Maladaptive Coping Mechanisms' Effects on Attitudes Toward Seeking Treatment for Depression

Research Thesis

Presented in partial fulfillment of the requirements for graduation with *research distinction* in Psychology in the undergraduate colleges of The Ohio State University.

By

Anikait Gadi

The Ohio State University

May 2023

Project Advisor: Duane Wegener, Department of Psychology

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Abstract

Introduction/Background: Mental illnesses among college students have increased from 21.9% in 2007 to 35.5% in 2017; however, many people still do not seek treatment. The primary reasons that these individuals give for not seeking treatment are that 1) they do not need treatment and/or 2) that they prefer to deal with these issues on their own. Due to these barriers, young adults might engage in maladaptive coping mechanisms to combat their depression without a formal intervention led by a therapist. **Methods:** This study seeks to explore whether 1) the presence of maladaptive symptoms associated with depression and 2) changes in trajectory in the severity of depressive symptoms affect the likelihood of college students' viewing treatment as beneficial. To do so, I assessed college-aged participants' attitudes toward treatment. In this study, I conducted a study with a 2 (self/other) x 3 (trajectory) x 3 (coping mechanism) design. Participants were randomized to receive either ten scenarios that asked them to imagine themselves within that situation or ten scenarios that involved an unnamed person in the situation. Each scenario involved the presence of three depressive symptoms that led to a different trajectory of symptom severity after a month within the scenario (i.e., increasing severity, decreasing severity, or steady severity). It also involved the addition of an unusual coping strategy/symptom at the end of the scenario, with the key distinction being between positive coping and one of two maladaptive forms of coping. The participants then answered questions regarding their attitudes toward potential treatment-seeking behaviors based on the scenario. **Results:** The maladaptive coping mechanism scenarios led participants to see treatment as more beneficial compared to the positive coping mechanism scenarios. As

participants realize the negative effects that can occur without treatment, people's affectively based attitudes and cognitively based attitudes changed to produce a more positive and beneficial view towards treatment. **Conclusion:** The results of this study show a potential strategy to increase the possibility of people seeking treatment. Educating people on the possible ramifications of untreated/mistreated depression can lead to a change in their evaluation of treatment.

Introduction

Mental illnesses among college students have increased from 21.9% in 2007 to 35.5% in 2017, and a greater spike can be perceived from the COVID pandemic between 2020 to 2022. As the rates of mental illness diagnoses increase in college students, so do rates of treatment. Treatment utilization increased from 18.7% in 2007 to 33.8% in 2016 (Lipson, 2019). Though there is an increase, treatment utilization is higher at campuses that are public, less competitive, have lower graduation rates, and have a larger enrollment (Lipson, 2015). There is a substantial variation across campuses, and treatment-seeking and treatment utilization are major concerns considering the high rates of diagnosed mental illnesses. A study using a random sample of 8,487 students at 15 universities was used to correlate treatment utilization and suicidal ideation. A total of 51.5% of respondents with suicidal ideation reported they received some type of treatment. Suicidal ideation is the most severe symptom of some mental illnesses, and half of the students with this symptom reported getting treatment. College students with depression and suicidal ideation state that their top self-reported barrier to treatment use is that they prefer to deal with the issues on their own or that they have no need for treatment (Downs, 2012). Other significant barriers reported were stigma, lack of belief in treatment effectiveness, and the belief

that their depression is just due to college stress. These barriers, alongside insurance and payers, are stopping people from getting help.

With these barriers, researchers attempt to increase treatment-seeking behaviors in clinical and non-clinical populations. Treatment-seeking tactics for mental disorders is an area that has received mixed results in its aim to increase treatment utilization. Much of treatment-seeking research splits stigma into two types: personal and perceived. Personal stigma is one's own stigmatizing attitudes while perceived stigma is the perceptions of other attitudes and the fear of being stigmatized against. A major contributing factor is that personal stigma, rather than perceived stigma, is associated with lower help-seeking behaviors (Downs, 2012). Using PSA announcements that discussed depression and targeted people that were diagnosed backfired and led to decreased intention to seek help and increased self-stigma about their depression (Lienemann, 2013). The personal stigma inhibited many young adults from receiving treatment. Label avoidance is also associated with attitudes toward seeking treatment for college students. Label avoidance can be defined as "avoiding the stigma altogether by denying group status and by avoiding the institutions that mark" (Corrigan, 2004). In this context, it is denying the status of being diagnosed with a mental illness. The label of a mental disorder is connected to stigma (Bathje & Pryor, 2011). Alongside factors of personal stigma and label avoidance, familiarity with mental illnesses and desire for social distance have effects on attitudes toward seeking treatment. Level of familiarity is how prominent mental health or mental illness is in their lives. Social distance is the level of distance people want from others with mental illnesses. In past research, greater familiarity with mental illness predicted lower levels of personal stigma, and personal stigma positively predicted desired social distance and level of label avoidance. In turn, label avoidance negatively predicted attitudes toward treatment (Koysyluck, 2021). This model

suggests that an increase in familiarity, through education, can impact personal stigma. Providing truth and shared experiences can potentially impact help-seeking behaviors.

Within Major Depressive Disorder, there are a dozen symptom criteria that lead to a diagnosis. Though the symptoms are all considered to be indicators of depression, people tend to view certain symptoms as more important than others, influencing their decision to seek psychological treatment. Symptoms of suicidal ideation and psychomotor retardation are associated with a higher likelihood of treatment-seeking behavior (Galbaud du Fort, 1999). The reduction of certain symptoms was valued more by clinical patients than the reduction of other symptoms (Kim, 2022). Reductions in more psychological or cognitive symptoms (anxiety, suicide, depressed mood, work, guilt) were seen as more important than reductions in somatic symptoms (sleep, appetite, retardation, weight). Changes in higher levels of reduction, like a decrease in severity from five to three, were not always seen as more important than lower severity reductions from two to one. Though these two studies might show a discrepancy in seeing psychomotor retardation as a highly valued reduction, the main point is the influence depressive symptoms have on treatment-seeking. The addition of comorbid psychiatric diagnoses and symptoms can also influence treatment-seeking behaviors. The presence of symptoms of mania and panic disorder increased the likelihood of treatment-seeking whereas the presence of substance abuse decreased the likelihood (Galbaud du Fort, 1999).

