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PERFECTIONISM, PERCEIVED STRESS, AND MALADAPTIVE EATING
BEHAVIORS IN HIGH-ACHIEVING AND HONORS UNDERGRADUATE
STUDENTS AT THE UNIVERSITY OF MAINE

by

Jaimie Giguere

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Advisory Committee:

Jeffrey Hecker, Professor of Psychology, Co-Advisor

Margaret Killinger, Professor of Honors, Co-Advisor

Robert Glover, Associate Professor of Political Science and Honors

Jordan LaBouff, Associate Professor of Psychology & Honors

Rebecca Schwartz-Mette, Associate Professor of Psychology

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ABSTRACT

This thesis investigates the differences in perceived stress, perfectionism, and maladaptive eating behaviors among high-achieving honors and non-honors undergraduate students (N=413) at the University of Maine. Students were classified as high-achieving based on a UMaine Honors College c-index $((GPA \times 12.5) + (SAT \times .03125))$, which uses a student's GPA and SAT score to assign them a numerical value. All UMaine undergraduate students were invited to participate. Participants completed a survey containing measures that assessed levels of perceived stress, perfectionism, and maladaptive eating behaviors. They were also asked questions about their major, honors status, grade point average, and SAT scores. Results indicated that there were no significant differences between honors and non-honors students on the measure of perceived stress. 73% of high-achieving students displayed high levels of perceived stress, regardless of honors status. Females had significantly higher levels of perceived stress than males. There were no significant differences on measures of perfectionism based on honors status, but there were significant differences between genders. Honors students displayed higher levels on the Three-Factor Eating Questionnaire (TFEQ) cognitive restraint and uncontrolled eating scales than non-honors students. Non-honors males displayed significantly higher levels on the Eating Disorder Examination Questionnaire (EDEQ) eating subscales, causing a significant difference between all honors and non-honors high-achievers. Additional research is needed to further investigate these findings, and to distinguish between honors and high-achieving students in respect to perceived stress, perfectionism, and maladaptive eating behaviors.

TABLE OF CONTENTS

INTRODUCTION.....	1
Maladaptive Eating Behaviors.....	2
Perfectionism.....	2
Perceived Stress.....	2
High-Achieving vs Honors.....	3
Perfectionism, Eating Concerns, and Perceived Stress.....	4
METHOD.....	6
Participants.....	6
Materials.....	7
Procedure.....	9
RESULTS.....	10
Sample Description.....	10
Perceived Stress.....	10
Perfectionism.....	13
Eating Concerns.....	17
Gender Differences.....	20
DISCUSSION.....	22
Perceived Stress.....	22
Perfectionism.....	22
Maladaptive Eating.....	23
LIMITATIONS.....	25
FUTURE DIRECTIONS.....	27

CONCLUSION.....	29
REFERENCES.....	30
APPENDICES.....	35
ABOUT THE AUTHOR.....	64

LIST OF FIGURES

Table 1: High-Achieving Perceived Stress.....	11
Table 2: High-Achieving Perceived Stress by College.....	12
Table 3: High Achieving Standards.....	14
Table 4: High-Achieving Discrepancy.....	14
Table 5: High-Achieving Standards by College.....	15
Table 6: High-Achieving Discrepancy by College.....	16
Table 7: High-Achieving TFEQ Cognitive Restraint.....	18
Table 8: High-Achieving Uncontrolled Eating.....	18
Table 9: High-Achieving Emotional Eating.....	18
Table 10: High-Achieving Restraint.....	19
Table 11: High-Achieving Eating Concern.....	19
Table 12: High-Achieving Shape Concern.....	19
Table 13: High-Achieving Weight Concern.....	19
Table 14: High-Achieving Global Scoring.....	20
Table 15: High-Achieving Between Genders.....	21

INTRODUCTION

Maladaptive Eating Behaviors

The American Psychological Association defines adaptive behavior as “any behavior that enables an individual to adjust to the environment appropriately and effectively” (American Psychological Association, 2022). Adaptive behavior allows the individual to complete daily tasks that are required of them and is typically considered to reflect a healthy mindset. On the other hand, “mal-” is the Latin prefix for “bad”. Through the combination of these two concepts, *maladaptive behaviors* can be defined as any behavior that inhibits a person’s ability to adjust appropriately to their environment, creating a roadblock that prevents the individual from functioning normally.

Furthermore, a maladaptive eating behavior is an eating behavior that negatively affects an individual’s day-to-day life. There are two main classifications that maladaptive eating behaviors can be categorized into: restrictive and disinhibited (Stunkard & Messick, 1985). The DSM-5 classifies Anorexia Nervosa as an eating disorder that is characterized by unhealthy restrictive eating, along with an intense fear of weight gain and a distorted view of one’s own body image. Eating disinhibition is a classic symptom of Binge Eating Disorder, in which an individual lacks the ability to stop eating, even if they are no longer hungry. This oftentimes leads to feelings of guilt, shame, or distress (National Eating Disorders Association, 2022). Eating disinhibition can also be seen in individuals who suffer from Bulimia Nervosa. The DSM-5 classifies this eating disorder as one in which a person binge eats and then participates in unhealthy compensatory behaviors – such as, but not limited to – purging, exercise overexertion, restriction, and the misuse of laxatives.

Perfectionism

The American Psychological Association (2022) defines perfectionism as, “the tendency to demand of others or of oneself an extremely high or even flawless level of performance, in excess of what is required by the situation”. They also note that research has linked perfectionism to a number of psychiatric disorders. As with eating behaviors, perfectionism can be broken down into two major categories: adaptive and maladaptive. Adaptive perfectionism tends to be a positive trait that can be beneficial to an individual. It is a healthy type of perfectionism in which an individual sets goals and exerts a great deal of effort, but the individual is not psychologically impacted in a negative way when they fail to meet these goals. Maladaptive perfectionism is commonly characterized by setting unrealistically high expectations by being excessively self-critical (Barnett & Sharp, 2016). Maladaptive perfectionists have high standards and exert much effort to reach them, but when they fail, they face emotional distress.

Perceived Stress

Stress is best defined as the relationship between an individual and their environment. It is an adaptive “biological and psychological response experienced on encountering a threat” (McLeod, 2010). Stress can also be maladaptive, significantly impacting the functioning of an individual. Perceived stress is how the person appraises the stress relationship (Lazarus & Folkman, 1984). Individuals who have high levels of perceived stress often feel as if they have little control over events in their lives. Increased levels of stress can be caused by large changes in one’s life or other significant life events. Some common stressors include finances, careers, and even politics (American Psychological Association, 2017). However, it is not the stressor itself that

impacts an individual's emotional well-being. How a person feels they are impacted by these stressors – and how they react to them – is what has the greatest impact (Gellman & Turner, 2013). Although stress is a natural biological response to our environment, prolonged stress can lead to negative outcomes in some individuals. It can even lead to anxiety, depression, memory issues, and the deterioration of physical health (Mayo Clinic, 2021).

High-Achieving vs. Honors

High-achieving students typically have very high grade-point averages (GPA) and SAT scores (Bradshaw et al., 2001; Do, 2020). They are active learners and think for themselves, and also often display high levels of anxiety (Upcraft et al., 1989). Honors students are usually considered to be high-achieving, since they typically have high GPAs and SAT scores. They are also active learners who engage in critical thinking and have a lot in common with the high-achieving student. However, it is important to note that “high-achieving” and “honors” are not synonymous. There have been a number of important studies whose findings have distinguished honors students as their own group. First, an honors student is a student who is enrolled in some sort of honors program at their school. They are among a select number of students who are invited to, and are accepted by, the program. This component of selectivity is an obvious difference between honors and high-achieving non-honors students. Cosgrove and Volkwein (2005) found that honors students also have higher graduation rates and tend to complete their degrees faster than non-honors high-achievers. Furthermore, there is evidence suggesting that honors students have different levels of anxiety, motivation, and perseverance than non-honors high-achievers (Upcraft et al., 1989). In addition, research has suggested that

honors students may actually be academically superior to their non-honors counterparts (Achterberg, 2005). Honors students are almost always considered to be high-achieving, but this research indicates that high-achieving students and honors students are not identical. Honors students seem to present different characteristics than high-achievers. Unfortunately, to date, characteristics that distinguish honors from other high achieving students have gone relatively unstudied.

Perfectionism, Eating Concerns, and Perceived Stress

A number of studies have shown a correlation between academically successful students and high levels of perfectionism (Clark, 1983). Females tend to have more perfectionistic qualities than males (Franco-Paredes et al., 2005). It has been found that perfectionism can either be adaptive or maladaptive, and that maladaptive perfectionists tend to be more extrinsically motivated (Closson & Boutilier, 2017). The Honors and Eating Concerns Student-Faculty Research Collaborative in which I participated (Fall 2019 – Spring 2021) found significant levels of perfectionism in a sample of honors students surveyed in Spring 2021 at the University of Maine. In addition, maladaptive eating attitudes have been observed in college students (White, Reynolds-Malear & Cordero, 2011), and researchers have found that there is a significant association between perfectionism and negative eating behaviors (Davies & Hibbard, 2011).

