

**Gender role conflict, depression, and personality's effect on help seeking behaviors,
attitudes, and academic performance**

by

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ABSTRACT

Retention of college students is a high priority for universities across the country. To successfully overcome difficulties in college, students need to have effective behavioral skills to deal with ongoing challenges. Effective self-regulation allows students to better control their emotional, cognitive, and behavioral processes. Help seeking is an important self-regulatory behavioral strategy that can be used when faced with either emotional or academic difficulties. However, gender differences have been shown in male and female students' willingness to seek help for psychological issues. In addition, high school performance and standardized test scores which have generally been shown to be strong predictors of retention and academic performance do not fully explain the variance in students' success rate. This study examines the help seeking attitudes that male engineering students hold towards both academic and psychological help seeking and how gender role conflict, depression, and two personality traits, neuroticism and extroversion affect these attitudes and impact academic performance.

CHAPTER 1. INTRODUCTION

A Need for Engineers

Based on moderate estimates of the United States economic performance there will be need for more engineering graduates by 2010. The National Science Board (2008), states that “retirements from the S&E [science and engineering] labor force are likely to become more significant over the next decade (p. 3-6) and that “Changes between 1993 and 2003 in median real salary for recent S&E graduates indicate increasing relative demand for S&E skills during the past decade” (p. 3-6). In addition, the Board reports:

The S&E workforce in the United States has grown rapidly for decades.

- Between 1990 and 2000, S&E occupations grew at a lower average annual rate of 3.6%, but this was more than triple the rate of growth of other occupations. Different data sources suggest the same rate of employment growth in 2005.
- Between 1980 and 2000, the total number of S&E degrees earned grew at an average annual rate of 1.5%, which was faster than labor force growth, but less than the 4.2% growth of S&E occupations. (p. 3-7)

The National Science Board estimates that, “S&E occupations are projected to grow by 26% from 2004 to 2014, while employment in all occupations is projected to grow 13% over the same period” (p. 3-12). S&E professionals are important drivers of the United States (US) economy. Technological innovation, research, education, business development and management are many of the ways S&E workers contribute to the US economy.

Currently, the US is a leader in the knowledge-intensive services, “that are key contributors to economic growth around the world...responsible for about 40% of world

revenues on a value-added basis” (National Science Board, 2008, p. 6-5). The Board also reports on the United States contribution to the high-technology manufacturing industries, noting that:

- The United States has the single largest value-added world share (35% in 2005) of any country in high-technology manufacturing industries. It is ranked first in three of the five high-technology industries (scientific instruments, aerospace, and pharmaceuticals) and is ranked second in the other two (communications equipment and office machinery and computers).
- US manufacturing has become more technology intensive, with the high-technology share of manufacturing industries increasing from 14% in 1990 to 24% in 2005. (p. 6 - 5)

The result of S&E research and development has led to the creation of new industries and improved worker productivity has spurred economic growth and has helped keep the US competitive in the global market place. At least through 2005, the US economy was one of the fastest growing and the largest of any other single nation. According to the National Science Board (2008), “The US economy continues to be a leading competitor and innovator in the global economy as measured by its overall performance, market position in S&T (science & technology) industries, and trends in patenting of new technologies at home and abroad” (p. 6 – 53). However, the gap is beginning to narrow due to the progress being made in China and other nations. For the US economy to remain competitive, the US needs to continue to educate and train more engineers and scientists.

The federal government is the largest employer and has a significant need for engineers in the future. Partnership for Public Service (2007) noted that, “Nearly one-third of the 1.6

million full-time federal workforce is expected to retire or resign in the next five years”. In addition, the Partnership for Public Service (2007) indicated that:

Engineers of all types will continue to be in demand by the department of defense, nuclear regulatory commission, NASA, and the departments of transportation and energy. The defense department projects that it will hire 7,652 engineers in various disciplines over the next three years, with the largest hiring for electrical and general engineers. (p. 7)

Retention of Undergraduate Engineering Students

Six years after enrollment in a 4-year college or university in 1995–96, about 60% of students, both in science and engineering-related fields as well as non-S&E students had completed a bachelor’s degree. National Science Board (2008) reports:

Undergraduate engineering enrollment declined through most of the 1980s and 1990s, rose from 2000 through 2003, and declined slightly in recent years. Undergraduate engineering enrollment declined from 420,900 students in 1985 to about 361,400 students by 1999 before rebounding to about 422,000 in 2003. By 2005, it declined to 409,300...The declines in undergraduate engineering enrollment in recent years were evident for both men and women and for most racial/ethnic groups...Graduate engineering enrollment rose since the late 1990s, reaching a new peak of 147,900 in 2003, then declined to 139,800 in 2005.... (p. 2-19)

Within S&E fields, undergraduate attrition out of these fields is greater than transfers into the fields, and transfers into the social/behavioral sciences are greater than attrition. Other studies have shown retention to be under 50% (Seymour & Hewitt, 1997).

As a result of low retention rates at the college level and industry's push for more engineering graduates, universities across the country have instituted various programs and services to improve the retention and the academic performance of their students. These programs have included academic success workshops, tutoring, supplemental instruction, learning communities, increased advising and counseling services, and federally-funded student support programs. While high school performance and standardized test scores have generally been shown to be strong predictors of retention and strong academic performance, they do not fully explain the variance in students' success rate. Other factors have impacted student success and range from basic academic preparation, to psychological, biological, and sociological reasons that include self-beliefs systems, personality, social class, climate, finances, social skills, health, and career goal indecision.

The American College Health Association (American College Health Association-National College Health Assessment, 2005) reports that the top five impediments to academic performance as: (1) stress; (2) cold/flu/sore throat; (3) sleep difficulties; (4) concern for friend or family; and (5) depression/anxiety disorders. Three of the top five impediments to academic success have been linked to the personality trait neuroticism. Studies have found that level of perceived stress (Davidsdottir, 2007), depressive/anxiety (Weinstock & Whisman, 2006), and sleep difficulties (LeBlanca et al., 2007) were all highly associated with the trait neuroticism. In addition, perceived stress, depression/anxiety disorders and sleep difficulties are all highly correlated with each other.

To successfully overcome difficulties in college, students need to have effective behavioral skills to deal with ongoing challenges. Effective self-regulation allows students to better control their emotional, cognitive, and behavioral processes. Help seeking is an important

self-regulatory behavioral strategy that can be used when faced with either emotional or academic difficulties. Yet, many students do not seek help, when needed, especially for serious emotional or academic difficulties (Knapp & Karabenick, 1988; Bebbington et al., 2000). Gender differences have been shown in male and female students' willingness to seek help for psychological issues (Biddle, Gunnell, Sharp, & Donovan, 2004). Examination of these differences has shown that certain aspects of the traditional male socialization experience relate to negative attitudes towards psychological help seeking (Good & Wood, 1995). Seeking help is a social psychological process where perceptions of stigma, normativeness, and ego-centrality can interact with gender roles and affect students' decision to seek help. Students who do not seek help, when needed, especially for serious emotional or academic difficulties tend to eventually withdraw, drop out of school or alter their career plans, which may adversely impact their future opportunities (Kessler, Foster, Saunders, & Stang, 1995). Understanding why students have trouble academically can lead to developing better retention and advising programs for students.

Objective of the Study

This study focuses on examining the help seeking attitudes that male engineering students hold towards both academic and psychological help seeking and how gender role conflict, depression and two personality traits, neuroticism and extroversion effect these attitudes and impact academic performance. Due to the large numbers of males in engineering majors, understanding how gender role conflict and help seeking behaviors impact male students' success in school would be important to college advisors, administrators, and faculty. In addition, adding to existing research the effect of depression and personality traits on students'

academic performance and their effect on attitudes towards psychological and academic help seeking. The following research questions guided the inquiry:

1. What is the relationship between academic help seeking orientations, avoidance and approach and attitudes towards psychological help seeking with academic performance?
2. Does gender role conflict relate to avoidance orientation and approach orientation?
3. How do depressive symptoms impact academic help seeking orientations?
4. How do depressive symptoms impact psychological help seeking attitudes and academic performance?
5. How do the two personality variables, extroversion and neuroticism, relate to both academic and psychological help seeking and academic performance?

Thesis Organization

This thesis is organized around three journal articles. The first chapter provides a general introduction and the objectives of the study. The second chapter contains the literature review. Chapters 3, 4, and 5 each contain a journal article and chapter 6 covers the general conclusions.

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CHAPTER 2. LITERATURE REVIEW

Academic Help Seeking

Academic help seeking is viewed as an important self-regulatory behavioral strategy that successful learners use to help achieve their academic goals (Karabenick, 2004; Karabenick & Sharma, 1994; Nelson-Le Gall, 1985; Newman, 1990, 1998; Ryan, Patrick, & Shim, 2005). Nelson-Le Gall found that the cost of not seeking help played a more significant role in long-term learning environments than have been previously recognized.

Early research on help seeking explored the negative consequences of seeking help such as loss of self-esteem (Fisher, Nadler, & DePaulo, 1983), the role of perceived personal inadequacy (Rosen, 1983), embarrassment (Shapiro, 1983), along with viewing help seeking as dependent behavior. Social-normative perspectives on help seeking looked at the social norms and cultural values such as those that may emphasize self-reliance and independence and the differences in social roles. Western societies tended to encourage individual achievement, self-reliance and independence for males and traditional female roles encouraged cooperation and dependency, and therefore, help seeking carried greater psychological costs for males because asking for help violated their gender role (Nelson-Le Gall, 1985). Research (Biddle, Gunnell, Sharp, & Donovan, 2004) has shown that this clearly is the case in medical-related settings. However, in the classroom, where help seeking would seem to be normative, there could still be costs, since help seeking could be looked upon as failure to learn the material despite the instructional effort from the teacher.

The other common perspective used regarding the predicting of help seeking was self-esteem. Individuals' self-concept or sense of self-worth is referred to as self-esteem and involves an evaluation of competency about oneself. Self-threatening situations that involve

admitting a failure to oneself or others is thought to be moderated by an individual's level of self-esteem. Recent research has established strong links showing an inverse relationship between the threat to self-esteem and help seeking in college students (Karabenick & Knapp, 1991; Newman, 1990; Newman & Goldin, 1990; Shapiro, 1983).

In the late 1970s and early 1980s, motivation researchers (Ames, 1983; Dweck & Elliott, 1983; Nelson-Le Gall, 1981; Nicholls, 1979) began to look more at the adaptive nature of help seeking in learning situations to better understand performance patterns. At one time persistence was considered an achievement-oriented behavior, but it was found that students who persisted for an extended period of time without success and who did not develop alternative strategies to successfully complete the task (i.e., asking for help) were not engaged in achievement-oriented behavior (Diener & Dweck, 1978). Help seeking began to be looked at as a continuous ongoing process used in academic settings that may be utilized to achieve mastery and competence by proactive, motivated, and better performing students (Nelson-Le Gall, 1985).

Diener and Dweck (1978) described help seeking behavior that is directed towards finding the solution to a problem and promotes extended task involvement, as instrumental (also known as autonomous, adaptive, or strategic). Instrumental help seeking focuses on learning the process and not just trying to get the answer to the problem. Students' use a proactive learning strategy with these types of behaviors by asking for only the minimum amount of assistance necessary so that they can learn to solve the problem independently and hence gain competence and mastery (Nelson-Le Gall, 1985). Expedient (also known as executive or excessive) help seeking behaviors are directed towards just getting the answer to avoid putting forth the effort required to learn the material.

Achievement goals have been defined as competence-related objectives that individuals aspire to in an achievement setting and that different competency objectives result in different performance outcomes. Achievement goal research initially used a dichotomous framework distinguishing between performance and mastery goal orientations. Individuals with mastery goals were concerned about developing competency and those with performance goals were more interested in showing competency. From the perspective of achievement goal theory, help seeking had been categorized within the framework of two types of goal orientations – mastery goals (focus on learning) and performance goals (concerns about ability, social comparisons, and maintaining self-esteem). Students with mastery goals were more likely to use instrumental help seeking behaviors and those with performance goals were more likely to avoid help seeking, use expedient help seeking behaviors and feel that there is a cost (threat) in help seeking (Karabenick, 2004).

From the development of approach and avoidance dimensions in the motivation literature, goal orientations have been re-conceptualized similarly so that within each of the categories of mastery and performance goals there would be dimensions of approach and avoidance. Approach is defined as trying to achieve a positive outcome and avoidance as trying to prevent a negative outcome. Achievement goal orientations are then theorized as; mastery-approach, mastery-avoid, performance-approach and performance-avoid (Elliot & McGregor, 2001; Pintrich, 1999). The goals associated with the mastery-approach orientation are to increase levels of competence, and with mastery-avoidance, the goal orientation is to avoid a lack of mastery. The student is concerned about not being able to understand the material but as with mastery-approach, the focus is on the self and not social comparisons. With performance-approach, students want to demonstrate publicly their ability to others and

with a performance-avoid goal orientation students want to avoid looking less able than their peers. Instrumental help seeking has been shown to be related to mastery-approach goal orientation. Expedient help seeking has been linked to performance-approach goal orientation (Karabenick, 2004).

From the research on motivation, Karabenick (2004) conceptualized help seeking behaviors into two orientations – approach and avoidance orientations. He found two distinct patterns with help seeking behavior. One pattern which he called approach orientation consisted of behaviors that included instrumental help seeking, formal help seeking (seeking help from the instructor vs. peers) and a general intention to seek help. The second pattern, he called avoidance orientation, included help seeking cost (perceived threat to self-esteem), intentions to avoid help seeking and expedient help seeking. Approach orientation pattern was found to be related to mastery-approach goal orientation and the avoidance orientation pattern was related to mastery-avoid, performance-approach and performance-avoid goal orientations (Karabenick).

Personality Traits

Two main models have emerged in the personality psychology literature; the five factor model (McCrae & Costa, 2003) and the Big Three model (Eysenck, Eysenck, & Barrett, 1985). In Eysenck's model, a key requirement for each trait is that the basic traits should have a clear underlying physiological component with the brain and the nervous system that are part of a neurobiological system that can be linked to developing each trait (Larsen & Buss, 2008). Both models share three common characteristics: (1) the factors are considered as dimensions, so people will lie along a continuum on each factor, with most people falling in between the extremes; (2) each factor or trait is considered to be fairly stable

over a 45-year period beginning in young adulthood (Soldz & Vaillant, 1999); and (3) the factors/traits should have a biological basis and to some extent may be inheritable (Loehlin, McCrae, Costa, & John, 1998). The five factor model has been replicated by many researchers (Botwin & Buss, 1989; Goldberg, 1990) and has been fairly replicable across cultures and languages (McCrae & Costa, 1997).

The five traits in the five factor model are referred to as: Extroversion (or surgency), Agreeableness, Conscientiousness, Emotional stability (or Neuroticism), and Openness to Experience or intellect (Larsen & Buss, 2008). This model holds that most of the variability in personality can be captured in these five broad dimensions. The Big Three model consists of Extroversion, Neuroticism, and Psychoticism. While neuroticism and extroversion are defined similarly between models, there isn't complete agreement on how each trait is conceptualized within each model or between each model. In this study, extroversion and neuroticism are used because they form two of the mostly widely acknowledged basic personality traits. Extroversion is generally defined using characteristics such as optimistic, sociable and active and neuroticism with terms such as insecure, emotional instability and worry prone.

A second approach used to identify the personality's basic structural dimensions has focused on affective disposition or temperament. Tellegen (1985) proposed a model based on positive emotionality (extroversion), negative emotionality (neuroticism), and constraint. Watson and Clark (1992) developed a model with positive temperament, negative temperament and disinhibition. Each of these models is considered directly analogous to each other (Clark & Watson, 1999).

Early biological approaches to personality included Gray's (1970, 1990) biological theory on personality called reinforcement sensitivity theory. He conceptualized two different systems in the brain. One is referred to as the behavioral activation system (BAS), which is responsive to incentives, and regulates approach behavior. The second one is called the behavioral inhibition system (BIS), which is responsive to punishment and inhibits behaviors. The effect of BIS activation is to stop, inhibit or bring about avoidance behaviors; an individual with a more sensitive BIS system is more prone to fear, anxiety or sadness and is especially susceptible to cues of punishment, frustration or novelty. An individual with a more reactive BAS system will tend towards more positive emotions, is sensitive to reward and approach behavior toward stimuli. According to Gray, BIS is responsible for the personality dimension of anxiety (and neuroticism) while the BAS is responsible for the personality dimension of impulsivity (and extroversion), the inability to inhibit responses. Individuals with a more reactive BAS are less able to inhibit behavior as they approach a goal. Hence, extroversion reflects a sensitivity to reward (has approach tendencies), and neuroticism may reflect sensitivity to punishment (has withdrawal/avoidance tendencies).

More recent models emphasize motivational and affective mechanisms instead of arousal. There is consensus now on the high correlation between the diverse models such that extroversion is sometimes referred to as positive affect or Approach and neuroticism is referred to negative affect or Withdrawal. Withdrawal in this sense means withdrawal from uncertainty and from potential loss of reward (Nigg, 2006) and is not linked with affiliation (social withdrawal). Due to recent advances in neurobiology behavioral traits, Approach and Withdrawal, have been found to each encompass a "set of partially discrete neurobiological systems" (Nigg, p. 400). Approach and Withdrawal are defined by Nigg as:

Willingness to approach possible incentive or reward/reinforcement, and is associated with speed of reinforcement learning. It is related to the personality trait of Extraversion, which includes several lower order constituent traits such as positive emotionality, sociability, and activity level...the Withdrawal dimension as conceptualized here is anchored by readiness of withdrawal-related behavior in potentially unrewarding or uncertain contexts, and with associated affective reactivity (i.e., fear, anxiety, and sadness). This dimension is related to the personality trait of Neuroticism. (p. 401)

In the achievement domain, goals can be conceived in terms of approaching a positive outcome (approach goals) or in terms of avoiding a negative outcome (avoidance goals) (Heimpel, Elliot, & Wood, 2006). High neuroticism has been associated with avoidance (relative to approach) goals as has high BIS sensitivity, and low BAS sensitivity. Approach temperament has been associated with extraversion, positive emotionality, and BAS. In addition, extroversion has been a predictor of mastery goals and neuroticism was found unrelated to mastery goals but related to performance avoidance goals (Elliot & Thrash, 2002).

