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## Perceptions of Well-Being Among College Majors

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Perceptions of Well-being among College Majors

By

Baylee Jahraus

A Thesis Submitted in Partial Fulfillment of the

Requirements for the Degree of

Master of Science

In

Community Health Education

Minnesota State University

Mankato, Minnesota

May 2022

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Perceptions of Well-being among College Majors

Baylee Jahraus

This thesis has been examined and approved by the following members of the student's committee.

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PERCEPTIONS OF WELL-BEING AMONG COLLEGE MAJORS

BAYLEE JAHRAUS

A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF THE  
REQUIREMENTS FOR THE DEGREE OF  
MASTER OF SCIENCE IN COMMUNITY HEALTH EDUCATION

MINNESOTA STATE UNIVERSITY, MANKATO,  
MANKATO, MINNESOTA  
MAY 2022

ABSTRACT

The purpose of this research was to assess the well-being perceptions of selected college students at a midsize midwestern university. To collect data, an adaptation of the Open Science Framework's (n.d) *College Student Subjective Wellbeing Questionnaire* and the CDC's (2018b) *Health-related Quality of Life scale* was used. The 26-item survey was distributed to junior and senior students enrolled in 300-400 level courses in a variety of majors. The findings for each research question are presented in the cross-sectional study. The results of the study indicate there are differences in perceptions of physical and mental health between males and females and among applied health sciences and other majors. The study's findings also reveal a difference in academic efficacy between males and females. Recommendations for health educators include targeting programs or resources for women to better their mental health, assisting men with course tasks and organization, and assisting applied health sciences and nursing majors with their overall physical and mental health. To conclude, further research should be conducted with a larger sample size including freshmen and sophomore students, and assess components of majors that can be improved for student success.

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## **Chapter 1: Background to the Topic**

### **Overview**

In this chapter, readers will find background on the topic, a statement of the problem and purpose, its severity, the research questions, assumptions, limitations, delimitations of the study, and operationalized definitions used throughout this paper.

### **Background**

College students often face challenges that affect their health and well-being, both positively and negatively. Well-being combines components of mental health and physical health, resulting in more holistic approaches to disease prevention and health promotion (Centers for Disease Control and Prevention [CDC], 2018b). Well-being includes the presence of positive emotions and moods, the absence of negative emotions, satisfaction with life, fulfillment, and positive functioning (CDC, 2018b). An individual's well-being contributes to their overall quality of life. As defined by the World Health Organization (2020), quality of life is an individual's perception of their position in life in the culture and value system in which they live and in relation to their goals, expectations, standards, and concerns. Quality of life and well-being have become popular topics of interest in research lately. Researchers argue that physical and mental health should be included in quality of life, in addition to the absence of physical or mental illness (Zullig, 2005). In the public health domain, physical well-being is a considered critical part of overall well-being (CDC, 2018b). For this study, well-being is defined as the absence of physical and mental illness, negative emotions, and physical and mental satisfaction with life. Well-being is an outcome of population health

measured by more than morbidity, mortality, and economic status and it informs us how individuals perceive their life satisfaction from their own perspective (CDC, 2018b).

Many studies have been conducted on the physical and mental health of college students but there is yet to be a study conducted on the well-being of college students based on their major.

Zullig (2005) states, college students are a large group of the population exposed to substantial pressure, such as adjusting to a new social and physical environment, shifting social networks, and academic demands, while pursuing and developing career goals. Higher education makes these individuals more willing to admit when they face conflicts, fears, and self-doubt about themselves and their future more than other age groups and populations (Zullig, 2005). Although students are willing to address these factors, they are more likely to engage in risky behavior because of them; poor eating or activity, use of tobacco, drugs, and alcohol (Lindsey et al., 2008). Mental health issues are also significantly correlated in this population between their self-perceived physical health and mental health. These behaviors, therefore, negatively impact their well-being and quality of life.

Covitality and well-being are often used interchangeably in literature. Scientifically, covitality is defined as a positive mental health construct accounting for the presence of several co-occurring positive mental health indicators (Renshaw & Bolognino, 2016). Authors of the *College Student Subjective Well-being Questionnaire* defined covitality as an individual's cumulative well-being consisting of a combination of emotional, cognitive, social, and behavioral components (Renshaw & Bolognino, 2016).

In other words, covitality is how someone thinks, feels, acts, and relates to their value or the value they are attempting to attain in life. Prior research has demonstrated that a positive covitality status buffers depression and physical symptoms in times of stress which is a significant positive predictor of college GPA and graduation rates (Renshaw, & Bolognino, 2016). A student's covitality score represents their cumulative well-being and is a good predictor of their quality of life. Five constructs function as representative indicators commonly correlated with well-being: self-efficacy, gratitude, grit, connectedness, and life satisfaction (Renshaw & Bolognino, 2016). These components are commonly seen in measurement tools of well-being, covitality, and quality of life and were adapted and used further throughout this research study.

### **Statement of the Problem**

This study aims to determine if all college students perceive their well-being the same or if there are variations between college majors. College is a time when increased risks of mental health concerns may occur (Zullig, 2005). Students are increasingly reporting poor mental health and physical health statuses (American College Health Association, 2019a). External factors such as fatigue, relationships, financial issues, and hobbies impact academic stress and can result in poor achievement levels (Bedewy & Gabriel, 2015). These factors combined impact a student's well-being and quality of life, but does this apply to all students or is it more common in certain majors?

### **Severity of the Problem**

Previous research using the CDC's *Health-Related Quality of Life Scale* reports nearly 10% of students have poor perceptions of their physical health and 79% reported

having poor mental health days in the last month (Zullig, 2005). Students who reported having fewer days of poor physical and mental health reported higher levels of their perceived well-being compared to their peers (Zullig, 2005). Just over two-thirds (69.63%) of students reported being very stressed about their studies in the last year (Jenkins et al., 2018). The majority of these students felt that external factors, such as lack of sleep, health issues, financial concerns, hobbies, and issues with friends had a significant impact on their academic lives (Jenkins et al., 2018). The National College Health Assessment (NCHA) reported a prevalence of 45.1% of depression among college students in the US during the past year (American College Health Association, 2019a). A large number of students also reported concerns with fear of failure (37.5%), depression (37.3%), weight control (35.5%), romantic relationships (35.2%), and emotional instability (30.9%) (Lindsey et al., 2008). Students report they need the most assistance with time management (54.4%), finding a career path (53.3%), their study habits (49.6%), and test anxiety (48.2%) (Lindsey et al., 2008). As stated, well-being is the combination of all factors considered. For this study, these factors need to be addressed and combined to determine students' well-being status.

### **Purpose Statement**

The purpose of this study was to determine if upperclassmen students have similar perceptions of their well-being or whether perceptions differ among college majors. College majors are then broken down to gender and years in school differences.

**Research Question(s)**

1. How do upperclassmen students at a midwestern university perceive their well-being?
2. How does the perceived well-being of upperclassmen students at a midwestern university differ between grade?
3. How does the perceived well-being of upperclassmen students at a midwestern university differ among gender categories?
4. How do perceptions of well-being differ among college majors at a midwestern university?

