipulation check, participants below the clinical cut-off were not be dropped. Previous

research has demonstrated the scale is reliable (Alpha = .92; Van Dam & Earleywine, 2011). In addition to high internal consistency, strong factor loadings and consistent convergent and divergent validity indicate that the CESD-R can be used as a reliable and valid depression assessment with the general population (Van Dam & Earleywine, 2011). In the current study, the CESD-R scale (M = 28.53, SD = 17.78) was reliable (α = .96). The measure was dichotomized for analyses according to the cut-off values of the CESD-R (see the Results section).

Prior Help-Seeking Experience. Prior-help seeking experience was measured by two items asking participants to answer if they had sought psychological help for depression from a mental health professional (e.g., counselor, psychologist, psychiatrist) and a friend by responding yes or no. Participants' responses to the two statements were reverse scored such that a higher score indicated a positive response to the statements and later combined into a two-point scale representing participants' overall prior formal and informal help-seeking experience (M = .70, SD = .46). The Pearson correlation coefficient was .22.

Indirect Measures

Behavioral Beliefs. Thirteen items assessing behavioral beliefs were created based on the multiple past studies about psychological help-seeking (see Barney, Griffiths, Christensen, & Jorm, 2009; Busiol, 2016; Chew-Graham, Rogers, & Yassin, 2003; Gilchrist & Sullivan, 2006; Hui et al., 2014; Jorm et al., 2007; Lindsey et al., 2006; Richardson & Rabiee, 2001; Savage et al., 2016; Tang, Oliffe, Galdas, Phinney& Han, 2014; Timlin-Scalera et al., 2003; Wilson & Deane, 2001) as well as the recommendations of Fishbein and Ajzen (2010). Originally, to identify the modal set of salient beliefs, Fishbein and Ajzen (2010) recommended formative qualitative research asking the advantages and disadvantages of performing a given behavior in open-ended questions to the population of interest. However, this process was replaced with a

review of the prior research that used focus group discussions or in-depth interviews to identify factors that influenced men's help-seeking behavior for mental (mostly depression) disorders. The thirteen frequently mentioned behavioral beliefs were mostly associated with disadvantages of getting psychological help for mental disorders (e.g., making me weak/crazy, negatively affecting my worth/authority/relationships/job opportunities, making me ostracized or marginalized by others). These beliefs are presented in Appendix. The beliefs were presented after the following statement, "If I do not seek psychological help for depression from a friend in the next 3 months, that is because…", such that participants were able to indicate their agreement or disagreement with the statements about the beliefs on a seven-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). The behavioral beliefs scale (M = 3.83, SD = 1.46) demonstrated adequate internal consistency reliability (α = .95) in the present study.

Injunctive Normative Beliefs. According to Fishbein and Ajzen (2010) injunctive normative beliefs are very similar to injunctive norms, except for the presence of specific referents. Based on this argument, the first referent survey asked participants to answer a series of questions asking them to list referent individuals or groups that would approve and disapprove of their psychological help-seeking from friends as well as that they would want to talk to when deciding whether or not to seek psychological help from friends. In the second survey, injunctive normative beliefs were assessed with a list of eight items consisting of the frequently mentioned referents in the first survey: mother, father, another relative/family member, significant other, friend, health professional (e.g., family doctor, mental health professional, school's psychiatric counselor), faculty or staff member (e.g., professor, teacher, advisor, coach), and member of online support group or community for people with personal experience of depression. After reading a statement, "Do the people listed below think you should or should not seek

psychological help from a friend for depression in the next 3 months?", participants indicated their answer for each item (referent) on a seven-point Liker scale ranging from 1 (should not seek psychological help from a friend) to 7 (should seek psychological help from a friend). The injunctive normative beliefs scale (M = 4.12, SD = 1.56) was reliable (α = .94) in the present study.

Descriptive Normative Beliefs. Similar to injunctive normative beliefs, items assessing descriptive normative beliefs are recommended to have particular referents and not a generalized agent (Fishbein & Azjen, 2010). To obtain readily accessible referents influencing the population of interest's descriptive norms, the first referent survey asked participants to answer a series of questions asking them to list referent all people or groups that have (or have not) sought psychological help from friends in the past or would (or would not) do in the next 3 months and that they would look for guidance when they were not sure about seeking psychological help from a friend for depression. The frequently mentioned referents were similar to those mentioned in the participants' answers to the questions regarding injunctive beliefs. Therefore, in the second survey, descriptive normative beliefs were assessed with a list of the same 8 referents. After reading a statement, "Have the people listed below sought psychological help from a friend in the past or would they seek psychological help from a friend in the next 3 months, if they were dealing with depression?", participants indicated their answer for each referent on a seven-point Liker scale ranging from 1 (have not sought or would not seek psychological help from a friend) to 7 (have sought or would seek psychological help from a friend). A Cronbach's alpha of .87 indicates good internal consistency of the items in the descriptive normative beliefs scale (M = 4.00, SD = 1.38).

Control Beliefs. According to Fishbein and Ajzen (2010), salient control beliefs can also

be identified through formative research in which researchers ask participants to list factors that they believe would facilitate or impede a given behavior and use the most frequently mentioned ones. As done for the identification of salient behavioral, the set of salient control beliefs was identified not through formative research but through a review of relevant prior research that used in-depth interviews or focus groups (see Busiol, 2016; Gilchrist & Sullivan, 2006; Gulliver, Griffiths, & Christensen, 2012; Hui et al., 2014; Jorm et al., 2007; Lindsey & Kalafat, 1998; Savage et al., 2016; Timlin-Scalera et al., 2003; Wilson & Deane, 2001). Six control beliefs were identified through the literature review and the examples of control factors are one's confidence in ability to aware and express their own emotional state of depression and to set aside time for seeking psychological help from friends. The entire list of control beliefs is presented in Appendix. To obtain quantitative data regarding control beliefs, six statements were presented to participants with a 7-point Likert scale (1 = "strongly disagree", 7 = "strongly agree") such that participants were able to indicate their degree of agreement to the statements using the scale. The internal consistency of the six items in the control beliefs scale (M = 4.73, SD = 1.10) was reflected in a high value for Cronbach's alpha coefficient (α = .84).

Direct Measures

Attitudes. The adapted version of the short form of the Attitudes Toward Seeking Professional Psychological Help Scale (ATSPPHS-SF; Fischer & Farina, 1995) was used to assess respondents' attitudes toward seeking psychological help from friends. The original ATSPPHS scale (Fischer & Turner, 1970) included 29 items but the number of items was reduced to 10 by Fischer and Farina (1995). The original scale and the shortened version are strongly correlated with each other (.87; Fischer & Farina, 1995). Because the 10-item scale was created to measure attitudes toward seeking "professional" psychological help not "informal"

help, the words specifying professional sources such as “professional”, “a psychologist”, “psychotherapy”, “psychological counseling” in the ATSPPHS-SF were changed to measure attitudes toward seeking informal psychological help from a friend. And to specify the type of help the word “psychological” was added to the 10 statements. All the statements were presented with a 7-point scale (1= “strongly disagree”, 4 = “neither agree nor disagree”, 7=“strongly agree”) and after collecting data five items were reverse scored such that higher scores indicated more positive attitudes toward seeking psychological help. The scale was found to be reliable (Alpha < .79; Fischer & Farina, 1995) and valid (e.g., significant associations with intentions to seek help and prior professional help-seeing experience; Fischer & Farina, 1995; Vogel, Wade, & Hackler, 2007; Vogel, Wade, Wester et al., 2007) in previous research. The ATSPPH-SF scale demonstrated adequate internal consistency reliability ($\alpha = .79$) in the present study. For data analyses, the 10 items were combined into a single attitude scale ($M = 4.24$, $SD = .96$).