Self-regulation can mitigate neuroticism-linked tendencies toward distress and inhibit vulnerabilities related to neuroticism (Robinson, Wilkowski, Kirkeby, & Meier, 2008). Effortful control is the “ability to inhibit a dominant response to perform a subdominant response” (Kochanska & Knaack, 2003, p. 1087). Studies have found that children high in negative affect, and who are also high in effortful control are less vulnerable to mood-disordered outcomes (Eisenberg, Fabes, Guthrie, & Reiser, 2000; Nigg, 2006). In addition,

the trait, Agreeableness, offers some protection against negative affect at high levels of neuroticism (Ode & Robinson, 2007).

Depression

Depression and anxiety disorders are the most common psychiatric disorders (Kessler, 2007) and depression is expected to be one of the top three leading causes of disability by the year 2030 (Mathers & Loncar, 2006). Anxiety and depressive disorders have consistently been found to be highly comorbid (Kessler, 1997, 2007; Essau, 2007) and linked to the personality trait neuroticism (Essau, 2007; Weinstock & Whisman, 2006). In addition, there is a sequential link between early anxiety and later depression (Costello, Mustillo, Erkanli, Keeler, & Angold, 2003). Anxiety disorders include generalized anxiety disorder, social anxiety disorder, obsessive compulsive disorder, post traumatic stress disorder and separation anxiety disorder (Evans et al., 2005).

Kessler (2007) reports that the incidence of mental illness among 15 to 24-year-olds is higher than any other age range and that the average age of onset for major depressive disorder is close to 15 years of age. The Center for Disease Control reports that in the United States, approximately 6 to 9 million children and adolescents have serious emotional disturbances (U. S. Public Health Service, 2000). In addition, research has shown that up to 30% of adolescents report clinically significant levels of depressive symptoms even though the prevalence rate of depressive disorders is 15% for adolescents (Kessler, Avenevoli, & Merikangas, 2001). The American College Health Association (ACHA-NCHA, 2005) reports that the rate of students reporting ever being diagnosed with depression has increased 56% from 10% in spring 2000 to 16% in spring 2005 and it lists depression as one of the top five impediments to academic performance.

The criteria for a diagnosis of Major Depression are five or more symptoms including depressed mood, diminished interest and pleasure in activities, weight loss/gain, insomnia or hypersomnia, psychomotor agitation or retardation, fatigue, feelings of worthlessness or guilt, diminished concentration, and recurrent suicidal ideation. One of the symptoms must be either depressed mood or loss of interest/pleasure, and symptoms must represent a change in previous functioning and have been present for a two-week period (American Psychiatric Association, 2000).

Early onset of mental health disorders for adolescents and young adults can have long-lasting serious effects into adulthood. Developmentally, major social, emotional, physical and cognitive changes take place during this period so that even mild mental health problems can have long-term detrimental effects. As adolescents and young adults, students begin to separate from their parents and make decisions regarding peer group affiliations, intimate relationships, and educational achievement. Depression can alter vocational choices and interrupt educational achievement that can impact individuals for the rest of their life (Kessler, Foster, Saunders, & Stang, 1995). Kessler et al. wrote:

...we estimate that more than 7.2 million people in the United States prematurely terminated their education because of early-onset psychiatric disorders, and only a fraction will later complete either high school or college...There are many societal consequences, such as less training of the workforce, less capability of full functioning in civic life, and greater demands on social welfare entitlements. (p. 1031)

From cognitive theories on depression, negative belief systems contribute to the onset and exacerbation of depressive symptoms. Depressed individuals tend to make more stable,

global, and internal attributions about negative events. Negative cognitive styles tend to cause individuals, when confronted by stressful events, to view the event and its consequences more negatively, increasing their chances of becoming depressed. Several cognition types have been linked to depression, such as low self-esteem, negative automatic thoughts, and cognitive distortions (Beck, 1987) attributional style (Abramson, Seligman, & Teasdale, 1978), and hopelessness (Abramson, Metalsky, & Alloy, 1989).

From the interpersonal perspective on depression, the emphasis is the individual's home environment and the importance of developing secure attachments. Secure attachments are formed when an infant's need for security, comfort and acceptance are met. Bowlby's (1982) attachment theory has become the foremost theory in understanding affect regulation especially when under stress. He believed that infants are born with an attachment behavioral system that emerged through evolution as a means to insure the survival for the infant who is completely helpless and dependent on others for food and protection. Two kinds of cues that activate the attachment system (Bowlby, 1973) are threat-related cues and detecting the unavailability of the attachment figure. Once the attachment system is activated, the distressed infant then engages in behaviors to seek and maintain proximity to its caregiver. If the caregiver is consistently responsive and supportive, the infant develops security-based regulatory strategies. However, when the attachment figure is not supportive or responsive and the proximity seeking fails to relieve stress, a decision is made on the viability of proximity seeking as a protective strategy and this results in the development of secondary attachment strategies, i.e., hyper activating or deactivating strategies (Mikulincer, Shaver, & Pereg, 2003).

If the decision is made that the proximity seeking is viable or essential, due to previous experience, hyper activating strategies are then employed. Very intense and repeated attempts are then made to gain the attachment figure's attention, love, and support. Hyper activating strategies increase the vigilance to the threat-related cues and lower the threshold for detecting cues related to the unavailability of the attachment figure. Mikulincer and Shaver, (2005) wrote that these strategies:

...also intensify negative emotional responses to threatening events and heightened rumination on threat-related concern, keeping these concerns active in working memory. As a result, minimal threat-related cues are easily detected, the attachment system is chronically activated, and psychological pain related to the unavailability of attachment figures is exacerbated. These concomitants of the attachment-system hyper activation account for many of the psychological correlates of attachment anxiety. (p. 141)

This type of strategy increases the anxiety level in infants and results in higher level of anxiety/depressive (and neuroticism) symptoms later as children and adults. The other secondary attachment strategy is the deactivating strategy which is employed when the infant believes that proximity will not relieve distress and tries to inhibit his or her attempts for support. According to Mikulincer and Shaver (2005), deactivating strategies' primary goal is to:

...keep the attachment system deactivated in order to avoid frustration and further distress caused by attachment-figure unavailability. These strategies involve denial of attachment needs and avoidance of emotional involvement, intimacy, and dependence in close relationships. They also involve the dismissal of threat- and attachment-

related cues and the suppression of threat- and attachment-related thoughts. These tendencies are further reinforced by assuming a self-reliant attitude that decrease dependence on others and discourages acknowledgement of personal faults. (p. 151)

Security-based attachment strategies help to alleviate distress through constructive actions and builds resources for maintaining psychological health in times of stress. Security-based affect regulation consists of three main coping strategies: acknowledgment, display of distress support seeking, and engagement in instrumental problem solving. Mikulincer et al. (2003) wrote:

...acknowledging and expressing of feelings and seeking emotional support – work in the service of down-regulating distress so that ‘problem-focused coping’ components - seeking instrumental support and solving problems – can proceed successfully....The building of these constructive capacities can also inhibit the activation of other maladaptive means of coping, including ruminative and passive emotion-focused strategies, withdrawal and escapist strategies, and primitive defense mechanisms that distort perceptions and generate interpersonal conflicts. (p. 83)

In studies of adolescents and adults, attachment styles have been conceptualized in two dimensions, avoidance and anxiety (Brennan, Clark, & Shaver, 1998). Individuals with secure attachments are low in the avoidance and anxiety dimensions and are characterized as being at ease with emotional intimacy, interdependency, and having a reliance on support seeking and the use of constructive emotion-based and problem-focused coping behaviors when under stress.

Those who are high in either anxiety or avoidance or both are considered to have insecure attachments. In individual with an attachment avoidance style will try to stay

emotionally distance and independent from partners and mistrusts relationships in general. Those high in the avoidance dimension have compulsive self-reliance tendencies and employ deactivating strategies (avoidance) to reduce stress and frustration.

Individuals with insecure attachment styles who are high in the anxiety dimension have a continuous fear that an attachment figure will not be available in times of need. Individuals in the high anxiety dimension have a fear of being rejected, they worry about relationships and have a strong need for closeness (Mikulincer et al., 2003). They will use hyper activating strategies to get support from their attachment figures (such as a partner). These strategies would include clinging and controlling behaviors to gain the attachment figure's attention, love, and support and will have an overdependence on relationship partners as a source of security (Shaver & Hazen, 1993).

As a result of the attachment process, infants develop an internal model of close relationships that consist of two interrelated emotional and cognitive schemas, one about themselves and one about others. The self model consists of one's view of one's self-worth, one's value and competence and the model of the "other" provides information regarding the trustworthiness, and responsiveness of important people in one's life. These models, once formed, remain fairly stable throughout one's life. If caretakers were unresponsive or inconsistent, insecure attachments are formed and negative working models of others and oneself (i.e., low self-esteem) can result.

Adolescents and young adults who have insecure attachments with their parents are more likely to be depressed (Kenny, Moilanen, Lomax, & Brabeck, 1993) and develop anxiety disorders. Secure attachments to parents are predictive of successful social, academic, personal, and psychological functioning (Bradford & Lyddon, 1993; Hinderlie &

Kenny, 2002, Kenny & Gallagher, 2002; Kenny & Rice, 1995; Lapsley & Edgerton, 2002). According to attachment theory, “one’s early experiences with environments that promote feelings of security or threat result in internalized dispositions that largely determines a person’s resilience and vulnerability to stressful life events” (Lopez & Brennan, 2000, p. 284). Individuals with secure attachments are able to take positive steps to reduce their distress much more effectively than their more insecurely attached counterparts. Hence, securely attached individuals are better able to manage anxiety and depression, during periods of stress (Lopez & Brennan).

Those with insecure attachment systems use maladaptive ways to cope when under stress resulting in a reduction in the effectiveness of dissipating their distress. The development of insecure attachment systems increases the reactivity of individuals to stress both physical and psychologically, which in turn, increases their risk for anxiety and depressive disorders and raises their level of neuroticism. Extensive research has documented the strong association of anxiety and depression with those who score high on neuroticism (Weinstock & Whisman, 2006). Individuals with high levels of neuroticism also tend to have more somatic symptoms. Somatic symptoms refer to all classes of physical complaints, including headaches, muscle tension, nausea, and respiratory difficulties (Pennebaker, 2000).

The relationship between stressful life events and depression in children and adolescents has shown a strong empirical association (Compas, Grant, & Ey, 1994). Stress is a response (subjective feeling) to the perceived demands in some situation that may be considered threatening or uncontrollable. How well one can cope with stress determines the degree, duration and frequency of a stressful event (Larsen & Buss, 2008). In addition, personality influences how one may cope with a stressful event. The transactional model

shows how personality can interact with one's coping strategies in three possibly ways.

Larsen and Buss writes:

...(1), it can influence coping...; (2), it can influence how the person appraises or interprets the events; and (3) it can influence the events themselves....In the transactional model, it is not the event itself that causes the stress, but rather, how the event is appraised or interpreted....The third point....is, people don't just respond to situations they also create situations through their choices and actions....the model adds two additional roles for personality in influencing whether a stress response is evoked: first, personality influences the kind of situations one encounters in life and second, personality influences how one interprets the situations one encounters...personality is thought to directly influence the relationship between stressful events and illness. (p. 589 - 591)

In order for stress to occur, two cognitive events must take place: primary appraisal and secondary appraisal (Lazarus, 1991). In the primary appraisal, individuals perceive there is a threat to themselves or to their goals such as getting an A on an upcoming exam. In the secondary appraisal Larsen and Buss (2008) writes:

The person decides that they do not have the resources to cope with the demands of the threatening event. If either of these appraisals are absent - if the person does not perceive the event as threatening or if the person feel they have plenty of resources for coping with the threat then stress is not evoked. For example if...an upcoming exam is perceived as threatening to someone's goals, yet they feel that...they have been studying and preparing for the exam, then the person might experience the event more as a challenge than a stress. (p. 598)

Coping is referred to as efforts to deal with the threatening or harmful situations (see Carver, 2007). Being able to cope effectively is important to mental health and well-being. Emotional-based coping and problem-based coping are two distinctions that have been made within the definition of coping (Folkman & Lazarus, 1984). Both emotional- and problem-based coping can be interrelated, such as when individuals engages in emotional-focused coping so that they can calm down and then employ problem-based coping strategies. Numbing oneself from a loss or a failure by using alcohol or drugs would be emotion-focused coping that would not be very effective, however, ineffective problem-focused coping can also occur. Insecurely attached individuals tend to use more maladaptive coping strategies such as those that are oriented toward avoidance of the feelings (e.g., mental disengagement, thoughts of suicide) or diverting attention (e.g., self-criticism/self-blame, blaming others). These coping styles tend to relieve stress in the short term, but increase it in the long term (Bolger, 1990).

In terms of the personality traits, neuroticism predicted problematic coping strategies like wishful thinking, withdrawal, and emotion-focused but, like extraversion, also predicted support seeking while extraversion predicted more problem-solving and cognitive restructuring. Coping responses have also been identified as either approach coping or avoidant coping. Approach coping, where the individual engages with the stress directly or indirectly and uses problem-focused or emotion-focused coping strategies, has been linked with the trait extroversion. In avoidant coping (linked with neuroticism), the individual attempts to escape the feelings of distress, and acts as if the stressor does not exist, by using wishful thinking or even denial.

Definitions of stress include conditions where the individual feels their well-being is threatened either physically or psychologically. This can occur as an accumulation of minor negative events, or as a major event (Grant et al., 2003). Stress can be a normal part of one's life such as transitioning to college or a relationship breakup, or it can be pathological (i.e., abuse). Evans et al. (2005) writes, "Stressful events....may be independent of or directly related to and thus dependent on an individual's action. Objective environmental consequences of a stressor (i.e., can be reliably rated by objective observers) are hypothesized to have a direct effect on the development of depression."

Environmental stressors such as maternal or paternal deprivation, emotional, physical and sexual abuse, and the experience of loss early in life are major risk factors when controlled for heritable risk factors (Evans et al., 2005). Neurobiological processes that underlie the pathophysiology of depression can be altered as a result of early, chronic and the cumulative effects of psychological trauma. Stress has been shown to permanently change the developing brain resulting in increasing the individual's responsiveness to stress as adolescents and adults and altering the processing of emotions leading to the development of psychiatric disorders such as depression and anxiety disorders (Bremner et al., 2003; Sullivan et al, 2006).

Researchers use tests of cortisol levels to determine the level of stress an individual is experiencing. Higher levels are associated with behavioral inhibition or withdrawal (Davis, Donzella, Krueger, & Gunnar, 1999; Gunnar & Donzella, 2002). Stress during pregnancy is related to higher cortisol levels and greater cortisol reactivity among adults (Reynolds et al., 2001). Insecure attachments formed with caregivers results in elevated cortisol levels in children (Sullivan et al., 2006). Essex, Klein, Cho, and Kalin (2002) found that maternal

stress while the child was in infancy highly correlated with elevated levels of cortisol at age four. Higher cortisol levels were also reported in children whose mothers were depressed as infants (Lupien, King, Meaney, & McEwen, 2000). Other research showed that for children and adolescents whose mothers were depressed there were higher levels of withdrawal emotions such as sadness, anxiety and fear (Halligan, Herbert, Goodyer, & Murray, 2004) and an increased risk of depression in adolescents (Goodyer, Herbert, & Tamplin, 2003). It is theorized that the depressed mother of an infant is less able to provide sensitive, supportive and responsive care (secure attachment) to the infant, thus adversely altering the development of the neurobiological system that then increases the risk for depression for adolescents and adults. Studies have shown that prolonged activation of neural and hormonal responses to stressors elevates the anxiety set point and makes individuals more reactive to stress (Bremner et al., 2003; Sullivan et al., 2006). In addition, animal studies have shown that the expression of genes in brain regions that regulate stress reactivity can be turned on or off as a result of the maternal care in the first week of life (Caldji, Diorio, & Meaney, 2003; Francis, Diorio, Liu, & Meaney, 1999). Thus, the way infants respond to stress is in a large way influenced by their caretaker (Rapee, 1997). Therefore, early child environmental events influence and increase the risks for higher levels of anxiety and depressive disorders (Evans, 2005).

The effects of stress cause physiological changes in the body by affecting the sympathetic nervous system and the hypothalamic-pituitary-adrenal cortical axis (Allen, 1995). Even adults who have repeated or prolonged activation of these systems are at risk for developing psychiatric disorders. An individual instinctively has two choices when faced with a threat – commonly referred to as fight or flight (actually, there is a third option that is

referred to as freezing). As the body readies itself for fight or flight (rage or fear), it sets off hormones from the adrenal glands into the blood stream. This physiological activation helps to create and perpetuate the feelings of anxiety even though the neocortex (thinking part of the brain) knows the danger has passed. Anxiety is a state of high arousal, a state of readiness to cope (take flight), of feeling agitated, distressed, and upset and is an example of high negative emotion. Depression is a state of low positive emotion; of giving up the attempt to cope. This has the absence of excitement or pleasure, a general disengagement from the world, low arousal, and can be experienced as lethargy or lack of energy, lack of interest in doing anything or lack of drive. Anxiety is often followed by depression as chronic anxiety wears down an individual's system (Allen). Allen notes:

Anxiety has been associated with feeling helpless – not knowing what to do or which way to turn. Depression can be characterized as a state of hopelessness – a sense that nothing can be done, that no effective action can be taken... Depression has been described as an inborn 'conservation-withdrawal reaction' that serves to shut down arousal to avert the excessive stress to the organism associated with prolonged agitation. (p. 62-63)

Students also come to college with other experiences that have caused severe anxiety or depression in their lives. It's estimated that 50 - 60% of the population has experienced a potentially traumatic event such as a serious accident, natural disaster or a trauma (Kessler, Sonnega, Bromet, Hughes, and Nelson, 1995). In one study, Bernat, Ronfeldt, Alhoun, and Arias, (1998) found that 18% of college students have experienced a traumatic loss such as the unexpected death of a loved one. Trauma can be defined as an emotional experience that has a lasting psychological impact. For psychiatric diagnosis, the person experiences,

witnessed or was confronted with an event or events that involved actual or threatened death or serious injury, or a threat to the physical integrity of self or others, and the person's response involved intense fear, helplessness, or horror (American Psychiatric Association, 1994a). Symptoms associated with trauma can include anxiety and depression.