Adaptive coping mechanisms have become a more prominent and mainstream way for people to reduce symptoms of depression. Coping is defined as constantly changing your cognitive and behavioral efforts to manage both internal and external demands that are overwhelming (Lazarus & Folkman, 1984). Coping is a critical point for protecting mental and physical health from adverse stressors. This process is intertwined with emotions and in times of

stress, different emotions will elicit different coping responses. Emotions can be very adaptive so that by a young age people can organize social communication, goal achievement, and cognitive processes (Ekman, 1994). Depression is linked to low positive affect and high negative affect (Varma, 2016). Positive and negative affect are two broad mood factors that dominate people's self-reported mood. Negative affect is a general factor of negative mood states such as anxiety and is connected to symptoms of depression like sadness and loneliness. Positive affect reflected pleasurable engagement with the environment (Varma, 2016). Stone, Kennedy-Moore, and Neale (1995) found that relaxation and direct action were associated with increases in positive affect, and distraction and acceptance were associated with a decrease in negative affect. These various behaviors are coping behaviors used to manage negative emotions and they can also attempt to increase positive emotions. Adaptive coping is seen in various forms based on the orientation for treatment. While treatment educates patients on these skills, these mechanisms have influenced people that haven't sought treatment and have been used to increase the general population's mood and mindfulness as well.

Depression can lead to negative, maladaptive effects without proper treatment. The findings of these studies show the importance of mental health education to address depression and its negative effects. One of the maladaptive mechanisms patients with depression can use to decrease their symptoms is dissociation. Depersonalized-Derealization disorder involves the ongoing or episodic sense of detachment or being outside oneself (Mayo Clinic, 2017). This is an uncommon disorder because it requires a certain number of symptoms to be considered a disorder. People can, however, experience dissociative episodes at any time. Studies show that there is a comorbidity between dissociation and depression (Michal, 2011). The shared variances between depersonalization-derealization episodes and depression are about 10% or an $r = 0.3$.

That is, people who experience depression can also experience symptoms of dissociation. To put that into perspective, anxiety, which is commonly associated with depression, has the highest level of shared variances with depression (r= 0.53) (Kalin, 2020).

Dissociation is indirectly a mediator between depression and self-injurious behavior (SIB; Briere, & Eadie, 2016). One of the common explanations for SIB is compensatory motivations in which SIB reduces emotional distress and negative internal states. Those who engage in SIB are also more likely to endorse more symptoms of dissociation than those without SIB. Findings suggest that adverse events might lead to depression and post-traumatic stress, which could then affect SIB through the shared association with dissociation. Dissociation is used as a maladaptive coping response to temporarily relieve symptoms of depression and PTSD (Briere & Gil,1998). SIB could potentially be used as a pain-inducing activity to metaphorically "wake up", from their derealization and dissociation. Though dissociation might reduce depression, dissociation itself can be distressing and even lead to feelings of low self-control and anxiety attributed to derealization.

Another maladaptive mechanism used when people are not provided with the proper tools and treatment is substance use. The self-medication hypothesis is a potential explanation for the comorbidity of mood disorders and substance use disorders. It states that substances are used as a coping mechanism to deal with depressive symptoms (Khantzian, 1985, 1997). As substances are relied on more frequently, they also develop a substance use disorder. There are other theories such as substance use leading to a psychiatric disorder or a combination of genetic and environmental vulnerabilities that increases the risk of a mood or substance use disorder.

Of adults who are diagnosed with a mood disorder or anxiety disorder, 21.9 and 24.1% reported the use of alcohol and/or drugs for their mood or anxiety disorders (Turner, 2018). Research shows a bidirectional relation between substance use and mood disorders. There are positive, bidirectional associations between Alcohol Use Disorder (AUD), Cannabis Use Disorder (CUD), and Mood Disorders (Pacek, 2013). Individuals with Major Depressive Disorder (MDD) are more likely than those without MDD to experience a substance use disorder. Specifically, those with baseline depression were more likely to develop alcohol abuse and cannabis abuse. Cannabis use may affect neurotransmitter systems to produce depressive symptoms, predispose individuals to MDD, and impair their ability to participate in positive coping mechanisms. For treatment, the SUD is primarily the disorder that is focused on, even when the mood disorder might be the underlying cause of the SUD. Vice versa, if a patient was being treated for a mood disorder, the SUD might be the root cause of the mood disorder.

Attitude is defined as a learned predisposition to respond in a consistent evaluative manner toward an object or class of objects (Allport, 1935). The evaluation of an attitude is seen on a univariate continuum with a positive and negative pole. For example, the given attitude is to view the object or idea as generally desirable or undesirable. Someone with a moderately favorable attitude will consistently respond positively but can also occasionally feel neutral or negative about the given topic. The classes of evaluative responses have been identified as affective, cognitive, and behavioral components of attitude (Allport,1935). Sympathetic nervous responses and verbal statements for affect are consistent with the affective component. Actions and verbal statements regarding your behavior are consistent with the behavioral component. Finally, perceptual responses and verbal statements regarding beliefs are consistent with the

cognitive component. There are differences in the three components, and each one provides a unique and different point of view).

Study Overview

Participants were randomly selected into two groups, one received scenarios describing the self, and the other received scenarios describing another person. There were three different trajectories and coping mechanisms. The trajectories alternated between an increase in severity, a decrease in severity, and the same severity after a month. The coping mechanisms alternated between substance abuse, dissociation, and a positive coping mechanism. The study was intended to investigate whether different maladaptive coping mechanisms, as well as changes in trajectory, can affect people's attitudes toward how beneficial or helpful treatment could be.

Aims

The study was designed to evaluate the effects of (mal)adaptive coping mechanisms on attitudes toward seeking treatment. More specifically, the present study had the following aims: to explore whether 1) the presence of maladaptive rather than adaptive coping mechanisms with depression and 2) improving versus worsening versus steady depressive symptoms affect the likelihood of college students' viewing treatment as beneficial.

Method

Participants

For this study, participants were recruited from the Research Experience Program in the Psychology Department at The Ohio State University. This program allows participants from the Introductory Psychology Class to participate in a research study to partially complete a course requirement. Before the analyses, 357 participants participated in the study. Participants were

excluded if a minimum of 75% of the study was not completed or if they were over the age of 25. Age exclusion was used to focus the population on young adults. The final number of participants used for data analysis was 317 participants. Participants consisted of 187 (38.8%) females, 123 (59.0%) males, and 7 (2.2%) participants that identified as nonbinary. Participants were college-aged, ranging from 17-25 years old. There was no compensation for participation but completed surveys received full credit for the class.

Procedure

For this study, a Qualtrics form (https://www.qualtrics.com) was given through the REP program which participants could complete on their devices. Throughout the course of four months, an assigned session with a time was scheduled every week in which students signed up and then received the link to complete the survey. First, the participants were provided with informed consent, and those who were eligible were randomly assigned to one of two conditions. In the Self condition, participants were given scenarios where they were told to imagine themselves in the scenario and then were asked questions on what they would do. The questions were catered to what they would do if presented with these symptoms. In the Other condition, participants were given scenarios in which they were asked to imagine another person in the scenario. This person was referred to as Person A to decrease racial or gender bias. The questions then catered to what they thought the other person should do. Both groups received two pre-measures, the PHQ-9 and the Attitudes Toward Seeking Psychological Treatment, before participating in the intervention scenarios. For the scenarios, there were ten scenarios for each condition. Nine of the scenarios involved the independent variables, the tenth scenario was used as a control variable that strictly measured the dependent variable with no symptom trajectory (current symptoms only) and no coping mechanism.