Perceived Norms. Hammer and Vogel’s (2013) 10-items scale assessing subjective norms about seeking “professional” psychological help was adapted to measure perceived norms about seeking psychological help from a friend. Although the concept of subjective norms in the reasoned action approach is considered to be analogous to the injunctive norms (Fishbein & Ajzen, 2010; Jun & Arendt, 2016), Hammer and Vogel (2013) added descriptive norms in their measure following Ajzen (2006)’s recommendation. In their scale, 6 items measure injunctive norms (e.g., “Most people who are important to me would think that I should seek help from a psychologist in the next 3 months”) with the specific action (e.g., seek help), target (e.g., a psychologist), and time frame (e.g., in the next 3 months). In addition to the 6 items, there are 4 items assessing descriptive norms (e.g., “Most people who are important to me, if they were dealing with this issue, would seek help from a psychologist in the next 3 months”). All 10 items

Include words to specify a referent group (e.g., "Most people who are important to me") because what is important is how particular referents would feel respondents performing a given behavior and not a generalized agent (Hammer & Vogel, 2013). According to Hammer and Vogel (2013), their subjective norms scale demonstrated good internal consistency (α = .94) and significant association with intention. Using a result of the maximum-likelihood exploratory factor analysis (EFA) provided by Hammer and Vogel (2013), the six most highly loaded injunctive and descriptive norms items (three each) were used in the present study to make respondents feel less burdened while answering questions. Because the current research looks at seeking psychological help from a specific informal source of help, the specific target word in the original scale, "a psychologist", was changed to "a friend" and the word "psychological" was added (e.g., "Most people who are important to me would think that I should seek psychological help from a friend in the next 3 months"). Participants indicated their agreement on each statement using a Likert-type scale ranging from 1 (strongly disagree) to 7 (strongly agree). In the present study, the injunctive and descriptive norms scales with 3 items each demonstrated good internal consistency (α = .90 and .91, respectively). The items of injunctive and descriptive norms were combined separately into injunctive norms (M = 4.31, SD = 1.62) and descriptive norms (M = 4.60, SD = 1.47) scales for analysis.

Perceived Behavioral Control. To assess participants' perceptions of control over psychological help-seeking from friends for depression, four items created based on Fishbein and Ajzen (2010) were used. The items directly asked respondents questions about perceived ability to perform a psychological help-seeking behavior. As recommended by the researchers, the questions included the same target (a friend), action (seeking psychological help), context (for depression), and time (in the next 3 months) elements. The questions were presented with a 7-

point Likert scale (1 = “strongly disagree”, 7 = “strongly agree”) for respondents to indicate their agreement on the scale. For data analyses, the 4 items were combined into a single perceived behavioral control scale (M = 5.25, SD = 1.37) and it demonstrated good internal consistency with a Cronbach’s alpha of .92.

Intention. An adapted version of Hammer and Vogel (2013)’s intention scale was used to assess respondents’ intentions to seek psychological help. In the original scale, the researchers used six items that included the specific action, target, and time frame following the recommendation of Ajzen (2006). According to Hammer and Vogel (2013), the scale was reliable (α = .97) and demonstrated evidence of validity with significant associations of intention with attitudes and subjective norms (Hammer & Vogel, 2013). Among the 6 items in the original scale, only the three most highly loaded items were retained based on a result of the EFA provided by Hammer and Vogel (2013) to minimize respondent burden. To be used in the study specifically looking at friends as potential source of psychological help, the word specifying the professional target “a psychologist” in the original scale was modified to “a friend” and the word “psychological” was added to specify help type. The modified three statements were presented to the respondents with a 7-point Likert scale (1 = “strongly disagree”, 7 = “strongly agree”). The three items were combined into a global intention scale (M = 4.25, SD = 1.61, α = .94).

CHAPTER 4

RESULTS

The data analyzed in the present study were cleaned and examined the effect of manipulation prior to any analyses. Descriptive statistics were generated for all variables in the study and bivariate correlational analyses were conducted on the RAA constructs, precursors, and control variables. Correlations are presented in Table 1. The main analysis was conducted in two steps using Bleakley & Hennessy's (2012) article as a guide for analysis. First, path analysis was conducted with all observed variables to identify which determinant or combination of determinants were most useful to predict intentions to seek psychological help from a friend in the next 3 months. Because the aim of the path analysis was to examine the direct determinants and their associations with intention, beliefs were not included in this step. After this step, the constructs that were not related to intention to seek help were not examined for further analyses because the aim of the research was to identify modifiable beliefs that are more likely to be impactful on each determinant and, subsequently, behavioral intention and that could be used in persuasive health messages. As the first approach to accomplish this aim, an arm-by-arm approach was used, meaning each relevant theoretical arm of the RAA that include the underlying beliefs is analyzed separately. This analysis is to determine which beliefs are most closely related to intention and the corresponding constructs. After the arm-by-arm approach, audience segmentation analyses were used to examine each of the underlying beliefs of relevant constructs by the respondent's intender status (whether or not they intend to seek psychological help) and find beliefs that can be used to design the best messages for each group. In this analysis, each underlying belief were correlated with intention and its relevant construct and tested between groups with bivariate tests.

Table 1

Correlations of the RAA constructs and Precursors

	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Masculine Ideology													
2. Depression Perception	.20*												
3. Depression Level	.15*	.07											
4. Prior Help-Seeking	.02	-.04	.10										
5. Behavioral Beliefs	.50*	.25*	.27*	.06									
6. Injunctive Normative Beliefs	.17*	.14*	.24*	.27*	.25*								

Table 1 (cont'd)

	1	2	3	4	5	6	7	8	9	10	11	12	13
7. Descriptive Normative Beliefs	.13	.09	.19*	.25*	.18*	.62*							
8. Control Beliefs	.07	.11	-.15*	.11	-.00	.18*	.27*						
9. Attitudes	-.38*	-.02	-.17*	.11	-.33*	.13	.09	.42*					
10. Injunctive Norms	.13	.03	.23*	.21*	.26*	.56*	.56*	.22*	.23*				
11. Descriptive Norms	.06	.10	.04	.16*	.14	.44*	.51*	.44*	.43*	.62*			
12. Perceived Behavioral Control	-.15*	.02	-.21*	.08	-.11	.11	.14*	.46*	.37*	.10	.30*		

Table 1 (cont'd)

	1	2	3	4	5	6	7	8	9	10	11	12	13
13. Intention	.16*	.09	.15*	.21*	.15*	.38*	.44*	.43*	.33*	.53*	.56*	.13	

Note. N = 197. Asterisk (*) indicates $p \leq .05$.

Preliminary Data Analysis

Data Screening

Prior to conducting any analysis, the responses were screened to ensure the fulfilment of the assumptions on which statistical tests were based. First, those who failed to pass instructed response items included as attention checks were identified. Seven participants that answered both attention checks incorrectly did not show significant differences from those who passed at least one check at the 5% significance level. However, they were removed from subsequent analyses to ensure data quality because their wrong responses indicate inattentiveness.

Of the remaining 193 responses, no missing data for the main variables used in the analyses was found. For the retained data, the values of skewness and kurtosis of all variables were assessed and they were between the rule-of-thumb range (± 2; George & Mallery, 2010). When assessing z-scores for each of the overall scales for possible univariate outliers (Tabachnick & Fidell, 2007), one case on the masculine ideology scale and two cases on the control beliefs scale had absolute z-scores above 3.29. However, the cases were retained because they fell between the acceptable range of skewness and kurtosis (Reifman & Keyton, 2010). When testing the multivariate normality of the observed variables, the four multivariate normality tests (Mardia's skewness and kurtosis tests, Henze-Zirkler's test, and Doornik-Hansen's test) rejected the null hypothesis of multivariate normality at the .05 level of

significance. Because the results indicated the data were multivariate non-normal, which violated the normality assumption of the maximum likelihood method that I planned to use to test the hypotheses, the Satorra-Bentler scaled chi-square and associated fit indices will be reported in the Results section (see Satorra & Bentler, 1988).