Perceived stress is another factor that has been shown to be positively correlated with levels of perfectionism (Finley, 2007). Both adaptive and maladaptive perfectionism are associated with high levels of perceived stress (Rice, Leever, Christopher & Porter, 2006). Perceived stress is also strongly correlated with the female gender, grade point

average, and both academic and psychological stressors. In fact, some students with high levels of perceived stress displayed lower GPAs (Maykrantz & Houghton, 2018).

A number of studies have shown that perceived stress is also associated with disordered eating behaviors. Thurston, Hardin, Kamody, Herbozo and Kaufman (2018) found that higher levels of perceived stress are significantly and positively associated with severe binge eating symptoms. In addition, academic issues have been shown to be a prevalent area of stress among high-achieving high school females with eating disorders (Krafchek & Kronborg, 2018).

High-achievement has been linked to perfectionism, perceived stress, and maladaptive eating behaviors. There has been little research into the prevalence of these factors in honors students. More research is needed, especially in understanding the characteristics that distinguish high-achieving from honors students. This thesis research aims to examine levels of perfectionism, perceived stress, and maladaptive eating behaviors among high-achieving honors and non-honors students at the University of Maine. Differences in levels of perfectionism, perceived stress, and maladaptive eating behaviors in high-achieving honors students compared to their non-honors counterparts will be investigated. The following hypotheses will be tested:

- (1) High-achieving honors students will present higher levels of perceived stress than their non-honors high-achieving counterparts.
- (2) High-achieving honors students will present higher levels of perfectionism than their non-honors high-achieving counterparts.
- (3) High-achieving honors students will display higher levels of maladaptive eating attitudes than their non-honors high-achieving counterparts.

METHOD

Participants

All UMaine undergraduate students were given the opportunity to participate in this research. In order to complete the survey, participants were required to be a minimum of 18 years of age and to be enrolled in an undergraduate program at the University of Maine. There were 1043 total participants. Data collection occurred from February 16, 2022 to March 2, 2022.

Before the fall of 2020, when the University of Maine changed their admissions requirements to SAT or ACT optional, the Honors College utilized a formula called the c-index to invite students to join the program. The formula uses a student's GPA and SAT score to assign them a numerical value, ranging from 1-100 $[(\text{GPA} \times 12.5) + (\text{SAT} \times .03125)]$. For the years 2017-2020, the average c-index for freshmen accepted to the Honors College was 81.2.

There are a variety of strategies that researchers use to define high-achieving students. Because prior studies have shown that most honors students tend to be high-achieving, a c-index at or above 81.2 will be used to determine whether or not a student is high-achieving in this research. Each participant's c-index was calculated based on their high-school GPA, because that was the GPA used for admission to the Honors College. If their c-index was above 81.2, they were considered high-achieving. Participants who did not indicate a high school GPA or a SAT/ACT score were disregarded, as a c-index could not be calculated to determine whether they were high-achieving.

Materials

Respondents completed this survey using Qualtrics. They responded to a series of questions about their age, gender, grade, major, honors status, current GPA, high-school GPA, SAT/ACT scores, and extracurricular activities. Four additional scales - The Almost Perfect Scale-Revised, The Perceived Stress Scale, The Three-Factor Eating Questionnaire, and The Eating Disorder Examination Questionnaire were used to test the hypotheses.

The Almost Perfect Scale-Revised (APSR) (Slaney et al., 2001) is a 23-item Likert scale that is used to measure the attitudes an individual has towards themselves, their performance, and those around them. The three subscales that are used for scoring are standards, order, and discrepancy. This scale was used to measure whether a participant is a perfectionist and to specify between adaptive and maladaptive perfectionism. A standards score at or above 42 indicates perfectionism. A discrepancy score at or above 42, in combination with a standards score above 42, indicates maladaptive perfectionism. A discrepancy score below 42 indicates adaptive perfectionism. Some APSR scoring guides also suggest that a score of 14 or above in Order also indicates perfectionism. Participants were asked to respond to a number of statements based on their degree of agreement on a scale ranging from 1 (strongly disagree) to 7 (strongly agree). In a study comparing the APSR in American and Turkish students, researchers found that the original APSR had an alpha coefficient of .89, which is considered to be a good reliability (Aydin, 2013).

The Perceived Stress Scale (PSS-10) (Cohen et al., 1983) is a 10-item Likert scale that measures the degree to which situations in an individual's life are perceived as

stressful. It asks participants to answer questions about their feelings about stress over the last month. According to the scoring guide, scores ranging from 0-13 indicate low stress, scores ranging from 14-26 indicate moderate stress, and scores above 27 indicate high perceived stress. This scale has been widely used across several countries and in many different languages. Baik et al. (2017) found that the scale had good internal reliability in both English-speaking and Spanish-speaking Americans, and that convergent validity was supported. In a review of many articles using the scale, the reliability ranged anywhere from .78 to .91. This indicates that the scale has good reliability. Participants were asked to use a scale ranging from 0 (never) to 4 (very often) to answer questions with regards to their experiences within the last month. A review of several studies showed that the PSS-10 has reliability ranging from .78-.91, which indicates good scale reliability (Finley, 2007). It was also found to have a satisfactory Cronbach's Alpha value (Andreou et al., 2011). Maroufizadeh et al. (2018) found that the PSS-10 had good internal consistency in their study of women experiencing infertility.

Stunkard and Messick (1985) created the Three-Factor Eating Questionnaire (TFEQ), which is an 18-item Likert scale that measures cognitive restraint, uncontrolled eating, and emotional eating. This scale was used to measure the extent to which participants experience maladaptive eating behaviors. Items 1-17 ask participants to answer questions based on their own experiences on a scale ranging from 1-4. Item 18 is an open response question in which participants are asked to rank themselves on a scale of 1-8 based on the statement provided.

The Eating Disorder Examination Questionnaire (EDEQ) (Fairburn & Beglin, 1994) also measures aspects of maladaptive eating behavior. It is a 28-item scale that

measures the subscales of restraint, eating concern, shape concern and weight concern. A global score utilizing these four subscales is also calculated. Questions 19-21 were omitted from this survey. The EDEQ has been shown to have good internal consistency in each of the subscales, with Chronbach's Alphas ranging from .07-.93 (Berg, Peterson, Fraizer & Crow, 2012). The decision to use two measures of maladaptive eating was made because they have unique subscales that allude to different aspects of eating pathologies.

Procedure

An email list of current undergraduate students was obtained from the University of Maine Office of Student Records. An email list containing this information was created in Qualtrics, and an email containing the link to the survey was sent to all undergraduate students at the University of Maine. It was optional for students to participate in the research. Students who completed the survey were eligible to enter for a chance to win one of two \$50 gift cards to the University of Maine Bookstore. In order to enter, participants clicked a link to a separate survey, in which they submitted their email addresses. This section is in no way connected to their responses to the initial survey.

The data for 635 survey respondents were removed from the dataset prior to analysis. Respondents' data were removed if they had a c-index below 81.2, or did not report GPA or SAT score. Participants that did not complete the questionnaires were also excluded. Participants were grouped into the colleges corresponding to their 1st major listed (if they had more than one), and engineering physics majors were categorized into the College of Engineering.

RESULTS

Sample Description

A total of 413 students with a c-index at or above 81.2 took part in this study – classifying them as high-achievers. 143 of these students were male, and 253 were female. 17 students in total indicated a different gender (13 non-binary/third gender, 2 prefer not to say, 2 other). Because of the small sample size, these 17 students were excluded from analyses of gender differences. 54 of these students indicated that they are currently part of the Honors College, while 358 indicated they are not. 1 student did not answer this question.

In this high-achieving group, 29 were enrolled in the College of Education and Human Development (EDHD), 99 in the College of Engineering (ENG), 114 in the College of Liberal Arts and Sciences (LAS), 25 in the Maine Business School (MBS), and 145 in the College of Natural Sciences, Forestry, and Agriculture (NSFA).

The sample reported a mean high-school GPA of 3.80 ($SD=.23$), SAT score of 1297.30 ($SD=146.47$), and a mean c-index of 87.99 ($SD=5.04$).

Perceived Stress

Hypothesis #1– *high-achieving honors students will present higher levels of perceived stress than their non-honors high-achieving counterparts* – was not supported (see *Table 1*). There were no significant group differences found between honors and non-honors high-achievers on measure of perceived stress (see *Table 1*).

Percent High Stress

The Perceived Stress Scale (Cohen et al., 1983) states that any score above 27 indicates high levels of perceived stress. Of the 374 high-achieving participants who

completed the perceived stress index, 274 (or 73%) scored higher than a 27. High-achieving students at the University of Maine displayed high levels of perceived stress, regardless of Honors status, gender, or college.

Gender

Post-hoc analyses of the perceived stress scores were carried out to better understand the sample and to explore potential differences by gender. There were no significant differences between honors and non-honors females in perceived stress. A similar finding was observed in the corresponding groups of males.

Table 1. High-Achieving Perceived Stress.

