

Role of Higher Education Post Pandemic: Helping Students Develop Self-Management Skills

Report Presented by Levelhead-Ed

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March 2021

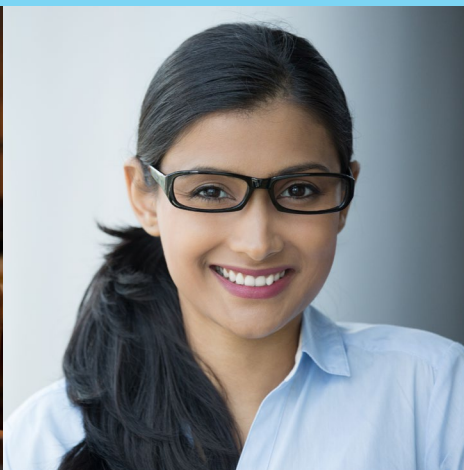


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EXECUTIVE SUMMARY

In partnership with the Pruitt Center for Mindfulness and Well-Being at the University of Wisconsin – Superior, Levelhead participated in a case study for select classes in Spring and Fall 2020. The purpose of this study was to assess the acceptability of the “Learning to Thrive” content, delivered on the Levelhead digital engagement platform, as a classroom tool for:

- Decreasing stress
- Increasing student engagement
- Improving focus and attention

Before the pandemic, college students worldwide experienced increasing levels of anxiety, depressive moods, lack of self-esteem, psychosomatic issues, substance abuse, and suicidality (Aristovnik et al., 2020). These issues were magnified in Spring 2020 when college students’ environment changed rapidly, leading to increased isolation from their established social and academic communities. It is critical to keep in mind that these conditions continued throughout both semester data collection periods.

Key Findings from the Fall 2020 Case Study



- **Perceived stress (PSS-14) remained flat from the beginning to the end of the semester.** Research from before the pandemic suggests that stress tends to rise over the semester (Charles et al., 2021; Huckins, 2020). Based on these findings, holding scores flat may indicate that students learned skills necessary for managing stress.
- **Pre and post measures of focus and attention (FFMQ) showed a statistically significant improvement.** The link between improved FFMQ scores and a reduction in stress and anxiety has been well established. This improvement from pre to post supports the conclusion that students may have learned skills to manage their stress.
- **Pre- and post-assessment scores on the Self-Compassion Scale indicated a statistically significant improvement.** These findings further support the conclusion that students may have acquired the skills to cope with adverse events as evidenced by the following.
 - A higher percentage of students in the Fall 2020 cohort as compared to Spring 2020 indicated that they plan to continue to apply what they learned from the Levelhead-Ed program. **(75% vs. 68.0%)**
 - More students in Fall 2020 agreed or strongly agreed that the topics were easily adapted to real-world situations as compared to Spring 2020. **(78% vs. 66.4%)**
 - **Eighty-four percent** of students indicated that they would like to see more course-integrated content that will support the development of skills to live a healthier and happier life.

INTRODUCTION

The COVID-19 pandemic has impacted our lives in countless ways. It has affected our physical health or the health of our loved ones. It has brought about significant social and financial challenges.

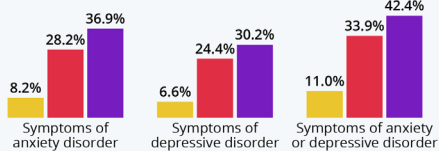
However, we are just beginning to understand the effects on our mental health. These psychological symptoms may include anxiety, depression, panic attacks, cloudy thinking, memory loss, and lack of motivation (Lima et al., 2020).



Pandemic Causes Spike in Anxiety & Depression

% of U.S. adults showing symptoms of anxiety and/or depressive disorder*

■ January-June 2019 ■ May 14-19, 2020 ■ December 9-21, 2020



* Based on self-reported frequency of anxiety and depression symptoms. They are derived from responses to the first two questions of the eight-item Patient Health Questionnaire (PHQ-2) and the seven-item Generalized Anxiety Disorder (GAD-2) scale.

Sources: CDC, NCHS, U.S. Census Bureau



statista

The U.S. Centers for Disease Control and Prevention (CDC) estimated that as of June 2020 nearly one-third of US adults were suffering from anxiety or depression (Czeisler et al., 2020). This is a sharp increase over the results of a comparable survey conducted in the first half of 2019. Another study completed in early April 2020 by the University of Connecticut found that the most common stressors were (Park et al., 2020):

- Reading/hearing about the severity and contagiousness of COVID-19 (96.6%)
- Uncertainty about the length of quarantine and social distancing requirements (88.3%)
- Disruptions to social life (83.7%)
- Changes to daily personal care (80.1%)

While the pandemic has had impacts across populations and demographics, understanding the unique combination of psychological impacts on subpopulations is critical in developing targeted interventions.



COLLEGE STUDENTS AT PARTICULAR RISK

College students are one such subpopulation that seems to be particularly at risk of more significant disruption to their living situation, work, and education, than other groups (Charles et al., 2020). This subpopulation represents almost 20 million students enrolled in institutions of higher education annually (National Center for Educational Statistics, 2019). And represents about 40% of the U.S. population aged 18 to 24 (Institute of Education Sciences, 2020).

