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Depression in College Students

An Honors College Project Presented to
the Faculty of the Undergraduate
College of Health and Behavioral Sciences
James Madison University

by Sarah A. Paynter

Accepted by the faculty of the Department of Psychology, James Madison University, in partial fulfillment of the requirements for the Honors College.

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Depression in College Students

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Author Note

Sarah Paynter, James Madison University, for her psychology honors thesis.

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Introduction

Purpose/ Objectives

Many college students struggle with clinical depression, but they continue enrollment at their university (DeRoma, Leach, and Leverett, 2009). As students with depression strive to keep up with schoolwork and achieve good grades, they might be inhibited by lowered motivation to complete tasks (Bryan, Bryan, Hinkson, Bichrest, and Ahern, 2014), emotional barriers (DeRoma et al., 2009), and lowered cognitive functioning (Owens, Stevenson, and Hadwin, 2012). They may even have a lowered self-concept or a hopeless outlook that competes with their sense of task (DeRoma et al., 2009). The impairments associated with depression reach deeply into academic functioning.

If they seek help, students can receive assistance through emotional and academic support. However, among students with depression who do not seek help, they may academically cope with their disorder and engaging in, or failing to engage in, individual academic strategies to approach their schoolwork (Dinklage, 2008).

Many studies (Gonzalez, Reynolds, and Skewes (2011); Mackenzie et al. (2011); Peluso, Carleton, & Asmundson, 2011) report the prevalence of depression on campuses and the negative correlation between depression and academic success (Elion, Wang, Slaney, & French, et al., 2012; Khanam & Bukhari, 2015; Keyes, Eisenberg, Perry, Dube, Kroenke, and Dhingra, 2012). However, researchers have not examined among students who have depression how they seek to succeed despite their illness through academic strategies. I look to explore how students cope academically through individual academic strategies.

Literature Review

Prevalence

Clinical depression is a prevalent and growing disorder among college students. According to a study by Mackenzie et al. (2011), 26.4% of female and 24.7% of male college students have clinical depression. Other estimates range from 10% depression rates (Peluso et al., 2011) to 50% (DeRoma, et al., 2009), and the rate has risen (Merrill, Reid, Carey, Carey, 2014) over the past 20 years (DeRoma et al., 2009). Gonzalez et al. (2011) suggested a 27% rate, with 13.8% of students meeting the requirements for a major depressive disorder. Mackenzie et al. (2011) surveyed 1,622 college students for measures of depression and related health patterns, and the authors reported that contributing factors in this seeming epidemic include the transition from home and established social systems and the exploration of identity. DeRoma et al. (2009) used self-report measures to reveal the relationship between depression and academic performance. The authors noted that depression spikes in college are mediated by academic concerns of college, including time constraints, higher writing demands, management of multiple deadlines, and striving to master new skills.

Academic Impact

Depression is a significant factor in predicting academic success (Elion et al., 2012). A study by Owens et al. (2012) explored the relationship between factors relating to clinical depression (negative affect, worry), working memory, and academic performance. The study used self-report measures to find that clinical depression was significantly related to lower academic performance. Additionally, Khanam and Bukhari (2015) collected data from Pakistani universities to explore the relationship between depression and academic performance,

specifically relating to biological sex. They found that that depression was significantly negatively correlated with academic performance. Interestingly, this study suggests depression may affect academic performance among males more than it does among females. Bryan, Bryan, Hinkson, Bichrest, and Ahern (2014) found depression severity was negatively correlated with grade point average (GPA). Keyes et al. (2012) sampled nearly 6,000 college students to discover how mental illness predicts risk for suicidal behavior and impaired academic performance. The study found that among students with a current mental disorder, 52% of those with languishing mental health and 34.6% with moderate mental health reported impaired academic functioning at least 6 days of the past 4 weeks due to their mental or emotional health. This rate is 11 and 4 times (respectively) more likely than mentally flourishing students report in experiencing academic impairment. According to DeRoma et al. (2009), which used a self-report measure to explore the relationship between depression and academic performance, students with moderate clinical depression had a significantly lower average GPA than students with mild clinical depression or no clinical depression. Interestingly, students with severe clinical depression did not have a significantly different GPA from other students, though De Roma et al. suggested confounding variables among the study's severely depressed students. The finding of depression's negative correlation with academic success has been confirmed across cultures, as illustrated by Orgilés, Gómez, Piqueras, Espada (2014), who surveyed Spanish children to discover correlations between depression, gender, and academic performance. The study confirmed that Spanish children experienced lowered academic success in the face of depression.

Causes

Behavioral. Academically, the correlation between depression and lowered academic performance is mediated through specific academic behaviors. Bryan et al. (2014) completed a

comprehensive self-report survey of servicemembers and veterans to examine mediating factors and relationships among depression, PTSD, and GPA. Interestingly, in addition to finding a relationship between increased depression and lowered academic performance, this study showed that severe depression is associated primarily with negative academic behaviors of turning in late assignments, failing exams, and skipping classes. Primarily, the researchers noted, failed exams have the greatest effect on lowered GPA. This significant finding sheds light on the mechanisms by which depressed students struggle academically.

Cognitive and emotional. The correlation between depression and lowered academic success is also mediated by cognitive factors. Owens et al. (2012) also explored the factors that mediated the lowered cognitive and academic performance by noting trends in associated factors and outcomes in performance. Owens et al. found that depression is associated with both direct cognitive impairment and worry, which causes further cognitive impairment. Negative affect interferes with the storage and processing of information by the central executive. According to the resource allocation model, dysphoria found in depressed students reduces the ability of an individual to allocate attentional resources, especially to a complex cognitive task. Although the “Sadder but Wiser” theory notes that depression may be associated with greater degrees of realistic appraisal (Alloy, 1995), studies such as that by Owens et al. (2012) show that this degree of wisdom ends with perception of a bleak world. While students with clinical depression may be more realistic, they do not show more potential for success, due in part to their impaired cognitive ability. This can be due to intrusive thoughts and decreased concentration ability. Depression is also associated with high levels of anxiety, which impairs working memory. In corroboration, Owens et al. (2012) found negative affect was related to decreased central

executive working memory performance and that depression was related to more worry about taking tests.

Peluso et al. (2011) used a survey to explore the role of factors in research success in graduate students' depression. The study noted that depressive symptoms were disruptive to the learning and memory processes for graduate students. DeRoma et al. (2009) denoted emotional factors as an impairment of depression, citing Beck's cognitive theory of depression to assert that depressed students are more threatened by difficult academic tasks, thus harming academic potential.

Collegiate response

With this clear and rising problem, colleges have found a call to action, with intervention provided primarily through university counseling centers. A paper by Dinklage (2008) reflected on three decades of experience with learning disabled college students to propose an effective model for assisting students with learning disabilities. Following identification of the problem, Dinklage proposed 1) teaching academic strategies and techniques; 2) providing practical, physical, or curricular accommodations; and 3) providing emotional support. Grayson (1991) addressed the academic problems of students in therapy whose academic problems do not stem from emotional discomfort. Grayson suggested that though academic advice and help may somewhat interfere with the psychotherapeutic role, it may be necessary and effective in a college counseling center. May (1991) echoed the unique role of psychotherapy in a college setting, noting the extension of the therapists' hands into realms outside of therapy. He noted that the counselor is in a unique position as not only an advisor to the student but as a mediator between the student and the university, thus reaching into the student's academic life. University

counselors must constantly communicate with health service staff, deans, and professors; this challenges the conventional concept of their legitimate role as therapists.

Teaching academic strategies. College counseling centers can teach academic strategies through a variety of means. Methods for therapists to assist with academic problems also include giving advice where appropriate and necessary; regulating studies with a weekly check-in on academic goals; and offering selective academic assistance through academic tips (Grayson, 1991). Therapists may hold study skills workshops, reading strategies programs, or provide referrals to a tutoring center (May, 1991). Resolving emotional concerns takes precedence over providing academic assistance – academic assistance can interfere with therapists’ role for emotional support if students feel pressured, talked down to, or misunderstood. Therapist involvement, perhaps in conjunction with academic specialists, are well suited to assess and treat the student holistically, or especially where academic specialists are lacking (Grayson, 1991).