**Limitations**

- Limitations of this study include demographics of the midwestern university's population; gender, sex, race distributions, age (traditional vs nontraditional students), and socioeconomic status currently.
- Participation in the online survey was limited to students who can access and use relevant technology appropriately.
- The survey relies on voluntary completion and was dependent on student motivation and interest.
- The state of society dealing with the COVID-19 pandemic, racial issues, and the unknowns of an election year put extra stress upon individuals.

**Delimitations**

- This study consists of juniors and seniors at a midsize midwestern university.

- Participants were given an online questionnaire so ensuring electronic availability and access was necessary.

### **Assumptions**

- Researchers assume that since well-being can mean something different to everyone, the population used the definition of well-being provided in the survey.
- The researchers assume that all students will answer the questionnaire to the best of their ability and honestly.
- Researchers assume that the instrument and literature are valid and reliable.

### **Definitions**

- Academic Connectedness: the perception of supportive relationships with classmates. This is associated with increased classroom participation, high-quality learning, and improved mental and physical health (Renshaw & Bolognino, 2016).
- Academic Efficacy: an individual's belief in their ability to perform/accomplish coursework and academic tasks, how prepared and diligent they are. It is a protective factor against depression and anxiety and a good predictor of academic achievement (Renshaw & Bolognino, 2016).
- Academic Gratitude: the positive emotional response experienced when receiving a benefit from an external source, such as an appreciation for the interactions, connections, and opportunities provided by their educational experiences. This has been related to better life satisfaction and more positive emotion, lower levels of depression and anxiety (Renshaw & Bolognino, 2016).

- Academic Satisfaction: the subjective approval of an individual's quality of life regarding how pleased they are with their academic experiences and achievements. This has been linked to higher productivity and quality of work; more personal, longer, and stronger relationships; and better physical and emotional health (Renshaw & Bolognino, 2016).
- Covitality: a mental health construct for an individual's cumulative well-being consisting of a combination of emotional, cognitive, social, and behavioral components (Renshaw & Bolognino, 2016).
- Eudemonic: type of well-being that focuses on meaning and self-actualization and defines well-being in terms of the degree one is fully functioning (Ryan & Deci, 2001).
- Hedonic: type of well-being that focuses on happiness and defines well-being in terms of pleasure attainment and pain avoidance (Ryan & Deci, 2001).
- Quality of life: an individual's perception of their position in life in the culture and value system in which they live and in relation to their goals, expectations, standards, and concerns (World Health Organization, 2020).
- Well-being (in this study): is defined as the physical and mental satisfaction with life in addition to the absence of physical and mental illness, and negative emotions (adapted from the definition of well-being from the Centers for Disease Control and Prevention, 2018).

## Chapter 2: Literature Review

### Overview

Sections within this chapter cover previous literature that relates to the topic of well-being including the prevalence of health problems among college students, stressors, and motivators of students in different majors, and what impacts students' performance and perceptions. This section also discusses the *College Student's Subjective Well-being Questionnaire* and concludes with the purpose of this study.

Studies show that college students encounter a variety of circumstances that affect their health and well-being both positively and negatively. Yet a study to determine the perception of well-being within different college majors has not been conducted. Researchers have discovered that individuals diagnosed with mental health and mood disorders have the lowest ratings of health-related quality of life status. (Monahan et al., 2012). Nearly, one-third of students report a mental health disorder nationally (American Psychological Association [APA], 2018). Locally, 22.7% of students have been diagnosed with depression, and 29.3% diagnosed with anxiety (American College Health Association, 2019b) Students also report experiencing fatigue and over half report a loss of motivation. Other common problems reported are the inability to focus, forgetfulness, reduced academic performance, emotional distress, and feeling isolated while at school (Jenkins et al., 2019). Over half (51/4%) of students report their academics are very difficult to handle (American College Health Association, 2019b). These components all impact students' well-being.

Results from cross-sectional, longitudinal, and experimental studies find that well-being has been associated with concepts of; self-perceived health, longevity, healthy behaviors, mental and physical illness social connectedness, productivity, and factors in the physical and social environment (CDC, 2018b). While reviewing literature, well-being has been examined from many different perspectives and components. Life satisfaction, psychological well-being, subjective well-being, and many more variations have coined the term well-being. Philosophers and researchers have examined well-being in two different forms: eudemonic and hedonic well-being (Ryan & Deci, 2001). Eudemonic focuses on meaning and self-actualization and defines well-being in terms of the degree one is fully functioning (Ryan & Deci, 2001). The form of eudemonic well-being suggests that people's perceptions of being happy do not necessarily mean that they are functioning well psychologically or socially (Ryan & Deci, 2001). Hedonic focuses on happiness and defines well-being in terms of pleasure attainment and pain avoidance (Ryan & Deci, 2001). Hedonic well-being was used for this research as it factors in aspects of psychological and physical health.

Several studies have been conducted focusing on individual college majors, but none have assessed potential differences between the majors. Prior studies examine stress levels, what is important to that type of student, or what could be changed within that major. Undergraduate nursing students reported significantly higher levels of stress compared to undergraduate students from the general student population (Admi et al., 2018). Two-thirds of dental students reported feeling very stressed due to their studies and financial state (Jenkins et al., 2018). Making money is very important to business and

psychology college students (Rostyslaw et al. 2007). Business students were more motivated to make money, but this also harms their subjective well-being (Rostyslaw et al. 2007). Data suggests that fine art students have not been studied but are at risk for many mental health conditions (Elias & Berg-Cross, 2009). On their own, these studies are important to the individual assessment of a major but play into a larger question of do these factors affect the well-being perceptions of the students and where do variations occur between college majors.

### **Gender Differences**

In general, men and women have similar levels of well-being, but this trend changes with age. There is a U-shaped distribution of well-being statuses by age; younger and older adults tend to have a higher status of well-being compared to middle-aged adults (CDC, 2018b). When students were asked to rank the health needs, they see as a priority, women stated, personal and physical health (weight control and health screenings), mental health conditions (depression, anxiety, and anger), nutrition, communicable and non-communicable diseases (HIV, STDs, Hepatitis B, and immunizations) and sexuality (Lindsey et al., 2008). Men stated, physical fitness, personal health (weight control and health screenings), mental health (depression, anxiety, and anger), communicable and non-communicable diseases (HIV, STDs, Hepatitis B, and immunizations), and nutrition (Lindsey et al., 2008).

However, the aforementioned perceptions are not always accurate. The overall prevalence of mental disorders is about the same among men and women, although depression is more common among women, and substance abuse disorders among men

(Organization for Economic Cooperation and Development [OECD], 2013). Gender gaps in healthy life years were higher among women, while men were expected to live in a healthier condition longer than women (OECD, 2013).

In general, female college students in the United States earn higher grades and graduate from college at a higher rate than do male college students (Marrs & Sigler, 2012). Of those enrolled, 56% of females graduate compared to 45% of males (Minnesota State University Mankato, n.d) Studies show gender differences in the choice of major. Women predominate chose majors in education, health, and welfare fields, whereas men often chose science, technology, engineering, math, and construction fields (OECD, 2013). Both genders agreed on wanting assistance with personal health issues, finances, and career planning (Lindsey et al., 2008).