PANDEMIC'S IMPACT ON HIGHER EDUCATION STUDENTS

Before the pandemic, college students worldwide experienced increasing levels of anxiety, depressive moods, lack of self-esteem, psychosomatic issues, substance abuse, and suicidality (Aristovnik et al., 2020). These issues were magnified in Spring 2020 when college students' environment changed rapidly, leading to increased isolation from their established social and academic communities. Research examining the impact of academic disruptions on students concluded that students experienced reduced motivation toward studies, increased pressures to learn independently, abandonment of daily routines, and potentially higher dropout rates as direct consequences of these measures (Grubic et al., 2020).

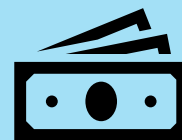
Historically, college students have been overlooked as a priority population for health. Misconceptions that they are a privileged, resourced, and healthy group versus a sizeable population with distinct health needs, is the likely reason for this lack of prioritization (Higher Learning Advocates, 2018). Students' mental health is of particular concern since college students suffer from high and increasing mental health conditions, especially depression and anxiety (Lipson et al., 2019). **In 2017, 36% of college students reported having a lifetime mental health diagnosis compared to 22% in 2007 (Lipson et al., 2019).**

It is also important to note that the college population has become increasingly diverse, with growing numbers of "nontraditional" students. These students are older in age and typically have work, familial, and other responsibilities that pose added challenges to their academic

success (Hittepole, n.d.). For example, 40% of students are now over age 25; 44% are students of color; and 34% are first-generation students (Bill and Melinda Gates Foundation, 2020; Higher Learning Advocates, 2018).

Concurrent with their schoolwork, many students now have expanded caregiving roles, such as taking care of children or siblings due to school closures, elder care responsibilities, or tending to sick family members. Other students may have also had to deal with the loss of loved ones.

Financial Security



For students, all domains of their lives were affected, including their financial security (Cohen et al., 2020). As unemployment skyrocketed nationwide, college students were affected significantly. For example, most of those employed in February 2020 were no longer employed in April 2020. Furthermore, almost half were earning less (Cohn et al., 2020).

According to a survey by the loan management website Student Loan Hero (Student Loan Hero, 2020), **4 out of 5 college students face financial difficulties due to the pandemic.**

Further, most college students were not eligible for financial relief under the Coronavirus Aid, Relief, and Economic Security (CARES) Act (Kantrowitz, 2020). Students who are dependent on jobs to support themselves and/or families may be particularly vulnerable to depression and worry due to economic hardship.

PANDEMIC'S IMPACT ON HIGHER EDUCATION STUDENTS

Food Insecurity



Studies consistently show that college students have higher rates of food insecurity than non-student US households (Moore et al., 2020; Nikolaus et al., 2020). Food-insecure college students are more likely to be younger (Moore et al., 2020), Black or Hispanic (Freudenberg et al., 2013), low-income (Freudenberg et al., 2013), employed, receiving financial aid (Adamovic et al., 2020), and housing insecure (Payne-Sturges et al., 2018).

Several unique features placed college students at an elevated risk for food insecurity during the COVID-19 crisis (relative to the US population). For example, many college students work part-time or full-time in the service industry (restaurants, bars, and healthcare), one of the hardest-hit economic sectors of the US economy during the COVID-19 crisis.

One study found that 53.5% of college students reported that their employment was directly impacted by the COVID-19 pandemic. These students had 3.22 to 5.73 greater odds of being food insecure than students whose income was not elicited by the pandemic (Owens et al., 2020).

Furthermore, this same study found that **1 in 3 college students experienced food insecurity in the last 30 days** (Owens et al., 2020).

Motivation

Research examining the impact of academic disruptions on students concluded that **students experienced reduced motivation toward studies** (Grubic et al., 2020). This lack of motivation was likely due to increased pressures to learn independently and abandoned daily routines (Grubic et al., 2020).

Several factors may lead to a drop in academic motivation of university students after stay-at-home orders. Most notably, the decrease in social interaction may lead students to rely on social relationships to motivate them after stay-at-home orders. This lower motivation may translate into fewer hours spent studying and lower academic results.

A study of college student motivation indicated that (Meeter et al., 2020):

- Procrastination may impact effort more strongly after stay-at-home orders than before.
- University students appreciated online education less than a traditional college education, translating into less motivation and spending fewer hours on their studies.
- Despite less optimal facilities for online education, academic results did not suffer. As a matter of fact, they were even somewhat better than they would otherwise have been.