Manipulation Check

The CESD-R, a self-administered depression scale, was checked if the manipulation instruction successfully made distress salient in respondents' minds when they were responding to survey questions. According to the researchers that created the scale, all resulting scores must be between 0 and 60 and any scores that are equal to, or greater than, 16 suggest depressive cases (Eaton et al., 2004). The majority of participants (70.47%) appeared to experience some depression symptoms with a CESD-R score between 16 and 60 (M = 28.52, SD = 17.78). The measure was dichotomized for use as a control variable in analysis according to the cut-off values: the non-depressed group (CESD-R < 16, N = 57) and the symptomatic group (CESD-R ≥ 16, N = 136).

Main RAA Determinant Analysis

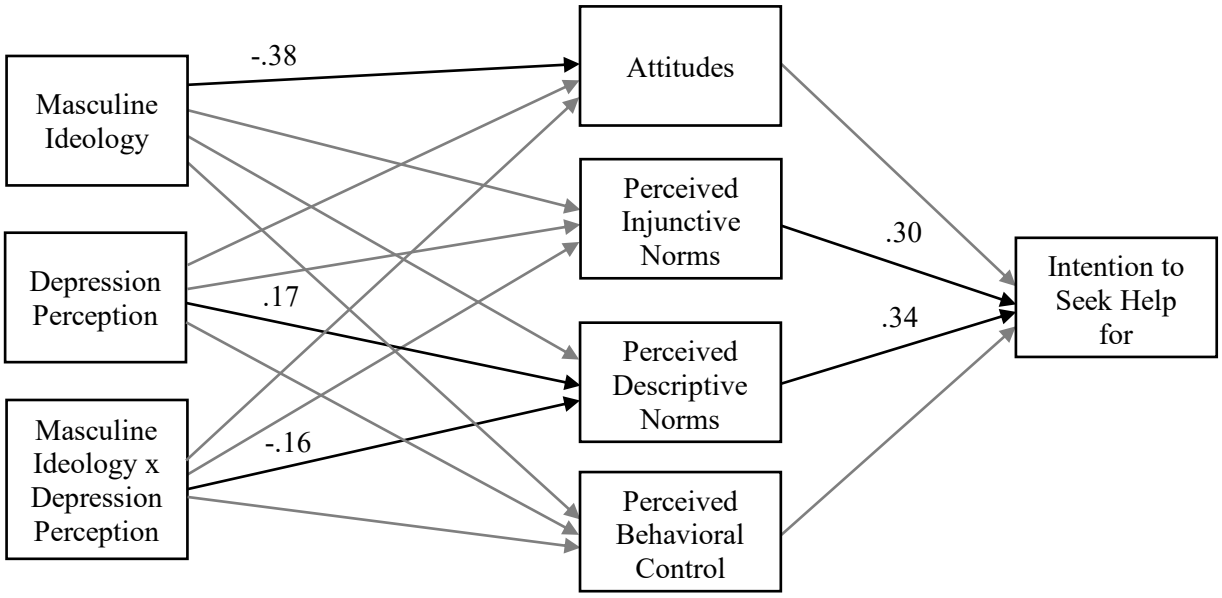
Path analysis with all observed variables was conducted for the first step. Beliefs were not included in the path analysis at this step, only observed scale variables for the main RAA determinants. In this step, participants' masculine ideology and perception of depression as being masculine or feminine were treated conceptually as precursors and their previous psychological help-seeking experience and depression level were included conceptually as control variables. In practice, all four variables were included as predictors of the RAA determinants as is recommended in analysis of RAA models (Hennessy et al., 2010). The path analysis in the current research explores the effects of masculine ideology and depression perception on

intention to seek psychological help from friends through the mediating variables (attitudes, perceived norms, and perceived behavioral control). Because the causal associations between the direct measures of the three mediators remain unclear in the RAA, the error terms of them were correlated as a solution to the issue (Bleakley & Hennessy, 2012; Preacher & Hayes, 2008). Along with Satorra and Bentler's (1988) scaled chi-square, three additional fit indices were used: the root-mean-square error of approximation (RMSEA; .06 or below), the comparative fit index (CFI; .95 or above), the standardized root-mean-square residual (SRMR; .08 or below; see Kline, 2016 and Hu & Bentler, 1999).

The results of the path analysis to test which determinants of the RAA model were related to intention to seek psychological help for depression are shown in Figure 2.

Figure 2

Path Analysis Results for the Direct Measure RAA Model



Note. Coefficients displayed in black font are standardized regression coefficients significant at the .05 level. Insignificant coefficients, correlated error terms of mediating variables, and control variables are not pictured for clarity. The information about those tests is available in Table 2.

Table 2

Path Analysis Results

Independent Variables	Dependent Variable: Attitudes	Injunctive Norms	Descriptive Norms	Perceived Behavioral Control	Intention
CMNI	-.38*	.08	.01	-.14	
DP	.09	.06	.17*	.06	
CMNI x DP	-.04	-.12	-.16*	.02	
Attitudes					.13
Injunctive Norms					.30*
Descriptive Norms					.34*
Perceived Behavioral Control					-.05

Note. $N = 193$. All path coefficients are standardized. CMNI = masculine ideology; DP = gendered perception of depression. Asterisk (*) indicates $p \leq .05$.

The reported coefficients were standardized. The model provided an acceptable fit to the data, Satorra-Bentler (S-B) $\chi^2(5, N = 193) = 11.65$, $p = .04$; RMSEA = .09, 90% CI (.03, .15); CFI = .98; SRMR = .02.[1] Masculine ideology appeared to be significantly associated with attitudes, $\beta = -.38$, $p \leq .01$, 95% CI(-.53, -.23), reflecting greater conformity to masculine norms

[1] Satorra-Bentler root mean squared error of approximation (RMSEA_SB) = .08; Satorra-Bentler comparative fit index (CFI_SB) = .97.

was related to more negative attitudes towards seeking psychological help for depression from a friend. However, it was not associated with the other determinants of the RAA: injunctive norms, $b = .08$, $p = .33$, 95% CI(-.08, .24); descriptive norms, $\beta = .01$, $p = .88$, 95% CI(-.16, .18); perceived behavioral control, $\beta = -.14$, $p = .10$, 95% CI(-.30, .02). Depression perception was associated with descriptive norms, $\beta = .17$, $p \leq .05$, 95% CI(.04, .31), in that participants had more positive attitudes toward psychological help seeking for depression when perceiving depression as being feminine. With the other determinants, depression perception did not have a significant association: attitudes, $\beta = .09$, $p = .44$, 95% CI(-.14, .32); injunctive norms, $\beta = .06$, $p = .39$, 95% CI(-.08, .21); perceived behavioral control, $\beta = .06$, $p = .46$, 95% CI(-.10, .22).

In addition to its direct effect on descriptive norms, depression perception also moderated a relationship between masculine ideology and descriptive norms, $\beta = -.16$, $p \leq .05$, 95% CI(-.32, -.00). The significant interaction effect was probed by testing the conditional effect of masculine ideology on descriptive norms, using the PROCESS macro for SPSS (Hayes, 2013). Results showed when depression perception was at the value of 3.08 or below (1 = masculine/male-type disorder, 7 = feminine/female-type disorder), masculine ideology and descriptive norms were significantly associated, $b = 1.06$, $p = .05$, 95% CI(.00, 2.11). Specifically, the association between masculine ideology and descriptive norms became more positive as the value of depression perception decreased (became more masculine). When depression perception was greater than the cutoff value (3.08), masculine ideology was not associated with descriptive norms. The results indicate that when respondents perceived depression as more masculine or a male-typical disorder, perceived descriptive norms about psychological help-seeking from friends for depression became more positive with their conformity to masculine ideology. On the other RAA determinants than descriptive norms, no significant interaction effects of masculine

ideology and depression perception were found: attitudes, β = -.04, p = .74, 95% CI(-.29, .21); injunctive norms, β = -.12, p = .17, 95% CI(-.29, .05); perceived behavioral control, β = .02, p = .83, 95% CI(-.17, .21).

