

# Coping with Social Anxiety and Maintaining Resilience in University of Minnesota Students During the COVID-19 Pandemic: A Correlational Approach

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#### **Abstract**

In the year 2020, the SARS-CoV-2 pandemic has prompted a cascade of tremendous changes, inducing profound fear and unprecedented uncertainty around the world. The majority of University of Minnesota—Twin Cities students have since continued their education virtually, but the transition to online courses has proven more difficult for those that struggle with unfamiliar social contexts. The purpose of this study was to identify whether symptoms of social anxiety disorder have any interaction with student resilience, specifically during the Fall 2020 semester. A designated sample cohort completed a survey that reported personal resilience and social anxiety symptoms; responses were then assigned numerical scores for a quantitative approach. From the correlational analysis conducted, results indicated that there was a significant negative correlation between social anxiety and resilience. These findings suggest that university students with social anxiety may require extra assistance or support while adjusting to virtual instruction.

Keywords: virtual learning, social anxiety, student resilience

# Coping with Social Anxiety and Maintaining Resilience in University of Minnesota Students During the COVID-19 Pandemic: A Correlational Approach

Since the World Health Organization (WHO) first declared a global pandemic, the spread of the novel COVID-19 virus has only continued, infecting the world's population at an unprecedented rate (World Health Organization, 2020). Not only has the virus infected millions of people, but it has also induced a state of perpetual panic and emergency in many countries. While the infection rate remains a cause for concern in

the United States, the return to normalcy is needed, made evident by the disastrous repercussions catalyzed by the viral outbreak. Restrictions and regulations (e.g., wearing face masks, reduced building capacities) have been proposed (Centers for Disease Control and Prevention, 2020) in an attempt to regain some sense of the past, but achieving this is not feasible. The brutal reality that requires a great deal of reconciling is that the COVID-19 virus will likely never disappear due to its high transmissibility (Lovelace & Kim, 2020) and the loose enforcement of regulations; thus, a new normal must be adopted. Even with





government-mandated lockdowns no longer in effect, social distancing is still one of the most effective methods to minimize the spread of the COVID-19 virus (Centers for Disease Control and Prevention, 2020). At the University of Minnesota, most classes are no longer offered inperson. Instead, they are offered online via one of three formats: synchronous, asynchronous, or hybrid instruction (i.e., a combination of inperson and online instruction) (University of Minnesota, 2020a). Part of the virtual learning experience includes integrating video lectures (VL), either presented in real-time or prerecorded. When this tool is used properly (i.e., the instructors thoroughly plan and balance VL with other learning materials), student satisfaction with this technology is generally positive. This feedback indicates that VL enhances the learning experience and level of engagement a student experiences (e.g., having autonomy over control of media) (Scagnoli et al., 2019). Virtual learning, however, does present its own unique set of obstacles, as student collaboration is difficult to replicate online. Losing this element in the transition from inperson to virtual classes can result in the diminished circulation of information and ideas among students working in groups (Park & Choi, 2014). Since group cohesion is perceived to promote positive interdependence and the success of the group's members, the loss of inperson connectivity results in lower exam performance (Galyon et al., 2016). While many classes at the University of Minnesota have incorporated collaborations, forums, projects, and discussions online as part of the coursework (University of Minnesota, 2020b), students' lack of familiarity with the online format and struggle

to effectively communicate virtually with group mates could potentially hinder academic success. As a result of poor or subpar academic performance, student well-being may deteriorate over the duration of the semester, which could inadvertently catalyze a cascade of stressors and mental health-related issues.

The implementation of a virtual semester organized entirely around the COVID-19 pandemic, however, poses yet another threat to the mental welfare of students: loneliness, which is defined as an emotional state that arises when there exists a discrepancy between desired and actual social relationships (Peplau & Perlman, 1982); this emotional state is "characterized by subjective perceptions of social isolation" (Heinrich & Gullone, 2006). It is expected that the majority of students will be learning remotely while living independently from their typical peers, as all students were advised to stay at home in March of 2020, and remain there until further notice in an effort to reduce infection outbreaks on campus and across the Twin Cities (University of Minnesota, 2020c). Even though the physical health of the public is prioritized in the wake of the pandemic, the implications of social isolation on mental health are just as numerous as they are extensive (e.g., loneliness). The adverse effects of loneliness on physical outcomes are welldocumented, but its effects on mental states are lesser known. In recent years, this area of study has begun to gain traction in the scientific community. For instance, in a longitudinal study, more than a thousand participants completed a series of online assessments with the aim of correlating loneliness to social anxiety, paranoia, and depression symptoms (Lim et al.,

2016). The results of this study concluded that social anxiety was the sole mental health symptom capable of predicting loneliness (i.e., elevated levels of social anxiety had a higher probability of elevated levels of loneliness). General symptoms of social anxiety can include the fear of situations in which judgment can be incurred, worrying about being embarrassed or humiliated, an intense fear of talking or interacting with strangers, etc. (Campbell-Sills et al., 2015; Mayo Clinic, 2017). Furthermore, social anxiety and loneliness exhibit negative interplay, wherein social contact could reduce loneliness, but the fear of social interaction inhibits this change in emotional state (and vice versa) (Qualter et al., 2015). In the context of the COVID-19 response at the University of Minnesota, students are at risk of developing social anxiety due to the loneliness brought about via not only social distancing and the mandatory isolation protocols; social anxiety enhanced by loneliness may also occur due to the restrictive modes of peer collaboration offered in virtual instruction.

