"I Wonder if Being Broke is Worth it for School": An Investigation of the Relationship Between Anxiety, Well-Being, and Coping Strategies among Undergraduate Students during the COVID-19 Pandemic

Rebekah Woodburn
Wilfrid Laurier University, wood0650@mylaurier.ca

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Cover Page Footnote

Introduction

The COVID-19 epidemic began in Wuhan, China, in December 2019. The alarming increase in and critical severity of cases lead the World Health Organization (WHO) to declare COVID-19 as a global pandemic. At the end of March 2020, Statistics Canada gathered data on how Canadians were coping with the virus. Statistics Canada (2020) reported that anxiety about personal health and familial health drastically increased for Canadians aged fifteen and older.

It is no surprise that people all across the globe have become fearful of COVID-19. On top of international anxiety related to the pandemic, anxiety is also prevalent among several age populations (Duan et al. 2020; Gao et al. 2020; Waselewski et al. 2020). One particular age group affected by the pandemic is young adults, especially those enrolled in post-secondary institutions. In addition to pandemic-related anxiety, university students face other stressors in their post-secondary experience that can affect their psychological well-being (Adams et al. 2016). One common source of stress for this group is financial strain, especially for students who identify as first-generation (i.e., students whose parents did not receive a 4-year post-secondary study degree) and/or come from a low-income family (Adams et al. 2016). The COVID-19 pandemic can increase this financial stress, as the quarantine measures and the businesses' closures result in many students facing job loss or decreased hours of employment. Students at high risk of stress due to their financial strain may rely on their jobs to support themselves throughout the school year.

As previously mentioned, many people become anxious given the uncertainty that arises in a global pandemic. According to the fifth edition of the Diagnostic Statistical Manual (DSM-5), anxiety is an anticipation of a future threat that causes distress to an individual and impairs their daily functioning (American Psychiatric Association 2016). Therefore, it is important to note that people may feel anxious about the prominent uncertainty associated with COVID-19. However, the fear of becoming infected is not abnormal, given the threat level. Health anxiety may be distressing and disturbing to everyday life, but preventative measures such as personal hygiene are a normal response to a potentially deadly disease.

In a state of unpredictability, it is important to use healthy methods to cope with fear. Previous studies suggest that common coping mechanisms used by young adults include distraction and relaxation strategies (De France & Hollenstein 2019; Rettie & Daniels 2020). These coping strategies may effectively treat minor, short-term problems, where avoiding the event may diminish the concern overall. However, avoiding high-risk situations full of uncertainty, such as a pandemic, is ineffective in relieving mental health problems such as anxiety. Studies observe that a common coping mechanism for anxiety during a pandemic is substance use (Dozois & Mental Health Research Canada 2020; Statistics Canada 2020). In

addition, individuals may develop an intolerance to uncertainty when faced with unprecedented situations, such as the pandemic. As a result, individuals may develop negative thoughts, emotions and behaviours toward the uncertain event, which could lead to irrational decisions in an attempt to suppress the anxiety faced. Concerning these findings, the present study predicted that many young adults use inadequate coping mechanisms, such as temporary distraction techniques that do not effectively relieve their anxiety.

Purpose

The present study is a correlational design with the purpose of investigating the relationship between stressors, coping strategies, and well-being among undergraduate students during the COVID-19 pandemic. It also examines the trends in students' coping strategies. The current study hypothesized that many undergraduate students face moderate to high anxiety levels and use inadequate coping strategies to improve their emotional well-being. If researchers find unhealthy behaviours are common, they must seek to understand how the government and schools can ensure students have access to healthy and effective emotional regulation strategies. As an end goal, the present study intends to ensure students receive the help they need to manage and take care of their mental health during the pandemic.

Methods

Participants

Participants were undergraduate students enrolled in a psychology course at Wilfrid Laurier University who completed the study for course credit. The sample comprised of 144 females, 46 males, and 2 individuals who self-identified with another gender category. The average age of participants was 19.36 ($SD = 2.19$). Most of the sample consisted of first-year undergraduate students (78.1%).