For the control variables, the results showed current depression level was associated with injunctive norms, β = .20, $p \leq .01$, 95% CI(.05, .34), and perceived behavioral control, β = -.20, $p \leq .01$, 95% CI(-.34, -.06). The other control variable, past psychological help-seeking experience, was related to the reasoned action mediators except perceived behavioral control: attitudes, β = .13, $p \leq .05$, 95% CI(.00, .26); injunctive norms, β = .18, $p \leq .05$, 95% CI(.04, .32); descriptive norms, β = .15, $p \leq .05$, 95% CI(.00, .30).

Finally, the path analysis results showed that perceived norms were the only determinant that was significantly associated with intention: injunctive norms, β = .30, $p \leq .01$, 95% CI(.11, .49); descriptive norms, β = .34, $p \leq .01$, 95% CI(.14, .53). Attitudes, β = .13, p = .09, 95% CI(-.02, .29), and perceived behavioral control, β = -.05, p = .54, 95% CI(-.19, .10) were not associated with intention. The three constructs explained 38.4% of the variance in intention.

In the Hypotheses section, three sets of hypotheses were developed based on the RAA's predictions and the literature on the approach, and each set of hypotheses included four hypotheses predicting the positive relationships between intention and the mediator (H1: attitudes; H5: perceived norms; H9: perceived behavioral control); the positive relationship between the mediator and its underlying beliefs (H2: attitudinal beliefs; H6: normative beliefs; H10: control beliefs). The remaining hypotheses predicted masculine ideology's negative relationship with the beliefs and how depression perception would strengthen the inverse relationship (H3-4: attitudinal beliefs; H7-8: normative beliefs; H11-12: control beliefs). The results of the path analysis, showing a significant relationship of intention only with perceived

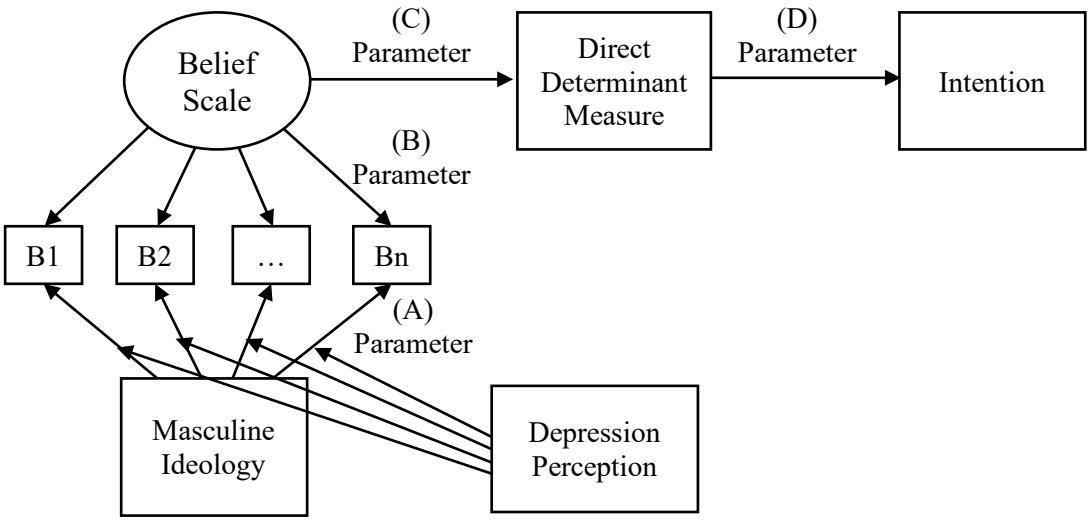
norms, indicate hypothesis 5 was supported and hypotheses 1 and 9 were rejected. The results also give an answer to RQ showing that perceived norms were the most important predictor of young male college students' intentions to seek help from friends for depression. Hypothesis tests for the non-relevant theoretical arms (attitudinal: H2-4; behavioral control: H10-12) will not be conducted, consistent with Bleakley et al. (2018) and other similar works in this area.

Arm-by-Arm Belief Analyses

After identifying the relevant construct, an arm-by-arm approach was used to identify the normative beliefs that were most closely associated with intention and the corresponding norms (perceived injunctive and descriptive), taken the precursors and control into account. The generic model of the arm-by-arm analysis is presented in Figure 3.

Figure 3

Generic Model for Analyzing the Underlying Beliefs with an Arm-By-Arm Approach



Note. Bs indicate underlying belief items. Error terms of belief items and control variables are not pictured for clarity.

First, the beliefs were assessed in relation to masculine ideology and depression perception (parameter A), and the estimated amount of the variances of the belief items that were accounted for by the latent belief construct (parameter B). The correlation between the belief scale and the observed measure of the corresponding RAA mediator (parameter C) was then tested, as well as the correlation between the RAA mediator and intention (parameter D). The arm-by-arm analyses predicted intention with all observed variables except the latent variables for the underlying beliefs. All error terms of belief items were correlated. To narrow the field further, additional analysis was conducted on the model where each (injunctive or descriptive normative) belief item, not the underlying beliefs latent factor, predicted the observed measure of the corresponding norms. All analyses were conducted in Stata Version 14. To assess each perceived normative belief in relation to intention and its corresponding construct, regression analysis was conducted separately for injunctive and descriptive norms and the results were presented in Tables 3 and 4. The reported coefficients were standardized.

For the injunctive normative arm of the RAA, the model provided a good fit of the data, S-B $\chi^2(12, N = 193) = 19.36,\ p \geq .05$; RMSEA = .07, 90% CI (.03, .11); CFI = .99; SRMR = .03.[2] The results showed that all the beliefs were reflective indicators of the injunctive beliefs scale at the .001 significance level. However, the mother referent was the only belief predicted by any of the precursors. The injunctive normative belief about what mothers think with regard to seeking psychological help for depression think was associated with masculine ideology, $\beta = .13$, $p \leq .05$, 95% CI(0.00, 0.26) in that those who strongly endorse masculine traits were more likely to perceive that their mother thought they should seek help from friends for depression.

[2] RMSEA_SB = .06; CFI_SB = .99.

The interaction effect of masculine ideology and depression perception was also only significant for the injunctive normative belief with mother referents, $\beta = .19$, $p \leq .05$, 95% CI(.02, .35). Of the two control variables, only prior help-seeking experience was associated with significant other referents, $b = .15$, $p \leq .05$, 95% CI(.01, .29). The results then showed the injunctive normative belief scale was associated with the observed measure of injunctive norms, $\beta = .79$, $p \leq .001$, 95% CI(0.63, 0.94). The association between the observed injunctive measure and the observed measure of intention was $\beta = .53$, $p \leq .001$, 95% CI(.40, .66).

Table 3

Results for the Injunctive Normative Arm of the RAA Model

Injunctive Normative Belief Referents	IV: CMNI; DV: Underlying Beliefs	IV: DP; DV: Underlying Beliefs	IV: CMNI x DP; DV: Underlying Beliefs	IV: Belief Scale; DV: Underlying Beliefs	IV: Belief Scale; DV: Injunctive Norm Scale	IV: Injunctive Norm Scale; DV: Intention Scale
	(A) Parameters			(B) Parameters	(C) Parameter	(D) Parameter
Mothers	**.13**	-.08	**.19**	**.64**	**.79** $R^2 = .62$	**.53** $R^2 = .28$
Fathers	.07	-.02	.11	**.68**		

Table 3 (cont'd)

Injunctive Normative Belief Referents	IV: CMNI; DV: Underlying Beliefs	IV: DP; DV: Underlying Beliefs	IV: CMNI x DP; DV: Underlying Beliefs	IV: Belief Scale; DV: Underlying Beliefs	IV: Belief Scale; DV: Injunctive Norm Scale	IV: Injunctive Norm Scale; DV: Intention Scale
	(A) Parameters			(B) Parameters	(C) Parameter	(D) Parameter
Other relatives/family members	.05	.07	.04	**.55**		
Significant others	.02	.12	.07	**.43**		
Friends	.03	.06	.06	**.63**		
Health professionals	.02	.11	.04	**.54**		
Faculty or staff	.05	.12	.10	**.52**		
Online support groups or communities	-.09	.04	.08	**.51**		

Table 3 (cont'd)

Note. IV = independent variable; DV = dependent variable; CMNI = conformity to masculine norms inventory; DP = depression perception; CMNI x DP = Interaction between CMNI and DP. Coefficients in boldface are significant at the .05 level or below.