Providing accommodations. A study by Meilman (2011) described the process of recommendations and the roles of deans, therapists, and professors for academic exceptions, also called academic dispensations, at Georgetown University and other institutions. He found that many colleges look to college counseling centers to mediate academic exceptions, including extensions on papers, delayed exams, incompletes, course drops, multiple course drops, or medical leaves of absence for mental health reasons. Dinklage (2008) noted that students who cannot test well may need to have special testing facilities or extended time to complete a test, among many reasons, to reduce anxiety. Case’s paper (2013) sought to educate counselors on the financial pressures students face that may influence their mental health. Case noted that under United States law, a leave of absence for mental health or going part-time would not affect financial aid or the repayment of loans, meaning this would not be prohibitive for students

seeking assistance. Meilman (2011) wrote that Georgetown's Counseling and Psychiatric Service's policy requires legitimate need and accountability for academic dispensations, ascertaining that dispensations should only be assigned where they would be truly advantageous to students and to their education. Concerns about academic dispensation include extension of the therapist's role beyond a noninvolved neutrality to an active decision-maker and concerns about a flood of requests for academic exceptions. However, many deans still prefer to dispense accommodations so they might judge students' work based on their true merit, rather than penalizing students for psychological impairment (Meilman, 2011).

Providing emotional support. Emotional support from the counseling center is also key. According to Grayson (1991), facilitating understanding, offering support, and identifying and correcting irrational thoughts can benefit the academically struggling student. Rita (2008) explained how a solution-oriented approach can successfully facilitate transition from academic probation into academic success. In sessions, solution-oriented therapists seek exceptions of where the problem does not occur, reframe unsuccessful solutions so the student can visualize the problem in a new way, identify markers of progress, and orient to a future focus of a specified positive outcome. This method of therapist support can help not only in a transition from academic probation but also in other negative academic situations. According to Dinklage (2008), therapists can also improve self-understanding and self-acceptance in students with an effect of improving academic performance. In these ways, among others, college counselors may assist students through direct emotional support.

Effectiveness and Faculty Perception

Brockelman's 2011 study surveyed faculty members' perception of the effectiveness of academic strategies and accommodations given to students with psychiatric disabilities. The professors sampled suggested that students with depression who take an active role in seeking university-based solutions find more success than students who attempt to solely use individual academic strategies to meet academic demands. Furthermore, students who ask for extended deadlines and time to complete tests are more effective than students who take other approaches. Brockelman found that professors report the following strategies to be less effective: allowing a private testing room, the taping of lectures, the ability to miss class, referral to a professional, consultation with university counseling center/student health center/disability services, and giving these students copies of another student's notes. This calls into question, of the many university-engaged academic strategies, whether all of them work. This question extends beyond the scope of this paper. Additionally, though exceptions are proven more successful strategies, other academic strategies depressed students use have not been identified in previous research.

Academic Strategies

Academic strategies among college students vary. Yazedijian, Toews, Sevin, and Purswell (2008) investigated academic strategies used by college freshman accommodating to college-level work. The study found students coping through: increased time studying, reading the assigned readings before class, note-taking methods, attending class regularly, taking class with friends, sharing class notes, participating in study groups, and meeting with professors or teaching assistants, in addition to management of social investments and distracting Internet time. These fragmented insights into what academic strategies look like can be placed into seven categories of academic strategies. The first category is study skills, or the knowledge of appropriate study strategies and methods and the ability to time manage and manage other

resources to meet demands, including resources offered by universities. Students also use study habits, or engaging in regular acts of studying characterized by appropriate studying routines in a study-conducive environment – self-regulation, ability to concentrate, and self-monitoring. A third category of academic strategies includes study attitudes. Study attitudes reflects a positive attitude toward the specific act of studying and their acceptant and approval of the broader goals of a college education; a sense of responsibility for and value in one’s own learning. Study motivation, the fourth category of academic strategies, is sustained and deliberate effort in studying. Study anxiety includes feelings of tension and anxiety based on perceptions of low competence that accompany the act of studying. An important academic strategy is depth of processing, which means relating new material to existing knowledge structures, as opposed to rote memorization. Finally, students use self-regulation ability, which is the ability to adapt study behaviors to the demand characteristics of the particular learning task. Prominent inventories for assessment include the Survey of Study Habits and Attitudes (SSHI), the Learning and Study Skills Inventory (LASSI), the Inventory of Learning Processes, and the Study Process Questionnaire (Credé & Kuncel, 2008).

Academic strategies among learning disabled students. Dinklage (2008) reflected that students with learning disabilities such as dyslexia are documented spending time re-reading assignments, avoiding challenging classes, engaging in study groups to discuss the material, attending class regularly, and using outside academic resources. These students also plan ahead and map out a plan of action for accomplishing schoolwork. Students with dyslexia and other learning disabilities often see success but at a great personal price (Dinklage, 2008). Though many disabilities do not inhibit the personal resources to pay such a personal price, depressed students may not be able to engage in these behaviors, using instead a unique set of academic

strategies to approach schoolwork. I seek to identify distinct academic strategies that depressed college students use to approach their schoolwork.

Research Question

The rise of reported clinical depression in college students is attributable to the combination of lowered personal support and increased academic expectations (Mackenzie et al., 2011; DeRoma et al., 2009). As the rise in depression affects increasingly substantial constituencies in the population, increased attention turns to the design of education to cater to these individuals. Depression significantly lowers academic performance through such as factors such as failing exams (Bryan et al., 2014), lowered cognitive ability, memory issues related to increased worry, decreased concentration (Owens et al., 2012), and increased perceptions of threat from academic challenges (DeRoma et al., 2009). University counseling centers address these issues through academic assistance, by mediating university accommodations, and by providing emotional support. Academic assistance can come in the form of tips, advice, workshops, referrals, and goal-setting. University accommodations include extensions on papers, delayed exams, incompletes, course drops, multiple course drops, medical leaves of absence for mental health reasons, and special testing accommodations. Emotional support can be offered through understanding, correcting irrational thoughts, using a solution-focused approach to schoolwork, and increasing students' self-acceptance. Though students who utilize these forms of support are more likely to see increased academic success (Brockelman, 2011), some students do not seek assistance through direct academic assistance, university accommodations, or therapeutic emotional support (Dinklage, 2008). Other academic strategies are also important to the completion of schoolwork for depressed students. Distinct academic strategies have been classified into distinct categories and can be studied to assess student approaches to academic

work (Credé & Kuncel, 2008). Students with learning disabilities are well-documented utilizers of complex academic strategies to compensate for difficulties in the classroom. These strategies, however, require the time and energy that students with depression may not have the resources to sacrifice (Dinklage, 2008). For this reason, I seek to identify the unique academic strategies that depressed college students use to approach their schoolwork.

The study will explore the use of the seven previously listed academic strategies among depressed college students and will compare whether these are distinct from the strategies used by other students with learning impairments. Additionally, the study will record student perceptions of success among their own academic strategies to suggest areas for further research. In other words, did students find solutions to their problems that might inform practice? The product of this paper and further studies that may build upon it should be a comprehensive list of problems that will require the creative solutions of educators.

Method

Participants

Participants included undergraduate upperclassmen ($N = 7$) in remission or partial remission who were diagnosed with clinical depression during their earlier years of college at James Madison University, a mid-sized, public university in Virginia. Participants were recruited with a flyer (See Appendix A) distributed in upper-level psychology classes. The psychology classes are an ideal venue because the upperclassmen participants are more likely to have had time to recover from a depressive episode in their first few undergraduate years. Additionally, as psychology majors, they are likely to have a genuine interest in the study and an investment in its results. All the participants were at least one month removed from their diagnosis; five

participants were in remission; two participants were in partial remission. I conducted seven interviews over the course of the 2016-2017 school year (See Table 1).

| Participant | Sex | Race |
|--------------------|------------|------------------------|
| 1 | Female | White |
| 2 | Female | White |
| 3 | Female | White |
| 4 | Male | White |
| 5 | Female | White |
| 6 | Female | Non-white (unknown) |
| 7 | Female | White |

Table 1. Demographic information of participants.

