



The Impact of Depression on Academic Success and Academic Help Seeking Attitudes

Dr. Mary E. Goodwin, University of South Florida

Dr. Goodwin, who has engineering degrees in industrial and environmental engineering, is the Director of Student Services in the College of Engineering at the University of South Florida. She worked in industry for nine years and more than 25 years in higher education, focusing on engineering education.

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This paper is based on completed research. Retention of college students is a priority for universities across the country. Educators are constantly looking for ways to retain students and to help them perform well academically. 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. Students need to have effective behavioral skills to successfully overcome difficulties in college. 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. This study looks at the attitudes toward psychological help seeking and academic help seeking and how it impacts engineering student success. In addition, the level of depression among male engineering students was surveyed and the resulting effect on helping seeking attitudes was measured. A survey of 582 male engineering students revealed that students with depressing symptoms were more likely to avoid seeking help than the students who had not indicated that they were distressed. In addition, there was a significant difference in high school rank between the distressed group and non distressed group indicating that those students who self-reported distress or depressive symptoms may have had emotional difficulties prior to entering college that affected their high school academic performance. The theory and research are reviewed, along with the implication of finding so many students with depressive symptoms for administrators, faculty, and advisors working with this cohort of students.

Introduction

High school performance and standardized test scores have been shown to be strong predictors of retention and strong academic performance, but they do not fully explain the variance in students' success rate. Research has shown there are many factors affecting academic achievement including emotional and behavioral variables [1], [2], [3]. One of these variables is depression. In the past 20 years, the American College Health Association has continued to report depression as one of top five impediments to academic performance. The rate of students being diagnosed with depression has continued to increase also. In 2019, the top four impediments [4] to academic performance are all comorbid with or symptoms related to depression (1) Stress 34.2%, (2) Anxiety 27.8%, (3) Sleep Difficulties 22.4%, (4) Depression 20.2%.

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 [5], [6]. 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 [7]. The focus on 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).

Background

Depression and anxiety disorders are the most common psychiatric disorders [8] and depression is expected to be one of the top three leading causes of disability by the year 2030 [9]. Depression can occur in children and with the mean age onset for major depressive disorder close to 15 years of age, the incidence of mental illness among 15 to 24-year-olds is higher than any other age range [8]. The Center for Disease Control reported that in the United States, approximately 6 to 9 million children and adolescents have serious emotional disturbances [10].

For adolescents, the prevalence rate of depressive disorders is 15% but up to 30% report clinically significant levels of depressive symptoms [11]. 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 [2]. 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 educational and vocational progress. Kessler et al. [2] 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.

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 [12] and Bowlby's [13] 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 [14]. Students with secure attachments to parents are predictive of successful social, academic, personal, and psychological functioning [15], [16], [17].

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 [18]. 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 [19]. 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. [20] 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. Neurobiological processes that underlie the pathophysiology of depression is 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 [21], [22].

Attachment theory has been used to describe humans' self-regulatory response to stress. When individuals are under stress their attachment system is activated and it results in security-based regulatory strategies or the development of secondary attachment strategies, i.e., hyper activating vs. deactivating strategies [23]. 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. [23] 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.

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 anxiety and depression, during periods of stress [24].

Psychological Help Seeking

Most people with mental health disorders do not seek professional help [6]. Males are least likely to seek help from healthcare professionals, even when experiencing severe levels of distress [7]. 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 [25] 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 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.

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 [26]. Rickword et al. [25] 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, and 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 [27]. 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 [28]. 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 [29], [30], [31]. Instrumental help seeking (also known as autonomous, adaptive, or strategic) is considered a proactive learning strategy that focuses 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 [32]. Students who use instrumental help seeking are trying to obtain mastery and competence in the subject area [30].

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 those students who tend to use expedient help seeking are more likely to have performance goals [33].

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 [34], [35]. 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 [29] 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: depression would negatively impact approach orientation and increase the avoidant orientation form of academic help seeking. Secondly, attitudes towards psychological help seeking would be adversely impacted by depression. Third, all three of the help seeking measures and depression would impact cumulative grade point average. The effect of approach orientation would be positive, 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 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 [5]. This 23 question scale measures students' tendencies to engage in a variety of help seeking behaviors. Karabenick and Knapp [5] 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 are 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 ($p < .001$) [36].

Attitudes Towards Psychological Help Seeking (ATTPHS) —Short Form [37]. 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, 1995).

Beck Depression Inventory (BDI), [38]. 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 mild, 19-29 with moderate,

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. 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 [39].