Psychological Help Seeking

Most people with mental health disorders do not seek professional help (Bebbington et al., 2000). Males are least likely to seek help from healthcare professionals, even when experiencing severe levels of distress (Biddle et al., 2004). In general, people are more likely to seek help from their informal social networks such as family and friends rather than formal sources of help which consist of trained professionals in the mental health fields. Help seeking is based on social relationships and interpersonal skills. Obtaining advice or support involves communicating with other people. Rickwood, Deane, Wilson, and Ciarrochi (2005) wrote:

Help seeking for mental health problems is a social transaction between the personal domain of the internal world of thoughts and feelings and the interpersonal domain of social relationships. Help seeking is the process of actively seeking out and utilizing social relationships, either formal or informal, to help with personal problems. Unlike many other social transactions, the objective is intensely personal. Help seeking is at the nexus of the personal and the interpersonal. Consequently, factors that affect both these domains are relevant, but those that operate at their intersection are especially pertinent. (p. 8)

People will choose to cope with problems in many ways and help seeking is one way to actively cope with a problem. When a problem is recognized and actively dealt with, one

is using an approach coping style as opposed to a strategy that involves denial of a problem, and the avoidance of feelings and thoughts surrounding the problem (i.e., avoidance coping).

Barriers exist to obtaining help for psychological issues. The stigma associated with mental illness or emotional problems keeps many from seeking help. In addition, the level of comfort individuals have with their own emotions and in sharing them with others has an effect on whether individuals will seek help. Emotional competence has been described as the ability to identify, describe, and understand emotions and to be able to manage them in a non-defensive, effective manner (Mayer, Caruso & Salovey, 1999). Rickword et al. (2005) found with college students and adolescents that those who had less emotional awareness, were poor at identifying their emotions and less able to manage their emotions were less willing to seek help from both informal and formal sources. Research also has shown that for individuals who adopt stereotypical masculine attitudes tended to have more negative views of help seeking for psychological issues (Good & Wood, 1995; Hayes & Mahalik, 2000). Stereotypical masculine attitudes can include restricted emotionality, where an individual tries to avoid feelings that he (or she) considers feminine such as feelings of vulnerability and caring emotions towards others. Research has shown that individuals' attitudes towards psychological help seeking determines to a large extent if they will seek help for emotional problems (Ajzen & Fishbein, 1980). Ajzen and Fishbein developed a model of behavior called *theory of reasoned action*. According to this model, behaviors are predicted by intentions and intentions are predicted by attitudes about the behavior and subjective norms relating to the behavior.

Gender Role Conflict

Gender role conflict, is a psychological state that stems from the negative consequences of certain masculine gender roles (O'Neil, 1990). O'Neil developed gender role conflict from the work of Pleck (1981) who felt that striving to meet societal expectations of being the right man (or woman) was to live under often times contradictory and harmful conditions. The attempt to follow strict gender roles and then the necessary violation of them at times, whether intentional or unintentional, creates distress which he identified as the gender role strain paradigm. Since the 1980s, psychologists and sociologists have recognized how gender roles can be changed because they are socially and psychologically constructed (Levant, 1995). The term *Doing Gender* was developed to describe how gender is something that one does and may do differently depending who they are interacting with. It is also understood that just as gender is dynamic and flexible, there is not just one masculinity or femininity but multiple "masculinities and "femininities" (Kimmel & Messner, 2001) since what it means to be masculine can be defined differently across generations, different groups and subgroups.

Boys at young ages learn the norms for communication, emotional expressiveness and other behaviors associated with masculinity through the model of others and through adverse consequences, such as being teased or rejected for violation of gender role norms (O'Neil, 1982). Boys construct their gender, their type of masculinity, from the expectations of parents, peers, teachers, the media, and from their social environment (Pleck, 1995).

Gender is defined here as a dynamic set of socially constructed relationships that are not fixed and in a binary category (Emslie, Ridge, Ziebland, & Hunt, 2007). Many of the "rules" the male learns about his gender are learned at very early ages and so he isn't even aware of the internalization of many of the gender roles he adopts. Some young boys hear that "big

boys don't cry" and as a result, they learn to become emotionally stoic and conceal their emotions. Some hear that "winning isn't everything, it is the only thing" and so they learn to dominate others. Some boys are taught to believe asking for help means they are weak and that "real men" don't ask for help. Many boys learn to restrict expression of vulnerable and caring emotions (Levant, 1995), disconnect from nurturing relationships, especially their mothers, and become self-sufficient (Bergman, 1995). Males may suffer greater consequences for violating gender expectations than females. Boys who engage in traditionally female activities tend to be teased and criticized, and they are more likely to be rejected and threatened with physical harm.

O'Neil (1982) believed that traditional male socialization leads to a fear of femininity, causing males to restrict their behaviors to avoid looking feminine. O'Neil, Good, & Holms (1995) wrote:

Gender role conflict occurs when rigid, sexist, or restrictive gender roles result in personal restriction, devaluation, or violation of others or self. The ultimate outcome of this kind of conflict is a restriction of the human potential of the person experiencing the conflict or a restriction of another's potential. (p. 166)

O'Neil, Helms, Gable, David, & Wrightsman (1986) developed a measure for gender role conflict that identifies four gender role conflict patterns. The first one, Success, Power, and Competition (SPC), measures the male's worries about personal achievement, competence, failure, status, upward mobility and wealth, and career success. Males experiencing this pattern are described as having to have authority and control over others, needing to win, and having to be smarter or physically stronger than other males. Thus, the

male who follows this pattern may be trying to protect himself from feelings of inferiority and weakness by trying to be powerful and superior to others.

The second pattern is Restrictive Emotionality which has to do with having anxiety about emotions, struggles with expressing one's emotions and has an uneasiness with the emotional expressiveness of others. It indicates the level of inflexibility one has in avoiding emotional expressiveness. The male who follows these patterns tries to avoid feelings that he considers feminine such as feelings of vulnerability and caring emotions towards others.

The third pattern is Restrictive Affectionate Behavior Between Men. This is an index that measures the level of distress a male has with expressing caring emotions and thoughts with other males. The fourth pattern is Conflict between Work and Family, although when used with college age males the term Family is sometimes replaced with Leisure (CWL). This factor measures the level of difficulty one experiences when trying to balance work and family/leisure that can result in stress, health problems, and overwork.

The ability to ask for help from others is a powerful way to handle and overcome emotional difficulties. However, to seek help for personal problems generally requires an acknowledgement of problems, emotional expressiveness and the ability to tolerate interpersonal vulnerability (Good & Wood, 1995). Studies have demonstrated that higher levels of gender role conflict in men is significantly related to increased anger, increased reported alcohol use, increased symptoms of depression and anxiety, and a decrease in healthy behaviors (Blazina & Watkins, 1996; Cournoyer & Mahalik, 1995; Eisler, 1995; Good & Mintz, 1990; Good & Wood, 1995; O'Neil et al., 1995; Sharpe & Heppner, 1991). Research also has shown that those who have higher values on the gender role conflict scale

tended to have more negative views of help seeking for psychological issues (Good & Wood, 1995; Hayes & Mahalik, 2000).

Adherence to restrictive masculine roles interact with basic social psychological processes such as perceptions of normativeness and stigma that affect all people in potential help seeking environments (Addis & Mahalik, 2003). People will seek help if they feel others are also; i.e., if they believe it is normative (Nelson-Le Gall, 1985). Individuals who restrict the sharing of emotions and thoughts with others are unlikely to find out that others may be struggling with the same problems as they are, therefore affecting their perceptions of “normativeness”. Stigma concerns have long been looked at as barriers to help seeking (Komiya, Good, & Sherrod, 2000). Men who have higher levels of gender role conflict find help seeking to be self-threatening and going against their masculine beliefs of being self-sufficient and independent.

Magovcevic & Addis (2005) found that the two factors on the Gender Role Conflict Scale that are of a restrictive nature, Restrictive Emotionality and Restrictive Affectionate Behavior Between Men (the Same Sex) were significantly correlated with both nonnormative and self-stigmatizing perceptions. Restrictive emotionality, Restrictive Affective Behavior Between Men, and Conflict between Work and Family relations are significantly correlated with lower self-esteem in college age men (O’Neil et al., 1995; Sharpe & Heppner, 1991). Students with higher values of gender role conflict tend to have lower self esteem. Low self-esteem individuals are more vulnerable to self-threatening situations. Lower levels of self-esteem tends to increase one’s sensitivity to a situation where they may need to admit an inadequacy to themselves or others and thus may feel the threat or cost of help seeking is too high.

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CHAPTER 3. THE EFFECTS OF ACADEMIC AND PSYCHOLOGICAL HELP SEEKING ATTITUDES AND GENDER ROLE CONFLICT IN THE ACADEMIC PERFORMANCE OF MALE ENGINEERING STUDENTS

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Abstract

Retaining students in engineering majors is a high priority for universities across the country. Help seeking is considered an important self-regulatory skill that good students use to be successful in school. It is hypothesized that higher levels of rigidity in traditional masculine beliefs may adversely impact help seeking attitudes. This study examined the relationship between masculine gender role conflict and help seeking attitudes in male engineering students. Results of the regression analyses indicated that gender role conflict was a significant predictor of help seeking. The avoidance orientation help seeking pattern and attitudes towards psychological help seeking significantly predicted cumulative grade point average. The implications of these findings are discussed in terms of future research directions.

Introduction

Many students at some point will realize they cannot master some of the increasingly complex demands put on them in an academically rigorous program unless they seek out assistance. When they recognize that they may need help, they may choose not to ask for it. Gender differences have been shown in male and female students' willingness to seek help for psychological issues (Biddle, Gunnell, Sharp, & Donovan, 2004). Examination of these

differences has shown that certain aspects of the traditional male socialization experience relate to negative attitudes towards help seeking (Good & Wood, 1995). Restrictive male roles or gender role conflict could also negatively impact student's help seeking behaviors related to academic concerns. Seeking help is a social psychological process where perceptions of stigma, normativeness, and ego-centrality can interact with gender roles and affect students' decision to seek help. Students who do not seek help, when needed, especially for serious emotional or academic difficulties, tend to eventually withdraw, drop out of school or alter their career plans, and thus, possibly adversely impacting their future opportunities (Kessler, Foster, Saunders, & Stang, 1995). While both men and women can internalize rigid masculine roles, this study will focus on males' academic and psychological help seeking attitudes and how gender role conflict impacts them.

Gender Role Conflict

Gender role conflict is a psychological state that stems from the negative consequences of certain masculine gender roles (O'Neil, 1990). O'Neil developed gender role conflict from the work of Pleck (1981) who felt that striving to meet societal expectations of being the right man (or woman) was to live under often times contradictory and harmful conditions. The attempt to follow strict gender roles and then the necessary violation of them at times, whether intentional or unintentional, creates distress which he identified as the gender role strain paradigm. Since the 1980s, psychologists and sociologists have recognized how gender roles can be changed because they are socially and psychologically constructed (Levant, 1995). The term *Doing Gender* was developed to describe how gender is something that one does and may do differently depending on with

whom they are interacting. It is also understood that just as gender is dynamic and flexible, there is not just one masculinity or femininity but multiple “masculinities and “femininities” (Kimmel & Messner, 2001) because what it means to be masculine can be defined differently across generations, different groups and subgroups.

Boys at young ages learn the norms for communication, emotional expressiveness and other behaviors associated with masculinity through the model of others and through adverse consequences, such as being teased or rejected for violation of gender role norms (O’Neil, 1982). Boys construct their gender, their type of masculinity, from the expectations of parents, peers, teachers, the media, and from their social environment (Pleck, 1995). Gender is defined here as a dynamic set of socially constructed relationships that are not fixed and in a binary category (Emslie, Ridge, Ziebland, & Hunt, 2007). Many of the “rules” the male learns about his gender are learned at very early ages and so he is not even aware of the internalization of many of the gender roles he adopts. Some young boys hear that “big boys don’t cry” and as a result, they learn to become emotionally stoic and conceal their emotions. Some hear that “winning isn’t everything, it is the only thing” and so they learn to dominate others. Some boys are taught to believe asking for help means they are weak and that “real men” do not ask for help. Many boys learn to restrict expression of vulnerable and caring emotions (Levant, 1995), disconnect from nurturing relationships, especially their mothers, and become self-sufficient (Bergman, 1995). Males may suffer greater consequences for violating gender expectations than females. Boys who engage in traditionally female activities tend to be teased and criticized, and they are more likely to be rejected and threatened with physical harm.

O'Neil (1982) believed that traditional male socialization leads to a fear of femininity, causing males to restrict their behaviors to avoid looking feminine. O'Neil, Good, and Holms (1995) wrote:

Gender role conflict occurs when rigid, sexist, or restrictive gender roles result in personal restriction, devaluation, or violation of others or self. The ultimate outcome of this kind of conflict is a restriction of the human potential of the person experiencing the conflict or a restriction of another's potential. (p. 166)

O'Neil, Helms, Gable, David, & Wrightsman (1986) developed a measure for gender role conflict that identifies four gender role conflict patterns. The first pattern, Success, Power, and Competition, measures the male's worries about personal achievement, competence, failure, status, upward mobility and wealth, and career success. Males experiencing this pattern are described as having to have authority and control over others, needing to win, and having to be smarter or physically stronger than other males. Thus, the male who follows this pattern may be trying to protect himself from feelings of inferiority and weakness by trying to be powerful and superior to others.

The second pattern is Restrictive Emotionality which has to do with having anxiety about emotions. One struggles with expressing emotions and is uneasy with the emotional expressiveness of others. It indicates the level of inflexibility one has in avoiding emotional expressiveness. The male who follows this pattern tries to avoid feelings that he considers feminine such as feelings of vulnerability and caring emotions towards others.

The third pattern is Restrictive Affectionate Behavior Between Men. This is an index that measures the level of distress a male has with expressing caring emotions and thoughts

with other males. The forth pattern is Conflict between Work and Family, although when used with college age males the term Family is sometimes replaced with Leisure. This pattern measures the level of difficulty one experiences when trying to balance work and family/leisure that can result in stress, health problems, and overwork.

The ability to ask for help from others is a powerful way to handle and overcome emotional difficulties. However, to seek help for personal problems generally requires an acknowledgement of problems, emotional expressiveness and the ability to tolerate interpersonal vulnerability (Good & Wood, 1995). Studies have demonstrated that higher levels of gender role conflict in men is significantly related to increased anger, increased reported alcohol use, increased symptoms of depression and anxiety, and a decrease in positive, healthy behaviors (Blazina & Watkins, 1996; Cournoyer & Mahalik, 1995; Eisler, 1995; Good & Mintz, 1990; O'Neil, Good & Holmes, 1995; Sharpe & Heppner, 1991). Research also has shown that those who have higher values on the gender role conflict scale tended to have more negative views of help seeking for psychological issues (Hayes & Mahalik, 2000).

Adherence to restrictive masculine roles interact with basic social psychological processes such as perceptions of normativeness and stigma that affect all people in potential help seeking environments (Addis & Mahalik, 2003). People will seek help if they feel others are also; i.e., if they believe it is normative (Nelson-Le Gall, 1985). Individuals who restrict the sharing of emotions and thoughts with others are unlikely to find out that others may be struggling with the same problems as they are, therefore affecting their perceptions of “normativeness”. Stigma concerns have long been looked at as barriers to help seeking

(Komiya, Good, & Sherrod, 2000). Men who have higher levels of gender role conflict find help seeking to be self-threatening and going against their masculine beliefs of being self-sufficient and independent.

Magovcevic & Addis (2005) found that the two patterns on the Gender Role Conflict Scale (GRCS) that are of a restrictive nature (i.e., Restrictive Emotionality and Restrictive Affectionate Behavior Between Men (the Same Sex)) were significantly correlated with both nonnormative and self-stigmatizing perceptions. Restrictive Emotionality, Restrictive Affective Behavior Between Men, and Conflict between Work and Family relations are significantly correlated with lower self-esteem in college age men (O'Neil et al., 1995; Sharpe & Heppner, 1991). Students with higher values of gender role conflict tend to have lower self-esteem. Low self-esteem individuals are more vulnerable to self-threatening situations. Lower levels of self-esteem tends to increase one's sensitivity to a situation where they may need to admit an inadequacy to themselves or others and thus feel the threat or cost of help seeking is too high (Ames, 1983).

Self-Regulated Learning

To achieve success in college, students must be able to monitor and regulate their cognitive and emotional processes. Researchers have looked at various self-regulatory strategies that learners use in the academic environment including help seeking (Newman, 1994, Wolters, 1998, 2003, 2004; Zimmerman, 2001; Zimmerman & Martinez-Pons, 1990; Zimmerman & Schunk, 2001). Academic help seeking is viewed as an important self-regulatory behavioral strategy that learners use to help achieve their academic goals (Karabenick, 2004; Karabenick & Sharma, 1994; Karabenick & Newman, 2006; Nelson-Le

Gall, 1985; Newman, 1990, 1998; Newman & Goldin 1990; Paris, Byrnes, & Paris, 2001; Ryan, Patrick, & Shim, 2005). Nelson-Le Gall (1985) found that the cost of not seeking help played a more significant role in long-term academic learning environments than had been previously recognized.