Sample	Honors Mean (SD)	Non-Honors Mean (SD)	<i>t(df)</i>	<i>p</i>
Whole (373)	31.29 (8.05)	32.52 (6.75)	<i>t</i> (371)=1.14	.13
Female (231)	33.19 (1.53)	33.82 (.44)	<i>t</i> (229)=.47	.32
Male (127)	28.22 (7.67)	29.55 (6.67)	<i>t</i> (125)=.77	.22

College

An honors (yes/no) by college analysis of variance was carried out. There was a significant college by honors interaction $F(4) = 3.73, p < .01$. Follow-up t-tests revealed a significant difference for students in Engineering with non-honors students showing higher levels of stress ($t(88) = 2.06, p < .05$) but not within the other colleges. This finding suggests that the Engineering group is the cause of the higher levels of perceived stress that were found in non-honors high-achievers.

Table 2. High-Achieving Perceived Stress by College.

College	Honors College	Mean	Standard Deviation	N
EDHD	No	33.077	6.69	26
	Yes	12.000	–	1
	Total	32.396	7.670	27
ENG	No	31.359	6.588	78
	Yes	26.909	7.930	11
	Total	30.809	6.877	89
LAS	No	33.684	7.355	79
	Yes	33.667	7.052	21
	Total	33.680	7.257	100
MBS	No	31.095	5.549	21
	Yes	24.333	9.452	3
	Total	30.250	6.306	24
NSFA	No	32.708	6.571	120
	Yes	34.500	5.000	12
	Total	32.871	6.449	132
Total	No	32.517	6.753	325
	Yes	31.292	8.053	48
	Total	32.359	6.934	373

Perfectionism

Hypothesis #2 – *high-achieving honors students will present higher levels of perfectionism than their non-honors high-achieving counterparts* – was also not supported. There are no significant differences between high-achieving students grouped by honors enrollment in the standards subscale. The discrepancy subscale shows that non-honors high-achievers have significantly higher levels of discrepancy.

Percent Perfectionist

The Almost Perfect Scale – Revised (Slaney et al., 2001) defines a perfectionist as anyone with a standards score at or above 42. A participant must have both standards and discrepancy scores of 42 or above to be classified as a maladaptive perfectionist. Based on this scoring, 57% of the high-achieving sample was found to be perfectionistic. 44% of the same sample were categorized as maladaptive perfectionists.

Percentages were also calculated by gender and college. Almost 61% of high-achieving females were found to be perfectionists and about 50% maladaptive perfectionists. About 49% of males were classified as perfectionists and 32% maladaptive.

College calculations show that 72% of EDHD students, 59% of ENG students, 54% of LAS students, 46% of MBS students, and 56% of NSFA students are perfectionists. About 55% of EDHD students, 40% of ENG students, 44% of LAS students, 33% of MBS students and 46% of NSFA students are categorized as maladaptive perfectionists.

Gender

Post-hoc analyses that examined gender differences were then conducted. There were no significant differences between honors and non-honors females or males in any of the subscales of the Almost Perfect Scale - Revised.

Table 3. High-Achieving Standards.

Sample	Honors Mean (SD)	Non-Honors Mean (SD)	<i>t(df)</i>	<i>p</i>
Whole (393)	40.94 (5.39)	41.61 (5.76)	<i>t</i> (391)=.78	.22
Female (245)	41.14 (4.90)	42.42 (4.98)	<i>t</i> (243) = 1.28	.10
Male (133)	40.24 (6.27)	40.02 (6.83)	<i>t</i> (131)=-.137	.45

Table 4. High-Achieving Discrepancy.

Sample	Honors Mean (SD)	Non-Honors Mean (SD)	<i>t(df)</i>	<i>p</i>
Whole (390)	49.29 (18.95)	53.87 (16.67)	<i>t</i> (388)=1.81	.04
Female (242)	51.57 (19.51)	55.44 (15.99)	<i>t</i> (240)=1.17	.12
Male (133)	44.62 (16.17)	49.77 (16.94)	<i>t</i> (131)=1.29	.10

College

The means of the subscales by college were also investigated. The College of Education and Human Development (EDHD) and the College of Engineering displayed the highest standards scores, but averaged lower discrepancy scores than the College of Liberal Arts and Sciences, and the College of Natural Sciences, Forestry, and Agriculture.

Table 5. High-Achieving Standards by College.

College	Honors College	Mean	Standard Deviation	N
EDHD	No	42.14	5.44	28
	Yes	42.00	–	1
	Total	42.14	5.34	29
ENG	No	42.69	4.94	77
	Yes	41.00	3.87	13
	Total	42.44	4.82	90
LAS	No	40.68	6.53	85
	Yes	41.73	5.87	22
	Total	40.90	6.39	107
MBS	No	40.62	6.38	21
	Yes	39.33	4.04	3
	Total	40.46	6.08	24
NSFA	No	41.60	5.63	129
	Yes	39.85	6.49	13
	Total	41.44	5.71	142
Total	No	41.61	5.76	341
	Yes	40.94	5.39	52
	Total	41.52	5.71	393

Table 6. High-Achieving Discrepancy by College.

College	Honors College	Mean	Standard Deviation	N
EDHD	No	52.68	15.10	28
	Yes	18.00	–	1
	Total	51.48	16.17	29
ENG	No	53.68	17.36	77
	Yes	38.23	11.97	13
	Total	51.44	17.43	90
LAS	No	54.42	17.66	85
	Yes	53.27	20.38	22
	Total	54.19	18.15	107
MBS	No	51.43	16.38	21
	Yes	51.00	19.98	3
	Total	51.38	16.37	24
NSFA	No	54.13	16.18	126
	Yes	55.62	17.38	13
	Total	54.27	16.24	139
Total	No	53.87	16.67	338
	Yes	49.29	18.95	52
	Total	53.26	17.14	390

Eating Concerns

The analysis of Hypothesis #3 – *high-achieving honors students will display higher levels of maladaptive eating attitudes than their non-honors high-achieving counterparts* – was inconclusive. The results from the TFEQ indicate that levels of cognitive restraint and uncontrolled eating were significantly higher in high-achievers enrolled in the Honors College (see *Table 9*). There was no significant difference between groups in the EDEQ restraint (see *Table 12*) or shape concern (see *Table 14*). The EDEQ results suggest that non-honors high-achievers have higher levels of eating concern (see *Table 13*), weight concern (see *Table 15*), and overall global scoring of maladaptive eating (see *Table 16*).

Gender

Post-hoc analyses were run to examine gender differences. There were no significant differences in any of the maladaptive eating subscales in females (see *Tables 9-16*). High-achieving males enrolled in the Honors College displayed significantly higher TFEQ cognitive restraint scores than their non-honors counterparts (see *Table 9*). Non-honors male high-achievers reported significantly higher EDEQ restraint (see *Table 12*), eating concern (see *Table 13*), shape concern (see *Table 14*), weight concern (see *Table 15*), and global scoring (see *Table 16*) scores than honors high-achievers.

Table 7. High-Achieving TFEQ Cognitive Restraint.

Sample	Honors Mean (SD)	Non-Honors Mean (SD)	<i>t(df)</i>	<i>p</i>
Whole (367)	14.00 (2.05)	13.33 (2.02)	<i>t</i> (365)=-2.14	.02
Female (228)	12.41 (2.14)	13.08 (2.03)	<i>t</i> (226)=-.80	.21
Male (124)	14.84 (1.80)	13.72 (1.95)	<i>t</i> (122)=-2.33	.01

Table 8. High-Achieving Uncontrolled Eating.

Sample	Honors Mean (SD)	Non-Honors Mean (SD)	<i>t(df)</i>	<i>p</i>
Whole (367)	25.29 (4.33)	24.14 (4.09)	<i>t</i> (365)=-1.82	.04
Female (227)	24.85 (4.01)	23.94 (4.15)	<i>t</i> (225)=-1.08	.14
Male (125)	25.90 (4.91)	24.44 (3.70)	<i>t</i> (123)=-1.49	.07

Table 9. High-Achieving Emotional Eating.

Sample	Honors Mean (SD)	Non-Honors (Mean SD)	<i>t(df)</i>	<i>p</i>
Whole (370)	8.53 (2.79)	8.06 (2.75)	<i>t</i> (368)=-1.12	.13
Female (230)	7.85 (3.07)	7.67 (2.73)	<i>t</i> (228)=-.32	.37
Male (125)	9.63 (2.03)	8.83 (2.54)	<i>t</i> (123)=-1.30	.10

Table 10. High-Achieving EDEQ Restraint.

Sample	Honors Mean (SD)	Non-Honors Mean (SD)	<i>t(df)</i>	<i>p</i>
Whole (335)	2.39 (1.59)	2.64 (1.61)	<i>t</i> (333)=1.00	.16
Female (207)	2.69 (1.70)	2.78 (1.58)	<i>t</i> (205)=.27	.40
Male (114)	1.72 (.98)	2.42 (1.56)	<i>t</i> (112)=1.82	.04

Table 11. High-Achieving Eating Concern.

Sample	Honors Mean (SD)	Non-Honors Mean (SD)	<i>t(df)</i>	<i>p</i>
Whole (335)	1.90 (1.54)	2.36 (1.74)	<i>t</i> (333)=1.69	.046
Female (206)	2.37 (1.82)	2.63 (1.83)	<i>t</i> (204)=.69	.25
Male (115)	1.11 (.21)	1.82 (1.39)	<i>t</i> (113)=2.16	.02

Table 12. High-Achieving Shape Concern.