The model for the descriptive normative arm of the RAA appeared to show an adequate fit to the data, S-B $\chi^2(12, N = 193) = 22.50$, $p = .03$; RMSEA = .09, 90% CI (.05, .13); CFI = .98; SRMR = .04.[3] As seen in the model for the injunctive normative beliefs, all the descriptive normative beliefs appeared to be effect indicators of the latent belief construct at the .01 significance level. Of the 8 underlying beliefs, only one descriptive normative belief had a statistically significant relationship with one of the precursors. The father-referents descriptive normative belief was predicted by masculine ideology, $\beta = .23$, $p \leq .001$, 95% CI(.09, .38), such that individuals were more likely to believe that their father had already sought or would seek psychological help from their friends when having depression. Depression perception had neither direct effect nor interaction effect on the beliefs ($p > .05$). For the control variables, depression level was associated with the friend-referents descriptive belief, $\beta = .15$, $p \leq .05$, 95% CI(.02, .27) and had marginally significant relationships with the father-referents descriptive belief, $\beta = .13$, $p = .051$, 95% CI(-.00, .26); the descriptive beliefs with online support groups/communities for those with depression, $\beta = .14$, $p = .053$, 95% CI(-.00, .29). The other control variable, past help-seeking experience, was only associated with the friend-referents descriptive belief, $\beta = .28$, $p \leq .001$, 95% CI(.15, .41). The association between the descriptive normative belief scale and the observed measure of descriptive norms was .89, $p \leq .001$, 95%

[3] RMSEA_SB = .07; CFI_SB = .98.

CI(.87, .92). The relationship between the observed descriptive measure and the observed intention measure was also significant and the beta coefficient for the relationship was $\beta = .56$, $p \leq .001$, 95% CI(.45, .68). The results of the analysis of the underlying normative beliefs suggest that hypothesis 7 for the relationship between masculine ideology and normative beliefs and hypothesis 8 that predicted the moderating effect of depression perception on the relationship were marginally supported.

Table 4

Results for the Descriptive Normative Arm of the RAA Model

Descriptive Normative Belief Referents	IV: CMNI; DV: Underlying Beliefs	IV: DP; DV: Underlying Beliefs	IV: CMNI x DP; DV: Underlying Beliefs	IV: Belief Scale; DV: Underlying Beliefs	IV: Belief Scale; DV: Descriptive Norm Scale	IV: Descriptive Norm Scale; DV: Intention Scale
	(A) Parameters			(B) Parameters	(C) Parameter	(D) Parameter
Mothers	.13	-.11	.03	**.44**	**.89** $R^2 = .80$	**.56** $R^2 = .32$
Fathers	**.23**	-.10	.02	**.41**		
Other relatives/family members	.04	.00	.06	**.48**		

Table 4 (cont'd)

Descriptive Normative Belief Referents	IV: CMNI; DV: Underlying Beliefs	IV: DP; DV: Underlying Beliefs	IV: CMNI x DP; DV: Underlying Beliefs	IV: Belief Scale; DV: Underlying Beliefs	IV: Belief Scale; DV: Descriptive Norm Scale	IV: Descriptive Norm Scale; DV: Intention Scale
	(A) Parameters			(B) Parameters	(C) Parameter	(D) Parameter
Significant others	-.05	-.003	.07	**.41**		
Friends	-.02	.03	-.003	**.44**		
Health professionals	.05	.03	.05	**.31**		
Faculty or staff	.07	.05	.08	**.36**		
Online support groups or communities	-.03	.06	.06	**.25**		

Note. IV = independent variable; DV = dependent variable; CMNI = conformity to masculine norms inventory; DP = depression perception; CMNI x DP = Interaction between CMNI and DP. Coefficients in boldface are significant at the .05 level or below.

To assess the amount of the variance in the direct measure of the relevant RAA construct explained by each corresponding belief, additional regression analyses were conducted on the

model where each (injunctive or descriptive normative) belief item directly predicted the observed measure of the corresponding norms. The results of the regression model for the injunctive normative beliefs indicated that only two beliefs were significantly related to injunctive norms at least at $p \leq .05$. The injunctive beliefs associated with father referents, $\beta = .26$, $p \leq .01$, 95% CI(.09, .43), and friend referents, $\beta = .29$, $p \leq .01$, 95% CI(.09, .50). The regression model of the other type of normative beliefs found descriptive norms had significant relationships with two descriptive normative belief referents: other non-parent relatives/family members, $\beta = .18$, $p \leq .05$, 95% CI(.01, .35); friends, $\beta = .23$, $p \leq .05$, 95% CI(.04, .43). This analysis indicates that health message design processes in the context of young male college students' informal health seeking for depression may wish to focus on normative beliefs. Specifically, normative beliefs surrounding friends (injunctive and descriptive), fathers (injunctive only), and other family members (descriptive only).

Audience Segmentation Analyses

Finally, to better target and appropriately design future health messages by determining which beliefs would be most effective in changing behavior of each target, audience segmentation analyses were conducted. To be specific, separate analyses were conducted to analyze each of the underlying beliefs corresponding to relevant constructs by the respondent's intender status. Those who answered the intention measure with any value greater than the neutral point (4) were coded as intenders while those who answered the measure with any value between 1 and 4 were coded as non-intenders. In this step, the correlation of each belief item with its corresponding construct and intention were calculated. Then, *t*-tests and chi-square tests were conducted to test for differences in mean beliefs between intenders and non-intenders and the relationships between the beliefs (injunctive normative beliefs: "should seek" vs. "should not

seek"; descriptive normative beliefs: "have sought or would seek" vs. "have not sought or would not seek") and intender status, respectively. To be specific, chi-square tests were performed to examine the association between those who answered positively on the normative belief scales with any value greater than the neutral point (4) and their intender status.

Table 5 presents the results of the audience segmentation analyses. The entries in each column of the table are correlation between each belief and intention, correlation between each belief and perceived norms, average belief for intenders and non-intenders, and percent of intenders and non-intenders that answered positively on the injunctive normative beliefs scale, "should seek", and on the descriptive normative belief scale, "have sought or would seek".

Table 5

Results of the Audience Segmentation Analyses for Underlying Normative Beliefs

Injunctive normative belief referents	Correlation between belief with intention	Correlation between belief and injunctive norms	Average belief for non-intenders	Average belief for intenders	% "Should seek" for non-intenders	% "Should seek" for intenders
Mother	.37*	.50*	3.38_a	4.78_b	31.7_a	63.1_b
Father	.38*	.54*	3.18_a	4.53_b	24.4_a	57.7_b
Other relative/family member	.26*	.45*	3.45_a	4.23_b	30.5_a	48.7_b
Significant other	.36*	.38*	3.35_a	4.43_b	23.2_a	51.4_b

Table 5 (cont'd)

Injunctive normative belief referents	Correlation between belief with intention	Correlation between belief and injunctive norms	Average belief for non-intenders	Average belief for intenders	% "Should seek" for non-intenders	% "Should seek" for intenders
Friend	.34*	.52*	3.96_a	5.02_b	47.6_a	68.5_b
Health professional	.29*	.44*	3.60_a	4.47_b	32.9_a	53.2_b
Faculty or staff	.31*	.43*	3.44_a	4.37_b	24.4_a	54.1_b
Online support group or community	.17*	.42*	4.00_a	4.54_b	40.2_a	55.9_b
Descriptive normative belief referent	Correlation between belief with intention	Correlation between belief and descriptive norms	Average belief for non-intenders	Average belief for intenders	% "Have sought or would seek" for non-intenders	% "Have sought or would seek" for intenders
Mother	.36*	.41*	3.38^a	4.68^b	37.8^a	63.1^b
Father	.41*	.40*	2.52^a	4.07^b	9.8^a	52.3^b