Each of the scenarios had three parts that alternated throughout the different scenarios: coping mechanisms, the trajectory of symptoms, and the depressive symptoms presented. First, the scenario presented two depressive symptoms. The two symptoms were drawn from a symptom bank consisting of five total symptoms. The symptoms used for the study were: diminished interest or pleasure, fatigue during the day, feelings of worthlessness and guilt, general anxiety, and social anxiety. Each symptom in the symptom bank was used for two scenarios. Second, the scenario presented a change in the trajectory of symptom severity after a month. The different trajectories were mild to moderate, moderate to moderate, and severe to moderate. Each trajectory was used for three scenarios. Third, after the trajectory was made clear, the scenario also added a maladaptive or positive coping mechanism. Changes in depressive symptom severity were defined by the level of distress associated with the intensity of the symptom and the level of functional and occupational distress the symptom is causing (Zimmerman, 2018). There were three possible coping mechanisms, substance use, dissociation, and positive coping skills. For substance use, alcohol and marijuana use were both used to find individual differences in different types of substance use. The control scenario had no change in trajectory or addition of a coping mechanism. Participants were instructed to read the scenarios carefully. After reading the scenarios, participants were asked to answer a series of questions about each scenario to gauge various cognitive and affective attitudinal reactions. Lastly, participants were given a debriefing statement and resources for receiving support for mental illness.

Materials

For this study, the survey included measures using pre-existing scales in addition to questions that I specifically created for this study. First, all participants received two pre-

measures. Participants completed the Patient Health Questionnaire-9 [1](PHQ-9) (Kroenke, 2001). The PHQ-9 is a brief depression severity measure (see Appendix A). Participants then completed the Attitudes Toward Seeking Professional Psychological Help Questionnaire. The participant's personal willingness to seek treatment was measured using a scale that was inspired by Fischer (1995). The scale consisted of questions at the beginning of the survey and is designed to measure the attitudes the participants have toward getting professional help (Williams, 2001). These statements are on a Likert scale of 0 to 3, with 0 being Disagree and 3 being Agree (see Appendix B).

After the pre-measures, the participants read the scenarios and answered the same series of questions after each scenario. Participants in the "Other" category answered questions as to what they believe Person A should feel or believe. Participants in the "Self" category answered questions as to what they feel or believe. The questions were formatted into Likert-scale questions and closed-ended response questions. After each scenario, participants answered semantic differential questions that covered topics regarding their attitudes toward that scenario. Topics included treatment perception, treatment seeking, and substance use. Questions measured affectively based attitudes by using Positive to Negative feelings as absolute points on the scale. Questions measuring cognitively-based attitudes used beneficial to nonbeneficial and helpful to unhelpful as absolute points on the 5-point scale (where 1 referred to more positive/beneficial attitudes and 5 referred to more negative/nonbeneficial attitudes). A question was also asked about how livable this situation was without treatment, livable and unlivable were used as the absolute points on the Likert scale. Examples of questions are, "Treatment would make me feel",

[1] Prior depression neither had a main effect or an interaction with Self/Other variables when predicting attitudes toward treatment, therefore prior depression wasn't examined further

"A therapist would make me feel, "Handling Problems on your own is", and "Using the Counseling and Consultation services at Ohio State" (see Appendix C for attitude measures). Participants were also asked if the symptoms in the scenario were consistent with a depression diagnosis and if psychopharmacology was needed for this situation. Finally, at the end of the study, participants were asked to rate the importance of reduction for each symptom of depression used in the scenarios (see Appendix D).

Results

A General Linear Model Repeated Measures test was performed to examine the influences of relations between trajectory, coping mechanisms, and the between-subjects component and their effect on various measures such as treatment-seeking attitudes. The primary dependent variables were the affectively- and cognitively-based attitudes toward treatment. The model included two within-subject factors: Coping Mechanisms (Dissociation, Substance Abuse, and Positive Coping) and Trajectory (Severe-Moderate, Moderate-Moderate, Mild-Moderate) plus a between-subjects factor: Point of view (Self, Other).

Scenario Nine of the study did not include the addition of coping mechanisms or a change in trajectory to simulate a control variable for the study. The scenario involved moderate-severity depressive symptoms and then participants were told to respond to the questions. To analyze whether coping mechanisms had a significant effect on participants' treatment-seeking behaviors, I used a paired sampled t-test. This was done because every participant received both the intervention and the control. Analyses were only done with the scenarios that had a moderate severity, to match the control, and had varying coping mechanisms. These analyses were repeated a second time to analyze the Self and Other conditions.

Due to a procedural error when building the study, one of the trajectories was input incorrectly. The scenario had the addition of dissociation, and the trajectory was originally severe to moderate but what was described was a trajectory of severe-to-severe depressive symptoms. Another error was found in the first Qualtrics question for scenario one (affect towards treatment). Thus, there are fewer participants for this question only. Scenario one also had the addition of dissociation. Therefore, responses to the dissociation scenarios were removed, and not analyzed in the repeated measures analysis.

Affectively-Based Attitude toward Treatment

A repeated measure ANOVA was used to determine whether there is an effect of coping mechanisms on feelings about treatment for that certain scenario, 1 being Positive and 5 being Negative feelings toward treatment. The result of the test was significant, $F(1,309) = 8.906$, $p = .003$, so I conclude there is an overall significant difference between the means of the question for different additions of coping mechanisms. Different trajectories also significantly affected feelings toward treatment, $F(2,309) = 4.378$, $p = .013$. Perhaps more importantly, these two factors showed a two-way interaction between coping mechanisms and trajectory, $F(2,309) = 13.728$, $p < .001$. The addition of a coping mechanism combined with a change in trajectory over a month significantly influenced their feelings toward treatment. These differences are seen in both positive and negative directions based on their interaction with trajectories. Positive coping resulted in more negative feelings toward treatment when there was an increase in severity and when severity stayed the same. Substance use, however, showed more negative feelings toward treatment when there was a decrease in severity. There was a significant difference between the point of view conditions, $F(1,309) = 7.333$, $p = .023$. Participants who had the self-condition, on average, scored more negative feelings toward treatment compared to the participants in the

Other condition. There was no interaction between the point of view and coping mechanisms, $F(1,309) = 0.970$, $p = .326$. Point of view also did not significantly affect feelings toward treatment with different trajectories, $F(2,309) = 0.057$, $p = .945$ (see Figure 1).

A paired sample t-test was performed to compare feelings towards treatment with coping mechanisms (positive, substance use) and the control in the Self Condition. There was a significant difference in feelings toward treatment with the addition of positive coping mechanisms ($M = 1.61$, $SD = .859$) and no addition ($M = 1.79$, $SD = .862$); $t(161) = -3.447$, $p < .001$. Feelings toward treatment were more favorable with the addition of a positive coping mechanism than with the absence of it. There was also a significant difference in feelings toward treatment with the addition of substance use coping ($M = 1.62$, $SD = .814$) and no addition ($M = 1.80$, $SD = .865$); $t(161) = -2.558$, $p = .011$. Feelings toward treatment were more favorable with the addition of substance use than without it.