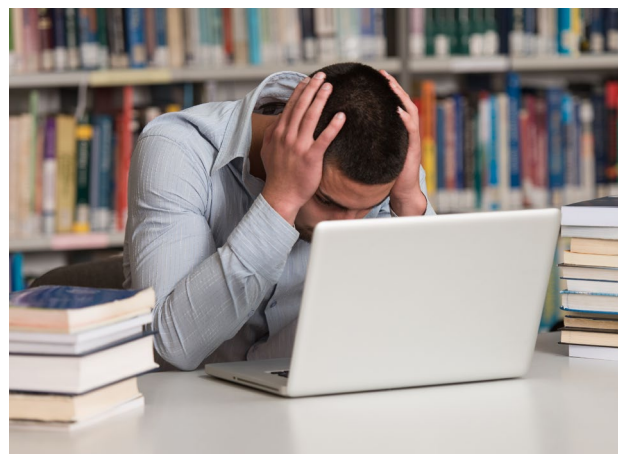


PANDEMIC'S IMPACT ON HIGHER EDUCATION STUDENTS

Psychological Impact on Students

Before the pandemic, **almost a quarter of college students had been diagnosed or treated for anxiety or depression in the previous 12 months** (ACHA, 2019b). Add to that, the traditional college years coincide with the age of onset for several lifetime mental illnesses (McGorry et al., 2011). Suicide is the second leading cause of death within the traditional collegiate population (Turner et al., 2013).

Furthermore, the demand for mental health services exceeds the resources available on most campuses (LeViness et al., 2019). **This has led the public and scholars alike to declare a mental health crisis on college campuses** (Schwartz & Kay, 2009). It is critical to note that mental health problems have negatively impacted students' academic success (Eisenberg et al., 2009).



A study of U. S. college students completed during the initial weeks of the COVID-19 pandemic reported higher levels of mood disorder symptoms, perceived stress, and alcohol misuse than those who completed the study before the pandemic (Charles et al., 2020). Students reported increased stress levels and anxiety as well as depressive symptoms due to changed delivery and uncertainty of university education, technological concerns of online courses, being far from home, social isolation, decreased family income, and future employment. These impacts have been observed in universities across the world (Aristovnik et al., 2020).

Cross-sectional data were collected from 2,534 students at seven U. S. universities. The findings indicated the most commonly reported changes were (Browning et al., 2020):

- Lack of motivation
- Increased levels of stress and anxiety
- Feelings of isolation and loneliness

Inadequate efforts to recognize and address college students' mental health challenges, especially during a pandemic, could have long-term consequences on their health and education (Browning et al., 2021).



Young Minds reported that **83% of young respondents agreed that the pandemic worsened pre-existing mental health conditions**, mainly due to school closures, loss of routine, and restricted social connections (Young Minds, 2020). The same survey indicated that 55% of college students surveyed would not know how to access mental health services from a professional when experiencing a crisis (Active Minds, 2020).

PANDEMIC'S IMPACT ON HIGHER EDUCATION STUDENTS

Psychological Impact on Students (continued)

In a large-scale study of over 2,000 graduate and undergraduate students completed in Spring 2020 (Wang et al., 2020), there were several crucial findings described in the following charts.

Figure 1. Academic-Related Concerns.

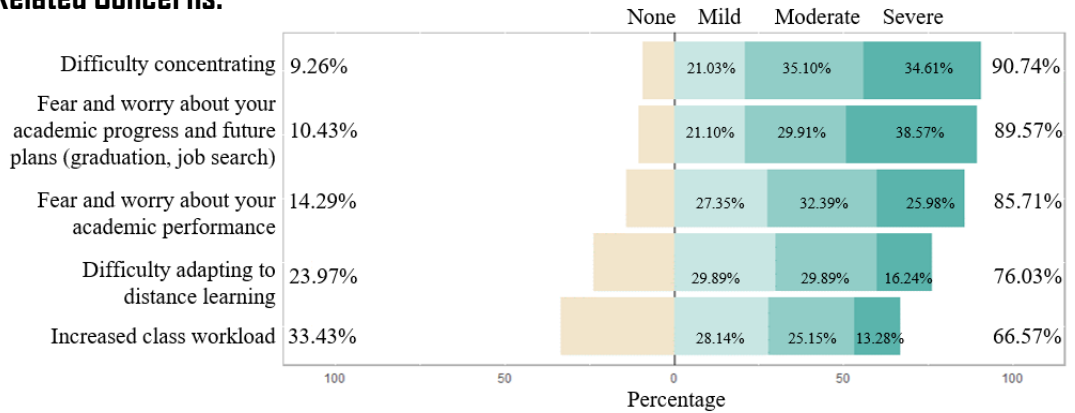


Figure 2. Health-Related Concerns.

