The Impact of Affect on Help-Seeking in Students with Disordered Eating

A Thesis submitted to the faculty of
San Francisco State University
In partial fulfillment of
the requirements for
the Degree

Master of Arts

In
Psychology: Developmental Psychology

by

Frances Ayres Lauten
San Francisco, California
May 2022
I certify that I have read The Impact of Affect on Help-Seeking in Students with Disordered Eating by Frances Ayres Lauten, and that in my opinion this work meets the criteria for approving a thesis submitted in partial fulfillment of the requirement for the degree Master of Arts in Psychology: Developmental Psychology at San Francisco State University.

______________________________
Melissa Hagan, Ph.D.
Assistant Professor,
Thesis Committee Chair

______________________________
Sarah Holley, Ph.D.
Associate Professor
The Impact of Affect on Help-Seeking in Students with Disordered Eating

Frances Ayres Lauten
San Francisco, California
2022
Abstract

Although much research on eating disorders has been conducted since the 1980s, the motivations for treatment-seeking still aren’t widely understood. Both positive and negative affect have been examined in relation to eating disorder risk and maintenance, but they have not been investigated as vectors for treatment-seeking behaviors. In order to address this gap in the literature, the current study examines how low positive affect and high negative affect impact treatment-seeking behaviors for college students with disordered eating. It was hypothesized that low positive affect and high negative affect would predict help-seeking behaviors in this population. Ethnically/racially diverse college students (n = 325) completed a survey that included the Eating Attitudes Test-26 and the modified Differential Emotions Scale, as well as measures on treatment-seeking and demographics. These data were entered into a logistical regression analysis to determine whether low positive affect or high negative affect interacted with disordered eating to significantly predict treatment-seeking behaviors. Neither hypothesis was confirmed, with both low positive affect and high negative affect failing to reach significance. Despite the null results, this study has implications in guiding future research questions surrounding disordered eating and treatment-seeking. Future research should focus on differences between clinical and subclinical samples and could benefit from the inclusion of open-ended qualitative questions about why participants do or do not seek treatment when they are experiencing disordered eating.
Preface and/or Acknowledgements

Special thanks to Dr. Melissa Hagan for advising me and Dr. Sarah Holley for supporting my use of her data. Additionally, I would like to thank Cherish Wilson and my lab members and cohort for their support and brainstorming with me at every step of this project. Finally, I appreciate my family and friends who have read through many drafts and have always reminded me that I am never on my own. I am grateful for you all.
# Table of Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>List of Tables</strong></td>
<td>viii</td>
</tr>
<tr>
<td><strong>Introduction</strong></td>
<td>1</td>
</tr>
<tr>
<td>Emerging Adulthood and Disordered Eating</td>
<td>1</td>
</tr>
<tr>
<td>Disordered Eating and Treatment-Seeking</td>
<td>3</td>
</tr>
<tr>
<td>The Role of Affect on Disordered Eating and Treatment-Seeking</td>
<td>4</td>
</tr>
<tr>
<td>The Current Study</td>
<td>7</td>
</tr>
<tr>
<td><strong>Methods</strong></td>
<td>8</td>
</tr>
<tr>
<td>Procedure</td>
<td>8</td>
</tr>
<tr>
<td>Measures</td>
<td>9</td>
</tr>
<tr>
<td>Data Analysis Plan</td>
<td>11</td>
</tr>
<tr>
<td><strong>Results</strong></td>
<td>11</td>
</tr>
<tr>
<td>Preliminary Data Analysis</td>
<td>12</td>
</tr>
<tr>
<td>Primary Data Analysis</td>
<td>12</td>
</tr>
<tr>
<td><strong>Discussion</strong></td>
<td>13</td>
</tr>
<tr>
<td>Disordered Eating and Treatment-Seeking</td>
<td>13</td>
</tr>
<tr>
<td>The Role of Positive and Negative Affect</td>
<td>14</td>
</tr>
<tr>
<td>Limitations</td>
<td>15</td>
</tr>
<tr>
<td>Future Directions</td>
<td>16</td>
</tr>
<tr>
<td>Conclusion</td>
<td>17</td>
</tr>
<tr>
<td><strong>References</strong></td>
<td>18</td>
</tr>
</tbody>
</table>
List of Tables

Table 1: Participate Demographics 29

Table 2: Correlations between Variables 30

Table 3: Effects of Positive Affect and Disordered Eating on Treatment-Seeking 31

Table 4: Effects of Negative Affect and Disordered Eating on Treatment-Seeking 32
Introduction