Sample	Honors Mean (SD)	Non-Honors Mean (SD)	<i>t(df)</i>	<i>p</i>
Whole (286)	3.13 (1.90)	3.60 (1.77)	<i>t</i> (284)=1.59	.06
Female (187)	3.91 (1.78)	3.92 (1.75)	<i>t</i> (185)=.20	.49
Male (86)	1.56 (.71)	2.89 (1.57)	<i>t</i> (84)=3.29	<.001

Table 13. High-Achieving Weight Concern.

Sample	Honors Mean (SD)	Non-Honors Mean (SD)	<i>t(df)</i>	<i>p</i>
Whole (272)	2.79 (1.97)	3.30 (1.71)	<i>t</i> (270)=1.66	.05
Female (185)	3.45 (1.94)	3.63 (1.69)	<i>t</i> (183)=.461	.32
Male (74)	1.17 (.66)	2.39 (1.38)	<i>t</i> (72)=3.09	.001

Table 14. High-Achieving Global Scoring.

Sample	Honors Mean (SD)	Non-Honors Mean (SD)	<i>t(df)</i>	<i>p</i>
Whole (259)	2.61 (1.58)	3.12 (1.52)	<i>t</i> (257)=1.91	.03
Female (179)	3.15 (1.58)	3.32 (1.50)	<i>t</i> (177)=.48	.32
Male (67)	1.32 (.43)	2.57 (1.37)	<i>t</i> (65)=3.25	<.001

Gender Differences

Maladaptive Eating

Post-hoc analyses were run to examine the gender differences in each of the variables (see *Table 17*). High-achieving females displayed significantly higher levels of perceived stress, standards, discrepancy, EDEQ restraint, eating concern, shape concern, weight concern, and global scoring than their male counterparts. High-achieving males had significantly higher levels of TFEQ cognitive restraint and emotional eating than their female counterparts. There were no significant differences found in uncontrolled eating, although the male mean was slightly higher than the female mean.

Perceived Stress

Both males and females have high levels of perceived stress ($PS > 27$). However, females displayed higher levels of perceived stress than males. About 81% of females had a perceived stress level over 27, compared to 56% of males.

Perfectionism

The analyses suggest that females have significantly higher levels of both standards and discrepancy. With a standards score at or above 42, about 61% of females and 49% of males were perfectionists. About 50% of females and 32% of males were considered maladaptive perfectionists.

Table 15. High-Achieving Between Genders.

Sample	Male N	Fe- male N	Male Mean (SD)	Female Mean (SD)	<i>t(df)</i>	<i>p</i>
Perceived Stress	128	231	29.32 (6.79)	33.75 (6.58)	$t(357)=6.07$	<.001
Standards	134	245	40.02 (6.71)	42.28 (4.98)	$t(377)=3.73$	<.001
Discrep- ancy	134	242	48.81 (16.88)	55.00 (6.43)	$t(374)=3.46$	<.001
Cognitive Restraint	125	228	13.93 (1.99)	13.11 (2.04)	$t(351)=-3.62$	<.001
Uncon- trolled Eating	126	227	24.65 (3.91)	24.04 (4.13)	$t(351)=-1.25$.09
Emotional Eating	126	230	8.91 (2.51)	7.69 (2.77)	$t(354)=-4.12$	<.001
Restraint	115	207	2.31 (1.50)	2.77 (1.59)	$t(320)=2.56$.005
Eating Concern	116	206	1.70 (1.30)	2.60 (1.83)	$t(320)=4.65$	<.001
Shape Concern	86	187	2.64 (1.54)	3.91 (1.75)	$t(271)=5.79$	<.001
Weight Concern	74	185	2.17 (1.37)	3.60 (1.72)	$t(257)=6.40$	<.001
Global Scoring	67	179	2.33 (1.33)	3.30 (1.51)	$t(244)=4.62$	<.001

DISCUSSION

Perceived Stress

No significant differences in perceived stress between high-achieving honors and non-honors students were found. There were also no differences found within females based on college or in males based on college. In fact, there were no significant differences in perceived stress among all participants regardless of high-achieving and honors status. Engineering and Business honors students were the only groups in the dataset that did not display mean perceived stress scores over 27. However, the PSS states that individuals who score between 14-26 are considered to have moderate levels of perceived stress. Therefore, on average the high-achieving honors Engineering and Business groups still display moderate levels of perceived stress. The failure to find a difference between honors and non-honors high-achieving students may be due to the overall high level of perceived stress observed in both groups.

The significant difference in perceived stress between honors and non-honors students within the College of Engineering raises numerous questions. The reason for the higher levels of perceived stress in non-honors high-achieving Engineering students cannot be determined by the results. It is possible that the small number of students in the honors Engineering sample, compared to those in the non-honors sample, played a role in this. Further research is needed to determine the validity of this finding and to examine why this might be the case.

Perfectionism

Literature suggests that females have elevated levels of perfectionism compared to males. The results of this research support this literature, as high-achieving females

were found to have significantly higher levels of perfectionism and maladaptive perfectionism than their male counterparts. It is unknown whether these effects are replicated in non-high-achieving students.

Previous studies have shown that high-achievement is linked to perfectionistic qualities (Madigan 2019). The data suggests that Education and Human Development students and Engineering students have the highest percentages of perfectionistic students. However, approximately 40% of ENG students are categorized as maladaptive perfectionists, the second lowest frequency of maladaptive perfectionism among the five colleges. There could be a number of causes for the differences seen in the means and frequencies among the different colleges. It could be due to the disproportionality of the honors/non-honors ratio within the sample. There could also be factors within the colleges themselves that cause students to have perfectionistic characteristics. Students who choose majors within these colleges may be naturally predisposed to perfectionism. The data is unable to determine why these differences among colleges occurred, and more research is needed to further investigate these findings.

Maladaptive Eating

Stunkard and Messick (1985) developed the TFEQ to address problems in the Restraint Scale (Herman, 1978). It had weak construct validity for obese individuals, which is why uncontrolled eating and emotional eating were used in addition to cognitive restraint in the TFEQ. The EDEQ focuses on the individual's cognitions involving their food intake, weight, shape and restriction; whereas, the TFEQ measures food intake and restriction. Both the TFEQ and EDEQ define restraint as the limitation of food intake as a means of weight control.

High-achieving honors students displayed elevated levels on the cognitive restraint and the uncontrolled eating subscales of the TFEQ. Because non-honors males had significantly higher EDEQ subscale scores than honors males, the whole non-honors group displayed higher levels of some EDEQ subscales. The contrasting findings of this research suggest that there are differences between the TFEQ and the EDEQ that need to be further examined.

The gender differences in maladaptive eating raises a number of questions about research in the field of maladaptive eating behaviors. The samples in many of the preliminary studies informing the hypotheses were largely female. Much less is known about the intricacies of maladaptive eating patterns in males. Further analyses should be conducted to determine whether the same pattern exists in non-high-achieving males. More research is needed to determine why non-honors high-achieving males have a greater presence of maladaptive eating patterns than honors males.

LIMITATIONS

The research literature offers a variety of ways in which high-achievement can be defined. It is typically defined based on participants' grades, GPA, and/or extracurricular activities. The c-index was used for the purpose of this study, because it is the measure used by the Honors College to determine whom to invite into the program. This makes the assumption that the c-index is a valid measure of high-achievement without additional research to support this claim. The c-index of 81.2 was the cutoff, as it was the average c-index of students invited to the college from 2017-2020. This is also a disadvantage, because the average is only over a short amount of time. Because of the limited c-index data availability, the c-index cutoff of 81.2 might not be the ideal measure of high-achievement.

Another limitation of this study is the disproportionality in some of the sample sizes. There were very few honors students in some of the groups, including the MBS, EDHD, and ENG Colleges. The small honors student samples in these groups may not be representative of the honors population. There were also very few people who indicated an "other" gender, so these students could not be included in an analysis based on gender. This is also a limitation, because the research is not generalizable to this group.

The timeframe for this study limits the generalizability of the findings. There were only two semesters to start and complete this project. Therefore, there was not enough time to dive more deeply into preliminary research, and to collect and analyze data.

There is a relative lack of research on maladaptive eating behaviors in males. Most research in this field is conducted using a female, or mostly female, sample. None

of the preliminary research had a primary focus on males. The results of this study suggest that there are significant differences between honors and non-honors high-achieving males in terms of eating behaviors, a topic that none of the preliminary research discussed.

There is also limited research on the differences between honors and high-achievement. There were few studies in the preliminary research that addressed both honors and high-achieving students, providing minimal context within which to interpret the findings of the present study.

FUTURE DIRECTIONS

The results raise a number of questions that should be examined through future research. There is still much that is unknown about the gender differences in eating behaviors among males and females, because there is so little eating behavior research on males. These results suggest that there are significant differences among males, with non-honors males having higher levels of maladaptive eating attitudes. Although females had higher levels of maladaptive eating attitudes overall, this significance is something that needs to be studied in more depth. It should be researched in males of different age groups, achievement levels, and at different universities.

The results also suggest that the TFEQ and the EDEQ measure restraint differently. There was no significant between-groups difference in EDEQ restraint, which brings the significance of TFEQ cognitive restraint into question. In addition, high-achieving honors males displayed higher levels of TFEQ cognitive restraint than their non-honors counterparts, while the measure of EDEQ restraint showed the opposite effect. There is little existing research that examines the differences and similarities between these two measures, and more research is needed.