Another paired sample t-test was done to observe the effects of coping in the Other condition. There was a significant difference in how others should feel toward treatment with the addition of positive coping mechanisms ($M = 1.39$, $SD = .702$) and no addition ($M = 1.68$, $SD = .891$); $t(151) = 4.228$; $p < .001$. There was a significant difference in how others should feel towards treatment with the addition of substance use coping ($M = 1.56$, $SD = .846$) and no addition ($M = 1.68$, $SD = .891$); $t(151) = 2.088$, $p = .039$. How others should feel about treatment was more positive with the addition of positive coping than without it but was more negative with the addition of substance use coping than without it.

Cognitively-Based Attitude Toward Treatment

A repeated measure ANOVA was used to determine whether there is an effect of coping mechanisms on how beneficial treatment is for that certain scenario, 1 being Beneficial and 5

being non-Beneficial. This measure was specified using Ohio State's Counseling and Consultation Services. The result of the test is significant, $F(1,310) = 14.844$, $p < .001$, so I conclude there is an overall significant difference between the average attitude of seeking treatment for different additions of coping mechanisms. The different trajectories also significantly affected how beneficial treatment would be, $F(1,310) = 7.755$, $p < .001$. With these two main effects, there was also a two-way interaction between coping mechanisms and trajectories, $F(1,310) = 17.921$, $p < .001$. Different coping mechanisms and different trajectories, in conjunction, showed significantly different attitudes toward treatment. Positive coping resulted in treatment being perceived as less beneficial across all three trajectories, and substance use resulted in treatment being perceived as more beneficial across the trajectories. Point of view also showed a significant difference for the Self condition compared to the Other condition, $F(1,310) = 22.408$, $p = .068$. Participants who had the self-condition, on average, scored less beneficial compared to the participants in the Other condition. Point of view interacted with both coping mechanisms, $F(1,310) = 27.538$, $p < .001$, and trajectory, $F(2,310) = 11.704$, $p < .001$. With positive coping, treatment was viewed treatment as less beneficial for others than with substance use when there was an increase or steady trajectory. Treatment was perceived more favorably when there was a decrease in severity with the addition of substance use. This ultimately resulted in a three-way interaction between coping mechanisms, trajectories, and point of view, $F(2,310) = 7.978$, $p < .001$. Overall, the feelings toward treatment were more positive for others than for themselves (see Figure 2).

A paired sample t-test was performed to compare cognitive attitudes toward treatment with coping mechanisms (positive, substance use) and the control in the Self Condition. There

was not a significant difference in how beneficial treatment is with the addition of positive coping mechanisms (*M*=2.06, *SD*=.992) and no addition (*M*=2.07, *SD*=1.093); *t*(161) = -.242, *p*=.809. There was a significant difference in feelings toward treatment with the addition of substance use coping (*M*=1.94, *SD*=1.008) and no addition (*M*=2.07, *SD*= 1.089); *t*(163) = -2.061, *p*=.041. Treatment was perceived as more beneficial when there was an addition of substance use rather than the absence.

Another paired sample t-test was done to observe the Other condition. There was no significant difference in how beneficial treatment is for others with the addition of positive coping mechanisms (*M*=1.79, *SD*=.994) and no addition (*M*=1.75, *SD*=.951); *t*(152)= -.626, *p*=.519. There also was not a significant difference in how others should feel towards treatment with the addition of substance use coping (*M*=1.68, *SD*=.932) and no addition (*M*=1.75, *SD*=.951); *t*(152) = 1.154, *p*=.250.

Handling Problems on Your Own

A repeated measure ANOVA was used to determine whether there was an effect of substance use or positive coping on how beneficial handling problems on one's own would be or how beneficial "Person A" should think it is. The result of this test is significant, *F*(1,313) =162.79, *p*<.001, this concludes that there is a significant difference between the average attitude toward handling problems on one's own for each coping mechanism. Different trajectories also produced significantly different responses for how beneficial handling problems on one's own is, *F*(2,313) =64.95, *p*<.001. There was also a two-way interaction between trajectory and coping mechanisms, *F*(2,313) =22.53, *p*<.001. When the symptoms were decreased with the addition of substance use, participants believed that handling problems on their own was similarly beneficial to using a positive coping skill. When symptom trajectories were steady or increasing in severity,

there were bigger differences between the coping skills. It was perceived as more favorable to handle problems on one's own with the addition of positive coping rather than the addition of substance use. Point of view did not show a significant difference for the Self condition compared to the Other condition.

A paired sample t-test was performed to compare attitudes toward handling problems on your own with coping mechanisms (positive, substance use) and the control, no coping mechanism, in the Self Condition. There is a significant difference in attitudes between the addition of a positive coping (M=2.44, SD=1.123) and no addition (M=2.77, SD=1.215); t(163) =-3.683, p<.001. Handling problems on one's own was deemed more beneficial with the addition of positive coping rather than doing nothing. There is also a significant difference between the addition of substance use coping (M=3.45, SD=1.248) and no addition (M=2.77, SD=1.248); t(163) =7.075, p<.001. Handling problems were seen as less beneficial when there was an addition of substance use rather than doing nothing.

A paired sample t-test was done to analyze the Other condition to test if "Person A" should believe handling problems on their own is more or less beneficial with the addition of coping mechanisms. There was a significant difference in attitudes between the addition of positive coping (M=2.55, SD=1.296) and no addition (M=2.84, SD=1.256); t(152) =3.061, p=.003. For others, handling problems on one's own with the addition of positive coping was more beneficial than doing nothing. There was also a significant difference in attitudes between the addition of substance use coping (M=3.60, SD=1.327) and no addition (M=2.74, SD=1.246); t(151) =-6.687, p<.001. Handling problems on one's own was deemed less beneficial for others with the addition of substance use coping rather than when they are doing nothing.

How Effective are these Coping Mechanisms

A question was asked to test participants' attitudes about the coping mechanisms in the study and how beneficial they think they are for reducing depressive symptoms. A repeated measures ANOVA was used to determine whether there was an effect of coping skills on how helpful those mechanisms are for themselves or how beneficial "Person A" should believe it is. The result of this test is significant, $F(1,308) = 376.946$, $p < .001$, this suggests that there is a significant difference between the average attitude toward each coping mechanism when given different coping mechanisms in the scenarios. Different trajectories also produced significantly different responses for how helpful the coping mechanisms are, $F(2,308) = 48.32$, $p < .001$. A two-way interaction was found between trajectory and coping mechanisms, $F(2,308) = 54.72$, $p < .001$. Across trajectories, positive coping was seen as significantly more helpful than substance use. When there was a change in severity, increase or decrease, substance use was perceived as more helpful. Point of view did not show a significant difference for the Self condition compared to the Other condition. However, an interaction between trajectory and point of view did occur, $F(2,308) = 8.962$, $p < .001$ (see Figure 3).