As far back as the early 1990s, late adolescence and the transition to college have been identified as times of particular risk for the onset of psychopathology and eating disorder symptoms (White, 1992). Estimates of how prevalent eating disorders are on college campuses have been as high as one out of every five students (National Eating Disorder Association, 2006; National Eating Disorder Association, 2009; Zivin et al., 2009). Eating disorders are characterized by their high death rates, low treatability and strong likelihood of relapse (Mitchell & Crow, 2006; Crow et al., 2009; Burkman et al., 2006; Pike, 1997). As such, it is critical to address disordered eating before it devolves into a diagnosable condition. Unfortunately, many individuals who are struggling with disordered eating are unlikely to seek treatment (Ali et al., 2017; Ali et al., 2020). Identifying factors associated with lower levels of treatment-seeking could inform prevention efforts targeting individuals engaging in subclinical disordered eating behaviors. The current study aimed to examine the association between disordered eating behaviors and treatment-seeking behavior. It further explored the role of positive and negative affect in predicting treatment-seeking for those with and without disordered eating. In addition to advancing the understanding of the mechanisms that may either promote or inhibit treatment-seeking behaviors in college students, the findings have important implications for the design of efficacious prevention programs as well.

Emerging Adulthood and Disordered Eating

Emerging adulthood, which occurs between the ages of 18 through 29 (Arnett, 2004), is a time of heightened academic and emotional stress and vulnerability to mental illnesses, including
substance abuse, depression, schizophrenia and more (Auerbach et al., 2016; Ibrahim, Kelly, Adams, & Glazebrook, 2013; Striegel-Moore et al., 2003). There are many explanations for the increased psychological risk during this time, including greater independence (Arnett, 2000) and academic stress (Russell et al., 2019). College can also be a time of increased academic pressure and independence as students adjust to the demands of undergraduate work and leave home, often for the first time. As teenagers and young adults transition to college, many of them choose to live with peers or on campus, away from their parents and caregivers. College itself can also contribute to the stress on undergraduates. As Russell and colleagues (2019) point out, in any given week, college students face a plethora of stressors from academic assignments due in a variety of classes to relational and social commitments. These daily stressors have even been indicated as a greater source of anxiety for undergraduates than major life events (Ross et al., 1999). Considering that daily stress can contribute to mental health concerns (Delongis et al., 1982), it is unsurprising that incidences of eating disorders and disordered eating behaviors peak around emerging adulthood and the transition to college (Slane et al., 2014).

For the purposes of this study, the researcher is only looking at disordered eating, not eating disorders. Disordered eating is a collection of eating disorder symptoms and behaviors that do not rise to the level of diagnosis. Disordered eating behaviors can be categorized in three recognizable ways. In the restriction subtype, individuals consistently eat below the required calories to maintain their weight. In the binge subtype, individuals consistently consume a large amount of food. Finally, in the binge-purge subtype, individuals engage in bingeing behaviors followed by a compensatory behavior such as self-induced vomiting, over-exercising or laxative abuse. Additionally, these behaviors may be accompanied by feelings of guilt, the fear of being
fat or gaining weight, a preoccupation about losing control over food consumption, and/or continuous obsession overweight and body shape (Berkman et al., 2006). Estimates on the number of college students with disordered eating vary widely, with estimates for females ranging from 17% all the way up to 90% (Berg, Frazier, & Sherr, 2009; Hawkins & Clement, 1980) and males from 8% to 30% (Dakanalis et al., 2016; Lipson & Sonneville, 2017). However, median numbers seem to hover around 54% for females and 19% for males (Harrer et al., 2020). In terms of diagnosable disorders, it is estimated that between .9% to 2% of young women and .1% to .3% of young men meet the threshold for Anorexia Nervosa, 1% of young women and .1% of men meet the criteria for Bulimia Nervosa, and 3.5% of women and 2% of men suffer from Binge Eating Disorder (National Eating Disorder Association, 2021). There is a substantial body of research that suggests that subclinical disordered eating is a predictor for later eating disorder diagnosis (Nevonen et al., 2000; Berk, 2009; Godier et al., 2014; Stice, 2021), so early identification of disordered eating and associated risk factors is necessary to prevent students from devolving into clinically impairing behaviors (Nevonen & Broberg, 2000).