Procedure

The participants received a consent form (See Appendix B) for their protection as participants. I asked students a series of questions about their academic endeavors as college students with depression. I did not collect information about personal information or the depressive symptomology but relied on participant self-report as to whether they received a depressive diagnosis. Questions solely concerned academic functioning during the depressive episode as contrasted with previous and current academic strategies. Information gleaned in interviews were recorded in notes. Questions detailed academic functioning during the

depressive episode. I conducted interviews over the course of fall 2016 and spring 2017, coded the responses, and analyzed the material in the spring.

Data Analysis

The design of the study as qualitative ideally suits the needs of its participants. Qualitative research has a history of giving voice to communities with disabilities by recognizing the expertise that these individuals have concerning their community. Individualized educational experiences, which is what this study seeks, must center around the nature of disabled students' experiences. Qualitative methods ethically encourage empowerment of disempowered voices and reveal constituent response to potential solutions. Additionally, disabled populations tend to have small sample sizes, which makes in-depth study increasingly crucial (Mertins, 2010).

The research includes a phenomenological component, exploring participant experience and perception of academic strategies rather than the actual effects of GPA. Other studies have established the objective experience of lowered GPA among students with clinical depression (DeRoma et al., 2009), but this study focuses on the student experience academically coping through individual academic strategies. This may serve as a helpful basis for further, potentially quantitative studies, which may determine effectiveness of identified depressive academic strategies on GPA.

Primarily, however, the study uses a grounded theory. That is, the study will allow generalizations to emerge from the data. Methodologically, this means I asked questions (See Appendix C) designed to elicit related concepts and comparisons for the creation of interpretive structures. The questions are framed on the theoretical taxonomy of the seven types of academic strategies (Credé & Kuncel, 2008).

The interviews included a discussion of confidentiality, reassessment of participant desire to participate in the study, and a series of exploratory questions. I concluded by summarizing relevant information, explaining how the data will be used, and providing an opportunity for participants to speak to any related issues the theoretical framework of interview questions may fail to include.

Upon the completion of interviews, I used systematic coding procedures based in knowledge of theories concerning academic strategy use, challenges faced by this population, and other sources of help. I integrated these codes using narrative analysis, highlighting the stories of participants in their struggles through these issues. I will compile answers to each question not to identify definite trends but to compile a list of possible academic strategies.

I analyzed credibility based on whether I interviewed enough participants to avoid premature conclusions. While seven participants is a small sample size, the depth of data collected should be used as a suggestion for more complete studies. With a small yet substantial number of interviewees, I gathered a large enough range of data to suggest valuable insights into the experience of clinically depressed students. I focused solely on gathering information on a number of the experiences that influence the depressive experience. Additionally, I worked with my experienced advisor to seek verification about data collection and analyzation. My advisor and I discussed findings to ensure open-mindedness in proceedings. I debriefed participants to ensure comfortability with reported responses. Finally, results may be triangulated, or confirmed with conformity to previous research; though information on this particular area of study will not be available, I compared results with research on the principle that participants will, in general, see some form of academic hindrance from their experience. Any conclusions about their

academic strategies will need to be corroborated by further studies to ensure triangulation, as no previous studies exist to which I may compare results.

I checked for transferability by avoiding over-generalization of the data. While these results do contribute to a resource of data about how depressed students approach schoolwork, it does not claim to be comprehensive. It represents only how some depressed college students work. Dependability will be established by maintaining consistent research methods throughout the repeated interviews to elicit comparable data among participants. Data have a locatable source, and I have made logic of conclusions clear. My adviser completed a confirmability audit.

Results

Study skills

Study strategies and methods. Five participants mentioned study strategies and methods they used to complete their schoolwork that arose during their depressive episode. These were methods they developed to cope with the additional challenges that arose during their depressive episodes.

Two participants discussed the importance of engaging with the material. This included synthesizing material, making connections between concepts, and using interactive materials and quizzes. One participant wrote a summary sentence of each paragraph in assigned readings, while another mentioned writing notes on the computer and adding comments on the side relating concepts to each other. The participant also mentioned using E-textbooks for interactive features such as the glossary that pops up when you click on a word. One participant did quizzes in the textbook, and others tried to come up with applications and examples of material to

process it more deeply. These participants reported finding increased success in school through these tactics.

One participant noted failure to engage with the material and said, “I would read from the textbook, review class notes, and look at PowerPoints, but I wouldn’t highlight, take notes, do flashcards, or work with peers, which I can see now kept me from getting excited about the material.” This participant felt that with greater engagement with the material, performance in school could have been increased.

Three participants noted the importance of getting organized as a study strategy. “I like to get a table at the library and spread out,” the participant explained, “I have one textbook and binder to the left, one in front, and my planner laid open.” Another organized notes and study resources and said, “I sit in silence by myself with a highlighter, using flashcards, recopying notes with different color pens and highlighters – it keeps me organized.”

Two participants expressed that their academics suffered because they did not establish set study methods. One said, “It was more an absence of study methods.” Another reflected, “It was a little harder because I didn’t have set study methods.” Two other participants could not think of any set study methods in their approach and were not sure how this affected their schoolwork.

Time management. Five participants noted procrastination problems as part of their depressive academic experience, and four also mentioned certain tactics to overcome these problems. One participant reflected, “I kept a 3.8 GPA, but I left everything to the last minute, which meant I was pulling all-nighters, which caused me to write worse papers.” Another said,

“Depression made me really last-minute, even more so than usual.” The last-minute nature of assignment completion made procrastination a defining part of their academic experiences.

Four participants spoke about the importance of listing tasks, often in the form of planners and to-do lists. One participant said, “I have a planner with the syllabus written in for each class. I’d open to the week and make a list in my head every day of what I needed to do.” Others color-coded their planners, used checklists in the planners to keep track of their accomplished tasks. Others preferred creating to-do lists over using a planner to feel control. One participant noted, “I would write in agendas and make lists. It was comforting to see my plan in my agenda because it meant time was passing.” That participant also placed post-it notes on dorm walls to keep track of upcoming assignments for the upcoming 2 weeks. A fifth participant spoke about listing as anxiety-inducing, stating, “My therapist told me to make a list of things I needed to do. Sometimes I did, but it mostly just added to my anxiety.”

Two students found that prioritizing tasks gave them more control. “I felt so overwhelmed,” one participant said, “because there was so much information. I learned to prioritize what was important.” One student broke down tasks into smaller bits and found that this helped time management by reaching achievable goals. “Time management was a really big problem until I learned to split up tasks.” Another student found that becoming engrossed in a task gave momentum to focus and motivation. The participant said, “I would ‘ramp up’ so by the time I got to the core, I would have momentum and focus, and I would teeter again once I got toward the end.”

Managing other resources. All participants had sought out additional resources to supplement their efforts toward their schoolwork. These resources included therapy, Office of

Disability Services (ODS), medical withdrawal, Learning Centers, professors, peer advisors, classes, group work, and Internet resources.

Therapy. All seven participants had received some form of therapy. For the most part, these students received only emotional support from therapists, which often enabled better performance in school. Two students mentioned that their therapists also provided some direct academic support. One participant's therapist encouraged the participant to establish study habits but did not give specific advice. As stated in a previous section, one participant shared that, "My therapist told me to make a list of things I needed to do. Sometimes I did, but it mostly just added to my anxiety."

One participant shared that the counseling center gave a reference to the Learning Centers and the Career and Academic Planning office but did not provide direct academic support. One student also took advantage of the partial hospitalization program through the counseling center and found that this was integral to their ability to function at school.

Office of Disability Services. Of all seven participants, five of them did not mention the Office of Disability Services (ODS) as they discussed available resources. One participant utilized ODS. This participant received a separate testing room and reflected that ODS gave them validation for reaching out to professors to ask for extra help. This participant felt strange using ODS and shared, "I thought it was pretty weird using the Office of Disability Services... It's not like I have ADHD or something. But it was really helpful, and I'm glad I did." Another participant reflected that although a therapist encouraged the participant to use ODS, "I used ODS for other problems but not depression because I didn't want an excuse to not do my work."

Medical withdrawal. One student used a medical withdrawal during particularly difficult times during depression and reflected that it was an important resource in coping.