A paired sample t-test was performed to compare attitudes toward how helpful the coping mechanisms from the study are (positive, substance use) compared to the control, or not using a coping mechanism, in the Self Condition. There was a significant difference in attitudes between the addition of positive coping ($M = 1.88$, $SD = .932$) and no addition ($M = 2.43$, $SD = 1.111$); $t(163) = -5.477$, $p < .001$. Positive coping was seen as more helpful when there was the addition of the positive coping skill rather than when there was no coping skill. There was also a significant difference in attitudes between the addition of substance use coping ($M = 2.34$, $SD = 1.225$) and no addition ($M = 2.01$, $SD = .971$); $t(161) = 3.505$, $p < .001$. Substance use coping was viewed as less

helpful than when there was no coping skill. Again, a t-test was done to look at the other condition to see if there was still a significant difference in how others should think about coping mechanisms. There was a significant difference between the addition of substance use (M=2.21, SD=1.344) and no addition (M=1.74, SD=1.006); $t(150) = -5.088$, $p<.001$. Participants showed others should perceive substance use as more helpful when there was no addition of substance use coping rather than with it. But there was no difference with the addition of a positive coping mechanism.

Rated Importance

The participants were asked to rank the five depressive symptoms that were used in the study by how important they are to them. Results showed the following rank ordering: social anxiety, fatigue, general anxiety, diminished interest, and worthlessness.

Discussion

The current study, to my knowledge, is the first aimed at examining the relations between maladaptive coping mechanisms and attitudes toward seeking treatment. A few previous studies looked at treatment seeking using a PSA or depressive symptoms (Galbaud du Fort, 1999; Lienemann, 2013). I hypothesized that different coping mechanisms and varying trajectories would change a person's attitude toward treatment-seeking for depression. People's attitudes were measured in the study by analyzing affectively- and cognitively-based attitudes.

Overall, the results showed that the presence versus absence of maladaptive coping mechanisms systematically changed participants' attitudes toward both how they feel about treatment as well as how beneficial they believe treatment is. The addition of positive coping mechanisms made treatment seem less beneficial across all three trajectories, and the addition of substance use showed treatment as more beneficial across the trajectories. When there was the

addition of the positive coping skill, it resulted in more negative feelings toward treatment when there was an increase in severity and when severity stayed the same. Different trajectories also influenced attitudes toward treatment, as well as the combination of the two variables. In general, Point of View made a significant impact, in that on average, people felt that others should think treatment is beneficial more than they themselves think treatment is beneficial. This was also seen in the affective reactions toward treatment; others should think treatment is more positive than they believe it is themselves.

Positive coping mechanisms are strategies and tactics that are helpful and beneficial to decreasing depressive symptoms to de-stress after stressful or tough situations. These strategies have become wildly publicized and have become a normative buzzword in the world of mental illness. Many of the previous results have shown positive attitudes toward strategies like journaling, exercising, and creating a schedule. Though associated with positive attitudes in past research, the current results showed that positive coping mechanisms were associated with more negative attitudes toward treatment and feelings that treatment was less beneficial than when coping was maladaptive. This raises the question of whether young adults are participating in positive mechanisms of coping; if so, do young adults believe they need treatment? Young adults' beliefs could be altered by positive coping to believe that treatment is not necessary. This could explain the lack of treatment utilization. One possibility is that positive coping mechanisms provide young adults with enough comfort in reducing their symptoms so that their attitudes toward treatment become less favorable.

Substance Use as a coping mechanism had relatively nonhelpful attitudes while positive coping mechanisms had relatively helpful attitudes. However, when there was an increase or decrease in the severity of symptoms, there was a significant change to more "positive" views of

substance use, and participants viewed it as more helpful. For the severe to moderate trajectory scenario, participants might have believed that the decrease in symptoms is attributed to the use of substances, and this would be consistent with the research from Pacek (2013), that substance use is used to cope with depression because of its potential to decrease symptoms in the short-term. What prior research does not explain is why my findings suggested that substance use was a more helpful mechanism when there was an increase in symptom severity.

Overall, coping mechanisms had a significant impact on questions regarding attitudes toward treatment, handling problems on your own, and how helpful coping mechanisms are. This was shown through the comparison of the control and the moderate-moderate conditions with a specified coping mechanism. This was also shown by both Point of view groups as well. These differences show the potential that maladaptive mechanisms must increase treatment-seeking attitudes. Different severities of depression have the potential to make an impact on treatment-seeking, but further studies are needed to identify this effect. Noting that depression oscillates over time and can provide a different perspective on how depression is perceived.

Participants rated the importance of certain depressive symptoms at the end of the scenarios. The overall rank was Social Anxiety, Fatigue, General Anxiety, Diminished Interest, and Worthlessness. People value the reduction of certain depressive symptoms more than other symptoms (Kim et al., 2022). This ranking seems largely parallel to the ranks in Kim et al. (2022), where the rank order of important reductions of symptoms was Anxiety, Suicide, Depressed Mood, Work, and Guilt (the cognitive symptoms) followed by more somatic symptoms. Though not all the symptoms were of the same category, there seems to be a general conclusion from these and prior results that anxiety is an important reduction in a patient's symptomology.

Limitations

One limitation of this study is that the population is directly limited to students at Ohio State University who are currently enrolled in Introduction to Psychology 1100. This was clearly not a random sample. Using the Research Experience Program could lead to some errors in the results. Many of the participants are participating in the study solely for class credit, so there is a potential incentive for them to partake in this study. Yet, there were no incentives to respond in any particular way. Due to the research being voluntary, these participants are not required to finish the study to get their credit, so it allows for a number of incomplete data entries that had to be withdrawn from data analysis. If these incomplete responses are correlated with some unknown factor that would change the responses, perhaps especially to the self versus other conditions, the voluntary nature of the study (and the correspondent rate of incompletion) might skew the results. Another limitation of the study was the unusable data regarding dissociation and its effect on people's attitudes toward treatment. Three scenarios had to be dropped from the analysis because of this error. With that, only one maladaptive coping mechanism, substance use, was able to be explored in this study.

Limitations can also be found in the methods and instruments used in the study. The intervention measures were created by the research team and due to limited time and resources, I was not able to pre-test the measures before the primary research study. This could have led to issues of validity in the scenarios because there was no data to validate that these scenarios and questions accurately measures what they were intended to measure.

In this study, vignettes were used to prompt the participant's attitudes and beliefs. Studies involving vignettes can provide a potential real-world interpretation (Hughes, 1998). Even so, it

could be worthwhile to survey a clinical population of people who are currently diagnosed with depression to understand their treatment attitudes and collect information on when the severity of their depression changed or if they experienced maladaptive coping mechanisms. Because people likely form impressions of treatment long before they are officially diagnosed, however, it also seemed useful to examine the responses of a sample that included people not (yet) diagnosed.