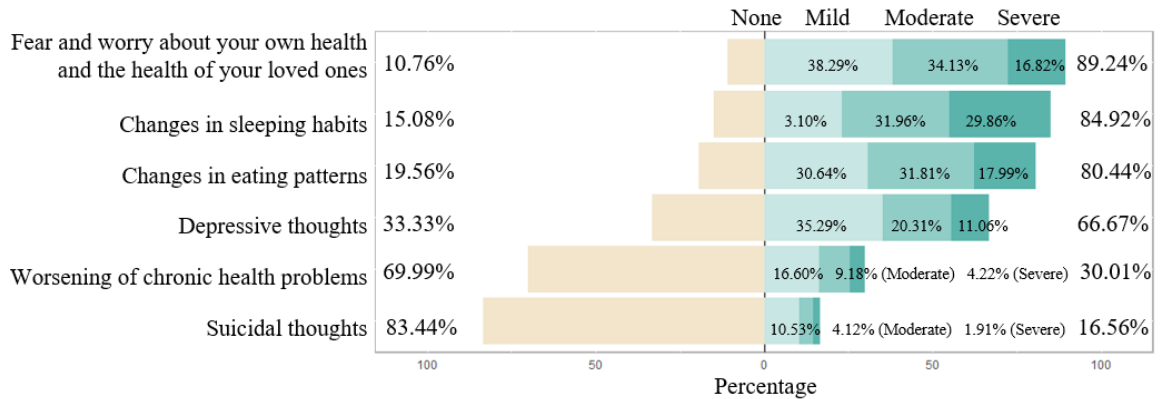
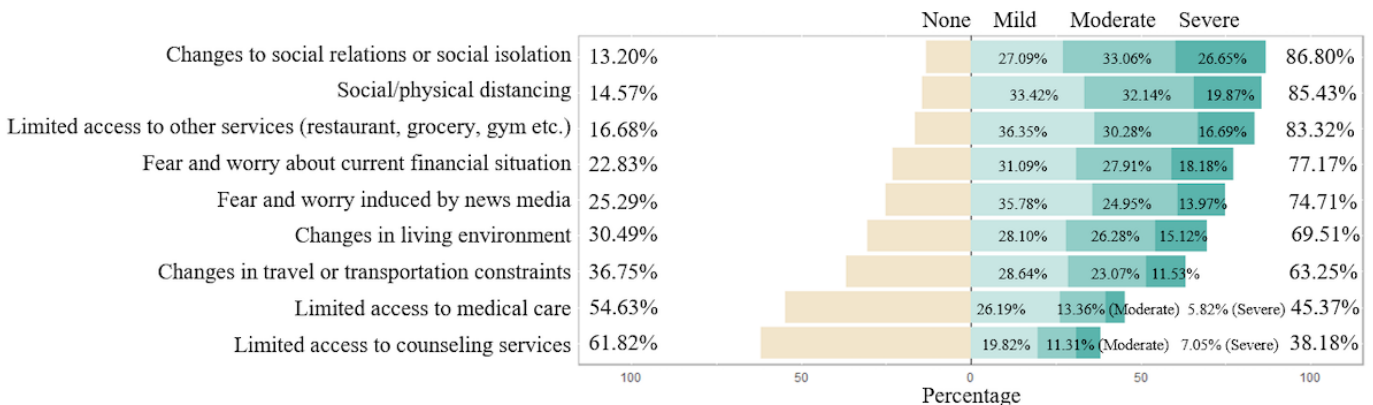


Figure 3. Lifestyle-Related Concerns.



PANDEMIC'S IMPACT ON HIGHER EDUCATION STUDENTS

Summary of Wang's et al. (2020) Findings

- **71.26% indicated that their stress/anxiety levels had increased** during the pandemic.
- **43.25% indicated that they were able to cope adequately** with the stress related to the current situation.
- **1 in 5 respondents (20%) reported having suicidal thoughts.** In comparison, previous research has said about 3% to 7% of the college student population had suicidal thoughts outside of a pandemic situation (Zivin et al., 2009).
- A **majority reported difficulty concentrating, fear, worry about academic progress**, and adjustment to distance learning as dominant academic concerns.
- **Over 80%** of respondents reported **changes in eating and sleeping habits.**
- Physical distancing and changes in social relations were widely reported, similar to the general population (Neilson et al., 2020).
- **75% expressed fear and worry** prompted by news outlets.

LEVELHEAD PARTNERSHIP WITH THE PRUITT CENTER FOR MINDFULNESS AND WELL-BEING AT THE UNIVERSITY OF WISCONSIN - SUPERIOR

About the Pruitt Center for Mindfulness and Well-Being

The mission of the Pruitt Center for Mindfulness and Well-Being at the University of Wisconsin-Superior is to promote and enhance the science and practice of mindfulness and well-being for students, faculty, staff, and surrounding communities.

Their vision is to become nationally recognized for integrating and advancing mindfulness and well-being in higher education. The Pruitt Center team believes that regardless of discipline or position, we all have the opportunity to be teachers and learners of well-being. UW-Superior's commitment to well-being encourages all members of their campus and the local community to:

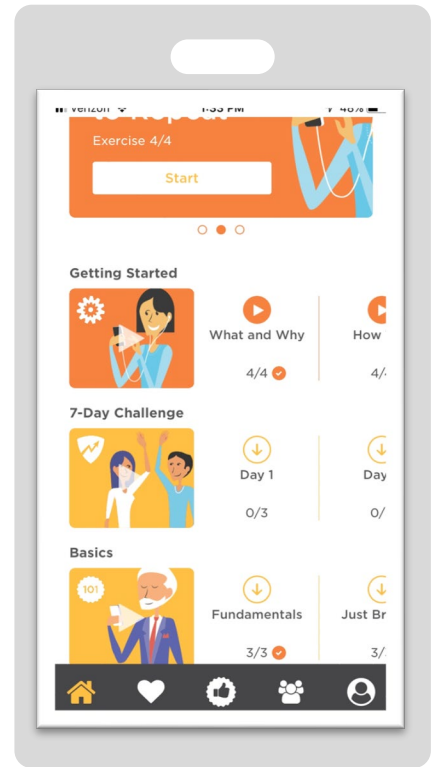
- Learn what it means to be mindful
- Improve relationships
- Manage stress and adversity
- Develop a range of interests and strengths
- Establish a sense of meaning and purpose in their lives and careers



ABOUT LEVELHEAD

Levelhead is a digital engagement program designed to improve overall well-being and employee engagement in the workplace. Its unique combination of bite-sized, mindfulness-based practices can be done anytime, anywhere. Utilizing the latest digital engagement tools such as badges, stickers, a leaderboard, and teams within an organization, employee engagement is promoted and encouraged. Additional features of the program include leadership modules and development, robust measurement tools, and ongoing education via blogs and mini-podcasts.