There were also non-high-achieving participants in this study, and additional analyses should be conducted on this group. Unfortunately, the time constraint limited the opportunity to study the differences and/or similarities between the non-high-achieving and high-achieving groups. Future analyses could offer valuable information that clarifies the distinction between high-achieving and non-high-achieving groups. For example, it might allow researchers to address questions such as: Could high-achievers – regardless of honors status – display higher levels of perceived stress, maladaptive eating, and

perfectionism? Do high-achievers have higher levels of adaptive or maladaptive perfectionism compared to non-high-achievers? These are all questions that could be addressed through additional research that investigates and compares these two groups.

CONCLUSION

Though the thesis hypotheses were not supported, several findings contributed to this field of research. The finding regarding maladaptive eating in non-honors males is fascinating and indicates that there is much more to learn about eating concerns in men. Even so, females still had significantly higher levels of maladaptive eating behaviors than males. Females also had much higher frequencies of maladaptive perfectionism than men, which is something that cannot be ignored. The high levels of perceived stress across the sample are particularly concerning, and this should be investigated among the non high-achievers, as well. Most importantly, this research helps work toward understanding and addressing issues that high-achieving students face, particularly issues involving high levels of stress and maladaptive behaviors.

REFERENCES

- Achterberg, C. (2005). What is an Honors Student? *Journal of the National Collegiate Honors Council*, 6(1).
- American Psychological Association. (2022). Adaptive Behavior. *APA Dictionary of Psychology*. American Psychological Association.
<https://dictionary.apa.org/adaptive-behavior>.
- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders (5th ed.)*. Washington, DC: American Psychiatric Press.
- American Psychological Association. (2022). Perfectionism. *APA Dictionary of Psychology*. American Psychological Association.
<https://dictionary.apa.org/perfectionism>.
- American Psychological Association (2017). Stress in America: The State of Our Nation. Stress in America™ Survey.
<https://www.apa.org/news/press/releases/stress/2017/state-nation.pdf>.
- Amhare, A.F., Jian, L., Wagaw, L.M., Han, J. (2020). Magnitude and associated factors of perceived stress and its consequences among undergraduate students of Salale University, Ethiopia: cross-sectional study. *Psychology, Health & Medicine*, 26(10), p. 1230-1240. DOI:10.1080/13548506.2020.1808234.
- Andreou, E., Alexopoulos, E. C., Lionis, C., Varvogli, L., Gnardellis, C., Chrousos, G. P., & Darviri, C. (2011). Perceived Stress Scale: Reliability and Validity Study in Greece. *International Journal of Environmental Research and Public Health*, 8(8), p. 3287–3298. doi:10.3390/ijerph8083287.
- Aydin, K.B. (2013). Cross-cultural validity of the almost perfect scale – revised on the college students in the United States and Turkey. *Educational Research and Reviews*, 8(14), p. 1150-1157. <https://doi.org/10.5897/ERR2013.1475>.
- Baik, S. H., Fox, R. S., Mills, S. D., Roesch, S. C., Sadler, G. R., Klonoff, E. A., & Malcarne, V. L. (2019). Reliability and validity of the Perceived Stress Scale-10 in Hispanic Americans with English or Spanish language preference. *Journal of Health Psychology*, 24(5), p. 628–639.
<https://doi.org/10.1177/1359105316684938>.
- Barnett, M.D., Sharp, K. J. (2016). Maladaptive perfectionism, body image satisfaction, and disordered eating behaviors among U.S. college women: The mediating role of self-compassion. *Personality and Individual Differences*, 99, p. 225-234. <https://doi.org/10.1016/j.paid.2016.05.004>.

- Berg, K.C., Peterson, C.B., Frazier, P. and Crow, S.J. (2012), Psychometric evaluation of the eating disorder examination and eating disorder examination-questionnaire: A systematic review of the literature. *International Journal of Eating Disorders*, 45(3) p. 428-438. <https://doi.org/10.1002/eat.20931>.
- Bradshaw, G., Espinoza, S., Hausman, C. (2001). The College Decision Making of High Achieving Students. *Journal of the American Association of Collegiate Registrars and Admissions Officers*, 77(2), p. 15-22. https://www.aacrao.org/docs/default-source/c-u-pdfs/fk30dot2r1cwhnufb2kh_fall2001.pdf?sfvrsn=42643a9b_0.
- Brown, J., Selth, S., Stretton, A., Simpson, S. (2016). Do dysfunctional coping modes mediate the relationship between perceived parenting style and disordered eating behaviors. *Journal of Eating Disorders*, 4(27). DOI:10.1186/s40337-016-0123-1.
- Brown, T.M. (1998). The Relationship Among Differentiation, Perceived Stress, Coping, and Eating Disorder Characteristics Among College Females. [Doctoral Dissertation, University of Missouri – Kansas City]. ProQuest Dissertations Publishing. 9830217.
- Clark, B. (1983). *Growing up Gifted: developing the potential of children at home and school* (2nd ed.). Merrill Publishing Company.
- Closson, L.M., & Boutilier, R.R. (2017). Perfectionism, academic engagement, and procrastination among undergraduates: The moderating role of honors status. *Learning and Individual Differences*, 57, p. 157-162. <https://doi.org/10.1016/j.lindif.2017.04.010>.
- Cognard-Black, & A.J., Spisak, A.L. (2019). Creating a Profile of an Honors Student: A Comparison of Honors and Non-Honors Students at Public Research Universities in the United States. *Journal of the National Collegiate Honors Council*, 20(1), p. 123-157. <https://files.eric.ed.gov/fulltext/EJ1220760.pdf>.
- Cohen, S., Kamarck, T., & Mermelstein, R. (1983). A Global Measure of Perceived Stress. *Journal of Health and Social Behavior*, 24(4), p. 385–396. <https://doi.org/10.2307/2136404>.
- Colangelo, N., & Kerr, B.A. (1990). Extreme Academic Talent: Profiles of Perfect Scorers. *Journal of Educational Psychology*, 82(3), p. 404-409. <https://doi.org/10.1037/0022-0663.82.3.404>.
- Cosgrove, J.R., & Volkwein, J.F. (2005). Examining four outcomes of college honors programs: Academic performance, retention, degree completion, time to degree. *In the annual meeting of the Association for Institutional Research*.

Davies, K.L., & Hibbard, D.R. (2011). Perfectionism and Psychological Adjustment among College Students: Does Educational Context Matter? *North American Journal of Psychology*, 13(2), p. 187-200. https://link.gale.com/apps/doc/A256864605/AONE?u=maine_orono&sid=summon&xid=9f4184d6.

Do, Y. (2020). A Phenomenological Study of Factors Influencing the College Application Choices of Gifted, High-Achieving Students. [Doctoral Dissertation, Regent University]. ProQuest Dissertations Publishing. 28153781.

Dougherty, S.B. (2007). Academic Advising for High-Achieving College Students. *Higher Education in Review*, 4, p. 63-82. <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.132.5866&rep=rep1&type=pdf>.

Fairburn, C. G., & Beglin, S. J. (1994). Assessment of Eating Disorders: Interview or Self-Report Questionnaire? *International Journal of Eating Disorders*, 16(4), p. 363–370. [https://doi.org/10.1002/1098-108X\(199412\)16:4<363::AID-EAT2260160405>3.0.CO;2-%23](https://doi.org/10.1002/1098-108X(199412)16:4<363::AID-EAT2260160405>3.0.CO;2-%23).

Finley, A. (2020). The Relationship among Perfectionism, Perceived Stress, and Coping in Baccalaureate Nursing Students. [Doctoral Dissertation, University of Missouri – St. Louis]. ProQuest Dissertations Publishing. <https://irl.umsl.edu/dissertation/989>.

Flett, G. L., Mara, C. A., Hewitt, P. L., Sirois, F., & Molnar, D. S. (2016). How Should Discrepancy Be Assessed in Perfectionism Research? A Psychometric Analysis and Proposed Refinement of the Almost Perfect Scale–Revised. *Journal of Psychoeducational Assessment*. DOI:10.1177/0734282916651382.

Franco-Paredes, K., Mancilla-Díaz, J.M., Vázquez-Arévalo, R., López-Aguilar, X., & Álvarez-Rayón, G. (2004). Perfectionism and eating disorders: a review of the literature. *European Eating Disorders Review*, 13(1), p. 61-70. <https://doi.org/10.1002/erv.605>.

Herman, P. C. (1978). Restrained Eating. *Psychiatric Clinics of North America*, 1(3), p. 593-607. [https://doi.org/10.1016/S0193-953X\(18\)31041-4](https://doi.org/10.1016/S0193-953X(18)31041-4).

Jennings, K. M. & Phillips, K. E. (2017). Eating Disorder Examination – Questionnaire (EDE-Q): Norms for Clinical Sample of Female Adolescents with Anorexia Nervosa. *Archives of Psychiatric Nursing*, 31(6), p. 531-648. DOI: 10.1016/j.apnu.2017.08.002.

Krafchek, J., & Kronborg, L. (2018). Stressful Life Events Experienced by Academically High-Achieving Females Before the Onset of Disordered Eating. *Roeper Review*, 40(4), p. 245-254, DOI: 10.1080/02783193.2018.1501783.