Table 5 (cont'd)

Descriptive normative belief referent	Correlation between belief with intention	Correlation between belief and descriptive norms	Average belief for non-intenders	Average belief for intenders	% "Have sought or would seek" for non-intenders	% "Have sought or would seek" for intenders
Other relative/family member	.25*	.43*	3.40[a]	3.98[b]	29.3[a]	39.6[a]
Significant other	.32*	.37*	3.50[a]	4.24[b]	31.7[a]	46.0[b]
Friend	.37*	.44*	3.89[a]	4.95[b]	41.5[a]	63.1[b]
Health professional	.29*	.28*	3.61[a]	4.53[b]	31.7[a]	55.0[b]
Faculty or staff	.35*	.34*	3.32[a]	4.32[b]	24.4[a]	48.7[b]
Online support group or community	.16*	-.25*	4.01[a]	4.45[a]	45.1[a]	51.4[a]

Note. * $p \leq .05$. Intender, $N = 111$; non-intenders, $N = 82$. Different superscripts indicate a statistically significant difference between the two groups at the .05 level or below.

Results showed that all the perceived normative beliefs were positively related to their corresponding perceived norm observed measure, and this indicates hypothesis 6 for the relationship between perceived normative beliefs and perceived norms was supported. The results also showed all the normative beliefs differed between intenders and non-intenders with the exception of the two descriptive normative belief referents of other non-parent relatives/family members and online support groups or communities for people with personal experience of depression. For both injunctive and descriptive normative beliefs, the same three referents showed the highest percent differences between intenders and non-intenders: father (injunctive, intenders-minus-non-intenders = 33.3%; descriptive, 42.5%), mother (injunctive, 31.4%; descriptive, 25.3%), and faculty or staff members (injunctive, 29.7%; descriptive, 24.3%). This means that intenders were more likely to believe that father, mother, and faculty or staff members thought he should seek psychological help for depression from friends or the referents themselves had sought or would seek psychological help for depression from friends. Significant others (injunctive, 28.2%) and health professionals (descriptive, 23.3%) ranked at the fourth position, showing slightly lower percentage differences than faculty or staff. In the fifth position, friends also showed significant percentage differences (injunctive, 20.9%; descriptive, 21.6%). The results showed all the perceived normative belief referents were significantly associated with their corresponding normative construct ($p \leq .05$) and that this association differed depending on intender status.

CHAPTER 5

DISCUSSION

Summary of Findings and Practical Implications

The present study used the Reasoned Action Approach (RAA) to identify relevant beliefs about seeking psychological help from friends for depression. Masculine ideology and perception of depression as masculine or feminine were also taken into account as potentially important precursor variables. The results of the study provide some insights that can be used in persuasive health messages. Contrary to previous studies that explore the RAA constructs in the contexts of psychological help-seeking and the hypotheses in the present study, the findings of the current study indicated that attitudes and perceived behavioral control were not significantly associated with intention to seek help from friends for depression. Instead, perceived norms (injunctive and descriptive) emerged as the most important predictors of intention. Therefore, the results of this study suggest that interventions to encourage help-seeking in this context might focus on perceived norms and their main persuasion strategy.

Audience segmentation analyses where underlying normative beliefs were analyzed by intender status showed all normative beliefs referents were significantly different between intenders and non-intenders, with the exception of non-parent relative/family member and online support group/community referents of descriptive normative beliefs. Injunctive and descriptive normative beliefs showed a similar pattern in the order of referents showing higher percent differences between intenders and non-intenders. Intenders were more likely than non-intenders to believe that father, mother, and faculty or staff members (1) thought the individual should seek psychological help from friends for depression and (2) themselves have sought or would seek help from friends for their depressive symptoms. Friend referents ranked at the fifth

position for both types of normative beliefs with slightly lower percentage differences than the top three referent groups. The results indicate the opinions and behaviors of the four specific referent groups (father, mother, faculty/staff, and friend) are important in differentiating intenders and non-intenders.

However, the regression models of the injunctive and descriptive normative beliefs on their corresponding perceived norms revealed that three of the referents were significantly associated with perceived injunctive and/or descriptive norms, despite the fact that all belief items were significantly associated with the relevant normative belief latent factors. Those who believed their father and friends thought they should seek help from friend if they had depression and those who believed their friends and non-parent family members had already sought or would seek help from friends for their own depression were more likely to intend to seek help from friends for depression. The results can be used in designing effective persuasive messages for young male college students considering seeking help when they have depressive symptoms. To narrow this further, the regression results can be combined with the results of the audience segmentation analyses that revealed the beliefs surrounding non-parent family member referents were not significantly different between intenders and non-intenders. Campaign designers may focus more on normative beliefs with friend referents for both types and injunctive normative beliefs with father referents in designing health messages. In addition, given that those injunctive and descriptive normative beliefs were not sensitive to one's masculine ideology and its interaction with depression perception, the beliefs can be used in persuasive health messages regardless of how strongly young male college students endorse traditional masculine norms and how they perceive depression as masculine or feminine. That said, masculine ideology and perceptions of depression as masculine or feminine did interact to predict the observed measure

of descriptive norm perceptions, so some caution is warranted when considering the potential influence of these variables. By combining the findings of the current research with those of the prior studies examining perceived norms in health communication, campaign designers can refine their interventions focusing on normative beliefs surrounding friend and father referents to maximize their effectiveness. To be specific, intervention design to encourage psychological help seeking from friends for depression may want to concentrate more on manipulating injunctive norms than descriptive norms. Although campaign experts may face more difficulties in manipulating injunctive norms than descriptive norms (Rimal & Lapinski, 2015; Shulman et al., 2017), it may be worth trying given that injunctive norms are more effective in changing intentions and behaviors as well as increasing perceptions of descriptive norms (Rhodes, Potocki, & Thomas, 2019; Rhodes, Shulman, & McClaran, 2020). Because injunctive norms can yield better predictions of behavioral intentions when they are quickly retrieved from memory (Rhodes et al., 2019), campaign experts may want to make salient the social (dis)approval of (non)help-seeking from friends for depression with various strategies. To make young male college students repeatedly exposed to the injunctive norms messages, they may consider run campaigns on loads of different channels that college students use in their daily lives. The channels not only include general mass media that deliver messages to large populations (e.g., posters, college's official social media channels), but also include personalized channels such as mobile apps. Apps can be a powerful tool for evoking behavior change, considering that personalized normative feedback interventions that provide individualized feedback based on the behavior of one's own and of others are successful in affecting perceptions of perceived injunctive norms (Dotson, Dunn, & Bowers, 2015; Rhodes et al., 2020). Building on the prior finding suggesting that normative messages are more effective in changing people's behaviors

when the messages are delivered in relevant contexts (Rhodes et al., 2020), campaign planners may place posters and digital displays in Greek houses, residence halls, and any other areas where male students spend their time with friends between classes and before and after school. Additionally, practitioners may attempt to increase the potency of their intervention messages further based on what have been found to be effective in prior research such as using prescriptive frames (do) rather than proscriptive frames (do not) and conveying messages through multiple modalities rather than written text (see Rhodes et al., 2020). In this way, interventions with young male college students to seek help from friends for depression may help those who at risk not only directly (by modifying their perceptions and behaviors) but also indirectly (by creating a safe environment with healthy college/peer norms where young male students actively share their own help-seeking experience and encourage their male friends to seek help from them when needed). In addition, practitioners may want to send fathers of male college students intervention messages that call attention to the prevalence of depression among college students and the importance of the father's role in their son's psychological help-seeking via email, social networking sites, and monthly newsletter for parent.