Since 2017, Levelhead has offered mindfulness-based micro-lessons in the workplace to a wide variety of industries, including technology, health care, energy, financial services, and many others. With each engagement with an organization, Levelhead also offers a pre- and post-assessment of its program. Since its inception, the Levelhead program has been consistently shown to reduce stress and improve focus and attention. Learn more at www.getlevelhead.com.



ABOUT LEVELHEAD-ED

In Fall 2018, the Levelhead team began to explore if the workplace program might be a solution to the increasing need to support students in higher education. The goal was to determine the efficacy of the program for students during their education experience and beyond.

Working with a network of professors, the Levelhead team undertook an initiative to assess the applicability of the Levelhead program for use in higher education classrooms. Based on professors' feedback and planning, the first case study was initiated in Spring 2019 with three subsequent studies in Fall 2019, Spring 2020, and Fall 2020. Learn more at www.getlevelheaded.com.



CASE STUDIES AT UNIVERSITY OF WISCONSIN - SUPERIOR

During Spring 2020 and Fall 2020, the Pruitt Center for Mindfulness and Well-Being at the University of Wisconsin - Superior and Levelhead participated in a case study of selected classes. Spring 2020 included 13 courses (152 participants) and Fall 2020 had 5 classes (76 participants). The purpose of this study was to assess the acceptability of the Learning to Thrive content delivered on the Levelhead digital engagement platform as a classroom tool for:

- Improving stress
- Increasing student engagement
- Improving focus and attention

None of the instructors were compensated for their time or participation in the study. Furthermore, for Spring 2020, the program was provided to the students during the class at no charge and they were given access to the program for one year. In Fall 2020, the program was offered to students for \$7.50 which is a substantial reduction from regular pricing for university and colleges. Two classes received a private donation to fund the program for students.

In Spring 2020, there were 79 useable responses (52.6% response rate). In Fall 2020, there were 34 useable responses (38.2% response rate).

Methodology

- An online anonymous assessment was used at the beginning of the semester (pre) and at the end of the semester (post) to measure and compare any changes over time.
- Instructors were provided with a link to send to their students so they could complete the pre- and post-assessments.
- Estimated time to complete both the pre- and post-assessment was 6-7 minutes.
- Completion of the assessment was voluntary.
- Students were given time to complete during class.
- To maintain anonymity, students were asked to create a code that would protect their identity from both Levelhead and the instructor.
- Instructors were provided regular reports on student response rates.



CASE STUDIES AT UNIVERSITY OF WISCONSIN - SUPERIOR

COVID-19 Impact

The value of the pre-assessment data is largely related to the ability to compare pre- to post-assessments. For Spring 2020 results, the decision was made to not use post assessments due to confounding variables associated with the pandemic, such as the student transition to online classes.

Instead of the post-survey of standard, validated instruments for Spring 2020, the decision was made to collect data on the Levelhead-Ed experience. However, in Fall 2020 pre and post surveys included questions on the Levelhead experience as well as the pre/post questionnaires measuring stress, focus and attention, and self-compassion.

Feedback on Levelhead-Ed Structure & Experience

This section of the survey was designed to gain feedback on integrating the program into class content and grading structure. The following chart compares the responses from Fall 2020 to Spring 2020. The purpose of these questions was to understand the use of the Levelhead app and what they learned during the semester. The most notable changes from Spring to Fall 2020 are noted in green (Fall 2020 higher than Spring 2020) and yellow (Fall 2020 lower than Spring 2020).

Questions Related to Structure of Program & Plans for Future Use		Fall 2020 % Agree or Strongly Agree	Spring 2020 % Agree or Strongly Agree
1	The content of the Levelhead-Ed program was relevant to my course work and my professional/career goals.	53.0	64.0
2	I will continue to apply what I learned from the Levelhead-Ed program beyond this class.	75.0	68.2
3	The Levelhead-Ed exercises were about the right length to accommodate my busy life.	66.0	58.4
4	The grading/participation credit I received related to Levelhead-Ed requirements was appropriate.	82.0	65.9
5	The topics covered in Levelhead-Ed were easily adapted to real situations I am facing in my life.	78.0	66.4
6	Once I have practiced an exercise, I can do the exercise without having to listen to the app.	50.0	49.0
7	My instructor provided the right level of reinforcement of the topics in Levelhead-Ed.	63.0	67.3
8	I am glad Levelhead-Ed was part of my course requirements because otherwise I would not have done something like this on my own.	44.0	64.0
9	My opinion of the university and my instructor was favorably impacted by offering the Levelhead-Ed experience.	51.0	59.8
10	The information I received in pop-up/push notifications on my device was helpful.	33.0	43.9
11	It made me feel good to receive or send a sticker.	22.0	40.0
12	I found that the journaling sticker was helpful in putting my thoughts, feelings, and experiences into words.	n/a	17
13	Overall, I found the Levelhead-Ed experience useful and a good addition to my course work.	50.0	55.0