**Disordered Eating and Treatment-Seeking**

Students with eating disorders have been found to be incredibly resistant to help-seeking, including using the mental health services provided by college campuses (National Eating Disorder Association, 2006; National Eating Disorder Association, 2009; Zivin et al., 2009; Ali et al., 2017). It has been estimated that up to 75% of college students with eating disorders do not receive treatment (National Eating Disorder Association, 2006). There are many reasons for the lack of help-seeking in this population including stigma, lack of belief in the severity of their disorder, unwillingness to change, self-sufficiency (Ali et al., 2020), and the simple fact that
eating disorders are secretive in nature (Hoyt & Ross, 2003). The consequences of not seeking help are worrisome, considering the difficulty of treatment and the negative medical and psychological outcomes many individuals with eating disorders experience as their disorder progresses.

The implications of this research are important because the students who do not exhibit signs of distress might be less likely to raise concerns in others about their well-being or to reach out on their own. Therefore, they might be doubly vulnerable to hiding their disordered eating patterns until they devolve into full blown eating disorders, which may have disastrous consequences for their health and longevity. Additionally, eating disorder symptoms and motivations are not heterogeneous, especially along racial lines (Perez et al., 2021), which suggests that prevention and mitigation strategies must also be dynamic. Therefore, a deeper understanding of the mechanisms that enable help-seeking behaviors must be prioritized in order to encourage treatment, no matter how the disorder presents itself.

The Role of Affect on Disordered Eating and Treatment-Seeking

It has been suggested that high levels of distress can increase help-seeking behaviors in college students with eating disorders (Fitzsimmons et al., 2020, Meyer, 2001). However, distress is a relative term, and it has yet to be established whether high negative affect is necessary or if help-seeking can be triggered with low levels of positive affect. One college surveyed a group of students (N = 136) about their body concerns and knowledge of resources on campus before and after a presentation of the available treatment options. Based on the post-test, the presentation increased help-seeking intentions (Tillman et al., 2015). The results of this study reinforce previous theories that overcoming barriers to treatment is possible.
Positive Affect and Disordered Eating

In some respects, disordered eating that results in weight loss may be both externally and internally rewarding, thereby minimizing distress a person might be feeling and decreasing the likelihood that they will seek help. Thinness has long been established as the widely accepted cultural ideal for beauty standards for women in America (White, 1992; Prnjak et al., 2020). As such, efforts at weight loss are socially acceptable, especially before the loss of weight is extreme enough to warrant concern (White, 1992). According to the CDC, 49.1% of American adults attempted to lose weight in 2013 - 2016 (Martin et al., 2018), reinforcing earlier claims of the positive regard weight loss is given in western cultures (Bordo, 1993). Therefore, young adults who are engaging in disordered eating behaviors such as restriction or purging might be receiving positive reinforcement from their peers and community, which might validate their behaviors (Heinberg, 1996; Tiggemann & Lynch, 2001) and increase levels of positive affect. Peer support has been shown to increase positive and decrease negative affect in at-risk adolescents (Griffin et al., 2019), so it is reasonable to presume that peer validation in regard to weight loss would also be influential. By the time the weight loss is severe enough to incite concerns, disordered eating might have already developed into an eating disorder, which is much harder to mitigate.

In addition to the external rewards discussed above, disordered eating has been shown to be internally rewarding as well. Periods of increased food restriction have been found to reduce guilt and increase feelings of self-assurance among individuals with anorexia nervosa (AN) (Haynos et al., 2017). When food restriction increases feelings of capability and decreases guilt, it makes sense why this pattern of behavior would continue, even if it is destructive. Because
disordered eating behaviors are reinforced through external validation and internal rewards, individuals engaging in these behaviors may be less likely to seek help, which could allow harmful eating-related patterns to further worsen. If a clinical population is resistant to treatment due to the feeling of accomplishment that engagement in such harmful behaviors initiates, it is reasonable to question whether this positive reinforcement is triggered before disordered eating develops into a diagnosable eating disorder.