The combination of isolation and minimal virtual group interaction posits synergistic effects on student well-being, with primarily adverse effects on social behavior. These atypical social interactions, moreover, may drive the fall semester of 2020 to become one of the most mentally demanding semesters students will ever experience in their college careers. For students already suffering from social anxiety, this stress is increased tenfold and may cause further psychological impairment. To demonstrate this phenomenon, a previous correlational study had participants with social anxiety report avoidance behaviors when tasked with going to the gym (i.e., fear of exercising in public). As a result of their

avoidance behavior, participants were found to have more physical and mental health impairments (Acarturk et al., 2008; Levinson et al., 2013). Extrapolation of one common symptom supports the notion that social anxiety may pose serious implications on the psychological health of students, especially that of their motivation and ability to adapt. Should social anxiety inhibit or slow adaptation in the fast-changing landscape of the world, then affected students are at greater risk of further mental health impairments following the fall semester of 2020.

Thus, the purpose of the present study is to determine whether currently enrolled students with high levels of social anxiety have lower psychological resilience than students with low levels of social anxiety. In order to effectively collect data, students at the University of Minnesota will take a survey to gauge the severity of their social anxiety and assign resilience scores using the refined 10-item Connor-Davidson Resilience Scale (CD-RISC-10) (Campbell-Sills & Stein, 2007; Connor & Davidson, 2003). This questionnaire has ten items testing for resilience, wherein the respondents rate the items on a 5point Likert scale, with values ranging from 0 (never) to 4 (always) (Rehabilitation Measures Database, 2015). The total score is a summation of all ten items, with a minimum total value of 0 and a maximum total value of 40. A higher score indicates higher resilience.

It is evident that the COVID-19 outbreak has made university students more anxious (Dhar et al., 2020), indirectly reducing their resilience to the change of circumstance. What needs to be determined is whether the implications of attending online classes in the

midst of a pandemic has exacerbated symptoms of social anxiety, and whether these amplified symptoms reduce psychological resilience. It is hypothesized that social anxiety will be elevated due to virtual learning and social isolation, in turn, negatively affecting student resilience. This research is critical to understanding the impact of COVID-19 beyond just physical health and may eventually assist students who require resources during this transitory period.

#### Methods

### **Participants**

For this study, there were a total of 23 participants. Of this group of participants, the mean age was 21.3 years old, with a range of 18 to 26 years old. The racial demographics of the participants were as follows: 65.2% Caucasian; 13.0% Asian or Pacific Islander; 8.70% Black or African American; 4.35% Hispanic or Latino; 4.35% biracial/multiracial; and 4.35% other. The self-identified gender demographics of the participants included 78.3% female; 17.4% male; and 4.35% gender-nonconforming/genderqueer.

The participants were selected from a section of the undergraduate course, PSY3001W, at the University of Minnesota—Twin Cities.

These students were assigned to be participants of predetermined research studies based on the course section; thus, these participants were not randomly selected but sampled out of convenience. Student participation in their assigned study was compensated with in-class credit for completion, which affected their semester grade.

#### Materials

This study implemented the use of an

anonymous survey distributed via Qualtrics. The survey was composed of two portions: the first set of questions were based on the CD-RISC-10 (Campbell-Sills & Stein, 2007; Connor & Davidson, 2003), which assessed participants for resilience; the second portion contained questions from the mental health screening forms —the Generalized Anxiety Disorder 7-item (GAD-7) (Spitzer et al., 2006) and the Severity Measure for Social Anxiety Disorder (SM-SAD) (Craske et al., 2013)—in order to assess the severity or lack of social anxiety disorder symptoms. All surveys used a 5-point Likert scale; however, only the items from the CD-RISC-10 and SM-SAD were scored on a scale of 0 (never) to 4 (always). The items from the GAD-7 were all non-scored as they were only included for the sake of ambiguity; social anxiety may be a sensitive topic to some participants and, as a consequence, cause participants to respond less truthfully.

#### Procedure

Prior to beginning the survey, participants were provided with the informed consent form (see Appendix A) which briefly described the survey and what the questions entailed. Participants were then asked to complete demographic questions (see Appendix B), then the CD-RISC-10 form (see Appendix C), followed by the combined GAD-7/SM-SAD form (see Appendix D). After all of the items were completed, participants were debriefed (see Appendix E) then instructed to submit the survey.