CASE STUDIES AT UNIVERSITY OF WISCONSIN - SUPERIOR

Feedback on Levelhead-Ed Structure & Experience (continued)

Yes/No Feedback Questions	Fall 2020 Yes/No %	Spring 2020 Yes/No %
I have shared one or more of the exercises with friends or family members.	44/56	54/39
During the program I either received or sent a sticker.	22/88	62/31
My instructor asked us to utilize the Journaling sticker to send feedback to him or her.	n/a	38/55
Would you like to see more courses integrate content that will support the development of skills to help you live healthier and happier lives?	84/16	70/22

Fall 2020 Assessment Results

The case study in Fall 2020 used three standard, validated instruments to assess the effectiveness of the Levelhead program. The three instruments are described in the following sections. The results only reflect matched pairs of pre- and post-assessments. Matched pairs mean that only data from individuals who completed both a pre-and post-assessment were used in the results.

Perceived Stress Scale (PSS-14)

The Perceived Stress Scale (PSS) is the most widely used psychological instrument for measuring the perception of stress. It is a measure of the degree to which situations in one's life are appraised as stressful. Items were designed to tap how unpredictable, uncontrollable, and overloaded respondents find their lives.

The PSS was designed for use in community samples with at least a junior high school education. The items are easy to understand, and the response alternatives are simple to grasp.

Moreover, the questions are of a general nature and are relatively free of content specific to any subpopulation group. The questions in the PSS ask about feelings and thoughts during the last month. In each case, respondents are asked how often they felt a certain way.

Fall 2020 Key Statistics
for PSS-14:
LW-Superior

Assessments	Mean	Standard Deviation	R Score	T Score	Statistically significant?	Overall Cronbach Alpha
Pre	30.97	7.24				.832
Post	30.50	7.87				.88
Pre / Post Comparison			.647	.431	P=.334/no	

CASE STUDIES AT UNIVERSITY OF WISCONSIN - SUPERIOR

Fall 2020 Assessment Results (continued)

Five Factor Mindfulness Questionnaire (FFMQ)

This instrument is based on a factor analytic study of five independently developed mindfulness questionnaires. The analysis yielded five factors that appear to represent elements of mindfulness as it is currently conceptualized. The five facets are observing, describing, acting with awareness, non-judging inner experience, and non-reactivity to inner experience.

The FFMQ tool has demonstrated that it can measure mindfulness with the ability to segment users with consistency and provides the ability to distinguish subgroups. It has incremental validity in predicting well-being across segments of users who are skilled at mindfulness and those without the current skill.

Perceived Stress Scale (PSS-14)

Fall 2020 Key Statistics
for **FFMQ**: UW-Superior

Total Score Assessment	Mean	Standard Deviation	R Score	T Score	Statistically significant?	Overall Cronbach Alpha
Pre	44.03	8.62				.821
Post	46.12	9.15				.874
Pre / Post comparison			.700	-.1765	p=.043/yes	.761

Self-Compassion Scale (SCS)

The Self-Compassion Scale is a psychometrically sound and theoretically valid measure of self-compassion. Results also indicate that having high levels of self-compassion is linked to psychological well-being. Individuals with high levels of self-compassion have an emotionally positive self-attitude that is not based on performance evaluations. This results in a tendency to display mastery in academic situations.

Another way self-compassion may be related to psychological functioning has to do with the clarity and accuracy of self-evaluation. In essence, higher self-compassionate behaviors are directly related to increased positive states of mind, like happiness and life satisfaction. In contrast, higher uncompassionate actions are directly related to negative mind-states like depression, stress, and anxiety.

Fall 2020 Key Statistics
for **SCS**: UW-Superior

Total Score Assessment	Mean	Standard Deviation	R Score	T Score	Statistically significant?	Overall Cronbach Alpha
Pre	33.21	8.22				.887
Post	36.18	7.00				.84
Pre / Post comparison			.674	-2.776	P=.005/yes	

CASE STUDIES AT UNIVERSITY OF WISCONSIN - SUPERIOR

SUMMARY OF FINDINGS

Feedback on the Levelhead-Ed Program

Students in Spring and Fall 2020 were asked to respond to questions related directly to the Levelhead-Ed program. It is important to note that the population of students in each period is different.

- Spring 2020: Post-surveys for Spring 2020 took place in May 2020, and many of the classes had begun in-person but ended up in an online environment.
- Fall 2020: Post-surveys took place in December 2020. All courses in Fall 2020 were online.