### **Career Planning**

As college students reported, they would benefit from assistance with career planning. Making informed and appropriate career choices are positively linked with well-being, work performance, and academic and career success (Jackson & Wilton, 2017). Career “uncertainty” has been associated with long-term feelings of incompetence. Research suggests it is not just making the career choice that is important but also the student’s satisfaction with their choice (Jackson & Wilton, 2017). This uncertainty has resulted in anxiety related to career decisions and can cause the student to be less committed to their studies, and experience unhappiness. Studies suggest that individuals who feel this way often fail to actively contribute to society and the profession even though they have undergone their education (Jackson & Wilton, 2017).

Not only are poor or uncertain career decisions harmful to the individual, but there are also known negative effects of career issues and poor performance long term (Jackson & Wilton, 2017). Satisfaction or dissatisfaction in a career choice is directly correlated with overall health and well-being so ensuring students choose and succeed in their appropriate major is important. Choosing and sticking with a major is one factor but determining the major's effects on its students is also an important factor that should be examined at the beginning and end of their program.

### **Impacts**

Students reported a wide range of physical and mental health that impact their studies. Previous research demonstrates positive well-being statuses buffer depression and its physical symptoms in times of stress, which is a significant positive predictor of college GPA and graduation rates (Renshaw & Bolognino, 2016). A student's covitality score is a good representation of their cumulative well-being and is a good predictor of their quality of life outcome (Renshaw & Bolognino, 2016). Two-thirds of students reported being stressed in the last year from academics and external factors (Jenkins et al., 2018). Approximately 38.2% of students state stress impacted their academic performance in the last year (American College Health Association, 2019b). Not only are college students stressed and reporting diagnoses of depression and anxiety, but stress and mental health conditions are impacting their grades. One-fifth of students report depression is impacting their academics and one-third report anxiety impacts their academics (American College Health Association, 2019b). One-third of those students felt worried about their financial state constantly (Jenkins et al., 2018). Over half of them

felt fatigued and lost motivation which affected their ability to perform and focus on their studies resulting in feeling isolated and emotionally distressed (Jenkins et al., 2018).

Counseling services are experiencing an increase in appointments of college students with serious mental health concerns including depression and anxiety. Nationwide, 20% of students report depression, and 24.3% report anxiety diagnoses (American College Health Association, 2019a). These mental illnesses are reported higher at the local level. Locally, 22.7% have been diagnosed with depression and 29.3% with anxiety (American College Health Association, 2019b). A recent poll found that 85 percent of colleges have seen an increase in mental health problems on their campuses (Elias & Berg-Cross, 2009).

### **Outside Factors**

College students adjust to new social and physical environments, changes in social networks, and high academic demands while pursuing career goals putting immense pressure on themselves (Zullig, 2005). A fifth of participants stated that external factors prevent them from achieving their academic potential (Jenkins et al., 2018). A small proportion of students have paid employment beyond their studies. Those who do, work on average 17-25 hours after school and on the weekends to pay their bills (Jenkins et al., 2018). Previous research indicates that while making money is important to college students, it is negatively correlated with subjective well-being (Rostyslaw et al. 2007). Half of the participants had issues with sleeping, meeting assignment deadlines, difficult workload, assessments, and relationships with staff (Jenkins et al., 2018).

The built environment can have a significant influence on the well-being of students. Buildings can negatively influence students' behavior and can potentially cause stress and eventually affect human health (Muhammad et al., 2013). Studies have shown that satisfaction with a university's built environment has a positive influence on the quality of life and satisfaction of students (Muhammad et al., 2013).

### ***College Student's Subjective Well-being Questionnaire***

How someone thinks, feels, acts, and relates to their value in life defines covitality and well-being. Researchers selected five core well-being constructs for the questionnaire and adapted them to academic measures to determine subjective well-being in the general student population. These five constructs before adaption have been linked to outcomes that better an individual's health and lifestyle:

- Academic Gratitude: the positive emotional response experienced when receiving a benefit from an external source, such as an appreciation for the interactions, connections, and opportunities provided by their educational experiences. This has been related to better life satisfaction and more positive emotion, lower levels of depression and anxiety.
- Academic Efficacy: an individual's belief in their ability to perform/accomplish coursework and academic tasks. It is a protective factor against depression and anxiety and a good predictor of academic achievement
- Academic Satisfaction: the subjective approval of an individual's quality of life regarding how pleased they are with their academic experiences and achievements. This has been linked to higher productivity and quality of work;

more personal, longer, and stronger relationships; and better physical and emotional health.

- Academic Connectedness: the perception of supportive relationships with classmates. This is associated with increased classroom participation, high-quality learning, and improved mental and physical health.

(Renshaw & Bolognino, 2016).

Higher covitality status showed better mean GPAs than lower covitality status. Implications of this study offer further support for the covitality construct. The *College Student's Subjective Well-being Questionnaire* is also the first known to provide evidence of college students' cumulative subjective well-being showing that the CSSWQ has concurrent validity with other well-being indicators, and subjective distress indicators, but that it also has validity to academic achievement (Renshaw & Bolognino, 2016).

### **Purpose of Current Study**

Authors, Renshaw & Bolognino (2016), suggested that the CSSWQ could be used to assess college students' subjective well-being and could represent college students' cumulative subjective well-being. From this data, researchers can see students are struggling with a multitude of different factors, but do these factors combined affect students' overall well-being. It is important to note that prior research has taken place all over the world, but most data come from large universities outside of the United States whose participants were mainly twenty-year-old females of many races and ethnicities. It seems a study has yet to be conducted in a midsize midwestern university within the United States assessing if one particular major has more of a negative effect on its

students than others. How do the pressures of academics, and external and internal factors affect students' well-being perceptions of their lives? That is the question researchers aimed to find out.

## **Chapter 3: Methodology**

### **Overview**

This chapter discusses the study's research design, data collection procedures, subject and sampling methods, instrumentation used, and analysis plans.

### **Research Question(s)**

1. How do upperclassmen students at a midwestern university perceive their well-being?
2. How does the perceived well-being of upperclassmen students at a midwestern university differ between grade?
3. How does the perceived well-being of upperclassmen students at a midwestern university differ among gender categories?
4. How do perceptions of well-being differ among college majors at a midwestern university?

### **Research Design**

The purpose of this study was to determine if all college students perceive their well-being the same or if there are variations between college majors. A descriptive, cross-sectional study was conducted to assess the difference in college major, gender, and grade level. Cross-sectional studies collect descriptive data in a single observation to create a snapshot in time (Friis & Sellers, 2020). Descriptive studies collect data which collect information without changing the environment of study (U.S. Department of Health and Human Services [HHS], n.d.). A descriptive study provides information about health status, behavior, and attitudes (HHS, n.d.). Those are all components that go into

well-being and were included in the survey. Researchers assessed student perceptions of well-being based on their major, no adjustments or manipulations to any part of their environment were made.

### **Data Collection Procedures**

First, the registrar's office was contacted to get enrollment numbers to determine the most popular majors. After receiving committee and IRB approval (see Appendix A), professors were contacted within those majors of 300-400 level core courses for permission to distribute. The survey was conducted using Qualtrics (<https://www.qualtrics.com>) online and distributed in person for courses meeting face-to-face. Upon permission, for those courses meeting online a web link was provided to the instructor for distribution via email or classroom web management system. Surveys were distributed to the entire class but those that do not fit the inclusion criteria were redirected out of the survey. Finally, results were broken into subcategories and analyzed using IBM SPSS Statistics (Version 27).