Lazarus, R.S., & Folkman, S. (1984). *Stress, Appraisal, and Coping*. Springer Publishing Company, Inc.

Madigan, D.J. (2019). A Meta-Analysis of Perfectionism and Academic Achievement. *Educational Psychology Review*, 31, p. 967–989. <https://doi.org/10.1007/s10648-019-09484-2>.

Maroufizadeh, S., Foroudifard, F., Navid, B., Ezabadi, Z., Sobati, B., Omani-Samani, R. (2018). The Perceived Stress Scale (PSS-10) in women experiencing infertility: A reliability and validity study Middle East Fertility Society Journal, 23 (4), p. 456-459. <https://doi.org/10.1016/j.mefs.2018.02.003>.

Maykrantz, S.A., & Houghton, J.D. (2018). Self-leadership and stress in college students: Examining the moderating role of coping skills. *Journal of American College Health*, 68(1), p. 89-96. DOI: 10.1080/07448481.2018.1515759.

Mayo Foundation for Medical Education and Research. (2021). *Chronic stress puts your health at risk*. Mayo Clinic. <https://www.mayoclinic.org/healthy-lifestyle/stress-management/in-depth/stress/art-20046037>

McLeod, S. A. (2010). What is the stress response. *Simply Psychology*. www.simplypsychology.org/stress-biology.html.

Mond, J. M., Hay, P. J., Rodgers, B., Owen, C., Beaumont, P. J. V. (2003). Validity of the Eating Disorder Examination Questionnaire (EDE-Q) in Screening for Eating Disorders in Community Samples. *Behavior and Research Therapy*, 42(5), p. 551-567. [https://doi.org/10.1016/S0005-7967\(03\)00161-X](https://doi.org/10.1016/S0005-7967(03)00161-X)

Monteleone, A.M., Treasure, J., Kan, C., Cardi, V. (2018). Reactivity to interpersonal stress in patients with eating disorders: A systematic review and meta-analysis of studies using an experimental paradigm. *Neuroscience & Biobehavioral Reviews*, 87, p. 133-150.

National Eating Disorders Association. (2022). *Binge Eating Disorder*. <https://www.nationaleatingdisorders.org/learn/by-eating-disorder/bed>.

Phillips A.C. (2013) Perceived Stress. In: Gellman M.D., Turner J.R. (eds) *Encyclopedia of Behavioral Medicine (2013 Edition)*. https://doi.org/10.1007/978-1-4419-1005-9_479.

Rice, K.G., Leever, B.A., Christopher, J., & Porter, J.D. (2006). Perfectionism, Stress, and Social (Dis)Connection: A Short-Term Study Hopelessness, Depression, and Academic Adjustment Among Honors Students. *Journal of Counseling Psychology*, 53(4), p. 524-534. <https://doi.org/10.1037/0022-0167.53.4.524>.

Rice, K. G., Richardson, C. M., & Tueller, S. (2014). The Short Form of the Revised Almost Perfect Scale. *Journal of Personality Assessment*, 96(3), p. 368-379. DOI:10.1080/00223891.2013.838172.

Øvyind, R., Reas, D. L., & Stedal K. (2015). Eating Disorder Examination Questionnaire (EDE-Q) in Norwegian Adults: Discrimination between Female Controls and Eating Disorder Patients. *European Eating Disorders Review*, 23(5), p. 408-412. DOI: 10.1002/erv.2372.

Stunkard, A. J., & Messick, S. (1984). The Three Factor Eating Questionnaire to Measure Dietary Restraint, Disinhibition, and Hunger. *Journal of Psychosomatic Research*, 29(1), p. 71-83. 10.1016/0022-3999(85)90010-8.

Slaney, R. B., Rice, K. G., Mobley, M., Trippi, J. & Ashby, J. S. (2001) The Revised Almost Perfect Scale. *Measurement and Evaluation in Counseling and Development*, 34(3), p.130-145. DOI: 10.1080/07481756.2002.12069030.

Striegel-Moore, R.H., Rosselli, F., Perrin, N., DeBar, L., Wilson, G.T., May, A. and Kraemer, H.C. (2009). Gender difference in the prevalence of eating disorder symptoms. *International Journal of Eating Disorders*, 42(5), p.471-474. <https://doi.org/10.1002/eat.20625>.

Strober, M. (1984). Stressful Life Events Associated with Bulimia in Anorexia Nervosa. *International Journal of Eating Disorders*, 3(2), p. 3-16. [https://doi.org/10.1002/1098-108X\(198424\)3:2<3::AID-EAT2260030203>3.0.CO;2-6](https://doi.org/10.1002/1098-108X(198424)3:2<3::AID-EAT2260030203>3.0.CO;2-6).

Thurston, I.B., Hardin, R., Kamody, R.C., Herbozo, S., Kaufman, C. (2018). The moderating role of resilience on the relationship between perceived stress and binge eating symptoms among young adult women. *Eating Behaviors*, 29, p. 114-119. <https://doi.org/10.1016/j.eatbeh.2018.03.009>.

Upcraft, L.M., & Gardner, J.N. (1989). *The Freshman Year Experience. Helping Students Survive and Succeed in College*. Jossey-Bass Inc. Publishers.

White, S., Reynolds-Malear, J.B., Cordero, E. (2011). Disordered Eating and the Use of Unhealthy Weight Control Methods in College Students: 1995, 2002, and 2008. *The Journal of Treatment and Prevention*, 19(4), p. 323-334. DOI: 10.1080/10640266.2011.584805.

APPENDICES

APPENDIX A

Descriptive Questions

1. What is your current age?

2. Are you currently enrolled in an undergraduate program at the University of Maine, Orono (online or in person)?
Select: YES or NO
3. If yes, what grade are you currently enrolled in?
Select: freshman, sophomore, junior, senior, other: _____
4. What is your major?

5. What is your gender?
Select: male, female, non-binary, other: _____, prefer not to answer
6. Are you currently enrolled in the University of Maine Honors College?

7. Have you ever been enrolled in the University of Maine Honors College?

8. What is your current grade point average (GPA)?

9. What was your high school GPA (if applicable)?

10. What was your SAT/ACT score (if applicable)?

11. Do you participate in any extracurricular activities? (work, clubs, sports, volunteering, etc.)? If so, how many hours per week do you spend doing these activities?

APPENDIX B

The Almost Perfect Scale-Revised

Respond to each of the items and select a rating to describe your degree of agreement with each item.

1. I have high standards for my performance at work or school.

Strongly disagree	Disagree	Slightly Disagree	Neutral	Slightly Agree	Agree	Strongly Agree
1	2	3	4	5	6	7

2. I am an orderly person.

Strongly disagree	Disagree	Slightly Disagree	Neutral	Slightly Agree	Agree	Strongly Agree
1	2	3	4	5	6	7

3. I often feel frustrated because I can't meet my goals.

Strongly disagree	Disagree	Slightly Disagree	Neutral	Slightly Agree	Agree	Strongly Agree
1	2	3	4	5	6	7

4. Neatness is important to me.

Strongly disagree	Disagree	Slightly Disagree	Neutral	Slightly Agree	Agree	Strongly Agree
1	2	3	4	5	6	7

5. If you don't expect much out of yourself, you will never succeed.

Strongly disagree	Disagree	Slightly Disagree	Neutral	Slightly Agree	Agree	Strongly Agree
1	2	3	4	5	6	7

6. My best just never seems to be good enough for me.

Strongly disagree	Disagree	Slightly Disagree	Neutral	Slightly Agree	Agree	Strongly Agree
1	2	3	4	5	6	7

7. I think things should be put away in their place.

Strongly disagree	Disagree	Slightly Disagree	Neutral	Slightly Agree	Agree	Strongly Agree
1	2	3	4	5	6	7

8. I have high expectations for myself.

Strongly disagree	Disagree	Slightly Disagree	Neutral	Slightly Agree	Agree	Strongly Agree
1	2	3	4	5	6	7

9. I rarely live up to my high standards.

Strongly disagree	Disagree	Slightly Disagree	Neutral	Slightly Agree	Agree	Strongly Agree
1	2	3	4	5	6	7

10. I like to always be organized and disciplined.

Strongly disagree	Disagree	Slightly Disagree	Neutral	Slightly Agree	Agree	Strongly Agree
1	2	3	4	5	6	7

11. Doing my best never seems to be enough.

Strongly disagree	Disagree	Slightly Disagree	Neutral	Slightly Agree	Agree	Strongly Agree
1	2	3	4	5	6	7

12. I set very high standards for myself.

Strongly disagree	Disagree	Slightly Disagree	Neutral	Slightly Agree	Agree	Strongly Agree
1	2	3	4	5	6	7

13. I am never satisfied with my accomplishments.

Strongly disagree	Disagree	Slightly Disagree	Neutral	Slightly Agree	Agree	Strongly Agree
1	2	3	4	5	6	7

14. I expect the best from myself.

Strongly disagree	Disagree	Slightly Disagree	Neutral	Slightly Agree	Agree	Strongly Agree
1	2	3	4	5	6	7

15. I often worry about not measuring up to my own expectations.

Strongly disagree	Disagree	Slightly Disagree	Neutral	Slightly Agree	Agree	Strongly Agree
1	2	3	4	5	6	7