Significant Changes from Spring 2020 to Fall 2020

- A higher percentage of students indicated that they plan to continue to apply what they learned from the Levelhead-Ed program. (75% vs. 68.0%)
- Sixty-six percent of Fall 2020 students agreed or strongly agreed that the exercises were about the right length compared to 58.4% in Spring 2020.
- Eighty-two percent of Fall 2020 students agreed or strongly agreed that grading/participation credit was appropriate compared to 65.9% in Spring 2020.
- More students in Fall 2020 agreed or strongly agreed that the topics were easily adapted to real-world situations compared to Spring 2020 (78% vs. 66.4%).
- A lower percentage of Fall 2020 students agreed or strongly agreed that they wouldn't have done something like this independently.
- Students in Fall 2020 had a significantly lower use and appreciation of stickers and other engagement tools included in the program.
- Eighty-four percent of students indicated that they would like to see more course-integrated content that will support the development of skills to live a healthier and happier life.
- Most other measures of change between the semesters were either flat or slightly down.

CASE STUDIES AT UNIVERSITY OF WISCONSIN - SUPERIOR

SUMMARY OF FINDINGS

Observations

Based on these findings, it is possible to conclude the following:

STUDENT INTEREST

Students embrace programs that help them build self-management skills within their regular course curriculum.

LENGTH OF PRACTICES

Brief, real-life examples and practices are appreciated and accepted for learning self-management skills.

COURSE CREDIT

Students expect to receive course credit for participating in add-on programs included with their regular course content.

COURSE REQUIREMENT

Fewer students in Fall '20 vs. Spring '20 indicated they would not engage in a program like this unless required. This may indicate that students recognize, after several months of the pandemic, the value of self-management skills and would engage in developing these skills outside of the classroom setting.

INSTRUCTOR IMPACT

The use of the engagement tools for creating a community within the classroom is a function of instructor emphasis. When instructors lead by example, in either sending positive messages to students or setting a class expectation, students embrace and see the benefit of this program.

Pre and Post Assessments Findings

The findings described in this section are related to Fall 2020 only. Due to the confounding issues related to the pandemic, no pre or post data was collected using these instruments.

Perceived Stress

Students in Fall 2020 were the only population to complete pre and post measures of perceived stress. While there was *no statistically significant* difference between pre- and post-scores, there are two critical points to note.

1. Both the pre and post **average score is in the high range of perceived stress scoring**. Other studies completed in Spring 2020 of college students utilizing PSS-14 as a measure of stress have noted that scores were in the moderate range (Son et al., 2020). There is no explicit evidence to conclude that stress has increased from one time period to the next. Based on other studies, it is reasonable to conclude that this is the case (Huckins et al. 2020).
2. Even in pre-pandemic periods, **researchers have noted that perceived stress goes up during the semester** (Charles et al., 2021; Huckins, 2020). Therefore, holding perceived stress flat during the semester may indicate that students have learned skills to manage their stress regardless of the starting point.

CASE STUDIES AT UNIVERSITY OF WISCONSIN - SUPERIOR

SUMMARY OF FINDINGS

Pre and Post Assessments Findings (continued)

Five Factor Mindfulness Questionnaire (FFMQ)

Many studies of college students during the pandemic indicated that the inability to focus is a common issue (Browning et al., 2021). It is an encouraging sign that **there was a statistically significant improvement from pre to post in the Fall 2020 students, particularly in a highly stressful macro environment.**

This result supports the conclusion that students may have learned skills that will help them manage their stress in the future. Countless studies indicate that learning to control one's attention is a critical factor in managing stress.



Self-Compassion Scale (SCS)

Pre- and post-assessment scores on the Self-Compassion Scale indicated a statistically significant improvement of the Fall 2020 cohort. Researchers have for some time known that self-compassion correlates with several indices of well-being (MacBeth & Gumley, 2012). **A statistically significant improvement from pre to post may indicate that students have learned how to cope with adverse events better:**

1. Inflict less unnecessary distress on themselves (Stutts et al., 2020).
2. Treat themselves with greater care, concern, and kindness (Leary et al., 2007).

Additionally, the findings from a recent longitudinal study of college students increased the confidence that self-compassion is an adaptive emotional regulation strategy that buffers people from stress (Stutts et al., (2020).

CASE STUDIES AT UNIVERSITY OF WISCONSIN - SUPERIOR

KEY FINDINGS FROM SPRING AND FALL 2020 CASE STUDY

- **PERCEIVED STRESS**

Fall 2020 results indicated that perceived stress remained flat from the beginning to the end of the semester. Research suggests that stress tends to rise over the semester based on research before the pandemic. These results suggest that the program may have provided students with tools to help them prevent stress from rising during the semester.

- **FOCUS AND ATTENTION**

It is an encouraging sign that there was a statistically significant improvement in focus and attention from pre to post in the Fall 2020 students, particularly in a highly stressful macro environment. This result supports the conclusion that students may have learned skills to manage their stress in the future. Countless studies indicate that learning to control one's attention is a critical factor in managing stress.

- **SELF-COMPASSION**

Pre- and post-assessment scores on the Self-Compassion Scale indicated a statistically significant improvement of the Fall 2020 cohort. A statistically significant improvement from pre to post may suggest that students have learned how to cope with adverse events better, as evidenced by the following:

- Inflict less unnecessary distress on themselves (Stutts et al., 2020).
- Treat themselves with greater care, concern, and kindness (Leary et al., 2007).