Learning Centers. Three participants used the Learning Centers as a helpful resource for completing their schoolwork. One went as often as every other week, while others went a few times a semester. One participant reflected, “I had a hard time, but they helped me pick myself up and told me I was smart enough and that I could do it.”

Three other participants said they chose not to go to the Learning Centers when they had depression. One participant said, “I understood the material, I just didn’t partake in it” and felt that motivation, not greater comprehension, was the issue. Another participant said that although the Learning Centers normally assist homework completion for the participant, depression demotivated the participant from scheduling tutoring because, “I didn’t care as much.” A third participant attributed lack of attendance at the Learning Centers to anxiety, stating, “My anxiety made me feel like I didn’t have time, and I was just doing the bare minimum to get by.”

Professors. Five participants explained that they became more interactive with professors during their depression, using office hours, special accommodations, personal support, and study tips. Three students also expressed that Teaching Assistants (TAs) and peer advisors were helpful to them.

Three participants talked about the importance of attending office hours. One completed homework there in case questions arose, while another said that the one-on-one interaction was helpful in comprehension of the material. Two students reached out to their professors and explained their need for extra help or requested special accommodations. Two students spoke about the importance of professor relationships, noting the emotional and relational support they

provided. One student said, “I started meeting with professors more and developed personal relationships with them, which helped.” One student said that a professor said to “write a sentence summary of each paragraph I read. That helped a lot.”

Three participants said that going to TAs was helpful to them. One said, “Because they recently took the class, they were able to give tips on studying specifically for that class.” Others said they got close interaction, repetition of material, and the opportunity to ask questions and connect concepts through TA review sessions, which the participant attended regularly. One student also found support from peer advising groups on campus.

Classes. Two participants said they learned study tips from classes – one from a psych class, and another from a study tips workshop.

Group work. Two participants said that group work was helpful to them in overcoming their depressive obstacles to complete their schoolwork. One participant explained, “I would always put on a happy face for other people, so I forced myself to start meeting in groups. Then I would be obligated to attend, and talking to others helped a lot because it kept me engaged and focused. It also allowed me to piggy-back off their knowledge to get the information I couldn’t get caught up from readings and lectures. It was a lot of knowledge-sharing. It also somewhat just relieved my depression spending time with other people.” For these participants, group work was advantageous because it kept them accountable, supplemented their learning, and alleviated their depression.

Three other participants said that group work was particularly difficult for them either because they did not want to be around people or because “I was unprepared, and that made me

uncomfortable.” These participants found that they did not want to complete group work during their depression nor was it helpful to them.

Online resources. Because concentration in class was difficult, one participant tried to look up concepts on YouTube after class. The participant said this was ineffective.

Study Habits

Ability to concentrate. Six participants expressed problems with concentration, either because of lowered interest/boredom or distractions. Certain tasks could be difficult for depressed students. Staying engaged while reading was particularly difficult for two students, one who said, “I lost my focus. I could sit for 4 hours and not start or read one page over and over, not understand, and just flip the page after 15 minutes.” Paying attention in class was difficult for other students, while some had a hard time with assignments like papers and tests. “Academic stuff, like papers and tests, were a struggle. It took time and focus, and I didn’t have the energy. It was discouraging thinking about citing, wording, and using active voice,” one participant said.

One student reflected, “It wasn’t that I couldn’t meet academic demands – I was a good reader in high school. The depression kept me from paying attention.” Others said that they tried to pay attention more intensely and frequently but that their concentration was lower. One participant said, “Even if I tried, I would get lost in thought. Study sessions were fewer and less intense, and I would just stare into space.” Another waited for a “burst of energy” to get things done.

Two students attributed their lack of concentration to a lack of interest or boredom. “I had lower interest in what I was doing, which led me to have less focus,” one participant said.

Another participant noted that difficult tasks like equations led to boredom, which lowers momentum in class. The participant overcame boredom by constantly switching tasks.

Five students attributed their lack of concentration to distractions. One student said that thinking about upcoming appointments was a distraction. Another said, “Classes without a lot of interaction were really hard for me - mostly lectures. I would zone out because there was so much on my mind. For example, in my science general education class, I was good at lab but not in lectures.” Classes with more engagement and interaction helped some participants overcome distraction.

Two students became distracted by music or by journaling. One participant said, “I would get really distracted because I would want to stop and research new bands and listen to depressing music because it comforted me.” Another said, “I would journal and get lost in thought. My focus would range from 1-2 minutes to 1-2 hours.” Two participants tried putting their phones on do not disturb but did not find this reduced distraction.

Self-monitoring and self-regulation. Six students reflected on their self-monitoring and self-regulation abilities.

Six participants mentioned that taking breaks interacted with their schoolwork. Four participants usually worked about half an hour before taking a break, and one student spent half an hour on the internet or Facebook for every hour spent studying. One participant did not mention how often breaks occurred during studying sessions.

Two students found taking breaks to be a helpful way to monitor their concentration. One participant said, “I usually reward myself for focusing after 30 min to 1 hour with a short break. Really applying myself and rewarding myself feels great. Breaks helped me focus and made me

feel refreshed.” The participant noted that the conventional wisdom to take breaks was effective for completing schoolwork.

Breaks became a problem for students who lost their ability to control the timing and length of breaks. “People always say it’s good to take breaks, so I tried that, but my breaks kept getting longer, and after doing a little bit of work, I’d have to stop for like an hour,” one student said. Another student said, “I was just proud of myself for being there,” and would spend excessive time taking breaks as a reward.

Participants also had many varied approaches to keeping themselves on task, and four mentioned specific strategies they used to monitor their concentration and deliberate effort. Three participants tried to increase their abilities to focus. One student said, “I constantly switch tasks so I don’t get bored.” One participant tried to increase focus by sleeping more and drinking caffeine. The participant found that choosing the correct study environment could promote focus and said, “I’d try to sit in the sunlight and in a good position to focus. Having a regular study spot triggered the idea that it’s ‘study time.’” Four participants tried to decrease distractions, such as from their phones. Two participants kept themselves from listening to music to keep themselves on task. Two reflected that writing out a plan helped them monitor their procrastination. “If I don’t write out a plan, I procrastinate, which makes me stressed, which worsens my depression, and that makes school harder,” one participant said.

Studying routines in a study-conducive environment. Participants developed differing study routines involving the length, location, and conditions of their study environments. Participants had varying study times. Three students mentioned they would usually study 1-3

hours a day, and three students mentioned they usually studied 3-4 hours a day. Students tended to study either in a study-dedicated space such as the library or in their homes.

Five participants regularly chose the library (or other campus study-dedicated spaces) as their study space. Two students went to the library as a social environment or accountability. One participant reflected, “I also went to the library as much as possible; a lot of times I went with friends. Being alone didn’t help because I’m a social person and because of the depression. I do better if I can see other people studying. The loudness of an area didn’t distract me.” Another found that the background noise of a social study environment was helpful and said, “I study in the first and second floor of the library – silence is stressful.”

Two participants went to the library for a quiet place for concentration. One participant said, “I usually get a table at the library and spread out... I study about 2 hours a day, and I do a little of each thing at a time.” Another said, “I would go to the library, put in headphones, and just be done with everything... home was too distracting.” Two students viewed the library as an escape. One said, “I always went to the library. It was my escape. Being in my room was depressing; I wasn’t getting along with my roommate.” Two students varied their preference for a social or a non-social study space: “Depending on my mood, I would go to the silent or social section of the library.”

Three participants studied from their living spaces at school (dorm room or off-campus housing). One would study in the bedroom and try to block everything out, another in the kitchen because it is quiet and good for focus but noted that the bed was never a good place to study. Another participant said that said that “I had an 8am class, and after I came back, I would study while my roommate slept until she woke up. Waking up early helped a lot because it forced me

to study for 2 hours until she got up.” A different participant said that studying at home was impossible because “my bed was there.”

Study Attitudes

Toward specific act of studying. Three participants noted that they often felt self-defeating in their attitude toward studying stating that they would not succeed despite efforts to do so. One participant said, “I spent the most minimal time possible studying, and it wasn’t effective to study anyway.” Participants found that when it was hard, it led to frustration and a loss of confidence. One participant said, “I was self-defeating; if I got a bad grade, recovering would be difficult, and I would even have less confidence in my other classes.”