Early research on help seeking generally focused on the costs or negative consequences of seeking help. Loss of self-esteem (Fisher, Nadler, & DePaulo, 1983), embarrassment (Shapiro, 1983), and the role of perceived personal inadequacy (Rosen, 1983) have been theoretically and empirically analyzed. Social-normative perspectives on help seeking looked at the social norms and cultural values such as those that may emphasize self-reliance and independence and the differences in social roles. Western societies tended to encourage individual achievement, self-reliance and independence for males and traditional female roles encouraged cooperation and dependency, and therefore, help seeking carried greater psychological costs for males because asking for help violated their gender role. Research has shown that this clearly is the case in medical-related settings (Biddle et al., 2004). However, in the classroom, where help seeking would seem to be normative, there could still be costs, because help seeking could be looked upon as failure to learn the material despite the instructional effort from the teacher.

The other common perspective used regarding the predicting of help seeking was self-esteem. Individuals' self-concept or sense of self-worth is referred to as self-esteem and involves an evaluation of competency about oneself. Self-threatening situations that involve admitting a failure to oneself or others is thought to be moderated by an individual's level of self-esteem. Recent research has established strong links showing an inverse relationship

between the threat to self-esteem and help seeking in college students (Karabenick & Knapp, 1991; Newman, 1990; Newman & Goldin, 1990; Shapiro, 1983).

In the late 1970s and early 1980s motivation researchers (Ames, 1983; Dweck & Elliott, 1983; Nelson-Le Gall, 1981; Nicholls, 1979) began to look more at the adaptive nature of help seeking in learning situations to better understand performance patterns. At one time persistence was considered an achievement-oriented behavior, but it was found that students who persisted for an extended period of time without success and who did not develop alternative strategies to successfully complete the task (i.e., asking for help) were not engaged in achievement-oriented behavior (Diener & Dweck, 1978). Help seeking began to be looked at as a continuous ongoing process used in academic settings that may be utilized to achieve mastery and competence by proactive, motivated and better performing students (Nelson-Le Gall, 1985).

Diener and Dweck (1978), described help seeking behavior that is directed towards finding the solution to a problem and promotes extended task involvement, as instrumental (also known as autonomous, adaptive, or strategic). Instrumental help seeking focuses on learning the process and not just trying to get the answer to the problem. The student uses a proactive learning strategy with these behaviors by asking for only the minimum amount of assistance necessary so that they can learn to solve the problem independently and hence gain competence and mastery (Nelson-Le Gall, 1985). Expedient (also known as executive or excessive) help seeking behaviors are directed towards just getting the answer to avoid putting forth the effort required to learn the material.

From the perspective of achievement goal theory, help seeking has been categorized within the framework of two types of goal orientations – mastery goals (focus on learning) and performance goals (concerns about ability, maintaining self-esteem, and social comparisons). Students with mastery goals were more likely to use instrumental help seeking behaviors and those with performance goals were more likely to avoid help seeking or use expedient help seeking behaviors. Research from the motivation literature on approach and avoidance dimensions suggests that two dimensions may better describe students' goal orientations so that within the categories of mastery and performance, there would be another dimension of approach and avoidance resulting in the following goal orientations: mastery-approach, mastery-avoid, performance-approach, and performance-avoid (Elliot & McGregor, 2001; Pintrich, 1999).

The goals with the mastery-approach orientation are to increase levels of competence, and with mastery-avoidance orientation, the goal is to avoid a lack of mastery. The student is concerned about not being able to understand the material but as with the mastery-approach orientation the focus is on the self and not social comparisons. With the performance-approach orientation, students want to publicly demonstrate their ability to others and with a performance-avoid goal orientation students want to avoid looking less able than their peers. Instrumental help seeking has been shown to be related to mastery-approach goal orientation, while expedient help seeking (behaviors are directed towards just getting the answer to avoid putting forth the effort required to learn the material), help seeking avoidance, and help seeking cost (perceived threat to self-esteem) has been shown to be related to performance goals.

Help seeking attitudes and behaviors have been conceptualized similarly. Karabenick (2004) found two distinct patterns with help seeking behavior. One, which he called approach orientation consisted of behaviors that included instrumental help seeking, formal help seeking (seeking help from the instructor vs. peers) and a general intention to seek help. The second one, he called avoidance orientation, included help seeking cost (perceived threat to self-esteem), intentions to avoid help seeking and expedient help seeking. The approach orientation pattern was found to be related to mastery-approach goal orientation and the avoidance orientation pattern was related to mastery-avoid goal orientation and the performance-approach and performance-avoid goal orientations.

The decision to seek help is a very personal, complex decision highly influenced by social, cultural and psychological contexts; hence, it is important to study the impact of certain socialization patterns that may adversely influence many male students. There have not been any studies done on how gender role conflict impacts academic help seeking, which then may affect academic performance. There has been considerable research done concerning the impact of help seeking for psychological reasons and it is studied here again due to the importance of emotional well-being for college students to be successful. For students to be successful in school they need to be able to manage both their cognitive-motivational and emotional processes and ask for assistance when needed. This study tested the following hypotheses: 1) gender role conflict would negatively impact help seeking approach orientation and increase the avoidant orientation form of help seeking; 2) attitudes towards psychological help seeking would be adversely impacted by gender role conflict as has been shown in previous research and; 3) that all three of the help seeking measures would

impact cumulative grade point average; approach orientation positively and avoidance orientation and attitudes towards psychological help seeking negatively.

Method

Participants and Procedures

Participants were 665 male undergraduate students enrolled in the engineering college at a large Midwestern doctoral extensive public research university. The median age was 21 years, with 45% of the participants ranging in age between 18 and 20 years of age, 43%, between 21 and 23 years old, 7% ranged from 24 to 26 years old and 5% were 27 years of age or older. Median number of credits taken was 75.5 and the median cumulative grade point average was 3.07. In terms of their ethnicity, 89% were White–European American, 1% were Black–African American, 3% were Asian–Pacific Islander, 2% were Hispanic–Latino, 5% were of other racial–ethnic backgrounds. All male engineering students were asked to fill out an online survey on their psychological and academic help seeking orientation, and the Gender Role Conflict Scale. Informed consent was given through the online survey process. Regression analysis was used to predict help seeking attitudes with the predictor variables being the four patterns of Gender Role Conflict Scale. The regression analysis was then run again to explore the relationship to academic performance using cumulative grade point average (GPA) as the dependent variable.

Instruments

Gender Role Conflict Scale (GRCS; O’Neil et al., 1986). This 37-item measure used a 6-point scale (1 = strongly disagree to 6 = strongly agree) to assess patterns of gender role behavior. The measure was designed to assess four personal dimensions of gender role

conflict: (1) Success, Power, and Competition (SPC) (i.e., “I often feel that I need to be in charge of those around me”); (2) Restrictive Emotionality (RE) (i.e., “I often have trouble finding words that describe how I am feeling”, (3) Restrictive Affectionate Behavior Between Men (RABBM) (i.e., “Being very personal with other men makes me feel uncomfortable”) and; (4) Conflict between Work and Leisure or Family Relations (CWL) (i.e., “Overwork and stress, caused by a need to achieve on the job or in school, affects/hurts my life”): Internal consistency estimates have ranged from 0.78 to 0.92 and test - retest reliabilities over 4 weeks have ranged from 0.72 to 0.86. Good validity scores have been reported for this widely used measure (Good & Mintz, 1990). Subscale scores were obtained by summing the responses to the individual subscale; higher scores indicated greater gender-role conflict.

HS-Tendencies scale (Karabenick & Knapp 1991). This 23-item scale measures students’ tendencies to engage in a variety of help seeking behaviors. Karabenick and Knapp classified the items of the HS-Tendencies scale into eight categories: (a) general intention to seek needed help (i.e., “If I needed help in this class I would ask someone for assistance”); (b) intentions to avoid seeking help (i.e., “If I didn’t understand something in this class I would guess rather than ask someone for assistance”); (c) instrumental help seeking goal (i.e., “If I were to get help in this class it would be to better understand the general ideas or principles”); (d) expedient help seeking goal (i.e., “The purpose of asking somebody for help in this class would be to succeed without having to work as hard”); (e) perceived costs of help seeking (i.e., “Others would think I was dumb if I asked for help in this class”); (f) formal help seeking (i.e., “If I were to seek help in this class it would be from the teacher”); (g) informal help seeking

(i.e., “If I were to seek help in this class I would ask another student”); and (h) benefits of help seeking (i.e., “Getting help in this class would make me a smarter student”). Students were given the following conditional scenario: “Suppose you were not performing as well as you wanted to in college or in a particular class. What would you do? Respondents then rate how likely they would be to engage in various behaviors using a 7-point scale (0 = not at all likely to 6 = definitely). To obtain the approach orientation scale, the questions regarding the students’ intentions to seek help, the perceived benefits of seeking help, instrumental help seeking goals, and formal help seeking (from teachers) were combined. Avoidance orientation combined the questions for help seeking threat, intentions to avoid help, and expedient help seeking. Seeking help from other students was not included in either orientation. Cronbach’s alpha internal consistency reliability estimates were all in the acceptable range. Approach orientation test - retest reliabilities over 2-Months were 0.50 ($p < .001$) and for avoidance orientation, 0.52 ($p < .001$) (Wolters, Pintrich, & Karabenick, 2003).

Attitudes Towards Psychological Help Seeking (ATTPHS) - Short Form (Fischer & Farina, 1995). The ATTPHS short form contains the 10 items from the original 29-item instrument that assesses general attitudes toward seeking professional help for psychological concerns. The short version of this scale had been constructed by including the items that had exhibited the highest item-total scale correlations. This instrument asks participants to rate their level of agreement with each item on a Likert scale ranging from 0 (*strongly agree*) to 3 (*strongly disagree*), with higher scores indicating more negative attitudes toward seeking professional psychological help. Examples are: "Emotional difficulties, like many things, tend to work out by themselves" (reverse-scored) and "At some future time, I might want to

have psychological counseling"). The test-retest correlation with a 1-month interval between tests has been reported as 0.80 (Fischer & Farina).

Results and Discussion

Table 1 shows the means, standard deviations, and correlations of the four patterns of gender role conflict, the gender role conflict total score, and the three help seeking scales: attitudes towards psychological help seeking (ATTPHS), approach orientation, and avoidance orientation. Three of the four factors, SPC, RE, and RABBM, were significantly

Table 1.

Zero-Order Correlations Among Study Variables (n=665)

	1	2	3	4	5	6	7	8	9
1. GPA	----								
2. APPROACH	0.059								
3. AVOID	-0.142***	-0.552***							
4. ATTPHS	-0.109**	-0.191***	0.202***						
5. SPC	0.041	-0.026	0.226***	0.132***					
6. RE	0.047	-0.227***	0.329***	0.170***	0.372***				
7. RABBM	0.051	-0.165***	0.268***	0.159***	0.449***	0.616***			
8. CWL	-0.050	-0.048	0.220***	0.047	0.421***	0.320***	0.305***		
9. GRC		-0.159***	0.350***	0.177***					
Mean	3.0	54.4	29.9	26.5	54.6	35.4	28.2	24.9	143.4
SD	0.67	10.74	10.58	4.77	10.50	10.24	8.36	6.39	26.86

Note. GPA = Cumulative Grade Point Average; APPROACH = Approach orientation; AVOID = Avoidance orientation; ATTPHS = Attitudes Towards Seeking Professional Psychological Help Scale; SPC = Success, Power, and Competition; RE = Restrictive Emotionality; RABBM = Restrictive Affectionate Behavior Between Men; CWL = Conflict Between Work and Leisure; GRC = Gender Role Conflict Total Score.

** $p < .01$. *** $p < .001$.

correlated to ATTPHS. As the three gender role conflict subscales increased in value so did negative attitudes towards psychological help seeking. Only Restricted Emotionality and Restrictive Affectionate Behavior Between Men were significantly negatively correlated to approach orientation, as each increased, the approach orientation variable decreased. All four gender role conflict patterns were significantly correlated with the avoidance orientation variable, indicating that as all four patterns increased so did the avoidance orientation variable. The overall total score for gender role conflict was also significantly related to all three help seeking scales, ATTPHS, approach orientation, and avoidance orientation.

A multiple regression was run with each of the help seeking scales (Tables 2, 3, and 4). The results showed that gender role conflict significantly predicted ATTPHS, approach orientation, and avoidance orientation. For the ATTPHS and the approach orientation models, the Restrictive Emotionality pattern was the only beta weight that was significant. For avoidance orientation, two beta weights were significant, Restrictive Emotionality and

Table 2.

Summary of Regression Analysis for Variables Predicting ATTPHS

Variable	B	SE B	β	t
SPC	0.035	0.021	0.078	1.714
RE	0.053	0.023	0.114*	2.303
RABBM	0.038	0.029	0.067	1.312
CWL	-0.032	0.032	-0.042	-0.986
GRCS	.032	.007	.177***	4.642

Note. For abbreviations see Table 1. Using the four GRC subscales: four subscales predicting ATTPHS, $F(4,660) = 6.57$, $R^2 = 3.8\%$ ($p < .001$). Using the total score of the GRC: ATTPHS, $F(1,663) = 21.55$, $R^2 = 3.1\%$ ($p < .001$).

* $p < .05$. *** $p < .001$.

Conflict between Work and Leisure. The largest impact of gender role conflict was seen on the avoidance orientation scale. The model accounted for 13% of the variance for avoidance orientation.

Table 3.

Summary of Regression Analysis for Variables Predicting Approach Orientation

Variable	B	SE B	β	t
SPC	.085	.046	.083	1.856
RE	-.224	.051	-.214*	-4.380
RABBM	-.094	.065	-.073	-1.460
CWL	.019	.071	.011	.259
GRC	-.064	.015	-.159***	-4.157

Note. For abbreviations see Table 1. Using the four subscales: $F(4,660) = 10.20$, $R^2 = 5.8\%$ ($p < .001$); Using the total score of the GRC: approach orientation, $F(1,663) = 17.28$, $R^2 = 2.5\%$ ($p < .001$).

* $p < .05$. *** $p < .001$.

Table 4.

Summary of Regression Analysis for Variables Predicting Avoidance Orientation

Variable	B	SE B	β	t
SPC	0.071	0.044	0.071	1.633
RE	0.241	0.049	0.233***	4.971
RABBM	0.079	0.061	0.063	1.298
CWL	0.160	0.068	0.097*	2.366
GRC	.138	.014	.350***	9.614

Note. For abbreviations see Table 1. Using the four GRC subscales: $F(4, 660) = 24.85$, $R^2 = 13.1\%$ ($p < .001$); Using total GRC: $F(1,663) = 92.43$, $R^2 = 12.2\%$ ($p < .001$).

* $p < .01$. ** $p < .01$. *** $p < .001$.

The regression analysis predicting GPA is shown in Table 5. The model was significant and of the three predictor help seeking variables, two were significant, ATTPHS and avoidance orientation. Thus, as attitudes towards psychological help seeking became more negative, GPA decreased and as the avoidance orientation pattern increased, GPA decreased. The approach orientation variable was not significant.

Table 5.

Summary of Regression Analyses Predicting GPA

Variable	B	SE B	β
Step 1			
Approach	-.002	.003	-.038
Avoidance	-.009	.003	-.146**
ATTPHS	-.012	.006	-.087*
Step 2			
Approach	-.002	.003	-.036
Avoidance	-.012	.003	-.181***
ATTPHS	-.015	.006	-.107**
SPC	.005	.003	.076
RE	.006	.003	.085
RABBM	.004	.004	.048
CWL	-.009	.005	-.081

Note. For abbreviations see Table 1. Using the four GRC subscales: Four subscales predicting GPA, $F(3,661) = 6.32$, $R^2 = 2.8\%$ for Step 1 ($p < .001$); $F(7,657) = 4.83$, $\Delta R^2 = 2.1$; overall, $R^2 = 4.9\%$ for Step 2 ($p < .001$).

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

Implications

This study examined the effects of gender role conflict on academic and psychological help seeking attitudes and how these help seeking attitudes may affect academic performance. As anticipated, gender role conflict was found to significantly impact both approach orientation and avoidance orientation along with attitudes towards seeking psychological help. Those with higher levels of gender role conflict had higher levels of an avoidance orientation pattern and lower levels of approach orientation. Higher levels of gender role conflict coincide with higher levels of rigid masculine beliefs that include self-sufficiency, independence, and emotional restriction which can be at odds with seeking help. In addition, avoiding what is considered traditional “feminine” behavior, i.e., being dependent, emotional expressiveness, vulnerability (fear, shame), interferes with positive help seeking behaviors. Many males find seeking psychological help particularly stigmatizing as they feel pressures to conform to societal roles of independence and strength. This study has, as many others have found, that the higher the level of gender role conflict the more negative the attitudes were towards psychological help seeking (Blazina & Watkins, 1996; Good & Wood, 1995).

The avoidance orientation pattern of academic help seeking consisted of three subscales that are all related to performance comparison goals and hence concerns about the self and how one may compare to others, i.e., self-esteem issues. One of the subscales measures students’ level of perceived threat of help seeking to their self-esteem (category e; perceived costs of help seeking). Situations that can be considered self-threatening such as admitting a failure to oneself or others is thought to be moderated by an individual’s level of

self-esteem. Low self-esteem has been linked with lower levels of academic success and with lower levels of help seeking behaviors by students (Newman & Goldin, 1990; Shapiro, 1983). In addition, Restrictive Emotionality, Restrictive Affectionate Behavior Between Men, and Conflict between Work and Leisure are significantly correlated with lower self-esteem in college age men (O'Neil, Good, & Holmes, 1995; Sharpe & Heppner, 1991).

Of the four patterns within the construct of gender role conflict, the common pattern that was significantly related to all three of the help seeking scales was Restrictive Emotionality. Studies have shown that restriction of emotional expression and self-disclosure has been linked to relational, physical, and psychological problems. An important factor in the etiology and course of psychosomatic illness is the suppression of affect expression (Scheidt & Waller, 2004). Restriction of emotionality can lead to distancing from one's emotions and can eventually lead to becoming unable to recognize, identify, and describe what one is feeling which is known as alexithymia. Pennebaker (1995) found an increase in physiological stress response as the result of restricting emotions and Solano, Batten, & Parish, (1982) found that self-disclosure is negatively linked to loneliness. Mahalik (1996) found that Restrictive Emotionality was related to hostile behavior, mistrust, and being cold, detached, and inhibited. Restrictive Emotionality consists of a dysfunctional pattern of emotional regulation that clearly affects student's academic achievement by impacting their academic and emotional help seeking behavior.