Again, the findings of the present study are consistent with the literature that has suggested having someone that prompt to share problems or seek help and/or knowing someone that has sought psychological help in one's social network are crucial in motivating help-seeking intention and activating the given behavior (see Addis & Mahalik, 2003; Dew, Bromet, Schulberg, Parkinson, & Curtis, 1991; Vogel, Wade, Wester et al., 2007; Vogel & Heath, 2016). The role of friends and family, in particular, in an individual's help-seeking for mental disorders have been highlighted in the literature. In line with the literature, the current research revealed the importance of father, friend, and non-parent family referent beliefs, especially the beliefs

surrounding the two former referents, in predicting intention to seek help from friends for depression. Interestingly, however, mother, which has been known for their high involvement with mental help-seeking (Vogel, Wade, Wester et al., 2007; Vogel, Wester, Hammer, & Downing-Matibag, 2014), were not associated with perceived norms predicting intention to seek mental help in the current study. This might be explained by the sex of the parent. Because all the respondents of the current study were male, father might be a more relevant normative referent in this context and therefore they would feel more pressure from the belief that their father thought they should seek help into account. Future research may wish to examine why the mother referent normative beliefs were not significantly related to perceived norms in this case.

Another interesting finding that is contrary to previous studies using the RAA constructs in the contexts of psychological help-seeking and the hypotheses is that attitudes and perceived behavioral control were not significantly related to intention to seek psychological help for depression. One of the possible reasons for this could be age of the respondents. Based on the assumption that young male college students could be one of the subgroups of men that are particularly vulnerable, the current research limited the ages of participants to between 18 and 25 years old and the mean age of the participants was 23.11 years. Given that most young male college students in the present study have just entered their developmental stage and may lack experience in help-seeking, they might have not yet developed strong attitudes or self-efficacy towards psychological help-seeking for depression. It is reasonable to think that until they developed beliefs of their own about the world young male college students tend to rely on others' interpretation of a situation where they are uncertain how to behave, considering it as social proof (Cialdini, 1984; Rhodes et al., 2020). There is also evidence from other contexts

such as alcohol consumption and academic help-seeking that perceived norms are especially impactful for this age group (Huchting, Lac, & LaBrie, 2008; Thomas & Tagler, 2019).

In addition, contrary to previous research on masculine ideology and help-seeking and the hypotheses in the present study, conformity to masculine ideology and its interaction with depression perception were not associated with most of the normative beliefs. This finding can also be explained by the young age of the respondents. Albeit slowly, many aspects of masculine traits such as emotional control and self-reliance have changed and reorganized over time. Although young males have shed outdated masculine stereotypes, the changes in the traditional norms may have not been reflected in the measure of traditional masculine ideology used in current study. Also, it could be possible that respondents responded in a socially desirable way regardless of the actual masculine values they idealized.

Limitations

One of the limitations of the present study is generalizability of results. Although the gender and age range of the participants match those of the subject of interest, this study recruited the sample through a volunteer-based online platform. The fact that the study used a convenience sampling method might have yielded less accurate information than one with probability sampling. Additionally, most of the respondents were at risk for, but not clinically diagnosed with, depression. This means the study findings might not be generalizable to a clinically diagnosed sample. However, by definition a clinically diagnosed sample are comprised of those who have already sought professional help for depression symptoms, making reaching them to encourage help-seeking no longer an important goal. Furthermore, the relatively small sample size might have led to a higher variability and in turn biased results. All of these may limit generalizability of the study findings to the target population. Replication of the findings in

random samples would provide a stronger foundation for future applications. Another possible limitation could be the chosen measurements in the present study. The study used shortened versions of the original scales for many constructs. To be specific, to measure masculine ideology the CMNI-22 (Hamilton & Mahalik, 2009) was used instead of the Conformity to Masculine Norms Inventory with 94 items (Mahalik et al., 2003) and the 10-item ATSPPHS-SF (Fischer & Farina, 1995) was used instead of the 29-item Attitudes Toward Seeking Professional Psychological Help Scale (Fischer & Turner, 1970) to measure attitudes. The items of the perceived norms and intention measures also reduced and from 10 to 6 and from 6 to 3, respectively, based on the results of the maximum-likelihood exploratory factor analysis (EFA) provided by Hammer and Vogel (2013). Although the purpose of the item reduction was to avoid participant fatigue and its negative effects on research, this might have resulted in a partial understanding of constructs of interest. Furthermore, even though Fishbein and Ajzen (2010) recommended formative qualitative research with open-ended questions to create lists of salient beliefs, a review of the prior research replaced formative research to develop lists of the underlying beliefs. The belief items in the present study were based on past research's focus group discussions or in-depth interviews, but the substituted formative research might have not captured all the modal salient beliefs of the population. Also, many scales were adapted from prior research. Replication of the findings by different, full length scales would minimize the probability that the findings in the present study were due to measurement errors.

Conclusion

Anxiety and depression are prevalent, growing concerns among U.S. college students (LeViness et al., 2019; Reetz et al., 2017), and they contribute to various maladaptive coping strategies such as drinking and smoking (McGee et al., 2013; Rohde et al., 2001; Sher &

Gotham, 1999). However, both young and male adults have appeared less likely to receive treatment for depression than the other adult age groups and females (SAMHSA, 2020). This has led to calls for effective, theory-based persuasive health messages to improve rates of psychological help-seeking intention and behavior among the young male population.

Unlike many prior studies examining the key RAA determinants and intention in the context of professional psychological help-seeking, this study explored the underlying beliefs about help-seeking from the popular informal source of help, friends, and its relationship with the RAA constructs with masculine ideology and depression perception taken into account. Based on the results from this study, message designers may be able to create better intervention messages that tap into young male college students' beliefs that are relevant to intention to seek-help for depression. Two recommendations for increasing help-seeking rates among male college students with depression can be made on the basis of the study. First, those who design health messages for the public and school officials should create, foster, and promote college/peer norms that encourage students (1) to prompt their friends to seek help from them starting with expressing their depressed mood states and (2) to share their own help-seeking experience with their friends and therefore that can create a safe environment for students to reach out to their friends when depressed. Also, message designers may consider highlighting the importance of the father's involvement in their son's psychological help-seeking for depression.

APPENDICES

APPENDIX A: Screening Questionnaire

1. What is your gender?
    a. Male
    b. Female

Participants who answer b will be automatically directed to the disqualification text. Other answers will proceed to the next question.

2. Are you currently a college (undergraduate or graduate) student?
    a. Yes
    b. No

Participants who answer b will be automatically directed to the disqualification text. Other answers will proceed to the next question.

3. How old are you?
    a. Younger than 18 years of age
    b. 18
    c. 19
    d. 20
    e. 21
    f. 22
    g. 23
    h. 24
    i. 25
    j. Older than 25 years of age

Participants who answer a or b will be automatically directed to the disqualification text. Other answers will proceed to the next question.

APPENDIX B: Referent Survey Questionnaire

1. Let's assume you have felt depressed recently. Please list all people or a group of people who would approve of your getting, or who would think you should seek, psychological help from a friend for depression in the next 3 months?

_____

2. Please list all people or a group of people who would disapprove of your getting, or who would think you should not seek, psychological help from a friend depression in the next 3 months.

_____

3. Please list any other people or a group of people you might want to talk to if you were trying to decide whether or not to seek psychological help from a friend for depression in the next 3 months.

_____

4. Please list all people or a group of people who have sought psychological help from a friend in the past, or who would seek psychological help from a friend f in the next 3 months, if they were dealing with depression.

_____

5. Please list all people or a group of people who have not sought psychological help from a friend in the past, or who would not seek psychological help from a friend f in the next 3 months, if they were dealing with depression.

_____

6. Please list any other people or a group of people you might want to follow if you were trying to decide whether or not to seek psychological help from a friend for depression in the next 3 months.

_____

APPENDIX C: Main Study Questionnaire

Conformity to Masculine Norms Inventory – 22 (CMNI-22; Hamilton & Mahalik, 2009)

Thinking about your own actions, feelings and beliefs. Then, please indicate how much you personally agree or disagree with each statement.