One participant approached hard work as a character-driven duty but was simultaneously self-defeating in expectations for success. “My attitudes about studying were to expect the worst so I won’t be disappointed. I just wanted to do my best and not expect a good grade. I assumed I wasn’t good enough to be here, to go to grad school, or to have a career. I kept working hard though, because there was a reinforced value of just trying your best to have good character.”

Four students mentioned that their approach was a passionate or goal-driven approach towards studying. Passion made schoolwork easier, and they used it as a tactic to motivate themselves. Where they loved their classes, schoolwork became easier. One participant said that in enjoyable classes, “I read the textbook even though it wasn’t mandatory – it was easier to study for those classes.” Another participant said, “It helps if you care about the material: major classes were easier for me.” One student had the goal of transferring, which motivated achievement and gave a positive impression of the role of studying. Another participant said, “My strategy is to care and to try to learn something.”

Two participants identified a lack of goals and passion to be the important problem in their attitude. “Academics, everything felt less important with depression. It weighs on you and makes you not want to deal. Everything felt pointless,” one participant said. Another participant said, “I felt it was important to study, but I didn’t want to. I forced myself to anyway though because I didn’t feel that I had a choice.” One participant said that taking general education classes lowered passion and led to doing the minimum to stay at college. “My attitude was ‘C’s get degrees,’” the participant reflected, sharing that money waste a central concern in completing college on track.

Towards the broader goals of a college education. Four students shared that family and outside expectations were a significant factor in their college attendance. “Everyone in my family has a college degree, so it was an expectation,” one participant shared. Another participant shared, “I didn’t want to go to JMU. My mother imposed upon me to go here, and I didn’t get in anywhere else. I felt like I was living someone else’s life. I felt powerless and helpless.”

Four students said they thought college was important because it would prepare them for the future. One participant said, “I thought it was important for getting a job I’d actually enjoy. I knew how valuable a bachelor’s degree is, so I knew it would give me a lot of options.” Another shared its necessity in preparation for their chosen career. Three students started questioning how college would prepare them for the future when they started questioning their career goals. As participants attended classes, they “felt like I was wasting my time” and “considered dropping out because I had so much left and I started thinking I didn’t have a good future.”

Six participants brought up the importance of goals in their attitudes about college. Three emphasized the importance of their goals in their attitude about college, while three spoke about their lack of goals. Goals ranged from transferring to bringing meaning to their difficult experiences to having a good future. One participant who wanted to transfer said, “I had a good attitude about the goals of college. Academics were the only positive thing I had since transferring was my goal.” Two others said, “By doing this, it means something good will come from all I’ve been through.” A fourth reflected, “Having a good attitude about the future and about what I can do to get there is the most important thing in the approach.” Another said “I started doing better in school because of my passion. My GPA shot up, and it actually lowered my symptoms.”

Three others said it was difficult to think of or maintain their goals with their depression. One said goals became confusing when other careers became an option, while another said though there was an amorphous end goal of success, “It was more a lack of goals.” Another participant said that “It was harder to think of goals... I felt lost all the time – I know I love my major, but I don’t know what I want to do. I have no clear career path.”

One participant was inherently optimistic about the college experience and said, “I was excited to get away from home and start fresh, and I felt academics were something to actually be happy and proud about.”

Sense of responsibility for one’s own education. A few participants mentioned their sense of responsibility for their own education. One participant declined disability services because, “I didn’t want an excuse not to do my work.” Others found external feedback to be a crucial point, positively or negatively. One participant said, “I saw studying was worth it

sometimes when I was rewarded for doing well with good grades.” Another said, “Feedback made me try less because I was frustrated. It was a domino effect.”

Study Motivation

Many concerns related to motivation have been covered in other sections, as qualities such as passion drive motivation. However, three participants said they had a sustained and deliberate work ethic. One said, “I was very deliberate. I planned what subjects I would study before I left so I would have a game plan.” The other said, “I have a deliberate work ethic, so I could always force myself to complete tasks. Ambiguous work like studying was harder to complete.”

The other four noted problems with their motivation. One participant said, “I wasn’t just sad, I was apathetic and had low motivation.” One participant said, “A 30-minute assignment would take two hours. I had no focus or motivation, and I thought I wasn’t smart enough. As college became more intense, it impacted my homework, and I got discouraged, so I started to do worse in class too. “

Study Anxiety

Some students found anxiety to induce motivation, while others saw it contributing to procrastination. It also affected their cognitive ability, discouragement, and willingness to engage with others.

Motivation and procrastination. Two participants said anxiety motivated them to do their schoolwork. One said, “Anxiety is the worst form of a motivator. It helped short term get things done, but long term effects were negative. I always completed tasks, but not studying or

extra-curriculars. The slightest failure brought on total judgment on my ability as a person.”

Another said, “Anxiety was a motivator. If I wasn’t caring about school because of depression, that made me stressed and got me working.”

Two students said that anxiety contributed to procrastination. One participant said that being overwhelmed and stressed made it difficult to start assignments. Another participant said, “For semester-long projects, I would wait until two weeks before the deadline. It was a slippery slope of fearing a failure grade would mean I wouldn’t get into grad school, which would keep me from getting a job, and even down to becoming homeless! Getting started was hard because it all felt so big.”

Cognitive ability. Two participants expressed that anxiety inhibited their cognitive ability. One said that anxiety led to insomnia, which lowered ability to do well. The participant also said, “My anxiety meant that I would read but not retain material because my mind was elsewhere, worrying.” Another said that anxiety hindered critical thinking but that if given time to think without pressure, cognitive ability would improve.

Discouragement. Four participants said that anxiety led to discouragement in their schoolwork. Some said it made their depression worse. One participant said, “Trying to read my textbook made me stressed, sad, and anxious, and that only deepened my depression.” Another said that “When I thought about what was really at stake, it just made my depression worse. I had a lot of self-pity.”

Three of these participants said that anxiety discouraged them from taking on real endeavors in school. One participant said “I was stressed. The syllabi looked scary, and I defaulted to ‘That’s too hard.’ The stress gave me less confidence.” Another had to take a year

off because of the pressure from the anxiety. The participant can now take things one piece at a time. Particularly, starting assignments was difficult for one participant, who said, “Big projects that I had to do by myself were really hard. With real-life application stuff, like sending letters, I knew someone was really going to be reading it, and I was afraid it wouldn’t be good. I felt like they wouldn’t change anyway, so it was draining.”

Interacting with others. Two participants mentioned that anxiety made them uncomfortable around others in a way that hindered their work. One participant’s anxiety contributed to their dread for working in groups, and another was unable to ask for help. The participant said, “For one project, I felt really stuck about how to make it. It made me anxious to ask for help from the teacher.”

Depth of Processing

Five participants noted increased problems with memorization during depression. One participant said, “I used flash cards and I had to start studying a week in advance for something I otherwise could have learned 10 minutes before the test.” Another reflected success on assignments and papers but not on memory-based assessments such as tests; reading assignments were also difficult for retention. Another student said that although memory was not a huge problem, long-term retention was difficult because the participant only studied to the test. Two participants said they had no problems with memorization during depression.

Six participants said they had trouble with critical thinking during depression. One participant said, “On tests, multiple choice wasn’t bad, but long answer was hard because it was hard for me just to make a point.” Participants had problems with new skills and applying concepts. Three participants noted a problem with math and science, with one participant who

said, “Science and math aren’t really my realm. My brain didn’t work, you know?” Other participants had problems with writing and analyzing readings. One participant described difficulty with critical thinking as a “distance from my mind” that clouded all but the major points. One participant said that critical thinking was not difficult and noted that essays “were good because it allows a combination of abstract thinking and law and order.” Still, the participant expected failure when it came to learning new skills and found reinforcement of that expectation upon failure.

Some previously mentioned strategies may suggest that students use critical thinking to overcome difficulties in memorization. Three participants discussed methods based in critical thinking. One wrote a sentence paragraph for every paragraph read, and another wrote comments in the margins of class notes to connect concepts to one another. Another participant tried to come up with applications and examples of material to process it more deeply. One student stopped using flash card memorization strategies in favor of focusing on understanding the material. One student approached memorization problems with greater effort toward memorization and started memorizing a week in advance for small memorization tasks.