The last part of the study looked at how these attitudes towards help seeking affected grade point average. As predicted, cumulative grade point average decreased as avoidance orientation behavior increased. Results regarding attitudes towards psychological help

seeking showed that as attitudes became more positive, the grade point average increased. Approach orientation was not significantly related to grade point average. This could be because even poor students can see the benefits of help seeking, one of the factors that makes up the approach orientation variable. Research has shown that students can have both performance and mastery goals depending on the situation (Urdan & Mestas, 2006). Avoidance orientation patterns appear to be picking up on negative personality, emotional, and behavioral patterns. The same can be said for attitudes towards psychological help seeking; it is an indicator of how comfortable one feels with emotional disclosure and with dealing with personal emotions and interpersonal relationships.

It is clear that socialization processes that leads to individuals distancing themselves from their own emotions and discourages emotional closeness with others, sets up individuals to be emotionally handicapped in social relationships. Interpersonal relationships are important in help seeking and managing stress. Males, who internalize some or all of these restrictive emotional behaviors, unknowingly inhibit their ability to be successful students. While many socialization effects are difficult for college administrators to address, some socialization processes such as gender role conflict can be addressed with more education and awareness of how it exist and how it can interfere with academic success. Providing education to advisors and professors on gender role conflict is important so that they can understand why some males may not seek help. It may also help advisors to be more proactive in encouraging students to seek help. This may be especially important in majors that have a large percentage of males, which may exacerbate certain socialization patterns. In addition, educating students about help seeking and what the disadvantages are to those

students who need help and avoid it. Students should also learn as first year students about mastery and performance goals so that they may understand how different goals affect their motivational and achievement behaviors, giving them another tool that they can use to self-regulate their behavior. In addition, having help rooms in common areas that offer free tutoring especially for first year students would help to normalize and de-stigmatize help seeking for those students who would otherwise avoid it. Students could learn to seek help in a friendly, non-threatening environment and by obtaining help, may improve their academic performance, which would then in turn, help them to gain additional self-confidence and self-efficacy.

The findings from this study can only be generalized to college-age, educated, predominately White, middle-class, male students who have chosen an engineering degree. Generalizations to other samples should be made with caution. Self-report measures were used so some reporting bias may occur.

In conclusion, the importance of the self-regulation of behaviors and emotions in an academic setting is important for student success. Socialization processes that college students are not consciously aware of can adversely affect their behavior during a very critical time in their lives when they are making decisions about their education and their future careers. It is important for college educators to do all that they can to help remove unnecessary obstacles for students and help students improve their chances for academic success.

Conclusions

Based on the findings of this study, the following conclusions can be drawn:

1. Students, who have higher gender role conflict scores, tend to have higher levels of the avoidance orientation pattern of academic help seeking.
2. Students with higher gender role conflict scores tend to have more negative attitudes towards psychological help seeking.
3. Students with high avoidance orientation and more negative attitudes toward psychological help seeking tend to have less academic success than those who do not have these attitudes.
4. Restrictive Emotionality negatively impacts academic and psychological help seeking attitudes.

Recommendations for Future Research

Future research could look at alternative ways to measure help seeking (journals, reflection papers, and behavioral observations) and the impact of gender role conflict on students (focus groups), especially in male dominated disciplines. Studies could also explore the results of various interventions such as educational seminars that teach students about patterns of behaviors and socialization processes that can hinder their success in school.

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CHAPTER 4. THE IMPACT OF HELP SEEKING ATTITUDES AND DEPRESSION ON STUDENTS' ACADEMIC SUCCESS

A paper to be submitted to the *Journal of College Student Development*

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Abstract

Retention of college students is a priority for universities across the country. Engineering educators are constantly looking for ways to retain students in their rigorous academic degree programs. While academic success has typically been predicted by standardized test scores and high school performance, they do not fully explain the variance in students' success. This study looks at additional predictor variables in relation to students' success including attitudes toward psychological and academic help seeking and depression. A survey of 582 male engineering students revealed that over 44% of the students have levels of depressive symptoms ranging from mild to severe. In addition, certain academic help seeking attitudes, along with negative attitudes towards psychological help seeking and depressive symptoms adversely affected students' grade point average.

Introduction

High school performance and standardized test scores have been shown to be predictors of retention and strong academic performance, but they do not completely account for the variance in students' academic performance. Research has shown there are many factors affecting academic achievement including emotional and behavioral variables (Astin, 1993; Kessler, Foster, Saunders, & Stang, 1995; Tinto, 1993). One of these variables is depression. The American College Health Association (American College Health

Association [ACHA-NCHA], 2005) reports depression as one of top five impediments to academic performance. The rate of students reporting ever being diagnosed with depression has increased 56% in the last six years, from 10% in spring 2000 to 16% in spring 2005 (ACHA-NCHA) .

For students to be successful in school they need to be able to self-manage their cognitive-motivational, behavioral, and emotional processes. Help seeking is an important behavioral strategy that can be used when faced with either emotional or academic difficulties. However, many students do not seek help when needed (Knapp & Karabenick, 1988; Bebbington et al., 2000). When faced with obstacles students need to have the skills and the willingness to seek assistance from others. It is a process that begins in one's internal world as an awareness of a problem, and then moves externally to interpersonal relationships. How well students navigate through this process can affect their success in school. Males have typically been less likely to seek help for psychological concerns (Biddle, Gunnell, Sharp, & Donovan, 2004). The focus of this study is on the relationship between depression and male engineering students' academic and psychological help seeking attitudes and their impact on the students' overall success as measured by their cumulative grade point average (GPA).

College Students and Depression

Depression and anxiety disorders are the most common psychiatric disorders (Kessler, 2007) and depression is expected to be one of the top three leading causes of disability by the year 2030 (Mathers & Loncar, 2006). Depression can occur in children with the mean age onset for major depressive disorder close to 15 years of age. The age range of 15- to 24-year-olds has the highest prevalence of mental illness than any other age range

(Kessler et al., 1994). The Center for Disease Control reported that in the United States, approximately 6 to 9 million children and adolescents have serious emotional disturbances (U. S. Public Health Service, 2000). For adolescents, the prevalence rate of depressive disorders is 15% but up to 30% report clinically significant levels of depressive symptoms (Kessler, Avenevoli, & Merikangas, 2001). The American College Health Association (ACHA-NCHA, 2005) reports the top five impediments to academic performance as: (1) stress; (2) cold/flu/sore throat; (3) sleep difficulties; (4) concern for friend or family; and (5) depression/anxiety disorders. The rate of students reporting ever being diagnosed with depression has increased 56% since spring 2000 as of spring 2005 (ACHA-NCHA).

Early onset of mental health disorders for adolescents and young adults can have long-lasting serious effects into adulthood. Developmentally, major social, emotional, physical, and cognitive changes take place at this time so that even mild mental health problems can have a long-term detrimental effect (Kessler et al., 1995). As adolescents and young adults, students begin to separate from their parents and make decisions regarding peer group affiliations, intimate relationships, and educational choices. Depression can alter these career decisions and impact educational and vocational progress. Kessler et al. wrote:

...we estimate that more than 7.2 million people in the United States prematurely terminated their education because of early-onset psychiatric disorders, and only a fraction will later complete either high school or college....There are many societal consequences, such as less training of the workforce, less capability of full functioning in civic life, and greater demands on social welfare entitlements. (p. 1031)

From the interpersonal perspective on depression, the emphasis is the child's home environment and the importance of developing secure attachments. Secure attachments are formed when a child's need for security, comfort, and acceptance are met. From Ainsworth, Blehar, Waters, Wall (1978) and Bowlby's (1982) work with infants and young children, the attachment process includes a disposition to seek contact and proximity with supportive others especially in times of distress. As a result of this process, infants develop an internal model of close relationships that consist of two interrelated emotional and cognitive schemas, one about themselves and one about others. The self model consists of one's view of one's self-worth, one's value and competence and the model of the "other" provides information regarding the trustworthiness and responsiveness of important people in one's life. These models, once formed, remain fairly stable throughout one's life. If caretakers were unresponsive or inconsistent, insecure attachments are formed and negative working models of others and oneself can result. Adolescents and young adults who have insecure attachments with their parents are more likely to be depressed (Kenny, Moilanen, Lomax, & Brabeck, 1993). However, secure attachments to parents are predictive of successful social, academic, personal, and psychological functioning (Bradford & Lyddon, 1993; Hinderlie & Kenny, 2002, Lapsley & Edgerton, 2002).

Most theories on depression have stress playing a major role. The relationship between stressful life events and depression in children and adolescents has shown a strong empirical association (Compas, Grant, & Ey, 1994). Definitions of stress include conditions where the individual feels their well-being is threatened either physically or psychologically. This can occur as an accumulation of minor negative events, or as a major event (Grant et al., 2003). Stress can be a normal part of one's life such as transitioning to college or a

relationship breakup, or it can be pathological (i.e., abuse). Evans et al. (2005) writes, “Stressful events...are hypothesized to have a direct effect on the development of depression.” Environmental stressors such as maternal or paternal deprivation, emotional, physical and sexual abuse, and the experience of loss early in life are major risk factors when controlled for heritable risk factors (Evans et al.). Neurobiological processes that underlie the pathophysiology of depression can be altered as a result of early, chronic and the cumulative effects of psychological trauma. Stress has been shown to permanently change the developing brain resulting in increasing the responsiveness to stress and altering the processing of emotions leading to the potential development of psychiatric disorders such as depression (Bremner et al., 2003; Sullivan et al., 2006).

Attachment theory has been used to describe humans’ self-regulatory response to stress. When individuals are under stress their attachment system is activated (for review, see Mikulincer, Shaver, & Pereg, 2003) and it results in security-based regulatory strategies or the development of secondary attachment strategies, i.e., hyper activating vs. deactivating strategies (Mikulincer et al.). Security-based strategies help to alleviate distress through constructive actions and builds resources for maintaining psychological health in times of stress. Security-based affect regulation consists of three main coping strategies: acknowledgment, display of distress support seeking, and engagement in instrumental problem solving. Mikulincer et al. wrote:

...acknowledging and expressing of feelings and seeking emotional support – work in the service of down-regulating distress so that ‘problem-focused coping’ components - seeking instrumental support and solving problems – can proceed successfully...

The building of these constructive capacities can also inhibit the activation of other

maladaptive means of coping, including ruminative and passive emotion-focused strategies, withdrawal and escapist strategies, and primitive defense mechanisms that distort perceptions and generate interpersonal conflicts. (p. 83)

Secondary attachment strategies (i.e., hyper activating vs. deactivating strategies) result in maladaptive coping behaviors (such as denial or avoiding the problem) that in the long run are detrimental even though they may be satisfying in the short term. Individuals with secure attachments utilize security-based strategies and therefore, are able to take positive steps to reduce their distress much more effectively than their more insecurely attached counterparts who use secondary attachment strategies. Hence, securely attached individuals are better able to manage and reduce their levels of anxiety and depression, during periods of stress (Lopez & Brennan, 2000).

Psychological Help Seeking

Most people with mental health disorders do not seek professional help (Bebbington et al., 2000). Males are least likely to seek help from healthcare professionals, even when experiencing severe levels of distress (Biddle et al., 2004). Help seeking is based on social relationships and interpersonal skills. Obtaining advice or support involves communicating with other people. Many people choose to seek help from their informal social networks such as family and friends. Trained professionals in the mental health fields are considered formal sources of help seeking. Rickwood, Deane, Wilson, and Ciarrochi (2005) wrote:

Help seeking for mental health problems is a social transaction between the personal domain of the internal world of thoughts and feelings and the interpersonal domain of social relationships. Help seeking is the process of actively seeking out and utilizing social relationships, either formal or informal, to help with personal problems. Unlike

many other social transactions, the objective is intensely personal. Help seeking is at the nexus of the personal and the interpersonal. Consequently, factors that affect both these domains are relevant, but those that operate at their intersection are especially pertinent. (p. 8)

People will choose to cope with problems in many ways and help seeking is one way to actively cope with a problem. When a problem is recognized and actively dealt with, one is using an approach coping style as opposed to a strategy that involves denial of a problem, and the avoidance of feelings and thoughts surrounding the problem (i.e., avoidance coping). However, obstacles exist to seeking help, including lack of emotional competence. Emotional competence has been described as the ability to identify, describe, and understand emotions and to be able to manage them in a non-defensive, effective manner (Mayer, Caruso & Salovey, 1999). Rickword et al. (2005) found with college students and adolescents that those who had less emotional awareness, i.e., were poor at identifying their emotions and less able to manage their emotions, were less willing to seek help from both informal and formal sources. Research also has shown that for individuals who adopt stereotypical masculine attitudes tended to have more negative views of help seeking for psychological issues (Good & Wood, 1995; Hayes & Mahalik, 2000). Stereotypical masculine attitudes can include restricted emotionality, where an individual tries to avoid feelings that he (or she) considers feminine such as feelings of vulnerability and caring emotions towards others. Research has shown that individuals' attitudes towards psychological help seeking determines to a large extent if they will seek help for emotional problems (Ajzen & Fishbein, 1980). Ajzen and Fishbein developed a model of behavior called *theory of reasoned action*. According to this

model, behaviors are predicted by intentions and intentions are predicted by attitudes about the behavior and subjective norms relating to the behavior.

Academic Help Seeking

Academic help seeking is viewed as an important self-regulatory behavioral strategy that learners use to help achieve their academic goals (Karabenick, 2004; Nelson-Le Gall, 1985; Ryan, Patrick, & Shim, 2005). Instrumental help seeking (also known as autonomous, adaptive, or strategic) is considered a proactive learning strategy that is focused on learning and understanding the problem as oppose to expedient help seeking (also known as executive or excessive) where the focus is on just getting the solution to the problem quickly and without effort (Diener & Dweck, 1978). Students who use instrumental help seeking are trying to obtain mastery and competence in the subject area (Nelson-Le Gall).

Achievement goals have been defined as competence-related objectives that individuals aspire to in an achievement setting and that different objectives result in different performance outcomes. Achievement goal research initially used a dichotomous framework distinguishing between performance and mastery goal orientations. Individuals with mastery goals were concerned about developing competency and those with performance goals were more interested in showing competency and therefore help seeking was originally categorized by either mastery goals (focus on learning) or performance goals (concerns about social comparisons and maintaining self-esteem). Instrumental help seeking is generally used by students who have mastery goals and the students who tend to use expedient help seeking are more likely to have performance goals (Dweck, 1986).

From the development of approach and avoidance dimensions in the motivation literature, goal orientations have been re-conceptualized similarly so that within the

categories of mastery and performance there would be dimensions of approach and avoidance. Therefore, achievement goal orientations are theorized as mastery-approach, mastery-avoid, performance-approach, and performance-avoid (Elliot & McGregor, 2001; Pintrich, 1999). In the motivation literature, approach is defined as trying to achieve a positive outcome and avoidance as trying to prevent a negative outcome.

The mastery-approach goal orientation is to increase levels of competence. The student is focused on the self and is not concerned about social comparisons. Mastery-avoidance goal orientation is to avoid a lack of mastery (i.e., the student is concerned about not understanding the concepts). The students with the performance-approach goal orientation want to display their ability to others and those with a performance-avoid goal orientation want to prevent looking incompetent or less capable. Mastery-approach goal orientation has been linked to instrumental help seeking. Performance-approach goal orientation has been linked to expedient help seeking.

Karabenick (2004) conceptualized help seeking behaviors also in two categories using the same terminology and conceptualization of avoidance and approach from the motivation literature. He describes two distinct set of behaviors and attitudes that he referred to as approach orientation and avoidance orientation. Approach orientation consisted of instrumental help seeking, formal help seeking (seeking help from the instructor vs. peers), recognizing the benefits of help seeking, and having a general intention to seek help. Avoidance orientation included expedient help seeking, a general intention to avoid help seeking, and help seeking cost (perceiving a threat to self-esteem by help seeking).

For this study, the following hypotheses were tested: 1) depression would negatively impact approach orientation and increase the avoidant orientation form of academic help

seeking; 2) secondly, attitudes towards psychological help seeking would be adversely impacted by depression and; 3) all three of the help seeking measures and depression would impact cumulative grade point average; the effect of approach orientation would be positive and the effects of avoidance orientation, attitudes towards psychological help seeking, and depression would be negative.

Method

Participants and Procedure

Participants were 582 male undergraduate students enrolled in the engineering college at a large Midwestern public research one university. The median age was 21 years, with 45% of the participants ranging in age between 18 and 20 years of age, 43%, between 21 and 23 years old, 7% ranged from 24 to 26 years old and 5% were 27 years of age or older. Median number of credits taken was 75.5 and the median GPA average was 3.07. In terms of their ethnicity, 89% were White–European American, 1% were Black–African American, 3% were Asian–Pacific Islander, 2% were Hispanic–Latino, 5% were of other racial–ethnic backgrounds. All male engineering students were asked to fill out an online survey on their psychological and academic help seeking orientation. Informed consent was given through the online survey process. Regression analysis was used to predict cumulative grade point average (GPA) with the predictor variables of ACT math, English, reading, and reasoning scores, high school rank, a depression rating scale and three help seeking scales.