Disordered eating can be a mechanism of mitigating body-image based concerns thereby raising positive affect, and research has shown that people with anorexia rely on their disordered eating behaviors to control their affect, which might contribute to the difficulties in successfully treating this disorder (Haynos & Fruzzetti, 2011). The association between disordered eating and positive affect is particularly non-intuitive. Disordered eating behaviors may lower distress and raise positive affect, which may be correlated with symptom maintenance for individuals with eating disorders. Several eating disorder researchers have posited that individuals with AN experience increased positive affect from weight loss, especially at the onset of their disorder (Slade, 1982; Schmidt & Treasure, 2006; Walsh, 2013). Additionally, individuals with anorexia have been found to have higher levels of serotonin reactivity, which makes them more sensitive to tryptophan, an amino acid that increases anxiety when food is digested, encouraging individuals to limit their caloric intake (Kaye et al., 2009) which allows them to maintain their positive affect. Finally, positive affect limits distress, which is thought to be one of the main motivating factors in overcoming the barriers to treatment-seeking (Meyer, 2001). In these ways, positive affect appears to be a correlate of eating disorders, which might help explain the reluctance many individuals with eating disorders have about seeking help. It is unclear whether
the lack of positive affect, without the presence of negative affect, is enough to push students with disordered eating to seek help. Individuals who experience positive emotions or lack of negative emotions due to their disordered eating behaviors may lack the motivation to realize that they need help. This may be exacerbated by their inability to view their behaviors as dangerous or problematic, especially if their peers and support system fail to notice or encourage them to seek help.

**Negative Affect and Disordered Eating**

Conversely, negative affect has been identified as a risk factor for disordered eating (Keng & Ang, 2019) and has also been associated with reinforcing eating disorder symptoms in a clinical sample (Wong et al., 2021). If negative affect does increase disordered eating behaviors, it may also lead to higher distress, and thus greater help-seeking. Many eating disorder behaviors are driven by negative affect, either to avoid or eliminate it (Engel et al., 2005; Heatherton & Baumeister, 1991). It has been suggested that higher levels of eating disorder pathology have been associated with positive feelings towards help-seeking as well as decreased perceptions of barriers to treatment in a non-clinical sample (McAndrew et al., 2020). This suggests that as eating disorder behaviors increase, treatment becomes a more attractive option for individuals with disordered eating even if their beliefs in the difficulty of receiving treatment are unchanged. Therefore, it is important to determine whether the desire to seek treatment is followed up by active help-seeking in students with disordered eating.

**The Current Study**

It has been established that individuals with eating disorders often do not seek help or treatment, which can increase the risk of symptoms worsening to clinical levels (Nevonen et al.,
2000; Berk, 2009; Godier et al., 2014; Stice, 2021). Given the elevated danger of college students developing disordered eating behaviors, a greater understanding of the factors that may influence treatment-seeking in this population is necessary. Because both positive and negative affect are implicated in the development and maintenance of eating disorders and can operate at the same time (Selby et al., 2015; Wong et al., 2021), the current study aims to determine how influential each type of affect is on treatment-seeking behaviors in a non-clinical population. Using an ethnically-diverse sample of young adults attending a state university, two hypotheses were tested in a sample of students who reported current engagement in disordered eating behaviors: 1) positive affect will be negatively associated with treatment-seeking; and 2) negative affect will be positively associated with treatment-seeking. By furthering the understanding of the role of affect in treatment-seeking, results stand to inform the design of preventive interventions targeting disordered eating in college students.

**Methods**

**Procedure**

The data were collected as a part of a larger survey study conducted by the Relationships, Emotion and Health Lab at San Francisco State University to examine emotional processes and the transition to college (PI: Sarah Holley). Participants were recruited via live and recorded classroom announcements and fliers, and the study was administered through Qualtrics. Participants were required to be undergraduate students at San Francisco State University who were fluent in English and over 18 years of age. Each participant who completed the online survey was compensated with SONA credit and was entered into a drawing for $150. Data for
the present study was collected during the Spring, 2021, semester. There were 325 participants (241 female) who were drawn from the original 495 students who participated in the EMERGE study. These participants were selected because they provided information for all the requisite variables for this study. The ages of the participants ranged from 18-58 years old (M = 22.1, SD = 4.8). The sample was ethnically diverse: 39.3% were Asian/Pacific Islander, 38.1% were Latino/a, 7.3% were Black/African American, 29.9% were White/Caucasian, and 4.6% identified as “other.” Of the 325 participants, 64 of the undergraduates experienced disordered eating, 22 of whom also sought some sort of treatment in the last three months.