Self-Regulation

Six participants spoke about difficult classes and situations where they were not succeeding and overcame these difficulties by approaching the task in a different way. Here are the solutions they used: testing themselves using online or textbook quizzes, connecting concepts in their notes, using interactive textbook materials, going to TAs, getting more rest through exercise and meditation, becoming more task-oriented, going to the Learning Centers, and learning not to cram before a test. One student stopped using flashcards because the input was

too great and there was rarely time left over to study; another student raised test scores by using flashcards but noted this only worked for memorization-based classes and not conceptual classes. One participant learned to practice instead of study when it came to math to promote better understanding of the material.

Two participants spoke about situations where they did not adapt well to a challenge. One participant said flashcards had been counterproductive but did not adapt until after the depression. Another student relied on the online PowerPoints of boredom during class, and the participant did poorly on the few tests given in the class.

Discussion

To explore the study strategies of students during their depressive episodes, this study examined how students in remission or partial remission from depression coped with academic demands during their depressive episodes. Although no previous studies have addressed this topic, studies have identified specific learning strategies among students with learning disabilities such as dyslexia (Dinklage, 2008). This study sought to examine the academic strategies used by students with depression. For the most part, I did not find a unique or surprising set of study habits embraced across the board by students with depression. By exploring the habits of depressed students, this study complements previous findings on the study habits of other populations and may be further explored to create more concrete findings about the academic experiences of depressed students.

Findings

The study examined seven study strategies as they existed in formerly depressed students. I will summarize the findings found in each of them. This small, exploratory study will not

establish definite results of what students with depression do to accomplish their schoolwork. However, the study identified some of the strategies that may be used by depressed students to open the doors for further researchers. The implications of the findings are contingent on further corroboration by future studies.

I observed that while students with depression may not usually require unique strategies to approach their schoolwork, the students tend to face increased academic problems when their depression leads to a lack of engagement in proper study habits. Participants benefitted from established effective study habits beneficial to all students, such as engaging with the material, attending tutoring at the Learning Centers, and maintaining a positive attitude about studying. One outstanding exception was the use of breaks; students with depression were largely unsuccessful in utilizing breaks for increased concentration. For the most part, however, depressed students did not need a customized strategy for depressed students, but rather, engagement in the study habits that assist all students. In many cases, it may be possible that students with depression chose not to engage in these study habits because it requires short-term input and personal costs. However, students with depression who engaged in proper study habits found that schoolwork became easier and, indirectly, may have even alleviated some symptoms by lowering stress. Students with depression prevent their own progress when depression prompts them to disengage from the work in front of them and creates more long-term academic challenges.

Despite this, depressed students did seem to benefit when they engaged in certain learning strategies. Because participants successfully altered their behavior to adapt to tasks, it is possible a few outstanding solutions used by participants may be particularly salient for depressed students. Positive attitudes were one of the most outstanding areas of importance in

approaching schoolwork for participants. Additionally, most participants had problems with time management and concentration, but interactive classes and resources helped students overcome this. Participants also benefitted from attempts to use depth of processing to overcome limitations in memorization.

Concerning resources used by depressed students, participants took advantage of therapy and professor relationships, but ODS, the Learning Centers, and group work were promising yet under-utilized options. Results among participants for study motivation were surprising, with nearly half the participants claiming they had sustained and deliberate efforts. Participants did not attempt to manage anxiety and even used it sometimes as a tool to prompt work, though mostly it inhibited success.

Study skills.

Study strategies and methods. Some participants found that engaging interactively with the material greatly improved their comprehension and ability to complete assignments, while others found that keeping organized was helpful. The greatest area of concern, however, was perhaps for students who expressed their lack of set study strategies. These participants reflected that their absence of a set approach inhibited their ability to succeed.

Time management. Most participants had an increased problem with procrastination during their depressive episode. Their procrastination is not a surprising phenomenon, although it is not directly addressed in their diagnostic criteria, because symptoms such as lowered concentration and lack of interest in activities may lead to procrastination. Other factors in depressed students' procrastination is anxiety, fatigue, and feelings of worthlessness, which several students cited as contributive to their procrastination.

Managing other resources. Participants favored resources such as therapy and professor relationships, but resources such as ODS, the Learning Centers, and group work may have been undervalued by certain participants.

Although all participants attended therapy, few received any study advice from therapists. While a helpful emotional resource, therapy did not seem to be an academic resource for the participants. As discussed in the literature review, although they could offer educational psychology insights, therapists may often hesitate to reach into the academic sphere, which may contribute to their emotionally-based academic support. It is noteworthy that five of the participants found professors to be an important resource for them in their depression. The close relationships, academic insights, and one-on-one explanations offer helpful assistance; but the idea of using office hours as time set aside with accountability to complete schoolwork was a particularly promising idea. All these types of assistance may be helpful to depressed students and reflect that depressed students may be able to overcome the challenges they face if they engage with the resources available to them.

Across the board, students did not consider ODS as a valid or potential resource for their academics, but the participant who did found it beneficial. This reflects the culture and communication of ODS resources to depressed students and suggests that it may be a widely-untapped and potentially transformative academic resource.

The participants who used the Learning Centers attended much more often than the average JMU student, but the other four did not use the centers at all. The average student who attends the writing center uses the writing center about 2.3 times a semester, but depressed students in this study who used the Learning Centers used them on average about 4.8 times a

semester (University Writing Center, 2017). While this study is qualitative and too small to consider the significance of these numbers, it is worth noting that among depressed students who utilized the Learning Centers, they attended the Learning Centers more often than most students who use the Learning Centers would. Their increased attendance may meaningfully accompany their reflections of the Learning Centers' effective support to portray the Learning Centers as particularly helpful for depressed students. Other depressed students' reasons for not attending the Learning Centers were a lack of motivation and fears of not having enough time. It is possible the depressed students who did not attend the Learning Centers may have also found them to be as helpful for accomplishing their schoolwork had they tried them.

Group work impacted depressed students in polarizing ways. For some students, group work was integral to their success, giving them accountability, supplementing areas of confusion in the curriculum, and alleviating their depression. Others, however, dreaded group work, finding it to be stressful and uncomfortable. Perhaps the helpfulness of group work interacts with personality differences and variances in symptomology. It may be an undervalued strategy for students who might respond to the group work method.

Study habits. Most participants expressed problems with concentration during their depressive episode. Problems with concentration is reflective of diagnostic criteria and symptomology. Participants had differing experiences with breaks. For most students, breaks derailed studying because participants were unable to keep control over their breaks. Breaks no longer became a refreshing resource for renewed concentration but stumbling blocks to the completion of schoolwork. These participants were unable to stay in control over the timing and length of their breaks. Constantly switching tasks may be a less-than-ideal strategy for overcoming concentration problems, as it interrupts momentum (Gopher, Armony, &

Greenshpan), but it may be a partial solution for students who would otherwise hit a snag doing one task.

Participants' study sessions were not excessively long, for some often lasting only one to two hours, which reflects their symptomology of decreased concentration and increased fatigue. It was significant to note that participants studied outside their living spaces or, if they studied in their living spaces, away from their beds. This makes sense, as depressed individuals may feel the need to spend more time resting, and working in bed might encourage students to engage in rest rather than to complete schoolwork.

Study attitudes. As participants reflected on their study attitudes, they spoke passionately about the importance of attitude in approaching schoolwork. They spoke about their reasons for attending college and persisting in their academic pursuits, their goals and aspirations. Participants reflected on the attitude-related challenges of depression and the way their passions alleviated and helped them overcome some of their academic challenges.

Towards the specific act of studying. Some students had a self-defeating attitude toward studying, reflecting that studying would not make a difference; yet, they persisted at least enough to pass their classes. Some students found that their passions or goals made studying easier. When they cared, schoolwork became less burdensome; when they did not care, it became an impediment, and the perceived pointlessness of it led to lowered effort. When students cared about the assignment, they reported improving their performance.