### **Subjects and Sampling**

There are variations among students from within and between majors, so to get the full scope of their perceptions researchers assessed both junior and seniors, and any gender identification. According to the Krejcie and Morgan (1970) chart, surveying approximately 370 students will represent this midsize Midwestern university's students. Subjects were selected via convenience sampling, meaning researchers used non-probability sampling on participants who are easy for the researcher to access (Lavrakas,

2011). Researchers aimed to target an equitable distribution among the genders and majors. Courses with large enrollment numbers within different majors were sampled.

### **Instrumentation**

For the research instrument, an adaptation of the *College Student Subjective Well-being Questionnaire* (CSSWQ) (CDC, 2018a) and the *Health-Related Quality of Life (HRQOL)* (Open Science Framework, n.d.) module was used. The CSSWQ instrument comes from the Open Science Framework and is used to assess the attitudes and perceptions of the well-being of college students based on four representative constructs: academic satisfaction, academic efficacy, school connectedness, and college gratitude. Researchers combined this with the CDC's (2018b) *Health-Related Quality of Life Scale*. The CSSWQ consists of 16 Likert-type questions and coinciding answers are laid out in table format. Nine of the 14 questions on the HRQOL were used. These nine questions told researchers how the participant perceives their physical and mental health, positive or negative, and their sleep quality.

The two instruments were combined to adequately assess the complexity of this topic. The original formats did not have definitions of scientific terms, so operationalized definitions were added for well-being and quality of life. The layout of the HRQOL was adapted in a table format like the CSSWQ. These adaptations clarify and organize the survey for the participant to combat survey burnout and confusion.

The CSSWQ and HRQOLS have been used in multiple scientific journal articles and have been proven valid and reliable. The HRQOL has been used in the state-based behavioral risk factor surveillance system since 1993, only showing how valid and

reliable this portion of the survey is (CDC, 2018a). Researchers decided to combine the CDC's *Quality of Life Scale* to get a better understanding of the student's perceptions of their school and life as a whole.

### Analysis

For analysis of the survey results, data were transferred from Qualtrics (<https://www.qualtrics.com>) into IBM SPSS Statistics (Version 27). Inferential statistics were used to reach conclusions that extend beyond the immediate data alone. Researchers applied a mean score substitution for missing cases. The Bonferroni correction was completed to offset the familywise error due to multiple comparisons, resulting in an  $\alpha = .003$ . Specifically, for each research question researchers utilized the following tests:

Survey Question	Research Questions	Description	Analysis
CSSWQ: 1-16 HRQOL: 17-24	Well-being perceptions of each participant	Interval/Ratio	Descriptive Statistics
CSSWQ: 1-16 HRQOL: 17-24	Differing perceptions of well-being among college majors	Interval/Ratio	Analysis of variance (ANOVA)
CSSWQ: 1-16 HRQOL: 17-24	Differences in perceptions between juniors and seniors	Interval/Ratio	Independent t-test
CSSWQ: 1-16 HRQOL: 17-24	The difference in perceptions between genders identifications	Interval/Ratio	Independent t-test

## Chapter 4: Results

### Overview

This chapter presents the study's findings and statistical significance. The purpose of this study was to determine if selected college students have similar perceptions of their well-being or whether perceptions differ between college majors. College majors are then be broken down to gender and years in school differences.

### Research Question(s)

1. How do upperclassmen students at a midwestern university perceive their well-being?
2. How does the perceived well-being of upperclassmen students at a midwestern university differ between grade?
3. How does the perceived well-being of upperclassmen students at a midwestern university differ among gender categories?
4. How do perceptions of well-being differ among college majors at a midwestern university?

Analysis of the survey was conducted in two parts, the *College Student Subjective Well-being Questionnaire (CSSWQ)* labeled as AQ1 and the *Health-Related Quality of Life Scale (HRQOL)* labeled as BQ1/CQ1. The *CSSWQ* assessed students' perceptions of well-being about their school to determine academic satisfaction, efficacy, connectedness, gratitude, and overall well-being. The *HRQOL* scale assesses students' physical and mental health over the last 30 days.

## Demographics

The sample was composed of 281 respondents. Of the survey participants, 79(28.1%) identified as male and 199(70.8%) as female, and 134(47.7%) were juniors and 146(52.0%) seniors. A variety of majors were surveyed and 3 main categories were used in data analysis. The “other” category consisted of 82(29.2%) accounting, finance, aviation, business management, computer information technology, and marketing majors. The second category, “applied health sciences,” included 80(28.5%) health science, biology, dental hygiene, exercise science, health and physical education, sports management, and social work majors. The final category solely consisted of 94(33.5%) nursing students.

## Results

### 1. How do upperclassmen students at a midwestern university perceive their well-being?

Based on descriptive statistics researchers found regardless of gender, major, and year in school, self-perceptions were high in aspects of well-being ( $M= 92.52$ ,  $SD= 11.40$ ) and physical and mental health ( $M= 28.41$ ,  $SD= 7.75$ ). High scores were found among individual items. The *College Student Subjective Well-being Questionnaire* was designed to assess students’ attitudes and perceptions of the well-being of college students using four representative constructs: academic satisfaction, academic efficacy, school connectedness, and college gratitude. As noted in Table 2, for the Student Well-being Attitudes and Perceptions, a majority of participants rated themselves positively in aspects of gratitude. Students were thankful for getting an education 238(84.7%), the

opportunity to learn new things 230(81.8%), and for their professors and classmates 235(83.7%), as noted in percentages of agreeing and strongly agree. Respondents agreed and strongly agreed they were diligent 216(76.8%) and hardworking 229(81.5%) students.

The *Health-Related Quality of Life Scale* was created to examine how participants perceived their physical and mental health, positive or negative, and their sleep quality. In general, students rated their physical health good 104(37.0%) and their mental health fair 96(34.2%). One-third of students 96(34.2%) reported their reduced level of physical or mental health kept them from doing their usual activities 1-2 days a month, as indicated in Table 3: Student perceptions of their physical and mental health. Only 67(23.8%) students felt healthy and full of life 11+ days a month as indicated by scores in Table 4: Physical and mental health over the last 30 days. Feelings of quality of life were rated high confirmed by high mean scores in all areas averaging a score of 95.52 out of a total score of 112 points.