Future Directions

Moving forward I would like to continue the investigation into treatment-seeking but with a study analyzing other mental disorders like PTSD or Bipolar Disorder and other maladaptive coping mechanisms. Alongside expanding the scope via mental illnesses and coping mechanisms, adult populations over the age of 25 could also provide information on whether age is a considerable factor in treatment-seeking attitudes. Adult populations could also experience different barriers to treatment than young adults.

In general, there are limited studies on the trajectory of symptom severity, and this study is an indicator of the potential for trajectory effects in treatment-seeking research. Because depression oscillates over time, attitudes toward treatment have the potential to change over time as well alongside symptom severity. These differences could provide more information into the factors that decrease willingness to seek treatment. Studies like Kim et al. (2022) include ranking the importance of the reduction of certain depressive symptoms, but it would be interesting to develop persuasive tactics for the clinical field to use that can aid in reducing the depressive symptoms that are perceived as important to the individual.

Conclusion

In the past decade, the psychology world has made significant progress in breaking the public stigma of depression symptoms and mental illnesses. Though public stigma has decreased, self-stigma is still prevalent. The goal of this study was to grow research in maladaptive mechanisms such as substance use and their relation to treatment-seeking attitudes and expand research in discovering ways to increase treatment-seeking attitudes. Even in the eyes of a young adult, substances can be seen as beneficial in decreasing depressive symptoms. The results of the current research suggest that during changes in severity of depression and the maladaptive mechanisms of depression can change how likely someone would seek treatment. Depressive symptoms might not be enough, and future research can explore if public health education discussing the negative ramifications of untreated depression can be an effective way to increase treatment motives. The results also strengthened the idea of personal stigma and that people have positive attitudes toward treatment for others, but not themselves. This information is useful for public health interventions and for therapists to better understand the mechanisms behind people's reasoning to seek and not seek treatment. Future studies can further explore the relation between mental illness, maladaptive coping mechanisms, and treatment.

References

Allport, G.W. (1935) Attitudes. In: Murchison, C., Ed., Handbook of Social Psychology, Clark University Press, Worcester, MA, 798-844.

Bathje, G. J., & Pryor, J. B. (2011). The relationships of public and self-stigma to seeking mental health services. Journal of Mental Health Counseling, 33(2), 161–176. https://doi.org/10.17744/mehc. 33.2.g632039274160411

Bernstein, E. M., & Putnam, F. W. (1986). Development, reliability, and validity of a dissociation scale. *The Journal of nervous and mental disease*, *174*(12), 727–735.

Beck, A. T., Steer, R. A., & Brown, G. (1996). Beck Depression Inventory–II (BDI-II) [Database record]. APA PsycTests. https://doi.org/10.1037/t00742-000

Briere, J., & Gil, E. (1998). Self-mutilation in clinical and general population samples: Prevalence, correlates, and functions. American Journal of Orthopsychiatry, 68, 609 – 620. http://dx.doi.org/10.1037/h0080369

Corrigan, P. (2004). How stigma interferes with mental health care. American Psychologist, 59(7), 614–625. https://doi.org/10.1037/ 0003-066X.59.7.614

Crites, S. L., Fabrigar, L. R., & Petty, R. E. (1994). Measuring the Affective and Cognitive Properties of Attitudes: Conceptual and Methodological Issues. *Personality and Social Psychology Bulletin*, *20*(6), 619–634. https://doi.org/10.1177/0146167294206001

Downs, M.F. & Eisenberg, D. (2012). Help-Seeking and Treatment Use Among Suicidal College Students, Journal of American College Health, 60:2, 104-114, DOI: 10.1080/07448481.2011.619611 https://doi.org/10.1097/00005053-198612000-00004

Fischer, E., and Farina, A. (1995). Attitudes toward seeking psychological professional help: A shortened form and considerations for research. Journal of College Student Development, 36, 368-373. https://doi.org/10.1037/t05375-000

Frydenberg, E. (2014). Coping research: Historical background, links with emotion, and new research directions on adaptive processes. Australian Journal of Psychology, 66(2), 82–92. https://doi.org/10.1111/ajpy.12051

Galbaud du Fort, G., Newman, S. C., Boothroyd, L. J., & Bland, R. C. (1999). Treatment seeking for depression: Role of depressive symptoms and comorbid psychiatric diagnoses. *Journal of Affective Disorders*, *52*(1–3), 31–40. https://doi.org/10.1016/S0165-0327(98)00052-4

Hughes, R. (1998). Considering the vignette technique and its application to a study of drug injecting and HIV risk and safer behaviour. Sociology of Health & Illness, 20(3), 381–400. https://doi.org/10.1111/1467-9566.00107

Kalin, N.H. (2020). The Critical Relationship Between Anxiety and Depression, The American Journal of Psychiatry, 177(5), 365-367, https://doi.org/10.1176/appi.ajp.2020.20030305

Ketchen Lipson, S., Gaddis, S. M., Heinze, J., Beck, K., & Eisenberg, D. (2015). Variations in Student Mental Health and Treatment Utilization Across US Colleges and Universities. *Journal of American College Health*, *63*(6), 388–396. https://doi.org/10.1080/07448481.2015.1040411

Khantzian, E. J. (1985). The self-medication hypothesis of addictive disorders: Focus on heroin and cocaine dependence. American Journal of Psychiatry, 142(11), 1259–1264.

Khantzian, E. J. (1997). The self-medication hypothesis of substance use disorders: A reconsideration and recent applications. Harvard Review of Psychiatry, 4(5), 231–244.

Kim, T. T., Xu, C., & Derubeis, R. J. (2022). Patients' judgments of the importance of treatment-induced reductions in symptoms of depression: The role of specific symptoms, magnitudes of change, and post-treatment levels. Psychotherapy Research, 32(3), 404–413. https://doi.org/10.1080/10503307.2021.1938731

Kosyluk, K. A., Conner, K. O., Al-Khouja, M., Bink, A., Buchholz, B., Ellefson, S., Fokuo, K., Goldberg, D., Kraus, D., Leon, A., Powell, K., Schmidt, A., Michaels, P., & Corrigan, P. W. (2021). Factors predicting help-seeking for mental illness among college students. *Journal of Mental Health*, *30*(3), 300–307. https://doi.org/10.1080/09638237.2020.1739245

Kroenke, K., Spitzer, R. L., & Williams, J. B. (2001). The PHQ-9: validity of a brief depression severity measure. Journal of general internal medicine, 16(9), 606–613. https://doi.org/10.1046/j.1525-1497.2001.016009606.x

Kumaraswamy, N. (2013). Academic Stress, Anxiety, and Depression among College Students-A Brief Review. International Review of Social Sciences and Humanities, 135-143.

Lazarus, R. S., & Folkman, S. (1984). Stress, appraisal, and coping. New York: Springer.

