

Eating Disorder Risk in College Females Based on Major Choice

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Eating disorders are all but uncommon in students of any age, but they are especially prevalent in college students. In fact, “eight to seventeen percent of college students carry a formal ED diagnosis,” not including those who have an eating disorder but have not sought professional help (Paul et. al, 2018, p. 139). Eating disorders are defined as “persistent disturbances in eating behavior” that later lead to disorders such as anorexia nervosa or bulimia nervosa, common ED’s in the world today (p. 139). Eating disorders are more present in females than males, as are a variety of other mental health disorders (Merianos, Nabors, Vidourek, & King, 2013, p. 32).

Previous studies have indicated that females with a declared health major have a lower risk for developing an eating disorder than females who choose a non-health related major (Wingfield et. al, 2011, p. 370). The major choice of a female college student can impact her risk of developing an eating disorder because of the education received, reasons for choosing the major, and activities she participates in during her college years.

A female enters college with a higher probability of developing a psychological issue without factoring in their major choice. That probability can increase or decrease depending on what she is being educated on. Health related majors often have a lower risk for developing an eating disorder because of the educational courses they take that are specific to their major.

Previous research indicates the risk nursing students are at for developing an eating disorder compared to other students at a university. The results revealed that nursing students are less likely to stigmatize mental health behaviors because of their background knowledge on them, making them less likely to stigmatize eating disorders specifically (Wingfield et. al, 2011, p. 370). This background knowledge also puts nursing students at a lower risk for developing an

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eating disorder because they are actively learning about ways to keep the body healthy, and an eating disorder may be something they work to treat with their training.

A few specific ways health major's education reduces their risk for an eating disorder are learning the practice of mindfulness and lowered body image pressure. DeCarvalho and Alves (2019) found that medical students are less likely to develop an eating disorder because their training focuses on the healthy functions of a body rather than what a perfect body looks like. This reduces a great amount of body image pressure among medical students that a normal student still faces. Mindfulness is another interesting concept medical students learn about more often than other college students. Being mindful, meaning taking time to focus on de stressing and the bigger picture, would not be focused on in a chemistry or history course, but it may be covered in a nursing class where it is important to practice ways to keep calm for your intended profession. Sampath, Biswas, Soohinda, and Dutta (2019) noted that students who are taught the practice of mindfulness have less mental issues in general (p. 54). These unique trainings given within health majors greatly impact risk levels for mental health and eating disorders.

Nutrition majors go through similar training to nursing and pre-med students about bodily and mental health, putting them at the same risk for developing an eating disorder as a nursing or pre-med student. Age, specifically the years one has been studying a subject, has been shown to be a large factor alongside major choice. Nutrition students have been the focus group for studying the impact of age on eating habits. Reinstein (1992) examined if freshman and sophomores in college who were studying nutrition had a higher risk for developing an eating disorder than juniors and seniors studying the same thing. He found that "junior and senior dietetics majors had significantly more positive eating habits than did freshman dietetics majors," confirming the hypothesis that the more training one has in the health field, the lower their risk is

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for psychological disorders (1992, p. 1). This study is a great example of how age plays a large role in the risk for developing a mental health disorder, specifically an eating disorder, during one's college years.

The reason one chooses to pursue a health-related career impacts their risk for developing an eating disorder in several ways. Oftentimes one chooses a health or social science major with the purpose of one day helping people in mind. Choosing a career path where the main focus is to keep people healthy correlates with keeping oneself healthy in order to advise others, initially lowering the risk of developing an eating disorder that jeopardizes that mindset. Eating disorders are also more common in women, who may have family related reasoning in mind when choosing a major or career (Robst, 2007, p. 165). Women may be opposed to a health-related career because of the time commitment they require, ultimately taking away the amount of time spent with family in the future. This would increase the rate of college aged females who develop an eating disorder because they choose a different major that does not focus on how to keep the body and mind healthy as much as nursing or nutrition majors do.

College is commonly known as a time when students experiment with drinking and substance abuse in their free time. Binge drinking is a common activity that involves pushing the body's limits when it comes to alcohol consumption. Aside from the obvious dangers of binge drinking, this activity can lead to binge eating and later purging to make up for regretful past activities (Perryman, Barnard, & Reyson, 2018, pp. 516-522). This behavior is a noticeable trait in bulimics, and practicing this behavior increases the odds of a student developing an eating disorder greatly. College students' risk of developing bulimia is especially high because the average age this disorder emerges in one is nineteen, the age of a college freshman or sophomore (Wade, 2019, p. 22). A student's major impacts this because a health, nursing, nutrition, or

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pre-med student will get through training involving drinking and substance abuse that may turn them away from these activities, but a student majoring in another subject is less likely to get consistent reminders about these activities and therefore increasing their participation in binge drinking or drug use while also increasing their risk for an eating disorder.