- **INTEGRATION INTO COURSE REQUIREMENTS**

Students will embrace programs that help them build self-management skills within their regular course curriculum.

- **LENGTH/TYPE OF PRACTICES**

Brief, real-life examples and practices are appreciated and accepted for learning self-management skills.

- **COURSE CREDIT**

The findings from this study and others indicate students expect to receive course credit for participating in add-on programs included with their regular course content.

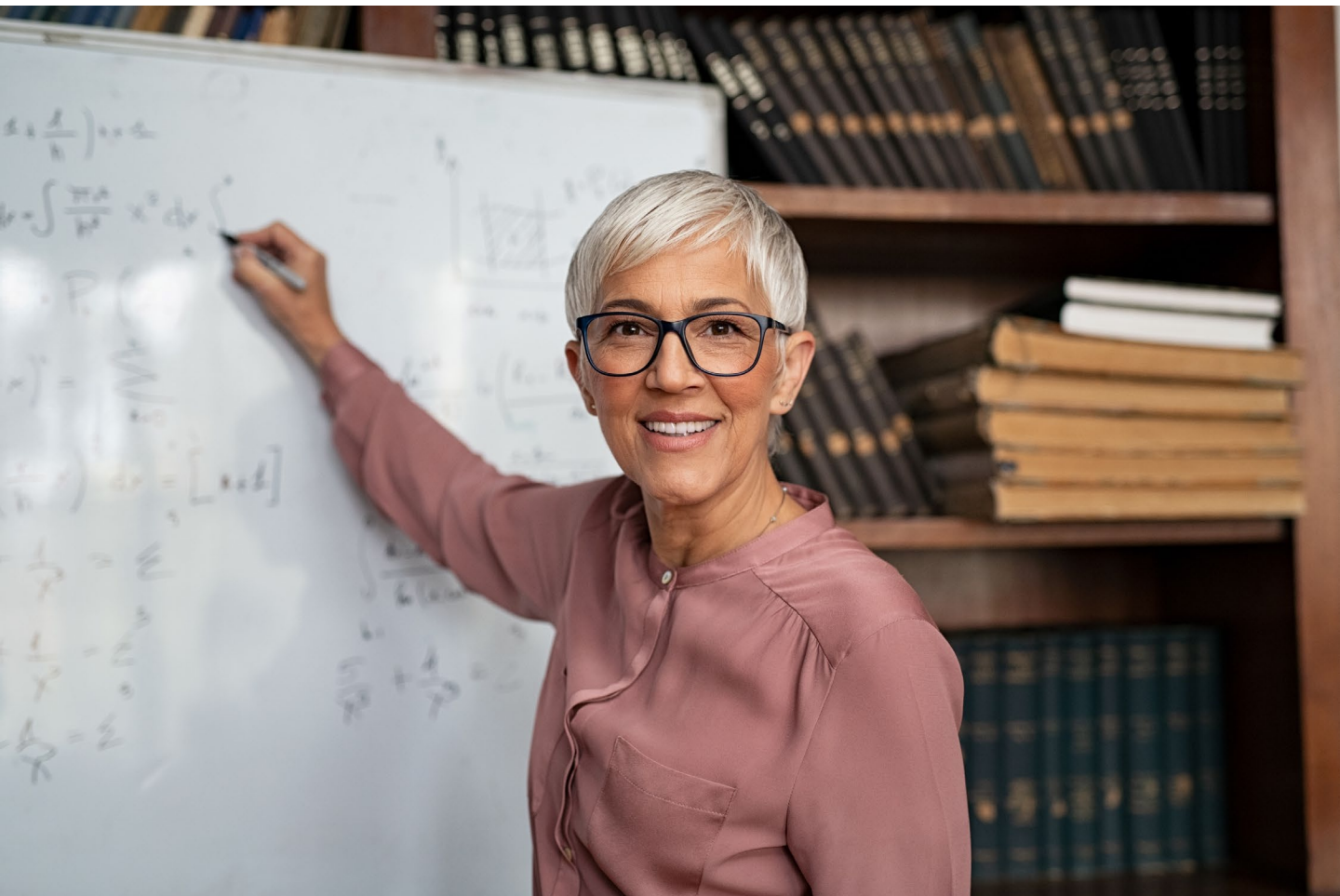
- **INSTRUCTOR IMPACT**

Engagement tools such as the use of stickers and pop-up notifications in Fall 2020 were lower than compared to Spring 2020. This drop may be related to the lack of reinforcement by faculty. Previous research suggests the use and value of digital engagement tools such as pop-up notices are related to the value the instructor places on these tools.

THE ROLE OF HIGHER EDUCATION

Based on the findings of this study, higher education faculty and administration have a responsibility to:

- Address the mental health needs of college students in the throes of this pandemic and beyond this current crisis (Sanchez-Teruel et al., 2020) by offering programs within any type of classroom.
- Equip students with skills to facilitate their personal, occupational, and social growth during the educational experience, utilizing affordable, digital programs.
- Leverage college-aged individuals' heightened focus on peer relations and the ease with which this generation accepts technology to facilitate proactive means of interpersonal support (Cheng et al., 2020).
- Support developing programs that will help students build the internal resources for whatever challenging times may lie ahead.



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