**Table 1***Descriptive Statistics*

<i>Assessment</i>	<i>N</i>	<i>Range</i>	<i>Minimum</i>	<i>Maximum</i>	<i>M</i>	<i>SD</i>
College Student Subjective Well-being*	281	93.00	19.00	112.00	92.52	11.40
College Student Subjective Well-being academic satisfaction*	281	24.00	4.00	28.00	22.81	3.48
College Student Subjective Well-being academic efficacy*	281	24.00	4.00	28.00	23.60	3.59
College Student Subjective Well-being academic connectedness*	281	21.00	7.00	28.00	21.33	3.94
College Student Subjective Well-being academic gratitude*	281	24.00	4.00	28.00	25.03	3.22
Health-Related Quality of Life**	278	35.00	9.00	44.00	28.41	7.75

\*\*Centers for Disease Control and Prevention, 2018a

\*Center for Open Science, n.d

**Table 2***Student Well-being Attitudes and Perceptions*

	Strongly Disagree <i>n</i> (%)	Disagree <i>n</i> (%)	Slightly Disagree <i>n</i> (%)	Neutral <i>n</i> (%)	Slightly Agree <i>n</i> (%)	Agree <i>n</i> (%)	Strongly Agree <i>n</i> (%)
I have had a great academic experience at this college.	2(0.7)	4(1.4)	10(3.6)	22(7.8)	71(25.3)	137 (48.8)	35 (12.5)
I am a hard worker in my classes.	2(0.7)	1(0.4)	2(0.7)	15(5.3)	32(11.4)	131 (46.6)	98(34.9)
I feel like a real part of this school.	3(1.1)	15(5.3)	24(8.5)	71(25.3)	74(26.3)	68 (24.2)	26(9.3)
I am so thankful that I'm getting a college education.	1(0.4)	1(0.4)	3(1.1)	12(4.3)	25(8.9)	79 (28.1)	159 (56.6)
I am happy with how I've done in my classes.	1(0.4)	6(2.1)	8(2.8)	18(6.4)	62(22.1)	121 (43.1)	65(23.1)
I am a diligent student.	1(0.4)	2(0.7)	6(2.1)	17(6.0)	39(13.9)	135 (48.0)	81(28.8)
People at this school are friendly to me.	2(0.7)	3(1.1)	7(2.5)	23(8.2)	52(18.5)	135 (48.0)	59(21.0)
I am grateful to the professors and other students who have helped me in class.	2(0.7)	3(1.1)	3(1.1)	12(4.3)	26(9.3)	112 (39.9)	123 (43.8)
I am satisfied with my academic achievements since coming to college.	2(0.7)	2(0.7)	5(1.8)	16(5.7)	51(18.1)	132 (47.0)	73(26.0)

	Strongly Disagree <i>n</i> (%)	Disagree <i>n</i> (%)	Slightly Disagree <i>n</i> (%)	Neutral <i>n</i> (%)	Slightly Agree <i>n</i> (%)	Agree <i>n</i> (%)	Strongly Agree <i>n</i> (%)
I am an organized and effective student.	2(0.7)	3(1.1)	6(2.1)	19(6.8)	59(21.0)	105 (37.4)	87(31.0)
I can really be myself at this school.	3(1.1)	6(2.1)	10(3.5)	47(16.7)	54(19.1)	110 (39.0)	52(18.4)
I feel thankful for the opportunity to learn so many new things.	2(0.7)	1(0.4)	2(0.7)	12(4.3)	34(12.1)	115 (40.9)	115 (40.9)
I am pleased with how my college education is going so far.	1(0.4)	3(1.1)	7(2.5)	20(7.1)	57(20.3)	128 (45.6)	65(23.1)
I study well for my classes.	2(0.7)	2(0.7)	12(4.3)	24(8.5)	73(26.0)	116 (41.3)	52(18.5)
Other students here like the way I am.	1(0.4)	3(1.1)	8(2.8)	62(22.1)	44(15.7)	123 (43.8)	40(14.2)
I am grateful for the people who have helped me succeed in college.	2(0.7)	1(0.4)	0(0)	5(1.8)	17(6.0)	98 (34.9)	158 (56.2)

\*Questions derived or adapted from Center for Open Science, n.d

\*\*Totals not equaling 100% indicate missing data

**Table 3***Student Perceptions of their Physical and Mental Health*

*Item	Poor	Fair	Good	Very good	Excellent
Would you say that in general your health is?	4(1.4)	39(13.9)	123(43.8)	79(28.1)	36(12.8)
How would you rate your physical health? Thinking about your physical health, which includes physical health and injury	9(3.2)	39(13.9)	85(30.2)	104(37.0)	44(15.7)
How would you rate your mental health, which includes stress, depression, and problems with emotions?	40(14.2)	96(34.2)	75(26.7)	40(14.2)	30(10.7)

\*Questions derived or adapted from Centers for Disease Control and Prevention, 2018a

\*\*Totals not equaling 100% indicate missing data

**Table 4***Physical and Mental Health Over the Last 30 days*

*Item	0 days	1-2 days	3-5 days	6-8 days	9-10 days	11+ days
During the past 30 days, for about how many days did poor physical or mental health keep you from doing your usual activities, such as self-care, work, or recreation?	71(25.3)	96(34.2)	53(18.9)	29(10.3)	13(4.6)	19(6.8)
**During the past 30 days, for about how many days have you felt SAD, BLUE, or DEPRESSED?	63(22.4)	79(28.1)	61(21.7)	30(10.7)	21(7.5)	26(9.3)
**During the past 30 days, for about how many days have you felt WORRIED, TENSE, or ANXIOUS?	21(7.5)	56(19.9)	53(18.9)	40(14.2)	46(16.4)	64(22.8)
**During the past 30 days, for about how many days have you felt you did NOT get ENOUGH REST or SLEEP?	25(8.9)	48(17.1)	58(20.6)	32(11.4)	38(13.5)	79(28.1)
During the past 30 days, for about how many days have you felt VERY HEALTHY AND FULL OF ENERGY?	23(8.2)	50(17.8)	50(17.8)	38(13.5)	53(18.9)	67(23.8)

\*Questions derived or adapted from Centers for Disease Control and Prevention, 2018a

\*\*Totals not equaling 100% indicate missing data

**2. How does the perceived well-being of upperclassmen students at a midwestern university differ between grade?**

Based on the independent t-tests there were no statistically significant differences between juniors and seniors on their perceptions of well-being, academic satisfaction, efficacy, connectedness, gratitude, and physical and mental health based on  $\alpha=.003$  (Table 5).

**Table 5**

*Independent t-test Results for Grade Level*

Assessment	Grade	<i>M(SD)</i>	<i>t</i>	<i>p</i>
College Student Subjective Well-being*	Junior	93.46(10.60)	1.184	.238
	Senior	91.84(12.02)		
College Student Subjective Well-being academic satisfaction*	Junior	23.01(3.40)	.732	.465
	Senior	22.70(3.52)		
College Student Subjective Well-being academic efficacy*	Junior	23.75(2.97)	1.641	.102
	Senior	23.06(4.02)		
College Student Subjective Well-being academic connectedness*	Junior	21.45(3.81)	.393	.695
	Senior	21.26(4.07)		
College Student Subjective Well-being academic gratitude*	Junior	25.25(3.25)	1.097	.274
	Senior	24.82(3.20)		
Health-Related Quality of Life**	Junior	28.17(7.21)	-.577	.565
	Senior	28.71(8.26)		

\*\*Centers for Disease Control and Prevention, 2018a

\*Center for Open Science, n.d

### 3. How does the perceived well-being of upperclassmen students at a midwestern university differ among gender categories?

Based on the independent t-tests, there was a significant statistical difference in academic efficacy between females and males ( $t(276)= 4.10, p < .003$ ), indicating females were more diligent and prepared students. No differences were found between genders in academic satisfaction, connectedness, or gratitude (Table 6). Based on the independent t-tests, there was a statistically significant difference in physical and mental health perceptions between males and females ( $t(273)= -5.11, p < .003$ ), indicating males have a better perception of their physical and mental health than females.