Measures

Disordered Eating

Disordered eating was determined using the modified Eating Attitudes Test (EAT-26), a measure that was developed to determine whether an individual should be referred to a specialist for an eating disorder assessment. The EAT-26 was created and validated in 1982 as a modification of the full Eating Attitudes Test from 1979 and has been validated on nonclinical samples (Garner et al., 1982). The EAT-26 comprises three subscales: Dieting, Bulimia and Food Preoccupation, and Oral Control. Dieting includes behaviors indicative of food and caloric restriction (e.g., “I avoid eating when I am hungry”). Bulimia and Food Preoccupation measures behaviors including binging and purging (e.g., I “vomit after eating”). Finally, Oral Control refers to an individual’s ability to control their food intake and the perception that they need to gain weight (e.g., “Other people think that I am too thin”). For statements 1 to 25, participants indicated frequency of eating disorder behaviors, which were recoded as follows: “Always” = 3, “Usually” = 2, “Often” = 1, “Sometimes” = 0, “Rarely” = 0, “Never” = 0. The scores for each of
the 26 items are added together for the total score. Although there is a part two of the Eat-26, it was not used for this study. Participants were grouped by whether they received scores lower than a 20 on the modified Eating Attitudes Test, which indicated that they were not engaging disordered eating behaviors at a significant level. This threshold was established in a previous investigation (Garner et al., 1982).

**Positive and Negative Affect**

The Modified Differential Emotions Scale (mDES) was used to measure both positive and negative affect (Frederickson et al., 2003). The mDES is a 20-question measure that was designed to quantify the extent of positive and negative affect the participant feels during a set period of time (Frederickson et al., 2003), in this case, a week. The measure contains two subscales, one for positive affect and the other for negative affect. Participants were prompted to indicate the extent to which they felt the emotions described in the questions on a scale from 1 (not at all) to 5 (extremely). Examples of items to measure positive impact include proud, confident, self-assured and hopeful, optimistic, encouraged. Items designed to measure negative affect include repentant, guilty, blameworthy and disgust, distaste, revulsion. All positive scores were added together, and all negative scores were added together for two total scores, one related to positive affect and the other for negative affect, with higher scores indicating higher positive and negative affect respectively. The Cronbach’s Alphas for positive affect and negative affect were .92 and .88, respectively; both exceeded the .7 threshold for internal reliability.

**Treatment-Seeking Behaviors**

Treatment-seeking behaviors were identified using the Counseling and Treatment Scale (CSQ) (Larson et al., 1979). The CSQ has three questions aimed at determining what treatment-
seeking behaviors an individual used, and how frequently in the last three months. The first question detailed five levels of care, from medication management to residential treatment facility and prompts participants to check each applicable box. The second question asked how frequently the individual used emergency services or crisis lines for psychological treatment over the last three months. Finally, the third question asked how frequently the individual used non-crisis center psychological or counseling services. The items were recoded into one new dichotomous variable which indicated whether or not each participant had received any sort of treatment over the last three months, with “yes” coded as 1, and “no” coded as 0, regardless of frequency or type.

**Data Analysis Plan**

First, the demographic information was compiled in a frequency table. Chi-square tests were conducted to determine which demographic variables were associated with treatment-seeking behaviors. In order to determine whether affect impacted treatment-seeking behaviors for students with disordered eating, all participants’ EAT-26 scores, CSQ scores and mDES scores were entered into a logistic regression model, which also showed the interaction between affect and disordered eating as it predicted treatment-seeking. Next, the researcher transitioned from looking at the EAT-26 scores on a continuous scale to a dichotomous model to determine whether severity of disordered eating symptoms was associated with affect or treatment-seeking, or whether the results would be the same.

**Results**
**Preliminary Data Analysis**

Of the 325 participants, 64 of the undergraduates experienced disordered eating, 22 of whom also sought some sort of treatment in the last three months. As shown in Table 1, gender, sexual orientation and race were associated with treatment-seeking. Gender was included in the primary data analysis because it was associated with both disordered eating and treatment-seeking. Sexual orientation and race were not included as covariates because they were not correlated with disordered eating as well as treatment-seeking. Table 2 shows that negative affect was positively correlated with disordered eating and negatively correlated with positive affect.

**Primary Data Analysis**

*Low Positive Affect and Treatment-Seeking Behaviors*

As expected, results from the first logistic regression model showed that disordered eating was positively associated with treatment-seeking, and the covariate of gender reached trend-level significance. There was, however, no main effect for positive affect, and the interaction between positive affect and disordered eating was not significant. Therefore, hypothesis one was not supported (see results in Table 3). The same pattern of results was true when disordered eating was entered into the model as a dichotomous variable.

*High Negative Affect and Treatment-Seeking Behaviors*

In line with the results from the first model, results from the second logistic regression model showed that disordered eating was positively associated with treatment-seeking, and the covariate of gender reached significance. Again, however, there was no main effect for negative affect, and the interaction between negative affect and disordered eating was not significant.
Therefore, hypothesis two was not supported (see results in Table 3). The same pattern of results was true when disordered eating was entered into the model as a dichotomous variable.