Lienemann, B.A., Siegel, J.T. & Crano, W.T. (2013) Persuading People with Depression to Seek Help: Respect the Boomerang, Health Communication, 28:7, 718-728, DOI: 10.1080/10410236.2012.712091

Mayo Clinic. (2022). Depersonalization-derealization disorder – Symptoms, and causes. https://www.mayoclinic.org/diseases-conditions/depersonalization-derealization-disorder/symptoms-causes/syc-20352911.

Michal, M., Wiltink, J., Till, Y., Wild, P. S., Blettner, M., & Beutel, M. E. (2011). Distinctiveness and overlap of depersonalization with anxiety and depression in a community sample: Results from the Gutenberg Heart Study. Psychiatry Research, 188(2), 264–268. https://doi.org/10.1016/j.psychres.2010.11.004

Stone, A., Kennedy-moore, E., & Neale, J. (1995). Association between daily coping and end-of-day mood. Health Psychology, 14(4), 341–349.

Tanielian, T., Jaycox, L.H., Paddock, S.M., Chandra, A., Meredith, L.S., & Burnam, M.A. (2009) Improving Treatment Seeking Among Adolescents with Depression: Understanding Readiness for Treatment, Journal of Adolescent Health, Volume 45, Issue 5, Pages 490-498,https://doi.org/10.1016/j.jadohealth.2009.03.005.

Lipson, S. K., Lattie, E. G., & Eisenberg, D. (2019). Increased Rates of Mental Health Service Utilization by U.S. College Students: 10-Year Population-Level Trends (2007–2017). *Psychiatric Services*, *70*(1), 60–63. https://doi.org/10.1176/appi.ps.201800332

Ostrom, T. M. (1969). The relationship between the affective, behavioral, and cognitive components of attitude. *Journal of Experimental Social Psychology*, *5*(1), 12–30. https://doi.org/10.1016/0022-1031(69)90003-1

Pacek, L. R., Martins, S. S., & Crum, R. M. (2013). The bidirectional relationships between alcohol, cannabis, co-occurring alcohol and cannabis use disorders with major depressive

disorder: Results from a national sample. *Journal of Affective Disorders*, *148*(2–3), 188–195. https://doi.org/10.1016/j.jad.2012.11.059

Varma, D. (2017). Relationship of Positive and Negative Affect with Depression in Clinical and Normal Group. Psychol Behav Sci Int J, 2(1): 555579. 10.19080/PBSIJ.2016.02.555579

Williams, M. W., Skogstad, P., & Deane, F. P. (2001). Attitudes of male prisoners toward seeking professional psychological help. Journal of Offender Rehabilitation, 34(2), 49–61. https://doi.org/10.1300/J076v34n02_04

TABLES

Table 1

Gender Characteristic of Participants

Characteristic	n	%
Female	187	38.8
Male	123	59.0
Non-Binary	7	2.2
Total	317	100.0

Note. N=317.

Table 2

Age Characteristic of Participants

Characteristic	n	%
17-21	289	91.2
22-25	28	8.8
Total	317	100.0

Note.

Table 3

Sexual Orientation of Participants

Characteristic	n	%
Heterosexual	267	84.5
Homosexual	10	3.2
Bisexual	21	6.6
Prefer not to say	14	4.4
Other	4	1.3
Total	317	100.0

Table 4

Race of Participants

Characteristic	n	%
White	191	60.3
African American	31	9.8
Asian	67	21.1
Hispanic	16	5.0
Mixed Race	8	2.5
Other	4	1.6
Total	317	100.0

Table 5

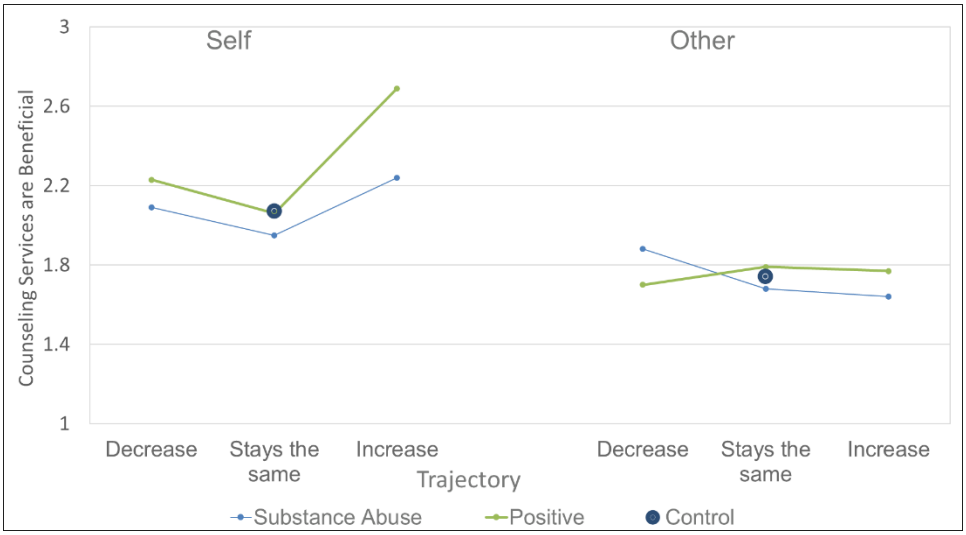
Have You Sought Treatment in the Past

Characteristic	n	%
Yes	226	71.3
No	91	28.7
Total	317	100.0

FIGURES

Figure 1

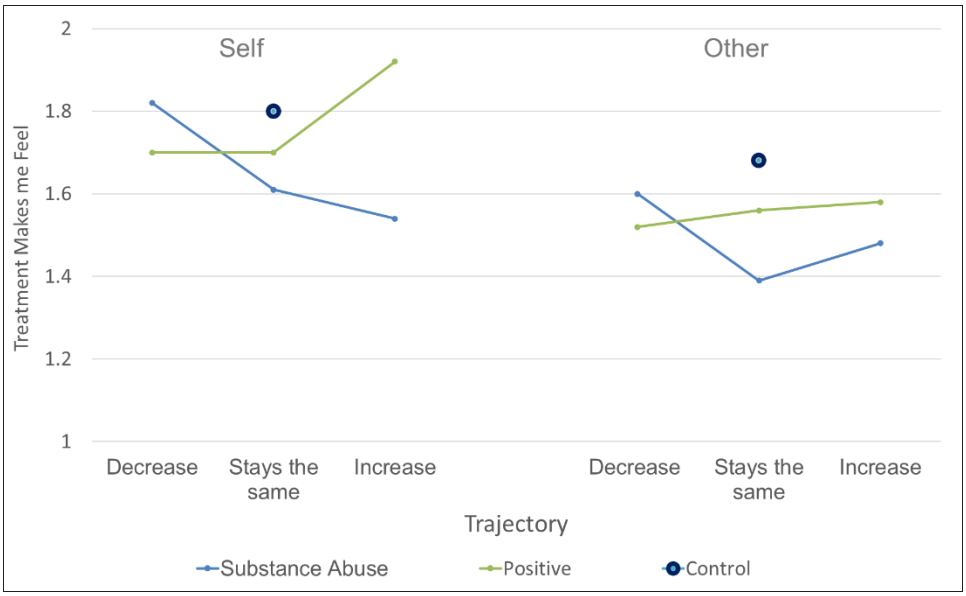
Multiple Regression of Cognitively Based Attitude Toward Treatment



Note. 1= Beneficial, 5=non-beneficial. Decrease= Severe to Moderate; Stays the same= Moderate to Moderate; Increase=Mild to Moderate. "Self" and "Other" graph represent Point of View condition. Scenario 9; the control variable is represented by enlarged point on graph.