**Table 6**

*Results of Independent t-test for Gender*

Assessment	Gender	<i>M(SD)</i>	<i>t</i>	<i>p</i>
College Student Subjective Well-being total*	Females	93.64(12.80)	2.416	.016
	Males	90.01(12.44)		
College Student Subjective Well-being academic satisfaction*	Females	23.05(3.33)	1.922	.056
	Males	22.16(3.86)		
College Student Subjective Well-being academic efficacy*	Females	23.94(3.25)	4.100	<.001
	Males	22.09(3.75)		
College Student Subjective Well-being academic connectedness*	Females	21.26(4.03)	-.563	.574
	Males	21.56(3.73)		
College Student Subjective Well-being academic gratitude*	Females	25.38(3.10)	2.783	.006
	Males	24.03(3.41)		
Health-Related Quality of Life**	Females	27.03(7.48)	-5.106	<.001
	Males	32.06(6.98)		

\*\*Centers for Disease Control and Prevention, 2018a

\*Center for Open Science, n.d

#### 4. How do perceptions of well-being differ among college majors at a midwestern university?

The analysis of variance determined there were no significant statistical differences in academic satisfaction, efficacy, connectedness, and gratitude among majors (Table 7). Based on the analysis of variance, there was a statistically significant difference in physical and mental well-being perceptions between applied health sciences and other majors ( $f(2,250)= 458.67, p <.003$ ). The Tukey post-hoc analysis indicated other majors had a better perception of their physical and mental health than applied health sciences majors. No statistically significant differences were found between nursing and applied health sciences majors.

**Table 7**

Results of the analysis of variance for majors

Assessment	Major	<i>M(SD)</i>	<i>f</i>	<i>p</i>
College Student Subjective Well-being total*	Other	91.01(12.63)	2.044	.132
	Nursing	94.50(8.88)		
	Applied Health Sciences	92.64(10.30)		
College Student Subjective Well-being academic satisfaction*	Other	22.49(4.27)	1.085	.339
	Nursing	22.24(2.77)		
	Applied Health Sciences	23.05(3.36)		
College Student Subjective Well-being academic efficacy*	Other	22.48(4.26)	4.996	.007
	Nursing	24.11(2.86)		
	Applied Health Sciences	23.55(3.21)		

Assessment	Major	<i>M(SD)</i>	<i>f</i>	<i>p</i>
College Student Subjective Well-being academic connectedness*	Other	21.62(4.38)	1.135	.323
	Nursing	21.70(3.41)		
	Applied Health Sciences	20.86(4.12)		
College Student Subjective Well-being academic gratitude*	Other	24.43(4.11)	2.149	.119
	Nursing	25.43(2.48)		
	Applied Health Sciences	25.18(3.17)		
Health-Related Quality of Life**	Other	31.25(7.59)	8.274	<.001
	Nursing	27.88(7.07)		
	Applied Health Sciences	26.64(7.72)		

\*\*Centers for Disease Control and Prevention, 2018a

\*Center for Open Science, n.d

## Summary

This chapter summarized the statistically significant findings of the research. High points include differences in well-being between majors, academic efficacy between genders, and physical and mental health perception between genders. No differences were found in grade level in any areas assessed.

## Chapter 5: Conclusion

### Introduction

This section summarizes the well-being perceptions of college majors and discusses implications for health educators and future research.

### Discussion

Nearly half (44%) of respondents reported their physical health was good and one-third (34%) reported their mental health negatively. Using the *Health-Related Quality of Life (HRQOL) Scale*, students' average mean score was 28.41 out of 45 possible points. These results are similar to the findings of Arslan and Akkas (2014), who found a 44.8% quality of life rating in their college student quality of life study. On average, 34.4% of students report that poor physical and mental health keeps them from performing regular activities 1-2 days a month. Of the respondents, only 23% reported feeling healthy and full of life 11+ days of the month.

In the present study, researchers found well-being perceptions differed between gender and among majors. Men report better physical and mental health than females. National College Health Association (2019b) data support these claims as 54.5% of men reported their health very good compared to only 45.0% of females. This also reinforces previous data declaring females report higher rates of mental health disorders (Organization for Economic Cooperation and Development, 2013). Females are more prepared, diligent, and organized students than males. Previous research found women can handle academic rigor and earn higher grades than men (Ewert, 2016) and men are less academically engaged (Marrs & Sigler, 2012) which is consistent with the research

findings. College men devote less time and effort to studying and coursework which reinforces these results (Marrs & Sigler, 2012).

Applied health sciences majors report worse physical and mental well-being than other majors. Health and medical students adopt unhealthy lifestyle habits such as inadequate sleep patterns, irregular eating habits, and increased caffeine use (Aziz et al., 2020). This study's participants had similar patterns of distributed sleep quality with only 25(8.9) students claiming they get enough rest in a month. Research shows poor well-being perceptions harm the attitudes, personalities, learning abilities, and academic performance of the students, eventually resulting in poor career performance (Aziz et al., 2020). Other majors reported being less stressed, nervous, or restless than applied health sciences majors, as well as rating their general physical health better. However, had the Bonferroni correction not been applied when assessing well-being perceptions of majors, a difference would have been found between nursing and other majors; meaning something may be negatively impacting the physical and mental health perceptions of nursing majors. This negative impact could be due to medical and health education adversely influencing the quality of life of students (Aziz et al., 2020). Perceptions could be impacted by the stress of graduate school competitiveness, preparing for, and taking licensure exams or future job outlook expectations. Well-being perceptions did not differ between classes. One plausible explanation for this is that the sample size was not adequate to determine results. Another may be that juniors and seniors are in many of the same courses, so their perceptions are similar.

### **Implications for Health Educators**

From this study, it appears that other majors such as accounting, finance, aviation, business management, computer information technology, and marketing majors are overall doing better with their physical and mental health than applied health sciences and nursing majors. Therefore, variables associated with these majors should be examined to determine where issues lie. These could be due to student learning styles, intense coursework, student stress, or outside factors, like work and financial issues and the uncertainty with advanced programs and the requirements to enter. Uncertain or dissatisfied career choices impact a student's performance and well-being negatively (Jackson & Wilton, 2017). Choosing the proper major, being satisfied with their choice and the success of each student in their major should be a priority for advisors. It may be beneficial to explore whether students are unhappy in their current major and might consider changing if so. Those with poor well-being are at higher risk of poor coping styles, higher alcohol and drug usage, lower academic achievement, and overweight/obesity (Cushmen et al, 2021).

More resources and attention should be paid to males struggling with academic efficacy. Coutinho's (2008) study on college students found that a student's awareness of their own thought process and self-efficacy influenced their performances. Self-efficacy is the ability of an individual to believe they can accomplish goals or tasks (Cushmen et al., 2021). A student's academic performance provides the most reliable information about self-efficacy (Schunk & Mullens, 2012). Interpretations of successful performance raise self-efficacy, whereas failures lower self-efficacy. (Schunk & Mullens, 2012).