**Discussion**

Despite previous research that indicates a connection between affect and eating disorders, the results of this study do not indicate that affect has any impact on whether college students with disordered eating choose to seek treatment relative to those who do not engage in disordered eating. However, we did find a positive association between negative affect and treatment-seeking and between disordered eating and treatment-seeking. The lack of support for the hypotheses could be explained by a variety of factors. For example, the current study focused on disordered eating in a non-clinical sample and hypotheses may have been better tested with a clinical sample of individuals with diagnosable disorders. It is also possible that the Covid-19 pandemic has had an impact on affect across the board, which may have swayed the results of this study in a way that wasn’t evident in prior research. Despite the null results, the information that was found still contains many implications and fills gaps in the existing literature in many ways. Below we review the descriptive findings as well as the lack of support for the study’s hypotheses in more detail, highlighting both the strengths and limitations of the current investigation.

**Disordered Eating and Treatment-Seeking**

It can be difficult to find reliable estimates of disordered eating in America because no standard measurement exists. However, rates range from 17-90% for college women (Berg, Frazier, & Sherr, 2009; Hawkins & Clement, 1980) and 8 - 30% for males (Dakanalis et al.,
2016; Lipson & Sonneville, 2017). Treatment rates are similarly hard to ascertain for disordered eating and are often thought to be underestimated (National Eating Disorder Association, 2009). For the current study, a student needed a score of 20 or higher on the EAT-26 in order to be considered as experiencing disordered eating. This is a conservative cut off point because 20 is the same score that would indicate that the individual should be referred to a specialist for evaluation (Garner et al., 1982). The current study found that roughly 20% of the population met or exceeded that threshold, and then only 35% of those students engaged in any sort of treatment-seeking during the prescribed time. This is on the lower end of the estimate range that is often seen on college campuses, but that may be due to the conservative nature of the cutoff point. Additionally, a 35% rate of treatment-seeking is higher than most studies suggest (National Eating Disorder Association, 2006), although that research is focused on clinical eating disorders, whereas the current study focused on a non-clinical sample of college students.

The Role of Positive and Negative Affect

Most of the research on the relationship between positive affect and eating disorder behaviors has focused on clinical eating disorders (Slade, 1982; Schmidt & Treasure, 2006; Walsh, 2013; Haynos et al., 2017). There are also a handful of related studies that focused on the impact that general weight loss can have on positive affect (Bordo, 1993) and how peer support of losing weight can increase positive affect (Heinberg, 1996; Tiggemann & Lynch, 2001). However, there are no studies that directly examine low positive affect on treatment-seeking behaviors in a sub-clinical population. Therefore, while the hypothesized relationship between positive affect and treatment-seeking did not appear, this study still fills a gap in the existing literature.
There is much more research on the impact of negative affect on treatment-seeking for disordered eating and eating disorders and this study confirmed some previous findings. First, high negative affect has been identified as a predictor for disordered eating (Keng & Ang, 2019), which was also found in this study. Other researchers have identified high negative affect as a contributing factor in the reinforcement of eating disorder symptoms and patterns in a clinical sample (Wong et al., 2021). Finally, distress has been established as one compelling reason that many people do seek treatment (Meyer, 2001; Fitzsimmons et al., 2020); however, the results of the current study suggest that high negative affect is not an appropriate tool with which to measure distress. Based on previous studies, if high negative affect had been a sufficient proxy for distress, the researcher would expect to find that negative affect was positively associated with disordered eating. Because this was not found, it cannot be assumed that high negative affect and distress are interchangeable.

Limitations

There were a handful of limitations to this study that need to be considered. First, although there were over 300 participants, only 22 reported both disordered eating and any treatment-seeking for mental health difficulties, which may have limited the researcher’s ability to notice trends or correlation due to small sample size. Despite the body of research that suggests that emerging adulthood (ages 18-29) is an age range that is particularly risk heavy for eating disorders and disordered eating, this study did not find a correlation between age and disordered eating. However, this could be due to the skew towards emerging adulthood within the sample. Because only 5% of participants were outside of that range, it limits the scope of this data’s power to evaluate disordered eating in an older population. Additionally, the sample was
disproportionately female and taken exclusively from undergraduates in psychology classes. Both factors decrease the generalizability of the results. Another round of data collection may have helped to mitigate this problem, which would likely have doubled participants at the very least. Additionally, the EAT-26 was added to a list of many other questionnaires that was given out as a larger study, which prevented the addition of open-ended qualitative questions. These questions might have provided further context or research guidance if they had been used along with the quantitative data collected. A final factor to consider is how intense many eating disorder treatment programs are. It’s possible that many students who do seek treatment are unable to remain enrolled in classes and take a leave of absence from school. If this is the case, they would not be eligible to participate in this study and their data would not be collected.