Figure 2

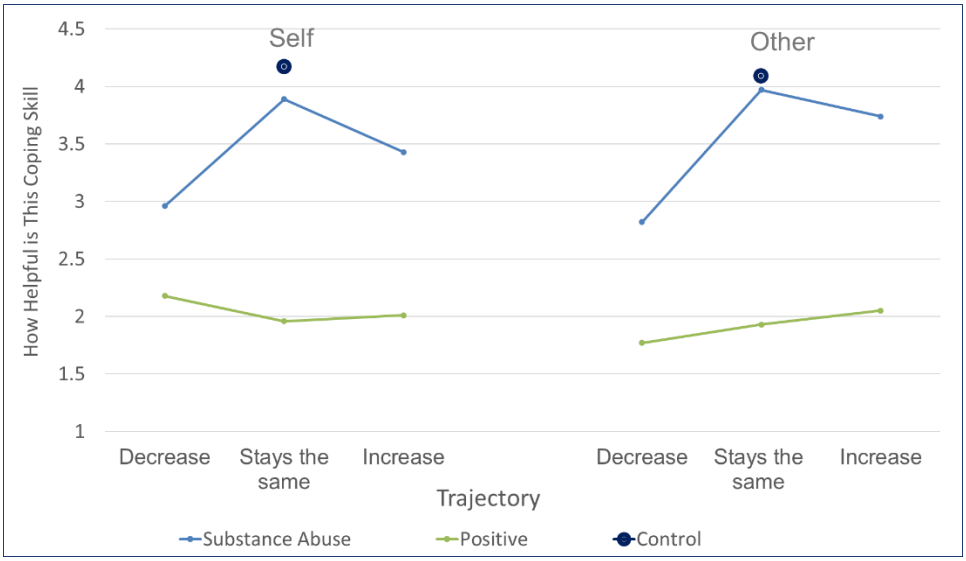
Multiple Regression of Affectively Based Attitudes Toward Treatment



Note. 1= Positive, 5=Negative. Decrease= Severe to Moderate; Stays the same= Moderate to Moderate; Increase=Mild to Moderate. "Self" and "Other" graph represent Point of View condition. Scenario 9; the control variable is represented by enlarged point on graph.

Figure 3

Multiple Regression of Cognitively Based Attitudes Toward Coping Mechanisms



Note. 1= Helpful, 5=Non-Helpful. Decrease= Severe to Moderate; Stays the same= Moderate to Moderate; Increase=Mild to Moderate. "Self" and "Other" graph represent Point of View condition. Scenario 9; the control variable is represented by enlarged point on graph.

APPENDICIES

Appendix A: Patient Health Questionaire-9

1. Little interest or pleasure in doing things	0	1	2	3
2. Feeling down, depressed, or hopeless	0	1	2	3
3. Trouble falling or staying asleep, or sleeping too much	0	1	2	3
4. Feeling tired or having little energy	0	1	2	3
5. Poor appetite or overeating	0	1	2	3
6. Feeling bad about yourself — or that you are a failure or have let yourself or your family down	0	1	2	3
7. Trouble concentrating on things, such as reading the newspaper or watching television	0	1	2	3
8. Moving or speaking so slowly that other people could have noticed? Or the opposite — being so fidgety or restless that you have been moving around a lot more than usual	0	1	2	3
9. Thoughts that you would be better off dead or of hurting yourself in some way	0	1	2	3

Appendix B: Attitudes Toward Seeking Professional Psychological Help

0 = Disagree 1 = Partly disagree 2 = Partly agree 3 = Agree

_____1. Although there are places to go for people with personal or emotional troubles, I would not have much faith in them.

_____2. Considering the time and expense involved in psychological counseling, it would not have much value for a person like me.

_____3. I would willingly confide intimate matters to a psychologist or counselor if I thought it might help me or a member of my family.

_____4. I would rather live with certain personal problems than go through the ordeal of seeing a psychologist or counselor.

_____5. I believe that emotional problems, like many things, tend to work out by themselves.

_____6. If I believed I was having an emotional breakdown, my first inclination would be to get professional help.

_____7. I believe that having received psychological counseling is a blot on a person's life.

_____8. I would rather be advised by a close friend than by a psychologist/counselor, even for an emotional problem.

_____9. I resent a person who wants to know about my personal or emotional problems, even if they are professionally trained.

_____10. I think that talking about problems with a psychologist or counselor is a poor way to get rid of emotional or personal conflicts.

_____11. If I had a serious emotional crisis at this point in my life, I would be confident that I could find relief in psychological counseling.

_____12. At some time in the future, I might want to have psychological counseling.

_____13. In my opinion, people should work out their own problems; getting psychological counseling would be a last resort.

_____14. If I had received help from a psychologist or counselor, I would want it covered up.

Appendix C: Post- Scenario Questions

Affect Questions

1. Treatment makes me feel
    a. Positive-Negative
2. Having a support system makes me feel
    a. Positive-Negative
3. Mental Health Awareness is
    a. Good-Bad
4. The idea of a therapist makes me feel
    a. Positive-Negative
5. Cannabis would make me feel
    a. Happy-Sad
6. Alcohol would make me feel
    a. Happy-Sad

Cognitive Questions

1. Handling Problems on your own
    a. Beneficial-Harmful
2. Seeking a community on social media
    a. Beneficial-Harmful
3. Using a Crisis Support line
    a. Beneficial-Non-Beneficial
4. Using the Counseling and Consultation Services at Ohio State
    a. Beneficial-Non-Beneficial
5. The current symptoms I/they are experiencing
    a. Livable-Unlivable
6. IF SA: Using substances to help with my/their symptoms is
    a. Helpful-Unhelpful
7. IF dissociation- Using avoidance to help with my/their symptoms is
    a. Helpful-Unhelpful
8. Coping skills are
    a. Beneficial-Non-Beneficial

1. Do you believe the person in this scenario is experiencing depression
2. Should they participate in psychopharmacology(medication)

Appendix D: Rated Importance of Depressive Symptoms

1. Rate the importance of these depressive symptoms
    a. 1. Diminished interest or pleasure
    b. 2. On average, more fatigued during the day
    c. 3. Feelings of worthlessness and guilt constantly
    d. 4. General Anxiety
    e. 5. Social Anxiety