Towards the broader goals of a college education. Students who attended college solely due to outside expectations had a more negative approach towards school. Students who believed college would be important for their future tended to lose momentum when they questioned or

changed their goals for their future. Likewise, students who attended college to fulfill personal goals or to foster their passion had more positive experiences, but others admitted it was difficult to find goals or a passion with depression. For those who did experience passion, they expressed that it was integral to their success and persistence in school despite obstacles.

Sense of responsibility for one's own education. Students varied in their sense of responsibility for their own education. For the most part, participants did not speak about their sense of responsibility. One student declined disability resources because of a fear it would serve as an excuse not to complete work, perhaps reflecting an over-reliance on self. In contrast, some students found that their ownership of their study efforts increased or decreased based on positive or negative feedback. These students may have less responsibility for their own education; however, students who did not address responsibility did not say anything to suggest that they did not feel responsible for their own academic outcomes.

Study motivation. Surprisingly, almost half the participants claimed to have a deliberate and sustained work ethic, while the others noted apathy and low motivation. This contradicts the loss of energy and decreased pleasure that are depressive criteria. Motivational differences may be due to varying symptomology or personality differences, but it also may speak to accuracy of self-perceptions, as students who noted a deliberate work ethic also mentioned examples that seem to partially contradict this idea. Participants did not suggest any strategies for increasing motivation. Perhaps the participants viewed work ethic as an internal, unchanging characteristic; or, perhaps they were unable to find strategies that improved their motivation.

Study anxiety. Management of anxiety was not a strategy used by any depressed students as they approached their schoolwork. Taken together, anxiety as a motivator or a

procrastination instigator represents the “fight or flight” aspect of anxiety that causes engagement with or disengagement with a threat. Participants who said their anxiety motivated completion of schoolwork found it an effective but negative experience, and spoke of it as an unfortunate reality rather than something that could be managed. Anxiety lowered cognitive ability, led to spiraling and self-defeating thoughts, and isolated participants from outside support, but they did not mention managing their anxiety as an approach to alleviate their academic obstacles.

Depth of processing. Participants noted equal problems with memorization and critical thinking. Certain students had greater problems with one than the other, but the depression did not appear to target one more than other; rather, it slowed any form of thinking. Participants described this problem with quotes such as, “My brain didn’t work, you know?” and that they had “a distance from [their] mind.” However, several students used critical thinking and memorization strategies to compensate for added limitations in these areas.

Self-regulation. Notably, six participants could remember circumstances where they adapted their behavior to better accomplish an academic task during their depressive episodes. This suggests that depressed students are able recognize problems and change the way they approach work rather than getting stuck in a track that is not working. Two students noted times they did not adapt well, one of whom had also mentioned a successful adaption to challenges. This does not negate the possibility that intervention may assist changes in strategies that could improve classroom success.

Limitations

The foundational and exploratory nature of this study means it is limited in its scope yet integral to the future of academic research for depressed students. The limitations noted serve as acknowledgements of the scope of the study, and I hope that this small study will be the opening step towards large-scale exploration of this topic.

Small study size. The lack of previous research meant I was unable to evaluate or make definite findings with a falsifiable hypothesis. The study included only seven participants, so a more comprehensive study would include a larger sample size. This study did not attempt to make generalizable statements about the depressed population's schoolwork, so it is unable to definitively say what depressed students do. A study that includes a larger sample size could help postulate falsifiable hypotheses about what students with depression do to complete their schoolwork. Additionally, quantitative studies may help identify trends more fully than qualitative studies, although a qualitative study was important for information explorations so quantitative studies could identify areas to test.

Demographics. Additionally, the study represented only certain demographics of depressed students. The study included little diversity, including mostly only white female students, though it was roughly representative of the population at JMU. This study only looked at students at JMU, and it only included psychology majors as participants, although writing majors were also included in the recruitment process. This may have been because psychology students' interest in their choice of major correlated with interest in the study and were thus more likely to volunteer. Another contributing factor may have been that the psychology students recruited were members of upper level classes and had more time to experience and recover from depression than the younger students in the writing classes involved in recruitment. Additionally,

it is possible that students who have recovered from depression are more likely to choose psychology as a major, as many participants in the study noted.

There is also a potential sample bias in the study. Only depressed students who have some measure of success in completing their schoolwork may attempt college and will still be enrolled in college at the time of their recovery. Students who have failed or dropped out represent a portion of the depressed population who used strategies that were not successful for them.

With the limited scope of psychology majors in the study, there may be classes, challenges, experiences, and resources unique to psychology majors, such as the use of psychology peer advisors, the likelihood to seek counseling, and even access to counseling and tutoring due to the proximity of resources to the psychology building on the campus. They may have distinct strategies and experiences that other students would not have.

Methodology. The data came from interviews in a self-report style where students reflected in retrospect. There are possible negative implications for this method including selective memories about what worked and did not work and telescoping, which would be the tendency to forget whether they used these habits during the time of their depression or during a different period in their life. Two participants reported in a style that framed their past with what they do now, and I had to prompt them to contrast this with previous habits. This may suggest that they do not fully remember their habits during their episode.

Possible Implications

Possible implications of this research are limited because of the scope of the study. The small number of participants and exploratory nature of the study limits the meaning behind

student responses. However, I will suggest possible implications contingent upon further corroboration and research. Discovering how depressed students approach their schoolwork will have implications for universities, educators, and students alike. By identifying these strategies, instructors may inform themselves on how best to cater to these strategies or to correct these strategies to succeed in their class. This information may help the teacher assess student needs and cater to this large subset of students. Likewise, depressed students may be informed about how many of their peers approach the obstacles they face as students.

For universities. It seemed depressed students did not need a specialized study strategy but rather greater engagement with strategies, which can be fostered by the university. Therefore, it might be helpful for universities to encourage depressed students to attend tutoring or classes informing academic strategy approaches so students could learn about and establish set strategies. Only one student utilized a study tips workshop class; greater use of these classes might help depressed students recast their academic strategies into greater productivity.

University counseling centers, among other therapists serving students, may also find implications in this study. Perhaps therapists who cater to students may want to free themselves to offer support from an educational psychology perspective to supplement the emotional support they provide. This might give a more holistic approach to treatment as failing academics can contribute to symptoms of depression. Particularly helpful emotional interventions for academic success might focus on problematic study attitudes, study anxiety, or spiraling thoughts that may impact academics. Additionally, with the support of further research, disability services may increase outreach to depressed students, as many depressed students do not recognize the availability or validity of this resource as an option.

For educators. I hope educators will consider ways to maximize the impact of depressed students' academic strategies. Some situations may call for classroom accommodations, such as offering different assessment options or means of learning. Educators can equip depressed students to the best of their ability with further knowledge about their academic strategies. Participants showed adaptability in their approaches – this is good news for professors who want to assist their depressed students. With greater access to advice and support, it is likely students can realistically reach improvement and success in academic achievement.

Depressed students participating in readings, lectures, papers, and tests may benefit from classroom changes by their professors: professors can reduce distractions in the classroom for lectures and tests, and they can encourage students to reduce distractions in their own study spaces. Professors may also provide more interactive resources for assigned readings and papers, such as self-quizzing materials to supplement the readings or optional paper-writing workshops. Another way to assist students may be by providing greater support for difficult tasks so that students do not disengage from the material when they come upon a stumbling block in the material. While professors may not need to feel obligated to tailor their classes to depressed students, those seeking ways to help their students may consider these ideas.

Because of the anxiety of some depressed students in asking for help, professors may consider attempting to increase approachability for anxious students. Because study attitudes are an invaluable strategy for depressed students, if depressed students approach a teacher with frustrations, they may benefit from a purpose explanation for classes and assignments to allow them to buy in to its importance.

For students. The specific strategies used by participants may serve as a resource of suggestions for depressed students to try. For example, depressed students may use interactive textbook materials, write summary sentences for each chapter they read, or examine whether the benefit of flashcards are worth the time it takes to make them. Overall, depressed students should closely evaluate their methods and strategies suggested to them to see whether it is an effective strategy given their personality, symptomology, and academic needs.