Design and Procedure

Participants were recruited online via the university's psychology research experience system. The data was collected online via Qualtrics. Participants were asked to read and indicate their agreement with the informed consent form. They were then asked standard demographic questions and asked to complete a series of self-report questionnaires designed to assess personality traits, health anxiety, generalized anxiety, subjective well-being, and intolerance of uncertainty. In addition, participants were asked open-ended, retrospective questions regarding

which coping strategies they used at the beginning of the pandemic compared to their current coping strategies. Students were asked to reflect on whether their coping strategies changed over the course of the academic term, how often they used them, and if the strategies effectively relieved their anxiety about the COVID-19 pandemic. They were then thanked and debriefed.

Instruments

Demographics

Participants were asked to indicate their gender, age, and year of study.

Financial Anxiety

Financial strain was assessed by asking participants to rate on a 5-point Likert scale, "how anxious do you feel about your financial situation during the COVID-19 pandemic?"

Health Anxiety

Health anxiety was assessed with the 18-item Short Health Anxiety Inventory (Rimes & Clark 2002). Each item consisted of four statements. Participants were asked to select the statement that best describes their feelings over the past six months. For example, participants were asked to select a statement describing their fear of having a serious illness, from "I am not afraid" to "I am always afraid."

Health Consequences

Health consequences were assessed with the last 4-items of the Short Health Anxiety Inventory (Rimes & Clark 2002). Each item consisted of four statements. Participants were asked to think about what it might be like to have a serious illness. For example, participants were asked to select a statement describing whether they would be able to enjoy life with a serious illness, from "I would still be able to enjoy things in my life quite a lot" to "I would be completely unable to enjoy life at all."

General Anxiety

General anxiety was assessed with the Beck Anxiety Inventory (Beck et al. 1988). This scale is a 21-item self-report scale that asked participants to rate on a 4-point

Likert scale how much they have been bothered by the listed symptoms (e.g., indigestion, nervousness or difficulty breathing) during the past month.

Subjective Well-being

Subjective well-being was assessed with the Satisfaction with Life Scale (Diener et al. 1985). In this 5-item scale, participants were asked how much they agree with the statements using a 7-point Likert scale, ranging from 1 - strongly disagree to 7 - strongly agree. An example of the statements asked was, "In most ways, my life is close to my ideal."

Resilience

Resilience in participants was measured using the Brief Resilience Scale (Smith et al. 2008). This 6-item scale asked participants to rate on a 5-point Likert scale how much they agree with the listed statements. An example of a statement was, "I tend to bounce back quickly after hard times."

Qualitative Measures

Participants were asked open-ended retrospective questions regarding their use of positive and negative coping strategies from the onset of the pandemic and if they still engaged in them in the current state of the pandemic (a year later).

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Results

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Multiple regression analysis was used to determine to what extent well-being could be predicted by the anxiety-related variables (financial anxiety, health anxiety, health consequences, and generalized anxiety) and resilience. The results of the regression analysis were significant, $F(5,181) = 14.08$, $p<.001$, $r^2=.28$, indicating that, as a group, the five predictors explained 28% of the variance in well-being. Specifically, both financial anxiety (ß=-.29, $p<.001$) and concerns about the consequences of getting sick (ß =-.16, $p<.05$) were significant negative predictors of well-being, in that those with higher financial and illness-related anxiety tended to report lower well-being. Health anxiety and general anxiety, however, did not significantly predict well-being. Resilience was positively associated with well-being (ß=.31, $p<.001$), in that those with higher self-reported resilience tended to report higher well-being (see Table 1).

Table 1

Regression analysis summary for predictors of well-being

Source	*B*	95% Confidence Interval for *B*	β	*t*	*p*
1. Financial anxiety	-.36	[-.53, -.20]	-.29	-4.33	<.001
2. Health anxiety	.10	[-.30, .50]	.04	.50	.62
3. Health consequences	-.34	[-.66, -.02]	-.16	-2.11	.04
4. Generalized anxiety	.00	[-.01, .02]	.01	.09	.93
5. Resilience	.48	[.26, .70]	.31	4.28	<.001

In qualitative analysis, students who self-identified as financially in need provided common themes explaining their reasons for their anxiety and how their financial anxiety has affected their education. These themes include unemployment and difficulty finding a job for themselves or their parents, therefore leading to less income and fear of paying their student loans back. A common finding among students enduring financial instability was that school expenses such as textbooks and tuition remained unaltered even though they felt that their university experience was diminished during the pandemic.