Future Directions

Future research might be able to address these limitations. Greater care should be paid to the differences between a clinical and non-clinical sample. Very few studies have focused on disordered eating, and mostly only as a predictive variable for later eating disorder diagnoses (Nevonen et al., 2000; Berk, 2009; Godier et al., 2014; Stice, 2021). Therefore, future research could investigate treatment rates for a sub-clinical population and determine whether treatment at the sub-clinical level is more effective than clinical eating disorder treatment. Additionally, qualitative data should also be collected. If possible, qualitative interviews should be given to participants who have sought treatment for disordered eating and those who have not, although this might prove difficult due to the inherent secretiveness of disordered eating. It might be difficult to speak with someone who has disordered eating but is not seeking treatment, however, open ended questions at the end of a tool such as the EAT-26 might be enough to overcome the
stigma to collect sufficient data even if the sample size remains small. Finally, future researchers should investigate whether a combination of high negative affect and low positive affect might have a larger impact on treatment-seeking than either one independently.

Conclusion

Despite the null results, studies like this one remain important. Disordered eating is known to predict diagnosable eating disorders amongst college students (Nevonen et al., 2000; Berg et al., 2009; Godier et al., 2014; Stice, 2021), and eating disorders can have severe consequences, including death (Mitchell & Crow, 2006; Crow et al., 2009; Burkman et al., 2006). Therefore, all efforts must be made to combat this mental illness before it progresses. Any insight that can be collected on variables that encourage help-seeking behaviors is vitally important because if found, they might be useful to college campuses across the country in their fight to help protect and provide relief to countless students who find themselves struggling with disordered eating.
References


the World Health Organization World Mental Health Surveys. Psychological Medicine, 46(14), 2955–2970. https://doi.org/10.1017/s0033291716001665


https://doi-org.jpllnet.sfsu.edu/10.1002/eat.23699

Claydon, E., & Zullig, K. J. (2020). Eating disorders and academic performance among
https://doi-org.jpllnet.sfsu.edu/10.1080/07448481.2018.1549556

Crow SJ, Peterson CB, Swanson SA, Raymond NC, Specker S, Eckert ED, Mitchell JE.
Increased mortality in bulimia nervosa and other eating disorders, (2009). American

Predictors of initiation and persistence of recurrent binge eating and inappropriate weight
compensatory behaviors in college men. International Journal of Eating Disorders,
49(6), 581–590.

hassles, uplifts, and major life events to health status. Health psychology, 1-119.

Engel, S. G., Wonderlich, S. A., Crosby, R. D., Wright, T. L., Mitchell, J. E., Crow, S. J., &
https://doi-org.jpllnet.sfsu.edu/10.1002/eat.20184

(2015). Restrictive eating in anorexia nervosa: Examining maintenance and
consequences in the natural environment. International Journal of Eating Disorders,

Fitzsimmons, C. E. E., Balantekin, K. N., Graham, A. K., DePietro, B., Laing, O., Firebaugh,
https://doi-org.jpllnet.sfsu.edu/10.1002/eat.23327


Garner et al., (1982). The Eating Attitudes Test: Psychometric features and clinical correlates. Psychological Medicine, 12, 871-878

https://doi-org.jpllnet.sfsu.edu/10.3389/fpsyg.2014.00778

https://doi-org.jpllnet.sfsu.edu/10.1016/j.jsp.2019.09.004


https://doi-org.jpllnet.sfsu.edu/10.1016/j.cpr.2011.03.004


Kaye, W., Fudge, J., & Paulus, M. (2009). New insights into symptoms and neurocircuit function of anorexia nervosa Nature Reviews Neuroscience, 10 (8), 573-584 DOI: 10.1038/nrn2682