	Strongly disagree	Disagree	Agree	Strongly agree
My work is the most important part of my life				
I make sure people do as I say				
In general, I do not like risky situations				
It would be awful if someone thought I was gay				
I love it when men are in charge of women				
I like to talk about my feelings				
I would feel good if I had many sexual partners				
It is important to me that people think I am heterosexual				
I believe that violence is never justified				
I tend to share my feelings				
I should be in charge				
I would hate to be important				
Sometimes violent action is necessary				
I don't like giving all my attention to work				
More often than not, losing does not bother me				
If I could, I would frequently change sexual partners				
I never do things to be an important person				
I never ask for help				
I enjoy taking risks				
Men and women should respect each other as equals				
Winning isn't everything, it's the only thing				
It bothers me when I have to ask for help				

Perceived Gender Typicality of Depression (Galinsky et al., 2013; Michniewicz et al., 2016)
Rate depression on the following scale.

	Extremely masculine			Neither masculine nor feminine			Extremely feminine
How do you perceive depression?							
	Men much more likely to have this			Men and women equally likely to have this			Women much more likely to have this
How do you perceive depression?							

The Center for Epidemiologic Studies Depression Scale – Revised (CESD-R; Eaton et al., 2004)

Below is a list of the ways you might have felt or behaved. Please select options that reflect how often you have felt this way in the past week or so.

During the past week:	Not at all or less than 1 day last week	One or two days last week	Three to four days last week	Five to seven days last week	Nearly every day for two weeks
My appetite was poor.					
I could not shake off the blues.					
I had trouble keeping my mind on what I was doing.					
I felt depressed.					
My sleep was restless.					
I felt sad.					
I could not get going.					
Nothing made me happy.					
I felt like a bad person.					
I lost interest in my usual activities.					
I slept much more than usual.					
I felt like I was moving too slowly.					
I felt fidgety.					

I wished I were dead.						
I wanted to hurt myself.						
I was tired all the time.						
I did not like myself.						
I lost a lot of weight without trying to.						
I had a lot of trouble getting to sleep.						
I could not focus on the important things.						

Behavioral Beliefs (see Barney et al., 2009; Busiol, 2016; Chew-Graham et al., 2003; Gilchrist & Sullivan, 2006; Hui et al., 2014; Jorm et al., 2007; Lindsey et al., 2006; Richardson & Rabiee, 2001; Savage et al., 2016; Tang et al., 2014; Timlin-Scalera et al., 2003; Wilson & Deane, 2001)

Read each statement carefully and indicate your degree of agreement using the scale below. "If I do NOT SEEK psychological help for depression from a friend in the next 3 months, that is because…"

	Strongly disagree			Neither agree nor disagree			Strongly agree
It would make me look at myself negatively.							
It would make me look weak and vulnerable.							
It would make me look crazy.							
It would negatively affect my worth.							
It would negatively affect my authority.							
It would negatively affect my relationships.							
It would negatively affect my job opportunities.							
It would make me ostracized or marginalized by others.							

It would make me ridiculed or disdained by others.							
It would make me worry or bother others.							
I would be gossiped about.							
I would receive indifferent responses.							
I would feel odd talking about my psychological problems to them.							

Injunctive Normative Beliefs

Do the people listed below think you should or should not seek psychological help from a friend for depression in the next 3 months?

	Should not seek psychological help from a friend						Should seek psychological help from a friend
Mother							
Father							
Another relative/family member							
Significant other							
Friend							
Health professional (e.g., family doctor, mental health professional, school's psychiatric counselor)							
Faculty or staff members (e.g., professor, teacher, advisor, coach)							

Member of online support group or community for people with personal experience of depression							

Descriptive normative beliefs

Have the people listed below sought psychological help from a friend in the past or would they seek psychological help from a friend in the next 3 months, if they were dealing with depression?

	Have not sought or would not seek psychol ogical help from a friend						Have sought or would seek psychol ogical help from a friend
Mother							
Father							
Another relative/family member							
Significant other							
Friend							
Health professional (e.g., family doctor, mental health professional, school's psychiatric counselor)							
Faculty or staff members (e.g., professor, teacher, advisor, coach)							
Member of online support group or community for people with personal experience of depression							

Control Beliefs (see Busiol, 2016; Gilchrist & Sullivan, 2006; Gulliver, Griffiths, & Christensen, 2012; Hui et al., 2014; Jorm et al., 2007; Lindsey & Kalafat, 1998; Savage et al., 2016; Timlin-Scalera et al., 2003; Wilson & Deane, 2001)

Read each statement carefully and indicate your degree of agreement using the scale below.

	Strongly disagree			Neither agree nor disagree			Strongly agree
I am confident in my ability to aware of my own emotional state of depression.							
I am confident in my ability to express my own emotional state of depression.							
I am confident in my ability to resist urges to reject my own depressive state.							
I am confident in my ability to set aside time for seeking psychological help for depression from a friend.							
I am confident I can trust my friend in terms of confidentiality if I talk to them about my depression.							
I am confident I can feel comfortable to talk about my							

depression to a friend.							

Attitudes Toward Seeking Psychological Help Scale - Short Form (Adapted from ATSPPHS-SF; Fischer & Farina, 1995)

Read each statement carefully and indicate your degree of agreement using the scale below.

	Strongly disagree			Neither agree nor disagree			Strongly agree
If I believed I was having a mental breakdown, my first inclination would be to get friend's attention.							
The idea of talking about problems with a friend as a poor way to get rid of emotional conflicts.							
If I were experiencing a serious emotional crisis at this point in my life, I would be confident that I could find relief in getting psychological help from a friend.							
There is something admirable in the attitude of a person who is willing to cope							

with his or her conflicts and fears without resorting to psychological help from a friend.							
I would want to get psychological help from a friend if I were worried or upset for a long period of time.							
I might want to have psychological help from a friend in the future.							
A person with an emotional problem is not likely to solve it alone; he or she is likely to solve it with psychological help from a friend.							
Considering the time and expense involved in getting psychological help from a friend, it would have doubtful value for a person like me.							
A person should work out his or her own problems;							

getting psychological help from a friend would be a last resort.							
Personal and emotional troubles, like many things, tend to work out by themselves.							

Perceived Norms – Seeking Psychological Help (Adapted from Hammer & Vogel, 2013)

Read each statement carefully and indicate your degree of agreement using the scale below.

	Strongly disagree			Neither agree nor disagree			Strongly agree
Most people who are important to me expect me to seek psychological help for depression from a friend in the next 3 months.							
Most people who mean something to me would think I should seek psychological help for depression from a friend in the next 3 months.							

People who are important to me would wish for me to seek psychological help for depression from a friend in the next 3 months.							
Most people who are important to me, if they were dealing with depression, have sought psychological help from a friend in the past or would seek psychological help from a friend in the next 3 months.							
The people in my life whose opinions I value, if they were dealing with depression, have sought psychological help from a friend in the past or would seek psychological help from a friend in the next 3 months.							
People who mean							

something to me, if they were dealing with depression, have sought psychological help from a friend in the past or would seek psychological help from a friend in the next 3 months.							

Perceived Behavioral Control (Adapted from Fishbein & Ajzen, 2010)

Read each statement carefully and indicate your degree of agreement using the scale below.

	Strongly disagree			Neither agree nor disagree			Strongly agree
I have complete control over my seeking psychological help for depression from a friend in the next 3 months.							
My seeking psychological help for depression from a friend in the next 3 months is completely up to me.							
If I really wanted to, I could seek psychological help for depression from a							

friend in the next 3 months.							
For me to seek psychological help for depression from a friend in the next 3 months is under my control.							

Intention to Seek Help (Adapted from Hammer & Vogel, 2013)

Read each statement carefully and indicate your degree of agreement using the scale below. In responding, please be completely candid.

	Strongly disagree			Neither agree nor disagree			Strongly agree
I would try to seek psychological help for depression from a friend in the next 3 months.							
I would plan to seek psychological help for depression from a friend in the next 3 months.							
I would make an effort to seek psychological help for depression from a friend in the next 3 months.							

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