Furthermore, students reported a higher frequency of positive coping mechanisms (147 of the 192 participants) than negative coping mechanisms (100 out of the 192 participants). Common themes for participants' positive coping mechanisms include mindfulness activities and physical exercise. In contrast, common themes regarding participants' negative coping strategies involve substance use, such as increased cannabis and alcohol consumption. Interestingly, participants tended to use a combination of positive and negative coping strategies rather than solely one method.

Discussion

The current study hypothesized that many undergraduate students face moderate to high anxiety levels and use inadequate coping strategies to improve their emotional well-being. Indeed, we found a significant negative relationship between students' financial anxiety and well-being. Therefore, one can infer that those students who identify as financially anxious are not using adequate coping strategies to deal with their anxiety. This finding relates to previous research that states students who

identify as first-generation and come from low-income families are at high risk of facing financial strain (Adams et al. 2016). This study adds to existing research by identifying a significant negative relationship between students' anxiety about their financial situation and well-being.

Universities can help deter this adverse effect on students' well-being by adjusting the tuition or increasing the accessibility of used textbooks. Perhaps universities could offer more textbook rentals or online formats for textbooks, such as PDF. Universities could also purchase textbooks for the school library to own; therefore, students could borrow the textbook. Given the social distance measures and the increasing concern for health and hygiene in a global pandemic, an online format offered through the school would be the better alternative. Regarding the anxiety faced in paying OSAP back, perhaps schools should offer workshops or presentations for students to attend that describe the options students can take in paying back their student loans. In doing this, the students would have reassurance knowing there is a concrete plan for dealing with student loans.

Fortunately, the Canadian government has considered the lack of employment and difficulty finding a job for students who rely on student loans to help pay their tuition and living costs for their post-secondary studies. As a result, the Canada Student Loans Program (CSLP) doubled its grant money and broadened students' eligibility to receive financial assistance from the government (Government of Canada 2020). However, the present study demonstrates that the Canada Student Loans Program efforts do not diminish the anxiety students face in paying back their student loans. Furthermore, although students at high risk of financial instability are eligible for grants, there may be a larger number of students enduring financial instability with their parents' or themselves being out of work due to the pandemic.

In the current study, students reported a higher frequency of positive than negative coping mechanisms. Therefore, perhaps the university's current efforts to promote healthy coping strategies are aiding students' resilience. An example of such efforts is Wilfrid Laurier University's Wellness Centre promoting positive coping mechanisms and emotional regulation techniques through their segment entitled "Mindful Mondays" on their social media platforms. This study differs from existing research that demonstrates distraction and relaxation strategies are common coping methods among young adults (De France & Hollenstein 2019; Rettie & Daniels 2020). The study's sample reported mindfulness and exercise strategies as common positive coping mechanisms. A previous study regarding the importance of emotional intelligence and students' stress and academic success suggests emotional regulation plays a vital role in adaptive coping within academia (Saklofske et al. 2012). Therefore, schools should offer emotional regulation workshops to their students to help students maintain the high frequency of their

positive coping strategies. Perhaps professors could provide a short mindful meditation practice before the start of class.

Limitations

This study has some limitations. First, given the online format of the survey and that it was only administered once, the data gathered regarding participants' anxiety at the beginning of the pandemic is retrospective. Therefore, the responses may be subject to recall bias. Secondly, the sample only consisted of undergraduate students taking a psychology course, and therefore the findings may not be generalizable to students in all programs. Thirdly, given that the sample was 78% female and 24 % male, the male population is underrepresented. However, previous research suggests it is common for females to be overrepresented in mental health online surveys (Batterham 2014, as cited in Rettie & Daniels 2020).

Conclusions

This study adds to existing research on the adverse effects the COVID-19 pandemic has had on undergraduate students' mental health, adding to the growing literature on psychological distress during unprecedently uncertain times. Overall, the present study suggests that students who identify as being in financial need do not have adequate assistance from their school and the government. Therefore, post-secondary institutions and the government should consider increasing the availability of bursaries to aid students in need of financial assistance. The university can also continue increasing the accessibility to their mental health services and explicitly seeking to provide protective factors for students to develop resiliency, such as offering emotional regulation workshops.

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