Ewert (2016) suggests accommodations for the priority population may be needed to improve academic performance, whether at the individual level or program level, in this study's case, men. Perhaps offering sessions to teach better organization, help monitor course tasks, and develop self-efficacy skills would be helpful for improving academic efficacy (Cushman et al., 2021). Increasing positive feedback and reinforcement from influential sources can also raise an individual's self-efficacy (Schunk & Pajares, 2009). Improving self-efficacy has been reported to improve life satisfaction and well-being. Therefore, improving one's ability to complete coursework and manage daily responsibilities could lead to higher academic efficacy and well-being (Cushmen et al., 2021). When academic engagement improves, subsequently the quality of students' perceptions of well-being improve (Marrs & Sigler, 2012).

Anxiety and stress also influence self-efficacy, and as we know mental illness rates are concerning in college students, specifically women (American College Health Association, 2019a). Women consistently report higher prevalence of mental health disorders, health educators should focus on improving perceptions of mental health since as they impact academic performance. Increasing knowledge and awareness of resources for mental health should be a priority of health educators for women struggling with mental health issues. Chan et al (2016) found women prefer face-to-face counselling sessions but are interested in web-based mental health support programs. Increasing awareness of free or low cost online mental health resources is beneficial to students (Chan et al., 2016). A virtual, confidential, and professional mental health support tool is appealing to women in college (Chan et al., 2016)

### **Implications for Future Research**

Although this study focused on students within a certain major at the junior and senior level, future research should widen the sample pool to freshmen and sophomores as well. This change may provide a broader perspective on students' self-perception of well-being at a given institution, as well as how choosing a major impacts their well-being. Cushmen et al., (2021) assessed the well-being of students during their first-year and followed up their second-/third-year. They found first-year well-being perceptions were a significant predictor of self-efficacy and mental well-being in their second-/third-year (Cushmen et al., 2021). When determining whether picking, changing, or sustaining major impacts well-being perceptions, following up with students could provide insights on if major uncertainty had an effect on their well-being. A larger sample size with more majors should be used to gain a better understanding of each major individually rather than grouping majors together in categories. Future samples should also have a more equal male to female ratio to better more equally represent gender categories.

When surveying, asking what drove an individual to that major (i.e., family history, environmental impacts etc.) may offer insight to what motivates that student. In addition, asking why an individual chose the answer they did, would help explore where the gap in individual perceptions lies. Researchers could assess the pedagogy of professors in each major to determine if students are effectively engaged and obtaining information. Adaptations to lesson plans or potential resources could then be made for struggling students.

## Summary

This is one of the few studies to examine the well-being and physical and mental health of college majors. In this study, researchers investigated the well-being perceptions among a variety of majors, by class, and gender using the CDC's (2018b) *Health-Related Quality of Life Scale* and the Open Science Network's (n.d) *College Student Subjective Well-being Questionnaire*. Results were split by academic well-being and physical and mental health perceptions. A comprehensive understanding of students' well-being and identifying where gaps exist helps address concerns of students, educators, and administration success. Researchers determined that physical and mental health perceptions differ between applied health sciences and other majors. This study also demonstrated that academic efficacy differs by gender, females are more prepared, diligent, and organized students than men in this student population sample. Individually based or program level accommodations may be needed to improve the efficacy of the priority population. No differences were found in well-being perceptions or physical and mental health reporting by grade level. Again, more research should be done to assess why grade level did not impact perceptions.

## References

- Admi, H., Moshe-Eilon, Y., Sharaon, D., & Mann, M. (2018). Nursing students' stress and satisfaction in clinical practice along different stages: A cross-sectional study. *Nurse Education Today*, 68, 86-92. <https://doi.org/10.1016/j.nedt.2018.05.027>
- American College Health Association. (2019a). *National College Health Assessment*. [https://www.acha.org/documents/ncha/NCHAII\\_SPRING\\_2019\\_US\\_REFERENCE\\_GROUP\\_EXECUTIVE\\_SUMMARY.pdf](https://www.acha.org/documents/ncha/NCHAII_SPRING_2019_US_REFERENCE_GROUP_EXECUTIVE_SUMMARY.pdf)
- American College Health Association. (2019b). *Minnesota State University Mankato executive summary*. <https://www.mnsu.edu/globalassets/student-health-services/ncha-executive-summaries/ncha-ii-spring-2019-minnesota-state-university-mankato-executive-summary.pdf>
- American Psychological Association. (2018). *One in three college freshmen worldwide reports mental health disorders*. <https://www.apa.org/news/press/releases/2018/09/freshmen-mental-health>
- Arslan, S. & Akkas, O. (2014). Quality of college life (QCL) of students in Turkey: Students' life satisfaction and identification. *Social Indicators Research*, 115(2), 869-884. <https://doi:10.1007/s11205-013-0235-9>
- Aziz, Y., Khan, A., Shahid, I., Khan, M., & Aisha, M. (2020). Quality of life of students of a private medical college. *Pakistan Journal of Medical Sciences*, 36(2), 255-259. <https://doi.org/10.1007/s11205-013-0235-9>

- Bedewy, D., & Gabriel, A. (2015). Examining perceptions of academic stress and its sources among university students: The perception of academic stress scale. *Health Psychology Open*, 2(2), 1-9. <https://doi.org/10.1177/2055102915596714>
- Bamber, M., & Schneider, J. (2020). College students' perceptions of mindfulness-based interventions: A narrative review of qualitative research. *Current Psychology*, 41, 667-680 <https://doi.org/10.1007/s12144-019-00592-4>
- Centers for Disease Control and Prevention. (2018a). *CDC HRQOL 14: Healthy days measure*. [https://www.cdc.gov/hrqol/hrqol14\\_measure.htm#1](https://www.cdc.gov/hrqol/hrqol14_measure.htm#1)
- Centers for Disease Control and Prevention. (2018b). *Health-related quality of life: Well-being concepts*. <https://www.cdc.gov/hrqol/wellbeing.htm>
- Center for Open Science. (n.d). *College Student Subjective Well-being Questionnaire*. <https://osf.io/mjrkp/wiki/home>
- Chan, J., Farrer, L., Gulliver, A., Bennet, K., & Griffiths, K. (2016). University students' views on perceived benefits and drawbacks of seeking help for mental health problems on the internet: A qualitative study. *JMIR Publications*, 13(1), 3, <https://doi.org/10.2196/humanfactors.4765>
- Coutinho, S. (2008). Self-efficacy, metacognition, and performance. *North American Journal of Psychology*, 10(1), 165–172. <https://www.proquest.com/scholarly-journals/self-efficacy-metacognition-performance/docview/1829006376/se-2?accountid=12259>
- Cushman, G., West, K., Davis, M., LaMotte, J., Eaton, C., & Gutierrez-Colina, A. (2021). The role of executive functioning, healthcare management, and self-efficacy in college