16. My performance rarely measures up to my standards.

Strongly disagree	Disagree	Slightly Disagree	Neutral	Slightly Agree	Agree	Strongly Agree
1	2	3	4	5	6	7

17. I am not satisfied even when I know I have done my best.

Strongly disagree	Disagree	Slightly Disagree	Neutral	Slightly Agree	Agree	Strongly Agree
1	2	3	4	5	6	7

18. I try to do my best at everything I do.

Strongly disagree	Disagree	Slightly Disagree	Neutral	Slightly Agree	Agree	Strongly Agree
1	2	3	4	5	6	7

19. I am seldom able to meet my own high standards of performance.

Strongly disagree	Disagree	Slightly Disagree	Neutral	Slightly Agree	Agree	Strongly Agree
1	2	3	4	5	6	7

20. I am hardly ever satisfied with my performance.

Strongly disagree	Disagree	Slightly Disagree	Neutral	Slightly Agree	Agree	Strongly Agree
1	2	3	4	5	6	7

21. I hardly ever feel that what I've done is good enough.

Strongly disagree	Disagree	Slightly Disagree	Neutral	Slightly Agree	Agree	Strongly Agree
1	2	3	4	5	6	7

22. I have a strong need to strive for excellence.

Strongly disagree	Disagree	Slightly Disagree	Neutral	Slightly Agree	Agree	Strongly Agree
1	2	3	4	5	6	7

23. I often feel disappointment after completing a task because I know I could have done better.

Strongly disagree	Disagree	Slightly Disagree	Neutral	Slightly Agree	Agree	Strongly Agree
1	2	3	4	5	6	7

APPENDIX C

The Perceived Stress Scale

Read each question carefully and select from the multiple choice options the answer that best describes your experiences.

- 1. In the last month, how often have you been upset because of something that happened unexpectedly?**

Never	Almost never	Sometimes	Fairly often	Very often
0	1	2	3	4

- 2. In the last month, how often have you felt that you were unable to control the important things in your life?**

Never	Almost never	Sometimes	Fairly often	Very often
0	1	2	3	4

- 3. In the last month, how often have you felt nervous and stressed?**

Never	Almost never	Sometimes	Fairly often	Very often
0	1	2	3	4

- 4. In the last month, how often have you felt confident about your ability to handle your personal problems?**

Never	Almost never	Sometimes	Fairly often	Very often
0	1	2	3	4

5. In the last month, how often have you felt that things were going your way?

Never	Almost never	Sometimes	Fairly often	Very often
0	1	2	3	4

6. In the last month, how often have you found you could not cope with all the things that you had to do?

Never	Almost never	Sometimes	Fairly often	Very often
0	1	2	3	4

7. In the last month, how often have you been able to control irritations in your life?

Never	Almost never	Sometimes	Fairly often	Very often
0	1	2	3	4

8. In the last month, how often have you felt that you were on top of things?

Never	Almost never	Sometimes	Fairly often	Very often
0	1	2	3	4

9. In the last month, how often have you been angered because of things that happened that were outside of your control?

Never	Almost never	Sometimes	Fairly often	Very often
0	1	2	3	4

10. In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?

Never	Almost never	Sometimes	Fairly often	Very often
0	1	2	3	4

APPENDIX D

The Three-Factor Eating Questionnaire

Please read each statement and select from the multiple choice options the answer that indicates the frequency with which you find yourself feeling or experiencing what is being described in the statements below.

- 1. When I smell a delicious food, I find it very difficult to keep from eating, even if I have just finished a meal.**

Definitely true	Mostly true	Mostly false	Definitely false
4	3	2	1

- 2. I deliberately take small helpings as a means of controlling my weight.**

Definitely true	Mostly true	Mostly false	Definitely false
4	3	2	1

- 3. When I feel anxious, I find myself eating.**

Definitely true	Mostly true	Mostly false	Definitely false
4	3	2	1

- 4. Sometimes when I start eating, I just can't seem to stop.**

Definitely true	Mostly true	Mostly false	Definitely false
4	3	2	1

5. Being with someone who is eating often makes me hungry enough to eat also.

Definitely true	Mostly true	Mostly false	Definitely false
4	3	2	1

6. When I feel blue, I often overeat.

Definitely true	Mostly true	Mostly false	Definitely false
4	3	2	1

7. When I see a real delicacy, I often get so hungry that I have to eat right away.

Definitely true	Mostly true	Mostly false	Definitely false
4	3	2	1

8. I get so hungry that my stomach often seems like a bottomless pit.

Definitely true	Mostly true	Mostly false	Definitely false
4	3	2	1

9. I am always hungry so it is hard for me to stop eating before I finish the food on my plate.

Definitely true	Mostly true	Mostly false	Definitely false
4	3	2	1

10. When I feel lonely, I console myself by eating.

Definitely true	Mostly true	Mostly false	Definitely false
4	3	2	1

11. I consciously hold back at meals in order not to weight gain.

Definitely true	Mostly true	Mostly false	Definitely false
4	3	2	1

12. I do not eat some foods because they make me fat.

Definitely true	Mostly true	Mostly false	Definitely false
4	3	2	1

13. I am always hungry enough to eat at any time.

Definitely true	Mostly true	Mostly false	Definitely false
4	3	2	1

14. How often do you feel hungry?

Only at meal times	Sometimes between meals	Often between meals	Almost always
1	2	3	4

15. How frequently do you avoid “stocking up” on tempting foods?

Almost never	Seldom	Moderately likely	Almost always
1	2	3	4

16. How likely are you to consciously eat less than you want?

Unlikely	Slightly likely	Moderately likely	Very likely
1	2	3	4

17. Do you go on eating binges though you are not hungry?

Never	Rarely	Sometimes	At least once a week
1	2	3	4

18. On a scale of 1 to 8, where 1 means no restraint in eating (eating whatever you want, whenever you want it) and 8 means total restraint (constantly limiting food intake and never “giving in”), what number would you give yourself?

APPENDIX E

Eating Disorder Examination Questionnaire (EDEQ)

Instructions: The following questions are concerned with the past four weeks (28 days) only. Please read each question carefully. Please only choose one answer for each question. Thank you.

Questions 1 to 12: Please circle the appropriate number on the right. Remember that the questions only refer to the past four weeks (28 days) only.

- 1. Have you been deliberately trying to limit the amount of food you eat to influence your shape or weight (whether or not you have succeeded)?**

No days	1-5 days	6-12 days	13-15 days	16-22 days	23-27 days	Every Day
0	1	2	3	4	5	6

- 2. Have you gone for long periods of time (8 waking hours or more) without eating anything at all in order to influence your shape or weight?**

No days	1-5 days	6-12 days	13-15 days	16-22 days	23-27 days	Every Day
0	1	2	3	4	5	6

- 3. Have you tried to exclude from your diet any foods that you like in order to influence your shape or weight (whether or not you have succeeded)?**

No days	1-5 days	6-12 days	13-15 days	16-22 days	23-27 days	Every Day
0	1	2	3	4	5	6

- 4. Have you tried to follow definite rules regarding your eating (for example, a calorie limit) in order to influence your shape or weight (whether or not you have succeeded)?**

No days	1-5 days	6-12 days	13-15 days	16-22 days	23-27 days	Every Day
0	1	2	3	4	5	6

- 5. Have you had a definite desire to have an empty stomach with the aim of influencing your shape or weight?**

No days	1-5 days	6-12 days	13-15 days	16-22 days	23-27 days	Every Day
0	1	2	3	4	5	6

6. Have you had a definite desire to have a totally flat stomach?

No days	1-5 days	6-12 days	13-15 days	16-22 days	23-27 days	Every Day
0	1	2	3	4	5	6

7. Has thinking about food, eating or calories made it very difficult to concentrate on things you are interested in (for example, working, following a conversation, or reading)?

No days	1-5 days	6-12 days	13-15 days	16-22 days	23-27 days	Every Day
0	1	2	3	4	5	6

8. Has thinking about shape or weight made it very difficult to concentrate on things you are interested in (for example, working, following a conversation, or reading)?

No days	1-5 days	6-12 days	13-15 days	16-22 days	23-27 days	Every Day
0	1	2	3	4	5	6

9. Have you had a definite fear of losing control over eating?

No days	1-5 days	6-12 days	13-15 days	16-22 days	23-27 days	Every Day
0	1	2	3	4	5	6

10. Have you had a definite fear that you might gain weight?

No days	1-5 days	6-12 days	13-15 days	16-22 days	23-27 days	Every Day
0	1	2	3	4	5	6

11. Have you felt fat?

No days	1-5 days	6-12 days	13-15 days	16-22 days	23-27 days	Every Day
0	1	2	3	4	5	6

12. Have you had a strong desire to lose weight?

No days	1-5 days	6-12 days	13-15 days	16-22 days	23-27 days	Every Day
0	1	2	3	4	5	6

Questions 13-18: Please fill in the appropriate number in the boxes on the right.

Remember that the questions only refer to the past four weeks (28 days).

Over the past four weeks (28 days).....

13. Over the past 28 days, how many times have you eaten what other people would regard as an unusually large amount of food (given the circumstances)?

14. How many of these times did you have a sense of having lost control over your eating (at the time that you were eating)?