Instruments

HS-Tendencies scale (Karabenick & Knapp, 1991). This 23-item scale measures students' tendencies to engage in a variety of help seeking behaviors. Karabenick and Knapp classified the items of the HS-Tendencies scale into eight categories: (a) general intention to

seek needed help (i.e., “If I needed help in this class I would ask someone for assistance”); (b) intentions to avoid seeking help (i.e., “If I didn’t understand something in this class I would guess rather than ask someone for assistance”; (c) instrumental help seeking goal (i.e., “If I were to get help in this class it would be to better understand the general ideas or principles”); (d) expedient help seeking goal (i.e., “The purpose of asking somebody for help in this class would be to succeed without having to work as hard”); (e) perceived costs of help seeking (i.e., “Others would think I was dumb if I asked for help in this class”); (f) formal help seeking (i.e., “If I were to seek help in this class it would be from the teacher”); (g) informal help seeking (i.e., “If I were to seek help in this class I would ask another student”); and (h) benefits of help seeking (i.e., “Getting help in this class would make me a smarter student”). Students were given the following conditional scenario: “Suppose you were not performing as well as you wanted to in college or in a particular class. What would you do? Respondents then rate how likely they would be to engage in various behaviors using a 7-point scale (0 = not at all likely to 6 = definitely). To obtain the approach orientation variable, the questions regarding the students’ intentions to seek help, the perceived benefits of seeking help, instrumental help seeking goals, and formal help seeking (from teachers) were combined. Avoidance orientation variable combined the questions for help seeking threat, intentions to avoid help, and expedient help seeking. Seeking help from other students was not included in either orientation. Cronbach’s alpha internal consistency reliability estimates were all in the acceptable range. Approach orientation test - retest reliabilities over 2-Months were 0.50 ($p < .001$) and for avoidance orientation, 0.52 ($p < .001$) (Wolters, Pintrich, & Karabenick, 2003).

Attitudes Towards Psychological Help Seeking (ATTPHS) —Short Form (Fischer & Farina, 1995). The ATTPHS short form contains 10 items from the original 29-item instrument that assesses general attitudes toward seeking professional help for psychological concerns. This instrument asks participants to rate their level of agreement with each item on a Likert scale ranging from 0 (*strongly agree*) to 3 (*strongly disagree*), with higher scores indicating more negative attitudes toward seeking professional psychological help. Examples are: "Emotional difficulties, like many things, tend to work out by themselves" (reverse-scored) and "At some future time, I might want to have psychological counseling"). The test-retest correlation with a 1-month interval between tests has been reported as 0.80 (Fischer & Farina).

Beck Depression Inventory (BDI), Beck, Steer, & Garbin, (1988). The BDI assesses the severity of 21 symptoms of depression. Each item is rated on a 4-point scale (range: 0-3). Thirteen items address cognitive or affective symptoms such as hopelessness and guilt. Two of these 13 items assess the cardinal symptoms of depression: depressed mood and loss of interest or pleasure in usual activities. The remaining eight items assess somatic symptoms such as insomnia, fatigue, and poor appetite. In screening uses, a total score of 10 or higher is the most widely used cutoff for clinically significant depression. BDI total scores of 10-18 are consistent with a mild level of depression, 19-29 with a moderate level of depression, and 30 or higher with severe depression.

Results and Discussion

The results of the BDI divided into the four levels of depression are in Table 1. Close to 45% of the students fell in the range from mild to severe depression. Depressive symptoms in students, while they may not reach a clinical diagnosis of depression, adversely affect a

student's academic performance. Studies comparing outpatients with major depressive disorder with college students (referred to as analogue) who score a 10 or greater on the Beck Depression Inventory found that they had similar symptomology and similar psychosocial risk factors and that most of the measures were not significantly different when compared with the clinical group, yet both the analogue and the clinical group were statistically different from the non-distressed group (Enn, Cox, & Borger, 2001). Depression is considered to exist on a continuum with sub-threshold depressive symptoms, although there may be some aspects of depression that may be discontinuous such as with certain personality or developmental variables (Enn et al.).

Table 1.

Beck Depression Inventory Frequencies

Range	Description	#	%
1. (0-9)	Non-distressed	321	55.2%
2 (10-18)	Mild depression	174	29.9%
3 (19-29)	Moderate depression	58	10.0%
4 (>30)	Severe depression	29	5.0%
Total		582	

In addition, depression can affect cognitive functioning. Depression can impair several components of executive functioning,(Castaneda, Tuulio-Henriksson, Marttunen, Suvisaari, & Lönnqvist, 2008; Egeland et al., 2003; Fossati, Amarb, Raoux, Ergisc, & Allilairea, 1999; Hill, Keshavan, Thase, & Sweeney, 2004), it can cause attentional deficits (Egeland et al.; Hill et al.; Smith, Muir, & Blackwood, 2006), reduce short-term and working memory impairment in both verbal and visual tasks (Fossati et al.), and cause dysfunction in

psychomotor skills (Hill et al.). As a result, attending to lectures and focusing on solving complex problems can be quite difficult for students with depressive symptoms and thus, the importance of treatment and prevention of depression cannot be overemphasized.

Table 2 shows the means, standard deviations, and bivariate correlations of the three help seeking scales: attitudes towards psychological help seeking (ATTPHS), approach orientation, and avoidance orientation, along with the Beck Depression Inventory (BDI),

Table 2.

Zero-Order Correlations, Means, and Standard Deviations (SD) Among Study Variables (n=582)

Variables	1	2	3	4	5	6	7	8	9	10
1. GPA	-									
2. HSR	.508***									
3. Math	.423***	.414***								
4. Engl	.335***	.439***	.597***							
5. Read	.276***	.347***	.481***	.668***						
6. Reas	.312***	.364***	.619***	.595***	.660***					
7. APPROACH	.091*	-.005	-.075*	-.048	-.076*	-.110**				
8. AVOID	-.193***	-.055	-.033	-.005	.003	.004	-.540***			
9. ATTPHS	-.127***	-.053	-.070*	-.096*	-.024	-.067	-.196***	.247***		
10. BDI	-.245***	-.158***	-.063	-.105**	-.080*	-.072*	-.183***	.275***	.086*	
Mean	3.04	82.68	28.8	26.08	27.33	27.78	53.99	30.05	26.63	10.75
SD	0.66	13.86	3.64	4.62	5.13	4.02	10.6	10.4	4.62	9.19

Note. GPA = Cumulative Grade Point Average; HSR = high school rank; Math = ACT Math; Engl = ACT Engl; Read = ACT Reading; Reas = ACT Reasoning; APPROACH = Approach orientation; AVOID = Avoidance orientation; ATTPHS = Attitudes Towards Seeking Professional Psychological Help; BDI = Beck Depression Inventory.

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

ACT scores, GPA, and high school rank. The correlations showed strong positive relationships between GPA and high school rank and Math ACT. Approach orientation

positively correlated with GPA, while avoidance orientation showed a stronger relationship, albeit negative, with GPA. For attitudes towards psychological help seeking, the more favorable the attitudes, the higher the GPA scores. The BDI resulted in a significantly negative relationship with GPA and high school rank.

The results from the hierarchical regression analysis predicting GPA are presented in Table 3. As a group, the predictor variables entered in the model accounted for a significant

Table 3.

Summary of Regression Analysis for Variables Predicting GPA (n=582)

Variable	B	SE B	β	t
Step 1				
(Constant)	.797	.327		2.437
HSR	.017	.002	.354***	9.157
Math	.045	.008	.251***	5.423
Engl	-.001	.007	-.008	-.148
Read	.003	.006	.026	.521
Reas	.000	.008	-.003	-.060
APPROACH	.002	.002	.026	.639
AVOID	-.007	.003	-.106**	-2.582
ATTPHS	-.010	.005	-.072*	-2.018
BDI	-.008	.003	-.115***	-3.247

Note. $R^2 = 36.9\%$ for step 1, $F(10,571) = 33.4$, ($p < .001$); Refer to Table 2 for definitions.

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

amount of the variance. The predictor variables that were significant were high school rank, Math ACT, avoidance orientation, attitudes towards psychological help seeking, and the BDI.

The data set was then split into two groups (distressed and non-distressed) by their score on the BDI (Table 4). The non-distressed group consisted of those who scored a nine or

Table 4.

T-Tests

Variable	Non-Distressed (n=321)	Distressed Group (n=261)	Standard T - Test	
	Mean	Mean	Mean Difference	Std. Error Difference
GPA	3.16	2.90	0.27***	0.05
HSR	84.21	80.79	3.41**	1.16
Math	29.03	28.52	0.51	0.30
Engl	26.42	25.66	0.76*	0.38
Read	27.60	27.00	0.61	0.43
Reas	27.94	27.58	0.36	0.33
GenHS1	14.12	12.16	1.96***	0.34
Avoid2	7.74	9.44	-1.71***	0.33
Cost3	11.08	13.54	-2.46***	0.44
Benefits4	16.55	15.95	0.60*	0.31
Instrum5	16.27	15.79	0.48 [†]	0.25
Exped6	9.09	9.72	-0.63*	0.31
Teach7	8.77	7.94	0.83***	0.25
APPR	55.71	51.87	3.84***	0.87
AVOID	27.90	32.70	-4.80***	0.84
ATTPHS	26.34	26.99	-0.64**	0.38
BDI	4.57	18.35	-13.78***	0.55

Note. Refer to Table 2 for additional definitions. GenHS1 = general intention to seek needed help; Avoid2 = intentions to avoid seeking help; Cost3 = perceived costs of help seeking; Benefits4 = benefits of help seeking; Instrum5 = instrumental help seeking goal; Exped6 = expedient help seeking goal; Teach7 = formal help seeking.

* $p < .05$, ** $p < .01$, *** $p < .001$. [†] $p < .055$.

less on the BDI and the distressed group contained individuals who score at least a 10 or higher on the BDI. A standard between group t-test showed that there were no significant differences between ACT scores. However, there was a significant difference between high school rank in the two groups, an indication that students who self-reported distress or depressive symptoms may have had emotional difficulties prior to college that affected their high school academic performance. GPA also differed significantly between the two groups, which could possibly verify the detrimental effects of depressive symptoms on academic performance.

The avoidance orientation mean score for the non-distressed group was significantly lower than it was for the distressed group. Thus, the avoidance orientation score which was one of the variables that had a negative relationship with GPA was higher for the distressed group than the non-distressed group. This indicates that the students in the distressed group were more likely to avoid seeking help and to find help seeking threatening to their self-esteem. The approach orientation variable was significantly higher for the non-distressed group than the distressed group. Attitudes towards psychological help seeking showed no significant difference between the two groups.

The avoidance orientation consists of three subscales: expedient help seeking, avoidant help seeking, and cost of help seeking. All three subscales differed significantly between the distressed group and the non-distressed group, however, avoidant help seeking and cost of help seeking were the most significant. The cost of help seeking subscale measures the students' level of perceived costs (or threat) of help seeking to their self-esteem. Situations that can be considered self-threatening such as admitting a failure to oneself or others is believed to be moderated by an individual's level of self-esteem. Low

self-esteem has been linked with lower levels of academic success and with lower levels of help seeking behaviors by students (Newman & Goldin, 1990; Shapiro, 1983). In addition, depression is link to withdrawal, social avoidance, and low self-esteem and is highly correlated with the avoidance orientation variable. The approach orientation scale consisted of four subscales, three of which showed significant differences between the groups; the non-distressed group had significantly higher means for general intention to seek help, instrumental help seeking goal, and formal help seeking.

Implications

The results from this study confirm what is known about depression and its impact on academic performance. The strong negative relationship with depressive symptoms and GPA gives impetus to educators to pay attention to signs and symptoms of depression. Over 40% of the respondents in this study were in the category of having a mild or moderate level of depressive symptoms. Due to the effects on cognitive functioning, advisors should encourage students with depressive symptoms to take lighter loads and to work with their disability resources office to obtain longer test times and copies of lectures. Students should be encouraged to seek counseling and medical advice regarding antidepressants. Gualtieri, Johnson, and Benedict, (2006) found antidepressants improved the level of functioning in depressed patients in measures of cognitive flexibility, processing speed, and vigilance attention. In addition, counseling can help students develop emotional competence and security-based coping strategies (Pistole & Watkins, 1995).

The results also show the negative effect of the avoidance orientation pattern of help seeking behaviors and attitudes on academic performance. Avoidance orientation along with the depressive symptoms (BDI), high school rank, and math ACT scores were all significant

predictors of GPA in the sample. The results from the t-tests indicate that students with depressive symptoms categorized as a BDI score of 10 or higher on average have significantly higher levels of avoidance orientation behaviors. Unfortunately, this suggests that the students who may need the most help either academically or emotionally are the least likely to ask for it.

Negative attitudes towards psychological help seeking correlated with lower a GPA. Favorable attitudes towards psychological help seeking correlated positively with approach orientation; the more favorable the attitudes towards psychological help seeking, the higher the approach orientation scores. This seems to be indication that emotional competence correlates with academic success. Students who are able to recognize, acknowledge, and effectively express their emotions can cope more effectively with stress than those who cannot. These students are able to build supportive relationships with others, who in turn, help to buffer the effects of stress and help to prevent loneliness and depression (Wei, Russell, & Zakalik, 2005).

This study confirms what is known about depression on academic performance and adds information regarding academic help seeking in relationship to students' academic performance. It also showed that over 40% of the students have varying levels of depressive symptoms. Educators need to re-evaluate their support systems and recognize that a much larger number of students are coming into college with behavioral patterns and emotional issues that may interfere with their success in college. It is estimated that over 30% of the population (Goldberg, 2000) have insecure attachment styles which can result in the use of more maladaptive methods (hyper activating vs. deactivating regulatory strategies) to cope with stress. Insecure attachment styles are associated with "drinking to cope" and "bingeing

under stress” (Lopez & Brennan, 2000). Students with insecure attachment styles are more at risk for depression. Students with depressive symptoms, even at a mild level, are more likely to have an avoidance orientation which is detrimental to their success, especially in a rigorous, stressful, and demanding major such as engineering.

The challenge for educators is to find ways to break the pattern of avoidance behaviors, educate students on coping strategies to manage stress, and more readily identify depressive symptoms in students. Improving mental health literacy among students, faculty, and advisors is important, along with de-stigmatizing counseling and help seeking. Some research indicates that students are more likely to attend a mental health seminar if it is framed in terms of how they can help someone else in need. Rickwood (2002) found that adolescents and young adults are more likely to seek help for a friend than for themselves. Advisors are important gateways to mental health services and so their own training in mental health “literacy” is important also. In addition, they can assist in removing barriers such as stigma and fear regarding help seeking whether it is for academic or psychological purposes by educating the students they work with about these issues.

Due to the large number of students with depressive symptoms, educational modules in orientation classes that help students identify their method of coping under stress, the relationship of adaptive and maladaptive coping strategies to academic performance, in addition to information about depression, counseling, and the importance of developing constructive strategies to cope with stress. Research has shown that improving social self-efficacy and the ability to self-disclose can help to mediate the affects of depressive symptoms (Wei et al., 2005). While providing counseling services is one way for colleges to address this, it would not be practical for all students with depressive symptoms to obtain

counseling, even if they wanted to. Intermediary ways need to be developed to help students. Many universities have learning communities that help to promote cooperative learning and lessen the threat of help seeking. These communities also allow for students to get socially integrated early into university life and may help to facilitate the development of social relationships and social self-efficacy. Other interventions could be pairing at-risk students with an advisor or faculty member to help the student to overcome an avoidance orientation pattern and to also provide a level of support and encouragement (i.e., a reliable attachment figure).

The findings from this study can only be generalized to college-age, educated, predominately White, middle-class, male students who have chosen an engineering degree. Generalizations to other samples should be made with caution. Self-report measures were used so reporting bias can occur.

The role that affect plays in academic success is monumental. The ability of students to have the skills and the knowledge to be able to proactively and effectively regulate their behaviors and emotions is crucial for student success. It is important for college educators and advisors to recognize that the students who are most in need of help are not necessarily the ones that come in to visit them. Programs or activities that result in increasing contact with at-risk students and that promote security-based affect regulation should be encouraged.

Conclusions

Based on the findings of this study, the following conclusions can be drawn:

- The higher the level of depression the more negative the impact on GPA.
- Negative attitudes towards psychological help seeking correlated with lower GPAs.

- Avoidance orientation pattern of academic help seeking correlated negatively with GPA in the distressed group but was not significant in the non-distressed group.

Recommendations for Future Research

Future research should include longitudinal studies researching the effectiveness of educational programs that cover topics such as effective coping methods and self-regulatory behaviors. In addition, education on depression should be included that covers intervention, prevention and de-stigmatization.

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CHAPTER 5. EXTROVERSION, NEUROTICISM, AND DEPRESSION'S EFFECT ON ACADEMIC AND PSYCHOLOGICAL HELP SEEKING ATTITUDES AND CUMULATIVE GRADE POINT AVERAGE

A paper to be submitted to the *Journal of the National Academic Advising Association*

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Abstract

Retention of college students is a high priority for universities across the country. Educators are constantly looking for ways to retain students and to help students perform well in their coursework. An important self-regulatory behavior for students to engage in is help seeking. This study looks at two of the most basic personality traits, along with depression to explore their affects on academic and psychological help seeking behaviors and overall student success. Results of the regression analysis showed that the personality trait, neuroticism, and depression had significant negative relationships to cumulative grade point average. The avoidance orientation scale was significantly related to neuroticism and depression. The implications of these findings are discussed in terms of future research directions.

Introduction

College can be a stressful time for students as they are confronted with many new life challenges from transitioning to college and adjusting to a new social environment, to academic challenges in course work and making major decisions regarding careers and personal relationships. The American College Health Association (American College Health Association-National College Health Assessment [ACHA-NCHA], 2005) reports that the top five impediments to academic performance as: (1) stress; (2) cold/flu/sore throat; (3) sleep

difficulties; (4) concern for friend or family; and (5) depression/anxiety disorders. Three of the top five impediments to academic success have been linked to the personality trait of neuroticism. Studies have found that level of perceived stress (Davidsdottir, 2007), depression/anxiety (Weinstock & Whisman, 2006), and sleep difficulties (LeBlanc et al., 2007) are all highly associated with the trait neuroticism. In addition, perceived stress, depression/anxiety disorders, and sleep difficulties are all highly correlated with each other.

To successfully overcome the difficulties and challenges in college students need to have effective coping skills to deal with their stress. Effective self-regulatory behaviors allow students to better regulate their emotional, cognitive, and behavioral processes. Help seeking is an important self-regulatory behavioral strategy that can be used when faced with either emotional or academic difficulties. Yet, many students do not seek help when needed, especially for serious emotional or academic difficulties (Knapp & Karabenick, 1988; Bebbington et al., 2000).