Martin CB, Herrick KA, Sarafrazi N, Ogden CL, (2018). Attempts to lose weight among adults


http://www.nationaleatingdisorders.org


Table 1: Frequency Table of Participant Characteristics

<table>
<thead>
<tr>
<th>Participant Characteristics</th>
<th>N</th>
<th>%</th>
<th>Association with Treatment-Seeking ($\chi^2$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>73</td>
<td>22.5%</td>
<td>5.69*</td>
</tr>
<tr>
<td>Female</td>
<td>241</td>
<td>74.2%</td>
<td></td>
</tr>
<tr>
<td>Sexual Orientation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Heterosexual</td>
<td>238</td>
<td>73.2%</td>
<td>5.02*</td>
</tr>
<tr>
<td>All other orientations</td>
<td>87</td>
<td>26.8%</td>
<td></td>
</tr>
<tr>
<td>Race/Ethnicity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asian/Pacific Islander</td>
<td>128</td>
<td>39.4%</td>
<td>2.72</td>
</tr>
<tr>
<td>Latino/a</td>
<td>124</td>
<td>38.2%</td>
<td>0.73</td>
</tr>
<tr>
<td>White/Caucasian</td>
<td>81</td>
<td>24.9%</td>
<td>28.13***</td>
</tr>
<tr>
<td>Black/African American</td>
<td>24</td>
<td>7.4%</td>
<td>0.61</td>
</tr>
<tr>
<td>All other</td>
<td>20</td>
<td>6.1%</td>
<td>0.17</td>
</tr>
<tr>
<td>EAT-26 &gt; 20</td>
<td>64</td>
<td>19.7%</td>
<td>13.41***</td>
</tr>
<tr>
<td>Treatment-Seeking = Yes</td>
<td>60</td>
<td>18.5%</td>
<td></td>
</tr>
</tbody>
</table>

Note: *p < .05. ***p < .001.
### Table 2: Correlations between Continuous Variables

<table>
<thead>
<tr>
<th></th>
<th>M (SD)</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Age</td>
<td>22.1 (4.8)</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. SES</td>
<td>5.4 (1.5)</td>
<td>-0.4</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. EAT</td>
<td>0.20 (.40)</td>
<td>-0.2</td>
<td>-0.03</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. PA</td>
<td>2.20 (.88)</td>
<td>0.05</td>
<td>0.00</td>
<td>-0.06</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>5. NA</td>
<td>1.20 (.88)</td>
<td>-0.07</td>
<td>0.00</td>
<td>0.44***</td>
<td>-14*</td>
<td>-</td>
</tr>
</tbody>
</table>

*Note: SES = Socioeconomic status; EAT = EAT-26 Total Score; PA = Positive Affect; NA = Negative Affect. *p < .05. ***p < .001.*
### Table 3: Effects of Positive Affect and Disordered Eating on Treatment-Seeking

<table>
<thead>
<tr>
<th>Variable</th>
<th>β (SE)</th>
<th>Wald Value</th>
<th>Odds Ratio</th>
<th>95% CI</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>-0.90 (.46)</td>
<td>3.77</td>
<td>2.45</td>
<td>0.17 – 1.00</td>
<td>.05</td>
</tr>
<tr>
<td>Disordered Eating</td>
<td>0.03 (.01)</td>
<td>7.56</td>
<td>1.03</td>
<td>1.03 – 1.06</td>
<td>.006</td>
</tr>
<tr>
<td>Positive Affect</td>
<td>-0.18 (.18)</td>
<td>1.01</td>
<td>0.83</td>
<td>0.58 – 1.19</td>
<td>.32</td>
</tr>
<tr>
<td>Disordered Eating X Positive Affect</td>
<td>-0.02 (.01)</td>
<td>1.25</td>
<td>0.98</td>
<td>0.96 – 1.01</td>
<td>.22</td>
</tr>
</tbody>
</table>
Table 4: Effects of Negative Affect and Disordered Eating on Treatment-Seeking

<table>
<thead>
<tr>
<th>Variable</th>
<th>$\beta$ (SE)</th>
<th>Wald Value</th>
<th>Odds Ratio</th>
<th>95% CI</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>-0.95 (.46)</td>
<td>4.16</td>
<td>0.39</td>
<td>.157 – .964</td>
<td>.04</td>
</tr>
<tr>
<td>Disordered Eating</td>
<td>0.04 (.01)</td>
<td>7.70</td>
<td>1.04</td>
<td>1.01 – 1.07</td>
<td>.006</td>
</tr>
<tr>
<td>Negative Affect</td>
<td>0.23 (.20)</td>
<td>1.35</td>
<td>1.26</td>
<td>0.85 – 1.88</td>
<td>.25</td>
</tr>
<tr>
<td>Disordered Eating X Negative Affect</td>
<td>-0.01 (.01)</td>
<td>1.18</td>
<td>0.99</td>
<td>0.96 – 1.01</td>
<td>.28</td>
</tr>
</tbody>
</table>