15. Over the past 28 days, on how many DAYS have such episodes of overeating occurred (i.e. you have eaten an unusually large amount of food and have had a sense of loss of control at the time)?

16. Over the past 28 days, how many times have you made yourself sick (vomit) as a means of controlling your shape or weight?

17. Over the past 28 days, how many times have you taken laxatives as a means of controlling your shape or weight?

18. Over the past 28 days, how many times have you exercised in a “driven” or “compulsive” way as a means of controlling your weight, shape or amount of fat or to burn off calories?

Questions 19-25: Please circle the appropriate number on the right. Remember that the questions only refer to the past four weeks (28 days)

19. Has your weight influenced how you think about (judge) yourself as a person?

Not at all		Slightly		Moderately		Markedly
0	1	2	3	4	5	6

20. Has your shape influenced how you think about (judge) yourself as a person?

Not at all		Slightly		Moderately		Markedly
0	1	2	3	4	5	6

21. How much would it have upset you if you had been asked to weigh yourself once a week (no more, or less, often) for the next four weeks?

Not at all		Slightly		Moderately		Markedly
0	1	2	3	4	5	6

22. How dissatisfied have you been with your weight?

Not at all		Slightly		Moderately		Markedly
0	1	2	3	4	5	6

23. How dissatisfied have you been with your shape?

Not at all		Slightly		Moderately		Markedly
0	1	2	3	4	5	6

24. How uncomfortable have you felt seeing your body (for example, seeing your shape in the mirror, in a shop window reflection, while undressing or taking a bath or shower)?

Not at all		Slightly		Moderately		Markedly
0	1	2	3	4	5	6

25. How uncomfortable have you felt about others seeing your shape or figure (for example, in communal changing rooms, when swimming, or wearing tight clothes)?

Not at all		Slightly		Moderately		Markedly
0	1	2	3	4	5	6

Thank you for participating in this important research. If taking this survey has raised any

concerns please feel free to contact the University of Maine Counseling Center (<https://umaine.edu/counseling/>), located on the UMaine campus in Orono. Their services are currently being offered via Zoom, phone, or in person. They can be reached at (207)581-1392 Monday through Friday from 8:30am-12:00pm, and 1:00pm- 4:30pm.

1. Would you like to enter for a chance to win one of two \$50 gift cards to the University of Maine Bookstore? (your contact information will not have any connection to your survey responses)

Select: YES or NO

If yes, you will now be directed to a separate form to enter your contact information.

2. Please enter your name and email address so we can contact you if you are a raffle winner.

APPENDIX F

Informed Consent

You are invited to participate in a research project that is being conducted by fourth year undergraduate psychology student, Jaimie Giguere, and Professors Dr. Margaret Killinger (Honors College) and Dr. Jeffrey Hecker (Department of Psychology). I am an Honors college student, and this research is a central piece to my current thesis. This research intends to study questions involving perfectionism, perceived stress, and maladaptive eating behaviors among undergraduate students at the University of Maine. Participation is voluntary, and you must be at least 18 years of age to participate.

What Will You Be Asked to Do?

If you decide to take part in this study, you will be provided with a survey via Qualtrics. You will be asked to take approximately 30 minutes to carefully read and answer the questions according to the instructions given. The questionnaire will ask general demographic questions, and involves topics such as perfectionism, perceived stress, and eating behaviors. This survey is anonymous, and your answers will not be connected to your personal information in any way.

Risks

This survey will discuss sensitive topics such as eating disorder symptomatology. It is possible that participating in this research may invoke negative emotions. You are free to skip any questions you do not wish to answer, and can withdraw from the study at any time. If you feel uncomfortable or would like to speak to someone about any concerns, consider contacting The University of Maine's Counseling Center [(207)581-1392; <https://umaine.edu/counseling/>].

Benefits

This study has no direct benefits to you. However, this research will provide valuable information about how perceived stress, perfectionism, and eating disorders are presented in college students, and may be able to provide insight into how it is approached in the future.

Compensation

Upon completion of the survey, you will be asked if you would like to enter for a chance to win one of two \$50 gift cards to the University of Maine Bookstore. If you select yes, you will be brought to another section in which you will be asked to write your name and email address. This information will not be connected to your survey responses, and it is kept confidential. Names and email addresses will be erased after the winners are selected. If you are a winner, you will be contacted by email to receive your gift certificate.

Contact Information

If you have any questions or concerns, please feel free to contact me (jaimie.giguere@maine.edu), Professor Killinger (margraet.killinger@maine.edu and (207)581-3342) or Professor Hecker (hecker@maine.edu and (207)581-2033). If you have any questions about your rights as a research participant, please contact the Office of Research Compliance, University of Maine, 207-581-2657 (or e-mail umric@maine.edu).

APPENDIX G

First email:

Greetings fellow students,

I am a fourth year psychology student, and am currently working on my honors thesis. I have previously studied the relationship between perfectionism and eating concerns, and am interested in extending this research for my thesis. This thesis focuses on the impacts of perfectionism, perceived stress, and eating concerns in UMaine students. I was given your email by the University of Maine Office of Student Records. All undergraduate students at the University of Maine are invited to participate in my research. The anonymous survey will take approximately 30 minutes, and you must be at least 18 years old to participate. Upon the completion of this survey, you will have the opportunity to enter a raffle for a chance to win a \$50 gift card to the University of Maine Bookstore. Two winners will be selected at random and contacted after the survey closes. I would very much appreciate your participation and help in researching this crucial topic. For more information on the study and to access it, please click on the following link (survey link here). If you have any questions or concerns, please feel free to contact me (jaimie.giguere@maine.edu).

Thank you for your time,

Jaimie Giguere

jaimie.giguere@maine.edu

Reminder email:

University of Maine undergraduate students:

Last week you were sent an invitation via email to participate in research for an honors thesis concerning perfectionism, perceived stress, and eating concerns among University of Maine undergraduate students. Thank you to those who have already participated, it is greatly appreciated. If you have not yet participated, please consider doing so. Your help in this important research will be very valuable. If you can find 30 minutes in your busy day to take this survey, you will have the opportunity to enter in a raffle to win one of two \$50 gift cards to the University of Maine Bookstore. Two winners will be selected at random.

Thank you for your time,

Jaimie Giguere

jaimie.giguere@maine.edu

APPENDIX H

APPLICATION COVER PAGE

• *KEEP THIS PAGE AS ONE PAGE – DO NOT CHANGE MARGINS/FONTS!!!!!!!!!!*

APPLICATION COVER PAGE

• *KEEP THIS PAGE AS ONE PAGE – DO NOT CHANGE MARGINS/FONTS!!!!!!!!!!*

• *PLEASE SUBMIT THIS PAGE AS WORD DOCUMENT*

• *PLEASE SUBMIT THIS PAGE AS WORD DOCUMENT*

APPLICATION FOR APPROVAL OF RESEARCH WITH HUMAN SUBJECTS Protection of Human Subjects Review Board, 311 Alumni Hall

(Type inside gray areas)

PRINCIPAL INVESTIGATOR: Jaimie Giguere EMAIL: jaimie.giguere@maine.edu FACULTY SPONSOR: Jeffrey Hecker EMAIL: hecker@maine.edu (Required if PI is a student):

FACULTY SPONSOR: Margaret Killinger EMAIL: margaret.killinger@maine.edu (Required if PI is a student):

TITLE OF PROJECT: Perfectionism, Perceived Stress, and Maladaptive Eating Behaviors in High Achieving Students at the University of Maine

START DATE: February 10th, 2022 PI DEPARTMENT: Honors College, Psychology STATUS OF PI:

FACULTY/STAFF/GRADUATE/UNDERGRADUATE U (F,S,G,U)

If PI is a student, is this research to be performed:

X for an honors thesis/senior thesis/capstone? for a master's thesis? for a doctoral dissertation? for a course project?
other (specify)

Submitting the application indicates the principal investigator's agreement to abide by the responsibilities outlined in [Section I.E. of the Policies and Procedures for the Protection of Human Subjects](#).

Faculty Sponsors are responsible for oversight of research conducted by their students. The Faculty Sponsor ensures that he/she has read the application and that the conduct of such research will be in accordance with the University of Maine's Policies and Procedures for the Protection of Human Subjects of Research. **REMINDER:** if the principal investigator is an undergraduate student, the Faculty Sponsor MUST submit the application to the IRB.

Email this cover page and complete application to umric@maine.edu.

***** **FOR IRB USE ONLY** Application # 2021-12-11 Review (F/E): E Expedited Category: ACTION TAKEN:

Judged Exempt; category 2 Modifications required? Yes Accepted (date) 2/9/2022

Approved as submitted. Date of next review: by Degree of Risk:

Approved pending modifications. Date of next review: by Degree of Risk:

Modifications accepted (date):

Not approved (see attached statement)

Judged not research with human subjects

FINAL APPROVAL TO BEGIN 2/9/2022

ABOUT THE AUTHOR

Jaimie Giguere has a Bachelor's Degree in Psychology from the University of Maine. She also minored in Political Science and Marketing. Jaimie grew up in Scarborough, Maine. She was inducted into the National Honors Society in 2018, and graduated from Scarborough High School. Jaimie recently started a new job in the operations department at Aroma Joe's Franchising and hopes to attend graduate school in the future to earn an MBA.