Binge drinking, eating, and purging go along with another popular college trend, dieting. It is common for college aged females to feel pressure from the way other students look to lose weight or want to eat less, but this can lead to a “loss of control of dieting behavior,” impacting the risk of developing an ED (Tozzi et. al, 2003, p. 150). Dieting is only beneficial if it is done safely and thoughtfully using proper techniques, and students majoring in something other than nutrition or a health-related major may not know enough to do a safe diet.

College is a stressful time of transition and change in one’s life, and students’ activities and knowledge have an impact on their mental health and risk for an eating disorder. The purpose of this study is to determine if there is correlation between a college student’s major, grade, and their risk for developing an eating disorder.

Method

Participants

Groups of twelve females enrolled in an undergraduate college program were studied. The ages of the students in each group varied with the exception that students in a group were in the same grade. Students were also separated by their declared major. Majors were not specific but were separated into health related majors and non-health related majors. Health majors included nutrition, nursing, any health science major, and any pre-med major. Non-health majors were anything not leading to a career in the health field. The females studied were volunteers from many different colleges and they were randomly selected to participate in this study.

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Females were required to submit their past and current mental health assessments because it was imperative they not have any ongoing mental illnesses that may skew results. Participants were asked to submit their age, grade, and major choice when they volunteered.

Materials

Participants were required to take an online survey after being selected to partake in the study. The survey was developed by Mental Health America as a tool for calculating a person's risk for developing an eating disorder. Participants fill out questions on weight, height, age, gender, and other questions specific to characteristics of eating disorders. Participants are able to self-administer the test and are given a score out of 100 on their risk for developing an eating disorder. 0 means they are not at risk and 100 puts them at the highest risk possible. 0-30 indicates there is low risk for developing an eating disorder while 30-100 indicates there is a risk for developing an eating disorder.

Procedure

The data for this study was collected on participants' college campuses by a representative of the project. The experimenter briefly explained specific details on how to answer the questions before the subject began the survey. Subjects then completed the online survey in an office alone. They were given as much time as needed to complete the survey. Once the survey was completed, the experimenter collected the score and logged it in a spreadsheet.

Design

The independent variables were arranged in a 2x2 factorial design. The first variable was grade, which had two levels: freshman and sophomores in the first and juniors and seniors in the second. The second variable was major choice, with two levels as well: non-health major and health major. The dependent variable in this study was the risk of developing an eating disorder.

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Results

A 2x2 between subjects ANOVA test was conducted for this study. The independent variables were grade level and college major choice. The dependent variable was eating disorder risk. The results indicated that there was a significant main effect for major, $F = 11.873$, $p = 0.003$, with health majors reporting a lower risk for an eating disorder ($M = 31.388$, $SD = 4.498$) than non-health majors ($M = 53.305$, $SD = 4.498$). Students with a declared health major showed an overall lower risk for an eating disorder than students who declared a non-health major. These results are displayed in Table 1.

Insert Table 1 about here

Discussion

Past research hypothesized that this study would indicate a lower eating disorder risk in majors related to health, compared to non-health related majors that would have a higher risk for developing an eating disorder. Past studies have not conducted research this specific to major, but past and present results support the idea that majors with curriculum centered around taking care of the body and mind will guide students toward caring for their own bodies more than a major where curriculum is not focused on health practices.

One limitation for this study is the possibility of past mental health issues in participants skewing results. Participants may lie about not having a mental illness or they may develop one in college, and comorbidity is a large factor in developing an eating disorder. If a participant does not give accurate information about their mental health, their risk score may be related to that rather than their college major. Another limitation may be the amount of support and education

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specific colleges offer about mental health and eating disorders. One college may educate students more than another or they may have more accessible resources for treating eating disorders that decrease a student's overall risk for developing one. A third limitation is that the data collected from this study can only be used on college students because it is specific to major choice.

In the future, it would be interesting to study males and compare their results to this study that focused only on females. Females are predisposed to higher risks for mental illnesses upon entering college, whereas males have a lower risk. This does not mean males are exempt from the same risks as females, however, and this could be tested in the same way this study tested females. This study could be useful in bringing awareness to colleges across the country, and even world, on the true risk of eating disorders and how to help students in all majors cope with an eating disorder, as well as prevent the development of one.

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