This study looked at one particular form of self-regulatory strategies, help seeking for both academic and psychological reasons. In addition, the study included two personality traits, extroversion and neuroticism, along with depressive symptoms to explore their effects on help seeking behaviors.

Personality Traits

Two main models have emerged in the personality psychology literature: the five factor model (McCrae & Costa, 2003) and the Big Three model (Eysenck, Eysenck, & Barrett, 1985). In Eysenck's model, a key requirement is that the basic traits should have a clear underlying physiological component with the brain and the nervous system that are part of a neurobiological system that can be linked to developing each trait (Larsen & Buss,

2008). The five traits in the five factor model are referred to as: Extroversion (or surgency), Agreeableness, Conscientiousness, Emotional stability (or Neuroticism), and Openness to Experience or Intellect. This model holds that most of the variability in personality can be captured in these five broad dimensions. The Big Three model consists of Extroversion, Neuroticism, and Psychoticism. In this study, extroversion and neuroticism are used because they form two of the mostly widely acknowledged basic personality traits. Extroversion is generally defined using characteristics such as optimistic, sociable and active and neuroticism is defined with terms such as insecure, emotional instability, and worry prone.

Recently, models have begun to emphasize motivational and affective mechanisms. Extroversion is now sometimes referred to as positive affect or Approach and neuroticism is referred to negative affect or Withdrawal. Withdrawal in this sense means withdrawal from uncertainty and from potential loss of reward (Nigg, 2006) and is not linked with affiliation (social withdrawal). In the achievement domain, goals can be conceived in terms of approaching a positive outcome (approach goals) or in terms of avoiding a negative outcome (avoidance goals) (Heimpel, Elliot, & Wood, 2006). High levels of neuroticism have been associated with avoidance (relative to approach) goals (Elliot & Thrash, 2002). Approach temperament has been associated with extraversion and positive emotionality.

Depression

Mathers and Loncar (2006) state that depression may become one of the top three leading cause of disability by the year 2030. The most common psychiatric disorders are depression and anxiety disorders (Kessler, 2007). Depressive disorders and anxiety disorders have been found to be highly comorbid and associated with neuroticism (Essau, 2007; Kessler, 1997, 2007; Weinstock & Whisman, 2006). Also, studies have shown a sequential

link between early anxiety and later depression (Costello, Mustillo, Erkanli, Keeler, & Angold, 2003).

Kessler et al. (1994) reported that the prevalence of mental illness among 15 to 24-year-olds is higher than any other age range and that the average age of onset for major depressive disorder is close to 15 years of age. In addition, research has shown that up to 30% of adolescents report clinically significant levels of depressive symptoms even though the incidence rate of depressive disorders is 15% for adolescents (Kessler, Avenevoli, & Merikangas, 2001). The American College Health Association (ACHA-NCHA, 2005) reported that the rate of students reporting ever being diagnosed with depression has increased 56% from 10% in spring 2000 to 16% in spring 2005.

Even mild mental health problems can have a negative effect on adolescents and young adults as important developmental changes (emotional, physical, social, and cognitive) are occurring at this time. In addition, decisions regarding educational and vocational choices are being made also, that can impact individuals for the rest of their life (Kessler, Foster, Saunders, & Stang, 1995). Kessler et al. wrote:

....We estimate that more than 7.2 million people in the United States prematurely terminated their education because of early-onset psychiatric disorders, and only a fraction will later complete either high school or college...There are many societal consequences, such as less training of the workforce, less capability of full functioning in civic life, and greater demands on social welfare entitlements. (p. 1031)

In the field of neuroscience there is evidence that early stress on a developing brain alters the way the individual reacts to stress as adults and predisposes them to anxiety and

depressive disorders (Bremner et al., 2003; Sullivan et al., 2006). Researchers use tests of cortisol levels to determine the level of stress an individual is experiencing. Higher levels are associated with behavioral inhibition or withdrawal (Davis Donzella, Krueger, & Gunnar, 1999; Gunnar & Donzella, 2002). Stress during pregnancy is related to higher cortisol levels and greater cortisol reactivity among adults (Reynolds et al., 2001). Insecure attachments formed with caregivers results in elevated cortisol levels in children (Sullivan et al., 2006). Essex, Klein, Cho, & Kalin (2002) found that maternal stress while the child was in infancy highly correlated with elevated levels of cortisol at age four. Higher cortisol levels were also reported in children whose mothers were depressed when they were infants (Lupien, King, Meaney, & McEwen, 2000).

Studies have shown that prolonged activation of neural and hormonal responses to stressors elevates the anxiety set point and makes individuals more reactive to stress (Bremner et al., 2003; Sullivan et al., 2006). In addition, animal studies have shown that the expression of genes in brain regions that regulate stress reactivity can be turned on or off as a result of the maternal care in the first week of life (Caldji, Diorio, & Meaney, 2003; Francis, Diorio, Liu, & Meaney, 1999). Other research showed that for children and adolescents whose mothers were depressed there were higher levels of withdrawal emotions such as sadness, anxiety, and fear (Halligan, Herbert, Goodyer, & Murray, 2004) and an increased risk of depression in adolescents (Goodyer, Herbert, & Tamplin, 2003). It is theorized that the depressed mother of an infant is less able to provide sensitive, supportive, and responsive care (fostering secure attachment) to the infant, thus adversely altering the development of the neurobiological system that then increases the risk for depression for adolescents and adults. Thus, the way infants respond to stress is in a large way influenced by their caretaker

(Rapee, 1997). Therefore, early child environmental events influence and increase the risks for higher levels of neuroticism, anxiety, and depressive disorders (Evans et al., 2005).

Bowlby's (1982) attachment theory has become the foremost theory in understanding affect regulation especially when under stress. Infants develop attachment strategies as a result of an evolutionary-developed inborn need to survive while they are completely helpless. When in distress, infants and young children seek out protection and support. When the caregiver is consistently responsive and supportive, the child develops secure attachment strategies along with positive models of the self and others. If the caregiver is not responsive or supportive insecure attachments can develop and negative internal working models of others and oneself can result. It is believed that once these attachment systems have been developed they rarely change throughout adulthood (for review, see Mikulincer, Shaver, & Pereg, 2003).

Adolescents and young adults who have insecure attachments with their parents are more likely to be depressed (Kenny, Moilanen, Lomax, & Brabeck, 1993) and develop anxiety disorders (Bögels & Brechman-Toussaint, 2006). Secure attachments to parents are predictive of successful social, academic, personal, and psychological functioning (Bradford & Lyddon, 1993; Hinderlie & Kenny, 2002; Kenny & Gallagher, 2002; Kenny & Rice, 1995; Lapsley & Edgerton, 2002; Lopez & Brennan, 2000). In addition, insecure attachments increase the reactivity of the individual to stress both physical and psychologically, which in turn, increases their risk for anxiety and depressive disorders and raises their level of neuroticism. The relationship between stressful life events and depression in children and adolescents has shown a strong empirical association (Compas, Grant, & Ey, 1994). Stress is

a response (subjective feeling) to the perceived demands in some situation that may be considered threatening or uncontrollable.

Coping is referred to as an effort to deal with threatening or harmful situations (see Carver, 2007). Being able to cope effectively is important to mental health and well-being. Emotional-based coping and problem-focused coping are two distinctions that have been made within the definition of coping (Folkman & Lazarus, 1984). Both emotional and problem-based coping can be interrelated, such as engaging in emotion-focused coping so that one can calm down enough to be able to then employ problem-based coping strategies. Numbing oneself from a loss or a failure by using alcohol or drugs would be emotion-focused coping that would not be very effective, however, ineffective problem-focused coping can also occur. Insecurely attached individuals tend to use more maladaptive coping strategies such as those that are oriented toward avoidance of the feelings (e.g., mental disengagement, thoughts of suicide) or diverting attention (e.g., self-criticism/self-blame, blaming others). These coping styles tend to relieve stress in the short term, but increase it in the long term (Bolger, 1990).

In terms of the personality traits, neuroticism predicted problematic coping strategies like wishful thinking, withdrawal, and emotion-focused but, like extraversion, also predicted support seeking while extraversion predicted more problem-solving and cognitive restructuring. Coping responses have also been identified as either approach coping or avoidant coping. Approach coping, where the individual engages with the stress directly or indirectly and uses problem-focused or emotion-focused coping strategies, has been linked with the trait extroversion. In avoidant coping (linked with neuroticism), the individual

attempts to escape the feelings of distress and acts as if the stressor does not exist by using wishful thinking or even denial.

Academic Help Seeking

Help seeking is viewed as an important self-regulatory behavioral strategy that learners use to help achieve their academic goals (Karabenick, 2004; Karabenick, & Sharma, 1994; Nelson-Le Gall, 1985; Newman, 1990; Ryan, Patrick, & Shim, 2005). Instrumental help seeking (also known as autonomous, adaptive, or strategic) focuses on learning and understanding the material to gain competence and mastery (Nelson-Le Gall). Help seeking behaviors that focus on avoiding the effort required to learn the subject matter and instead focuses on just obtaining the solution is referred to as expedient or executive (excessive) help seeking (Diener & Dweck, 1978).

In the achievement goal literature academic help seeking is explored within the framework of two types of goal orientations, mastery goals (focus on learning) and performance goals (concerns about ability, maintaining self-esteem, and social comparisons). Both types of goals are categorized into two dimensions of approach and avoidance (Elliot & McGregor, 2001). With performance-approach goals the focus is on outperforming their classmates and defining success relative to others, whereas with performance-avoidance goals the purpose is to prevent failure and avoiding looking less capable than peers. The student with mastery-approach goals tries to gain competency and uses self-referential standards. With mastery-avoidance the goal is to avoid not learning the material, to prevent the failure of obtaining competency in the subject matter and the focus is on the self and not comparisons with peers (Elliot, 1999).

Karabenick (2004) conceptualized help seeking behaviors into two orientations: approach and avoidance. The approach orientation includes instrumental help seeking, formal help seeking (seeking help from the instructor vs. peers), and a general intention to seek help. It also consists of attitudes that believe in the benefits of academic help seeking. The avoidance orientation includes expedient help seeking and intentions to avoid seeking help. It also consists of attitudes that perceive help seeking as threatening to the self-esteem. Mastery-approach goal orientation has been linked with the approach orientation help seeking pattern and mastery-avoidance, performance-approach, and performance-avoidance goal orientations have been related to the avoidance orientation pattern. In addition, extroversion was a predictor of mastery goals and neuroticism was found unrelated to mastery goals but related to performance-avoidance goals (Elliot & Thrash, 2002).

Psychological Help Seeking

The majority of people with mental health disorders do not seek professional help (Bebbington et al., 2000) and men are less likely than women to seek help from professionals, even when experiencing severe levels of distress (Biddle, Gunnell, Sharp, & Donovan, 2004). In general, people are more likely to seek help from their informal social networks such as family and friends rather than formal sources of help, which consist of trained professionals in the mental health fields.

As with academic help seeking, barriers exist to obtaining help for psychological issues. The stigma associated with mental illness or emotional problems keeps many from seeking help. In addition, the level of comfort individuals have with their own emotions and in sharing them with others has an effect on whether individuals will seek help. Students who

were poor at identifying their emotions and managing them were less likely to seek help from either informal or formal sources (Rickwood, Deane, Wilson, & Ciarrochi, 2005).

Hayes and Mahalik (2000) found that individuals who had adopted stereotypical masculine attitudes that included the restriction of emotionality, such as feelings of vulnerability and caring emotions towards others, tended to have more negative views of help seeking. Ajzen and Fishbein's (1980) model of behavior called *theory of reasoned action* found that behaviors are predicted by intentions and intentions are predicted by attitudes about the behavior and subjective norms relating to the behavior. They showed that peoples' attitudes towards psychological help seeking strongly influences whether they will actually engage in help seeking behavior.

For this study, the following hypotheses were tested: 1) neuroticism and depression would negatively impact help seeking approach orientation and attitudes towards psychological help seeking and increase the avoidance orientation pattern of academic help seeking; 2) extroversion would positively influence approach orientation, and attitudes towards psychological help seeking and decrease avoidance orientation and depression; and 3) neuroticism and depression would negatively impact cumulative grade point average (GPA) and extroversion would be positively related to GPA.

Method

Participants and Procedures

Participants were 664 male undergraduate students enrolled in the engineering college at a large Midwestern public research one university. The median age was 21 years, with 45% of the participants ranging in age between 18 and 20 years of age, 43%, between 21 and 23 years old, 7% ranged from 24 to 26 years old and 5% were 27 years of age or older.

Median number of credits taken was 75.5 and the median cumulative grade point average was 3.07. In terms of their ethnicity, 89% were White–European American, 1% were Black–African American, 3% were Asian–Pacific Islander, 2% were Hispanic–Latino, 5% were of other racial–ethnic backgrounds. All male engineering students were asked to fill out an online survey on their psychological and academic help seeking orientation. Informed consent was given through the online survey process. Regression analysis was used to predict help seeking attitudes with the predictor variables depression and the two personality traits. The regression analysis was then run again to explore the affects on GPA by depression, the three help seeking scales, and the two personality traits.

Instruments

HS-Tendencies scale (Karabenick & Knapp, 1991). This 23-item scale measures students' tendencies to engage in a variety of help seeking behaviors. Karabenick and Knapp classified the items of the HS-Tendencies scale into eight categories: (a) general intention to seek needed help (i.e., “If I needed help in this class I would ask someone for assistance”); (b) intentions to avoid seeking help (i.e., “If I didn’t understand something in this class I would guess rather than ask someone for assistance”); (c) instrumental help seeking goal (i.e., “If I were to get help in this class it would be to better understand the general ideas or principles”); (d) expedient help seeking goal (i.e., “The purpose of asking somebody for help in this class would be to succeed without having to work as hard”); (e) perceived costs of help seeking (i.e., “Others would think I was dumb if I asked for help in this class”); (f) formal help seeking (i.e., “If I were to seek help in this class it would be from the teacher”); (g) informal help seeking (i.e., “If I were to seek help in this class I would ask another student”); and (h) benefits of help seeking (i.e., “Getting help in this class would make me a

smarter student”). Students were given the following conditional scenario: “Suppose you were not performing as well as you wanted to in college or in a particular class. What would you do? Respondents then rated how likely they would be to engage in various behaviors using a 7-point scale (0 = not at all likely to 6 = definitely). To obtain the approach orientation scale, the questions regarding the students’ intentions to seek help, the perceived benefits of seeking help, instrumental help seeking goals, and formal help seeking (from teachers) were combined. The avoidance orientation scale combined the questions for help seeking threat, intentions to avoid help, and expedient help seeking. Seeking help from other students was not included in either orientation. Cronbach’s alpha internal consistency reliability estimates were all in the acceptable range. (Approach orientation test - retest reliabilities over 2-Months were 0.50 ($p < .001$) and avoidance orientation reliabilities were 0.52 ($p < .001$)) (Wolters, Pintrich, & Karabenick, 2003).

Extraversion and neuroticism. Costa and McCrae’s (1992a) NEO Five-Factor Inventory (NEO–FFI) was used to assess extraversion and neuroticism. The NEO–FFI is a short version of Form S of the Revised NEO Personality Inventory, and it assesses each of the Big Five traits with 12 items per trait (Extraversion, e.g., “I like to be where the action is”; Neuroticism, e.g., “When I’m under a great deal of stress, sometimes I feel like I’m going to pieces”). Participants indicated their responses on a 1 (strongly disagree) to 5 (strongly agree) scale, and their responses were summed to form the extraversion and neuroticism indices. The NEO-FFI is a widely used personality measure and its reliability and validity are well established (Costa & McCrae).

Attitudes Towards Psychological Help Seeking (ATTPHS) —Short Form (Fischer & Farina, 1995). The ATTPHS short form contains the 10 items from the original 29-item

instrument that assesses general attitudes toward seeking professional help for psychological concerns. The short version of this scale was constructed by including the items that had exhibited the highest item-total scale correlations. This instrument asks participants to rate their level of agreement with each item on a Likert scale ranging from 0 (*strongly agree*) to 3 (*strongly disagree*), with higher scores indicating more negative attitudes toward seeking professional psychological help. Examples are: "Emotional difficulties, like many things, tend to work out by themselves" (reverse-scored) and "At some future time, I might want to have psychological counseling"). The test-retest correlation with a 1-month interval between tests has been reported as 0.80 (Fischer & Farina).

Beck Depression Inventory (BDI), Beck, Steer, & Garbin, (1988). The BDI assesses the severity of 21 symptoms of depression. Each item is rated on a 4-point scale (range: 0-3). Thirteen items address cognitive or affective symptoms such as hopelessness and guilt. Two of these 13 items assess the cardinal symptoms of depression: depressed mood and loss of interest or pleasure in usual activities. The remaining eight items assess somatic symptoms such as insomnia, fatigue, and poor appetite. In screening uses, a total score of 10 or higher is the most widely used cutoff for clinically significant depression. The BDI total scores of 10-18 are consistent with a mild level of depression, 19-29 with a moderate level of depression, and 30 or higher with severe depression.

Results

The results of the BDI divided into the four levels of depression are in Table 1. Close to 47% of the students fell in the range from mild to severe depression. Table 2 shows the means, standard deviations, and bivariate correlations of the two personality variables, neuroticism (N) and extroversion (E), the Beck Depression Inventory (BDI), GPA, and the

Table 1.

Beck Depression Inventory

Range	Description	#	%
1. (0-9)	Non distressed	353	53.2
2 (10-18)	Mild depression	204	30.7
3 (19-29)	Moderate depression	72	10.8
4 (>30)	Severe depression	35	5.3
Total		664	100

Table 2.