- students' health-related quality of life. *Journal of American College Health*.  
<http://doi.org/10.1080/07448481.2020.1862128>
- Elias, D. & Berg-Cross, L. (2009). An exploration of motivations of fine art students in relation to mental and physical well-being. *Journal of College Student Psychotherapy*, 23(4), 228-238. <https://doi.org/10.1080/87568220903163850>
- Ewert, S. (2016). Fewer diplomas for men: The influence of college experience on the gender gap in college graduation. *The Journal of Higher Education*, 83(6), 824-850.  
<https://doi.org/10.1080/00221546.2012.11777271>
- Friis, R. H., & Sellers, T. (2020). *Epidemiology for Public Health Practice* (6th Edition). Jones & Bartlett Learning. <https://reader.yuzu.com/books/9781284221718>
- Jackson, D. & Wilton, N. (2017). Career choice status among undergraduates and the influence of career management competencies and perceived employability. *Journal of Education and Work*, 30(5), 552-569. <https://doi.org/10.1080/13639080.2016.1255314>
- Jenkins, S., Johnson, I., & Ginley, J. (2010). Work, stress and play: Students' perceptions of factors impacting on their studies and well-being. *European Journal of Dental Education*, 23(3), 349-354. <https://doi.org/10.1111/eje.12436>
- Krejcie, R., & Morgan, D. (1970). Determining sample size for research activities. *Educational and Psychology Measurement*, 607-610. <https://doi.org/10.1177/001316447003000308>
- Lavrakas, P. (Ed.). Convenience Sampling. In *Encyclopedia of Survey Research Methods*. Retrieved May 6, 2022, from <https://dx.doi.org/10.4135/9781412963947.n105>
- Linsey, B., Saunder, C., & Ochs, L. (2008). Gender similarities and differences in college students' health interests. *American Journal of Health Studies*, 23(1), 27-34. <https://web->

b-ebshost-com.ezproxy.mnsu.edu/ehost/pdfviewer/pdfviewer?vid=3&sid=0515f9ea-ae71-4d59-866c-d25737239d1f%40pdc-v-sessmgr05

Minnesota State University Mankato. (n.d). *Undergraduate graduation and transfer-out rate*.

<https://www.mnsu.edu/about-the-university/student-success-analytics-and-integrated-planning/institutional-analytics-and-strategic-effectiveness/student-right-to-know-and-achievement-information/undergraduate/>

Marrs, H., & Sigler, E. (2012). Male academic performance in college: The possible role of study strategies. *Psychology of Men & Masculinities*, 13(2), 227-241.

<https://doi.org/10.1037/a0022247>

Monahan, C., Bracken-Minor, K., McCausland, C., McDevitt-Murphy, M., & Murphy, J. (2012).

Health-related quality of life among heavy-drinking college students. *American Journal for Health Behavior*, 36(3), 289-299. <http://doi.org.10.5993/AJHB.36.3.1>

Muhammad, S., Maimunah, S., & Sipan, I. (2013). Academic buildings and their influence of students' well-being in higher education institutions. *Social Indicators Research*, 115,

1159-1178. <https://doi.org.10.1007/s11205-013-0262-6>

Organization for Economic Cooperation and Development. (2013). How's Life? 2013:

Measuring Well-being. *OECD Publishing*. <http://dx.doi.org/10.1787/9789264201392-en>

Renshaw, T., & Bolognino, S. (2016). The College Student Subjective Well-being

Questionnaire: A brief, multidimensional measure of undergraduate's covitality. *Journal of Happiness Studies*. 17, 463–484. <https://doi.org/10.1007/s10902-014-9606-4>

- Ryff, C. (1989). Happiness is everything, or is it? Explorations on the meaning of psychological well-being. *Journal of Personality and Social Psychology*, 57(6), 1069- 1081.  
<https://doi.org/10.1037/0022-3514.57.6.1069>
- Ryan, R., & Deci, E. (2001). On happiness and human potentials: A review of research on hedonic and eudemonic well-being. *Annual Review of Psychology*, 52(1), 141-166.  
<https://psycnet.apa.org/doi/10.1146/annurev.psych.52.1.141>
- Rstyslaw, R. Chiffrieller, S. & Zappone, M. (2007). College students' motivation for money and subjective well-being. *Psychological Report*, 100, 147-156.  
<https://doi.org/10.2466/pr0.100.1.147-156>
- Schunk, D. H., & Pajares, F. (2009). Self-efficacy theory. In *Handbook of Research on Student Engagement* (pp. 35–53). New York: Routledge.
- Schunk, & Mullen, C. A. (2012). Self-Efficacy as an Engaged Learner. In *Handbook of Research on Student Engagement* (pp. 219–235). Springer US. [https://doi.org/10.1007/978-1-4614-2018-7\\_10](https://doi.org/10.1007/978-1-4614-2018-7_10)
- U.S. Department of Health and Human Services. (n.d.) *Module 2: Research Design- Section 1*.  
<https://ori.hhs.gov/module-2-research-design-section-1>
- World Health Organization. (2020). *Health statistics and information systems: WHOQOL: Measuring quality of life*. <https://www.who.int/healthinfo/survey/whoqol-qualityoflife/en/>
- Zullig, K. (2005). Using the CDC's health-related quality of life scale on a college campus. *American Journal of Health Behavior*, 29(6), 569-579.  
<https://doi.org/10.5993/AJHB.29.6.11>

## Appendix A



January 18, 2022

Re: IRB Proposal [1834997-3] Perceptions of Wellbeing among College Majors Review Level: Exempt (Level I)

Congratulations! Your Institutional Review Board (IRB) Proposal has been approved as of January 18, 2022.

Please remember that research involving human subjects under the purview of the IRB should adhere to the most current COVID-19 guidelines available, as set by [MSU, Mankato](#) and the Minnesota Department of Health.

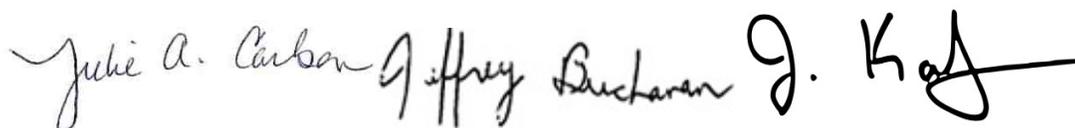
On behalf of the Minnesota State University, Mankato IRB, we wish you success with your study. Please remember that you must seek approval for any changes in your study, its design, funding source, consent process, or any part of the study that may affect participants in the study (<https://research.mnsu.edu/institutional-review-board/proposals/process/proposal-revision/>).

Should any of the participants in your study suffer a research-related injury or other harmful outcomes, you are required to report them immediately to the Associate Vice-President for Research and Dean of Extended Campus at 507-389-1242.

When you complete your data collection or should you discontinue your study, you must submit a Closure request. All documents related to this research must be stored for a minimum of three years following the date on your Closure request (<https://research.mnsu.edu/institutional-review-board/proposals/process/proposal-closure/>).

If the PI leaves the university before the end of the 3-year timeline, he/she is responsible for ensuring proper storage of consent forms (<https://research.mnsu.edu/institutional-review-board/proposals/process/leaving-campus/>). Please include your IRBNet ID number with any correspondence with the IRB.

Be well,

Handwritten signatures of Julie A. Carlson, Jeffrey Buchanan, and Jason A. Kaufman.

Julie Carlson, Ed.D.,  
Chair of IRB

Jeffrey Buchanan, Ph.D.,  
Co-Chair of IRB

Jason A. Kaufman, Ph.D., Ed.D., Co-  
Director of IRB