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. Several components of executive functioning have been found impaired [40], [41], [42], attentional deficits [40], [42], [43], short-term and working memory impairment in both verbal and visual tasks [41], and dysfunction in psychomotor skills [42]. 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 (APPR), and avoidance orientation (AVOID), along with the Beck Depression Inventory (BDI) and ACT scores, GPA and high school rank. The correlations show strong relationships between GPA and high school rank, and Math ACT. Approach orientation positively correlated with GPA, although the avoidance orientation showed a stronger relationship, albeit negative, with GPA. Attitudes towards psychological help seeking, also correlated significantly with GPA. The higher the GPA, the more favorable the attitudes were towards psychological help seeking. BDI resulted in a significant negative relationship with GPA. In addition, the BDI were significantly negatively related to high school rank.

Table 2. Zero-Order Correlations, Means, and Standard Deviations (SD) Among Study Variables (n=582)

	1	2	3	4	5	6	7	8	9	10
1. GPA	-									
2. HSR	.508**									
3. Math	.423**	.414**								
4. English	.335**	.439**	.597**							
5. Reading	.276**	.347**	.481**	.668**						
6. Reason	.312**	.364**	.619**	.595**	.660**					
7. APPR	.091*	-.005	-.075*	-.048	-.076*	-				
8. AVOID	-	-.055	-.033	-.005	.003	.004	-			
9. ATTPHS	-	-.053	-.070*	-.096*	-.024	-.067	-	.247*		
10. BDI	-	-	-.063	-.105**	-.080*	-.072*	-	.275*	.086*	
Mean	3.04	82.68	28.8	26.08	27.33	27.78	53.99	30.05	26.63	10.7
SD	0.66	13.86	3.64	4.62	5.13	4.02	10.6	10.4	4.62	9.19

Note. 1. GPA = Cumulative Grade Point Average; 2. HSR = high school rank; 3. Math = ACT Math; 4. English = ACT English; 5. Read = ACT Reading; 6. Reason = ACT Reasoning; 7. APPR = Approach orientation; 8. AVOID = Avoidance orientation; 9. ATTPHS = Attitudes Towards Seeking Professional Psychological Help; 10. BDI = Beck Depression Inventory.

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

The results from the hierarchical regression analysis predicting cumulative GPA are presented in Table 3. As a group the predictor variables entered in the model accounted for a significant amount of the variance. The predictor variables that were significant were high school rank, Math ACT, avoidance orientation, attitudes towards psychological help seeking, and BDI.

Table 3. Summary of Regression Analysis for Variables Predicting Grade Point Average (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
English	-.001	.007	-.008	-.148
Reading	.003	.006	.026	.521
Reason	.000	.008	-.003	-.060
APPR	.002	.002	.026	.639
AVOID	-.007	.003	-.106**	-2.582
ATTP	-.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.

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

The data were 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 less on the BDI and the distressed contained individuals who score at least a 10 or higher on the BDI. A standard between group T-tests showed that there were no significant difference 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 before college that affected their high school academic performance. GPA also differed significantly between the two groups, indicating the detrimental effects of depressive symptoms on academic performance.

The avoidance orientation mean score for the non-distressed group was significantly lower than 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.

Table 4. T-Test Between the Distressed Group and Nondistressed Group

	Non-Distressed	Distressed	Standard T- Test	
	(n=321)	Group (n=261)	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
English	26.42	25.66	0.76*	0.38
Reading	27.60	27.00	0.61	0.43
Reason	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.

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

The avoidance orientation mean score for the non-distressed group was significantly lower than 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 student's 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 [44], [45]. In addition, depression is linked 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 clearly significant negative relationship with depressive symptoms and GPA 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. 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. Gualtieri, Johnson, & Benedict, [46] found antidepressants improved the level of functioning in depressed patients in measures of cognitive flexibility, processing speed, and vigilance attention. Students should be encouraged to seek medical advice regarding antidepressants. In addition, counseling can help students develop emotional competence and security-based coping strategies [47].

The results also show the negative effect of help seeking behaviors and attitudes that form an avoidance orientation has on academic performance. Avoidance orientation along with the BDI, high school rank, and math ACT scores were all significant predictors of GPA in the sample. The t-tests indicate that students with depressive symptoms categorized at 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 less likely to ask for it.

Negative attitudes towards psychological help seeking correlated with lower GPA's. ATTP also correlated strongly with approach orientation; the more favorable the attitudes towards psychological help seeking, the higher the approach orientation scores. This seems to be an indication that emotional competence correlates with academic success. Students who can cope effectively with stress by being able to recognize, acknowledge, and effectively express their emotions and who 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 [48].

The study confirms what is known about distress on academic performance and adds information regarding the use of the academic help seeking measures in relationship to students' academic performance. It also shows that over 40% of the engineering 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 [49] 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" [24]. 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 in need. Rickwood [50] 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 effects of depressive symptoms [48].

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.

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 destigmatization.

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