Zero-Order Correlations, Means, and Standard Deviation (n=664)

	1	2	3	4	5	6	7
1. GPA							
2. Neuroticism	-0.203***						
3. Extroversion	0.016	-0.376***					
4. BDI	-0.254***	0.613***	-0.322***				
5. Approach	0.063	-0.169***	0.310***	-0.188***			
6. Avoid	-0.143***	0.357***	-0.293***	0.264***	-0.541***		
7. ATTPHS	-0.113**	0.012	-0.077*	0.082*	-0.189***	0.204***	
8. Mean	3.01	31.72	40.85	11.04	54.41	29.91	26.49
9. SD	0.68	9.23	7.52	9.35	10.62	10.57	4.76

Note. GPA = Cumulative grade point average; BDI = Beck Depression Inventory; Approach = Approach orientation; Avoid = Avoidance orientation; ATTPHS = Attitudes Towards Seeking Professional Psychological Help Scale; SD = standard deviation.

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

three help seeking scales: attitudes towards psychological help seeking (ATTPHS), approach orientation help seeking (APPROACH), and avoidance orientation help seeking (AVOID).

The results show negative relationships between GPA and neuroticism, BDI, avoidance orientation, and ATTPHS. Neuroticism was positively related to BDI and avoidance orientation and negatively related to approach orientation and extroversion.

Extroversion correlated negatively with BDI, AVOID, and ATTPHS and positively with APPROACH. BDI negatively correlated with APPROACH and positively correlated with AVOID and ATTPHS. The higher the level of depressive symptoms as indicated by BDI, the more negative the attitudes towards psychological help seeking and academic help seeking.

The model was significant when a regression analysis was run to predict GPA (Table 3). The significant predictor variables were BDI and ATTPHS. There is a high level of collinearity with the BDI and neuroticism; their measurements cover similar underlying constructs. As a result of this, by step 3, the BDI beta weight and not the neuroticism variable became significant. This high level of collinearity also resulted in a negative sign for the extraversion beta weight. Since extroversion showed no zero-order correlation with GPA (Table 2), this change in sign from a positive to a negative is due to the high degree of collinearity between neuroticism, extroversion, and the BDI.

Table 3.

Summary of Hierarchical Regression Analyses Predicting GPA

Variable	B	SE B	β	t
Step 1 (Constant)	3.806	0.208		18.298
Neuroticism	-0.017	0.003	-0.229***	-5.593
Extroversion	-0.006	0.004	-0.070	-1.718
Step 2 (Constant)	3.774	0.205		18.415
Neuroticism	-0.008	0.004	-0.103*	-2.103
Extroversion	-0.008	0.004	-0.094*	-2.308
BDI	-0.016	0.003	-0.221***	-4.626
Step 3 (Constant)	4.345	0.312		13.906
Neuroticism	-0.007	0.004	-0.089	-1.780
Extroversion	-0.010	0.004	-0.110**	-2.615
BDI	-0.015	0.003	-0.209***	-4.378
Approach	-0.001	0.003	-0.018	-0.389
Avoidance	-0.005	0.003	-0.079	-1.674
ATTPHS	-0.013	0.005	-0.090*	-2.353

Note. Step 1; $F(2, 661) = 15.7$, $R^2 = 4.5\%$ ($p < .001$); Step 2; $F(3, 660) = 17.9$, $R^2 = 7.5\%$ ($p < .001$); Step 3; $F(6, 657) = 10.8$, $R^2 = 8.9\%$

($p < .05$). BDI = Beck Depression Inventory; Approach = Approach orientation; avoidance = Avoidance orientation; ATTPHS = Attitudes Towards Seeking Professional Psychological Help Scale.

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

Discussion

The zero-order correlations show extroversion is strongly correlated with approach orientation. The neuroticism trait showed a strong relationship with avoidance orientation. As the level of neuroticism increased, the more likely the students felt there were negative costs to help seeking, the more likely they were to avoid asking for help, and the more likely they

were to engage in expedient (vs. instrumental) help seeking. The results are in line with other research indicating the approach tendencies of extroversion and the avoidance tendencies of neuroticism. Extroversion did not correlate with GPA, however, neuroticism had a negative correlation with GPA as did the BDI, avoidance orientation, and negative attitudes toward psychological help seeking.

Close to 47% of the students reported depressive symptoms ranging from mild to severe. Depression symptoms were highly correlated with neuroticism. The measurement of neuroticism is a reflection of the level of anxiety and the level of depressive symptoms in students. The BDI was also positively correlated to avoidance orientation and to negative attitudes towards psychological help seeking. The higher the level of depressive symptoms the less likely students were to engage in positive academic help seeking and the more likely they would have a higher avoidance orientation pattern of help seeking behaviors and attitudes even at mild levels of depressive symptoms. In addition, they are less likely to have favorable attitudes towards psychological help seeking and thus would be less likely to get help for emotional issues. The symptoms of depression include low self-esteem and withdrawal behaviors. Extensive research has documented the link between low self-esteem and poor academic success (Newman & Goldin, 1990; Shapiro, 1983).

The convergence of personality traits, genetics, biological tendencies, and upbringing can result in maladaptive ways to cope with stress in school and can inhibit proactive and positive help seeking behaviors. Educators need to re-evaluate their support systems and recognize that a much larger number of students are coming into college with behaviors that are not adaptive to success in college. In addition, students who are most in need of

assistance are the ones most likely not to use approach coping and proactive methods to gain the help they need.

Because three of the top five impediments to academic performance are stress, sleep difficulties and anxiety/depression, educational workshops both in residential halls and in first year orientation classes should be provided that show students how to recognize and cope with stress, anxiety, and depression (Dunn, Trivedi, Kampert, Clark, & Cham-bliss, 2005). Included in the training should be education on exercise due to its well-researched affects on reducing stress and depression (Dishman et al., 2006) and improving the quality of sleep (Colcombe & Kramer, 2000). In addition, there is a strong need to improve the mental health literacy among students, faculty, and advisors. Advisors are important gateways to mental health services and so their own training in mental health “literacy” should be a high priority. Advisors can also assist in removing barriers such as stigma and fear regarding help seeking whether it is for academic or psychological purposes. While increasing the quality and accessibility of counseling services is one way for colleges to treat depression symptoms in their students, it would not be practical for all students with depressive symptoms to obtain counseling, even if they wanted to. Other methods need to be developed to help students. Improving social self-efficacy and the ability to self-disclose can help to mediate the affects of depressive symptoms (Wei, Russell, & Zakalik, 2005). Along those lines, learning communities can help students to get socially integrated into campus life and may help to facilitate the development of social relationships and social self-efficacy. For students with insecure attachments that result in higher levels of anxiety, depression, and/or avoidance coping, extending their social support network through the use of learning communities provides these students with an important coping resource as studies have shown that

adequate social support reduces distress and psychological disorders (Voydanoff & Donnelly, 1999). In addition, these programs promote cooperative learning and thus, lessen the threat and stigma of help seeking. Along with learning communities, providing free tutoring in a comfortable area, especially for first year students would be beneficial. Students could learn to seek help in a friendly, non-threatening environment and by obtaining help, may improve their academic performance, which would then in turn, help them to gain additional confidence and academic self-efficacy. By being in an area where they see many others asking for help, it would also help to normalize help seeking for those students who would otherwise avoid it.

Other interventions could be pairing at-risk students with an advisor or faculty member to provide support and encouragement to lessen the stress and anxiety symptoms for students who have insecure attachment styles. Adolescents and young adults develop other attachment figures besides their parents as they grow older such as teachers, coaches, peers, and partners. For at-risk students who have an insecure attachment style, being paired with a caring and supportive adult, would help to lessen their anxiety when they are first entering the college environment and have not yet formed other secure attachments. The one on one relationship could also further the training and development of the students by helping them learn how to engage in positive and proactive approach behaviors and decrease their use of maladaptive coping behaviors.

The findings from this study can only be generalized to college-age, educated, predominately White, Midwestern, middle-class, male students who have chosen an engineering degree. Generalizations to other samples should be made with caution. Self-report measures were used so some reporting bias can occur.

The importance of the self-regulation of behaviors and emotions in an academic setting is important for student success. It is important for college educators and advisors to recognize the extent of depressive symptoms and maladaptive forms of coping in college students and to develop ways to help students overcome behaviors that are detrimental to their success.

Conclusions

Based on the findings of this study, the following conclusions can be drawn:

- The personality trait, extroversion, is positively correlated to the approach orientation help seeking pattern.
- The personality trait, neuroticism, is positively related to the avoidance orientation help seeking pattern.
- The personality trait, extroversion, is positively linked to more favorable attitudes towards psychological help seeking.
- Depressive symptoms are positively correlated to neuroticism and an avoidance orientation.
- GPA is negatively affected by neuroticism but is not related to extroversion. When the BDI and help seeking variables are added into the multiple regression analysis, and are controlled for, neuroticism is no longer significantly related to GPA.

Recommendations for Future Research

Future research should include longitudinal studies researching the effectiveness of educational programs that cover topics such self-regulatory behaviors and education on “emotions” which would help students understand the relationship between their emotions and their self-management of emotions under stress with academic success. In addition,

developing and evaluating programs that cover prevention and intervention for depressive symptoms.

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CHAPTER 6. SUMMARY AND CONCLUSIONS

Summary

Chapter 3. Gender Role Conflict and Help Seeking Attitudes

This study examined the effects of gender role conflict on academic and psychological help seeking attitudes and how these help seeking attitudes may affect academic performance in male engineering students. As anticipated, gender role conflict was found to have a negative impact on both approach orientation and attitudes towards seeking psychological help. It positively correlated with the avoidance orientation help seeking pattern.

Of the four gender role conflict patterns, Restrictive Emotionality was the only pattern that impacted both the academic and the psychological help seeking attitudes. Restrictive Emotionality showed a negative relationship with approach orientation attitudes and favorable attitudes towards help seeking. It also showed a positive relationship to avoidance orientation. Restriction of emotions can lead to distancing from one's emotions and can eventually lead to becoming unable to recognize, identify, and describe one's feelings. Studies have shown that restriction of emotional expression and self-disclosure has been linked to relational, physical, and psychological problems. An important factor in the etiology and course of psychosomatic illness is the suppression of affect expression (Scheidt & Waller, 2004). Pennebaker (1995) found an increase in physiological stress response and Solano et al. (1982) found that self disclosure is negatively linked to loneliness. Mahalik (1996) found that the Restrictive Emotionality pattern was related to hostile behavior, mistrust, and being cold, detached, and inhibited. Restrictive Emotionality consists of a

dysfunctional pattern of emotional regulation that clearly affects student's academic achievement by impacting their academic and emotional help seeking behavior.

The last part of the study looked at how these attitudes towards help seeking affected grade point average. As predicted, cumulative grade point average decreased as avoidance orientation behavior increased. In addition, as attitudes towards psychological help seeking became more positive, grade point average increased. Approach orientation was not significantly related to grade point average.

Chapter 4. Impact of Help Seeking Attitudes and Depression on Students' Academic Success

The results from this study confirm what is known about depression and its impact on academic performance. The negative relationship with depressive symptoms and cumulative grade point average gives strong impetus to educators to pay attention to signs and symptoms of depression. Over 40% of the respondents in this study were in the category of having mild or moderate level of depressive symptoms.

The results also show the strong negative effect of avoidance orientation on academic performance. Avoidance orientation, along with depressive symptoms, high school rank, and math ACT scores were all significant predictors of GPA. This indicates that students with depressive symptoms are more likely to have significant avoidance orientation behaviors that can negatively impact their GPA. Unfortunately, from these results, it suggests that the students who may need the most help either academically or emotionally, are the least likely to ask for it.

The avoidance orientation pattern consists of three subscales: expedient help seeking, avoidant help seeking, and cost of help seeking. All three subscales significantly impact avoidance orientation, however, the cost of help seeking subscale accounts for most of the

variance. The cost of help seeking measures the students' level of perceived costs (or threat) of help seeking to their self-esteem. Situations that can be considered self-threatening such as admitting a failure to oneself or others is believed to be moderated by an individual's level of self-esteem. Low self-esteem has been linked with lower levels of academic success and with lower levels of help seeking behaviors by students (Newman & Goldin, 1990; Shapiro, 1983). Depression also was positively correlated with the avoidance orientation pattern and has also been linked to low self-esteem, withdrawal, and social avoidance.

Negative attitudes towards psychological help seeking correlated with lower GPA's. Positive attitudes towards psychological help seeking correlated with higher scores for approach orientation attitudes. This seems to be indication that emotional competence relates to academic success. Students who are able to recognize, acknowledge, and effectively express their emotions can cope more effectively with stress than those who cannot. These students are able to build supportive relationships with others who in turn, help to buffer the effects of stress by providing both academic and emotional support in times of need. In addition, students who have supportive individuals around them are able to prevent loneliness which can lead to depression (Wei, Russell, & Zakalik, 2005).

Chapter 5. Personality Traits, Depression and Academic Success

The zero-order correlations show that extroversion is positively correlated with approach orientation. The neuroticism trait showed a positive relationship with avoidance orientation. Results are in line with other research indicating the approach tendencies of extroversion and the avoidance tendencies of neuroticism. Extroversion did not correlate with GPA, however, neuroticism had a negative correlation with GPA as did the BDI, avoidance orientation and negative attitudes toward psychological help seeking. As the level of

neuroticism increased, the more likely the students felt there were negative costs to help seeking, the more likely they would avoid asking for help and the more likely they were to engage in expedient (vs. instrumental) help seeking.

The level of depressive symptoms (BDI) was also highly correlated with neuroticism. In addition, the BDI was significantly correlated to avoidance orientation and to negative attitudes towards psychological help seeking. The variable neuroticism shares many common underlying constructs with depression as measured by the BDI. The personality trait, extroversion, was positively linked to more favorable attitudes towards psychological help seeking.

The findings from this study can only be generalized to college-age, educated, predominately White, Midwestern, middle class male students who have chosen an engineering degree. Generalizations to other samples should be made with caution. Self-report measures were used so some reporting bias may occur.

Conclusions

Based on the results of this study, the following conclusions can be drawn:

Avoidance orientation pattern of academic help seeking

- Depressive symptoms were positively correlated to an avoidance orientation.
- Students who have higher gender role conflict scores have higher avoidance orientation scores.
- Neuroticism was positively correlated to avoidance orientation.
- Students with high levels of avoidance orientation tend to have less academic success than those with lower levels of the avoidance orientation.

Approach orientation pattern of academic help seeking

- Extroversion was positively correlated to the approach orientation pattern of help seeking.

Psychological help seeking

- Students with higher gender role conflict scores tend to have more negative attitudes towards psychological help seeking.
- Extroversion was positively linked to more favorable attitudes towards psychological help seeking.
- Negative attitudes towards psychological help seeking correlated with lower GPAs.

Academic success

- GPA was negatively affected by neuroticism. However, when controlling for the three help seeking variables and the BDI (Depressive symptoms) the trait neuroticism does not impact GPA.
- Students with higher levels of avoidance orientation tended to have lower GPAs.
- The more favorable the attitudes were towards psychological help seeking the higher the GPA.
- The higher the level of depressive symptoms the lower the GPA.

Implications for student affairs professionals and faculty

Over 40% of students reported high enough levels of depressive symptoms that can interfere with their academic success. Student affairs professionals and faculty should be aware of the signs of depression in students and understand how it's impacting a student's

academic success. Advisors need to be educated in mental health issues to the level that they learn how to effectively encourage counseling to students and can help to de-stigmatize counseling. Counseling services may need to be offered to students or expanded to meet the need.

The study shows the close association with depression and an avoidance orientation pattern of help seeking. Student's affairs professionals need to be aware that many students have avoidance orientations, which can prevent these students from getting the help they need. As a result, advisors should be proactive and set up regularly scheduled meetings throughout the semester especially with at-risk students, instead of waiting for students to come to them.

Student affairs professionals and faculty need to be aware of socialization processes that may make it difficult for some students to discuss problems interfering with their academic success. In addition, advisors should understand that early socialization processes such as insecure attachment styles can result in a higher set point for anxiety, resulting in a higher level of sensitivity towards stress. Those who experience or perceive higher levels of stress are more likely to have depressive symptoms and have avoidance orientation patterns. As a result, student's affairs professionals need to provide education on preventing, managing and reducing stress and anxiety.

Throughout the transition to college, young adults or teenagers may need temporary "attachment figures" to provide support and guidance until they develop other "secure" attachment relationships on campus. For those students with insecure attachment systems, who experience a great deal of stress either in the transition to college life or through other traumatic experiences in their life such as parents separating or relationship breakups, having

a secure attachment figure on campus can help to reduced their anxiety levels and a propensity towards depression. Advisors, faculty, and college personnel need to understand how they may find themselves in that role and understand that when properly managed, they can help to lower the anxiety and stress a student may be dealing with.

Many universities have learning communities that help to promote cooperative learning and lessen the threat and stigma of help seeking. These communities also allow for students to get socially integrated early into university life and may help to facilitate the development of social relationships and social self-efficacy. Along with learning communities, providing free tutoring in a comfortable area, especially for first-year students would be beneficial. Students would learn to seek help in a friendly, non-threatening environment and by obtaining help, may improve their academic performance, which would then in turn, help them to gain additional self-confidence and academic self-efficacy. In addition, by being in an area where students see many others asking for assistance would help to normalize help seeking.

Recommendations

Future research should include longitudinal studies researching the effectiveness of educational programs that covers topics such as self-regulatory behaviors. Education on depression should be included that covers intervention, prevention, and de-stigmatization. In addition, a science-based education on stress and anxiety would be beneficial.

Studies could also explore the results of offering educational seminars for students on gender role conflict and other socialization processes that tend to devalue feelings and lead to maladaptive coping methods and negative help seeking behaviors. In addition, research could look at the effectiveness of training for college advisors and faculty on these issues affecting

students to see if it helps them to more readily recognize problems and provide more effective assistance to students. Longitudinal studies could study the effect on retention as a result of the additional training and education for both students and professionals. The research could include studying the effect of creating a well-defined, proactive plan to work with at-risk students that would include an increase in the number of one-on-one regularly scheduled meetings throughout each semester to forge stronger connections with the students and which would be specifically focused on the developmental needs of the students.

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