Because depressed students may show a proclivity for procrastination but methods for overcoming this were varied, students should explore customized individual strategies that work for them to overcome their procrastination. Students with depression may try reaching out to professors and may even find that attending office hours is an effective way to have accountability for completing schoolwork more efficiently in addition to having the resource of a teacher's help at their fingertips. Students with depression may also want to take advantage of student-based classroom support such as TAs and peer advising groups who can supplement professor involvement in classroom assignments.

Some students may find it helpful to set a plan before studying. If they know the timeline needed for accomplishing their work, they may be better able to regulate their procrastination by remembering what needs to be accomplished. Students who have a problem regulating breaks should become aware of this and explore other options that will keep them accountable to monitoring their engagement.

Maintaining adequate and appropriate sleep patterns can help students who want to improve their academic performance, and drinking caffeine may be helpful for some, although for some this may impact anxiety. Depressed students may want to recognize their limitations in

length of studying sessions and increase their frequency to supplement their length. For example, if students find they cannot study for more than one hour at a time, they may benefit from setting two or three study sessions a day. Or, students who can study three hours a day may want to commit to studying every day so that they do not fall behind and have to attempt a longer study session.

Students who are motivated by anxiety would ideally develop a different means of motivation that would not negatively impact their lives. Students with increased anxiety during their depression may benefit from anxiety-reducing strategies such as deep breathing and self-care strategies. Students with depression may also be able to improve their cognitive ability indirectly by learning anxiety-management skills, as evidenced by the participant who improved cognitive ability when disengaging from anxiety.

For future research. I designed this study with future researchers in mind. Though this study does not provide comprehensive answers about depressed students' academic experiences, its purpose is to prompt further research in this field. This study may serve as a resource for researchers. As studies continue to explore the intersection of educational psychology and the experiences of depressed students, researchers may begin to assess the effectiveness of these strategies and ways in which educators may correct or accommodate these strategies. This study was not evaluative of student strategies, although it did record participant impressions of strategy effectiveness. Future studies could explore how these strategies benefit or detract from depressed students' success in the classroom.

A few areas of research might be particularly salient. Future research should explore the impact of interactive teaching methods on depressed students. Studies could also explore

whether organization, including note-taking methods, use of planners, and even organization of study spaces may bolster academic success among depressed students.

I would be particularly interested to see further research on resources such as ODS and the Learning Centers, as the few students who used these resources found them important in their coping. Studies should also explore the helpfulness of group work among depressed students and explore how variances in symptomology and personality variabilities such as extraversion, agreeableness, and perfectionism interact with depressed students' experiences with group work.

I would like to see further exploration of the helpfulness of study tip dissemination through classes, pamphlets, or other resources. Only two participants gained study tips from classes, and only one had attended a class with the specific purpose of giving study tips. With the lack of appropriate study strategies among depressed college students, further availability and use of these types of classes might be revolutionary in their academic experiences.

Study attitudes are a particularly promising area for further research. Other studies may examine whether students with passion and goals have the most success overcoming the academic challenges of depression. Few students mentioned anything about their sense of responsibility for their own education, and further research should explore this.

Further studies might explore the dynamics of study motivation among depressed students. They should confirm whether students report sustained and deliberate work ethic and explore the validity and reasons for this occurrence.

Even though this study established ideas of what students with depression may do to approach their schoolwork, the study cannot establish whether the depression impacted their ability to study well; if patterns, adequate or inadequate, of study strategies contributed to their

depression; or if it is, most likely, a cycle of the two. It may be that students with inadequate study strategies are more at risk for depression, and it may also be that students with depression experience a lowering of effective strategies. Further studies may want to explore whether a lurking variable could contribute to both lowered academics and increased depression.

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Appendices

Appendix A

RECOVERED FROM
DEPRESSION?

Students with depression are at a disadvantage. Talk about your experiences to contribute to research.

Research shows that depression affects your GPA. But how did you overcome this when you went through it? If you had depression during college and are now recovered, contact Sarah Paynter at payntesa@dukes.jmu.edu to participate.

PAYNTESA@DUKES.JMU.EDU
SIGN UP TODAY

Appendix B

Consent to Participate in Research

Identification of Investigators & Purpose of Study

You are being asked to participate in a research study conducted by Sarah Paynter from James Madison University. The purpose of this study is to identify academic strategies used by students in remission with a previous diagnosis of depression. This study will contribute to the completion of my honors thesis.

Research Procedures

Should you decide to participate in this research study, you will be asked to sign this consent form once all your questions have been answered to your satisfaction. This study consists of an interview that will be administered to individual participants in psychology research suites on JMU campus. You will be asked to provide answers to a series of questions related to academic strategies used during depression.

Time Required

Participation in this study will require 30 minutes of your time.

Risks

The investigator perceives the following are possible risks arising from your involvement with this study: reliving a stressful event may be stressful for some people. Participants will be thoroughly warned and will have access to resources and referrals for further help.

Benefits

Potential benefits from participation in this study include improved educational experiences for depressed students as this study serves as a foundation for further studies to explore how to best accommodate students with depression. There are no direct benefits to the participant.

Confidentiality

The results of this research will be presented at the JMU Honors Symposium and submitted for publication in the James Madison Undergraduate Research Journal. The results of this project will be coded in such a way that the respondent's identity will not be attached to the final form of this study. The researcher retains the right to use and publish non-identifiable data. While individual responses are confidential, aggregate data will be presented representing averages or generalizations about the responses as a whole. All data will be stored in a secure location accessible only to the researcher. Upon completion of the study, all information that matches up individual respondents with their answers will be destroyed.

Participation & Withdrawal

Your participation is entirely voluntary. You are free to choose not to participate. Should you choose to participate, you can withdraw at any time without consequences of any kind.

Questions about the Study

If you have questions or concerns during the time of your participation in this study, or after its completion or you would like to receive a copy of the final aggregate results of this study, please contact:

Sarah Paynter

Dr. Ashton Trice

Undergraduate Psychology

Graduate Psychology

James Madison University

James Madison University

payntesa@dukes.jmu.edu

Telephone: (540)568-8169

Email Address: tricead@jmu.edu

Questions about Your Rights as a Research Subject

Dr. David Cockley

Chair, Institutional Review Board

James Madison University

(540) 568-2834

cocklede@jmu.edu

Giving of Consent

I have read this consent form and I understand what is being requested of me as a participant in this study. I freely consent to participate. I have been given satisfactory answers to my questions. The investigator provided me with a copy of this form. I certify that I am at least 18 years of age.

I give consent to be (*video/audio*) taped during my interview. _____ (initials)

Name of Participant (Printed)

Name of Participant (Signed)

Date

Name of Researcher (Signed)

Date

Appendix C

Thank you so much for being here today and helping me out. I know you are here because you had depression, and as I understand, you came out of it, right? Today, I want to know about your experiences through that. Specifically, I'm interested in your academics and you as a student here. With such a complex experience, there are many related topics, but I am very excited to get a picture of you as a student during this time.

Research has shown that many college students struggle with depression and that it often makes school harder for them. Today, we're doing very exciting work because no other research studies have ever asked how students who have depression try to do well in school despite their depression. They can do this through the college's assistance or their own direct strategies for their schoolwork. Are you ready to talk about what you did during your depression to work on your schoolwork?

Questions:

1. Were you diagnosed with depression? When? How long did your depression last?
2. How do you think your academics were impacted when you had depression? What was different before or after? (be specific)
3. Did you take advantage of any university resources during your depressive episode? How did these affect your academics?
4. How did you use strategies and methods to study differently then? What time management, and management of other resources did you use to meet academic demands?
5. What were your studying routines? How was your environment, self-regulation, and ability to concentrate?
6. How did you have to adapt study behaviors to the characteristics of some particular learning task? Could you give me a specific example of how you needed to change your studying in a particular class or situation?
7. Were there classes or certain tasks that were particularly difficult for you during this time? If yes, which?
8. Did you experience tension or anxiety about school? If so, how did that affect your school work?
9. Did you find memorization difficult? If so, give examples. How did you find other kinds of learning, particularly for new skills?
10. How would you describe your attitudes toward studying and the broader goals of college?
11. How sustained and deliberate were your efforts when you studied?
12. Did you see a counselor or therapist? What academic support did you receive from him or her?
13. Are there any other strategies you used to approach your schoolwork that we did not discuss today?