#### Results

In order to compute the correlation between resilience and social anxiety, items from

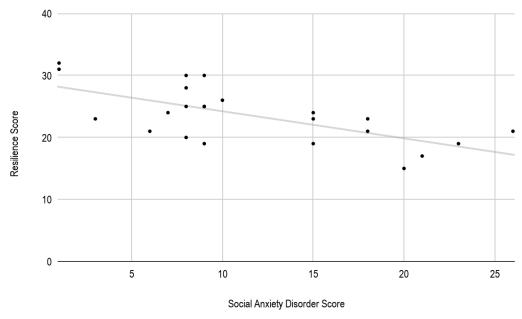


Figure 1 Self-reported Social Anxiety Disorder and resilience scores

To test the hypothesis that elevated social anxiety will reduce participant resilience, a correlational approach was utilized. Results indicated that resilience was significantly correlated with social anxiety, r(22) = -0.664, p < 0.001. From the scatterplot (see Figure 1), it can be determined that these two variables had a strong negative, linear relationship. Thus, as the scores for social anxiety increased, resilience scores decreased.

#### Discussion

The negative correlation supports the hypothesis that social anxiety and resilience interact, such that elevated social anxiety may be a potential negative affective stressor to student well-being, reducing their adaptability to the various changes caused by COVID-19.

With a rapid surge in Minnesota COVID-19 cases (Minnesota Department of Health, 2020), it is reasonable to assume that course instruction will continue to be delivered virtually for the spring semester of 2020 at the University of Minnesota. While there are benefits

to virtual learning (e.g., increased autonomy over learning pace) (Scagnoli et al., 2019), student collaboration is not so easily replicable online (Park & Choi, 2014), resulting in a sense of disconnect between students and faculty (Galyon et al., 2016). Given the difficult circumstances of that of COVID-19, this disconnect may be the onset of a perpetual state of loneliness; therefore, the lack of group cohesiveness paired with social distancing measures serves as the optimal mechanism to heighten this sense of loneliness. As mentioned previously, the combination of loneliness and social anxiety can have pernicious effects, wherein their convergence leads to a crippling vacillation between avoidance and longing for social interaction (Qualter et al., 2015).

Essentially, students are at risk of developing or exacerbating social anxiety symptoms in the face of this loneliness. Based on the results of this study, it can be deduced that the more anxious a student feels in an unfamiliar or uncomfortable social context, the less likely they

will be able to cope; thus, student resilience will decrease. During the Fall 2020 semester, students were tasked with moving their course studies to a predominantly virtual environment, an effort met with challenges. For instance, while asynchronous lectures allow more student autonomy, some may find the independent learning isolating. Alternatively, the peer-to-peer interactions required for team projects are even more demanding in a virtual semester. With in-person instruction, it was typical for group projects to have facilitated discussion during class; in the fall, however, students had to set aside additional time to convene online in order to complete group work. While these adaptations are necessary for a successful virtual learning environment, the unfamiliarity of these fast-paced changes on student resilience should not be discounted. This conclusion is supported by a study with the aim of investigating the relationships between social anxiety, resilience, and procrastination (Ko & Chang, 2019). According to their findings, procrastination in college students is reported less frequently in those with higher resilience scores; these resilience scores were largely mediated by the negative association with social anxiety. If an individual is less resilient, they struggle to recover from psychological stress (Rutter, 2013). In consequence, regular cognitive function is impaired, and the stress-inducing transitory period is prolonged, which exhausts coping strategies, perpetuates emotional dysregulation, and spurs further dysphoric feelings (Tugade & Fredrickson, 2007). In relation to both this paper's findings and the mentioned study, students with persistent or worsening social anxiety are more prone to procrastination, the

reduced resilience (i.e., the inability to cope with

stress) eventually leading to absolute disengagement or withdrawal from their courses to escape this discomfort (Blumenthal et al., 2016).

A limitation to these findings involves the varied introspective ability of the participants. As the surveys were conducted on a self-reporting basis, numerical responses may neither be truly reflective of actual participant behavioral patterns. To eliminate this confounding variable in future research, rather than utilizing a quantitative approach, a qualitative, ethnographic methodology may be more appropriate, wherein participants should be asked to answer openended questions (Lillis, 2008). This approach may be more effective, as participants could disclose recent incidents or events that demonstrate the recurring behaviors that are aligned with social anxiety. By allowing the researcher to first deduce the severity of social anxiety based on keywords, themes, and comparisons reported across all participant anecdotes, responses could then be organized and summarized to create a more holistic report of the student perspective on their adaptation to virtual instruction during the COVID-19 pandemic. Due to the time constraints in which this study could be carried out (twoweek period), a more in-depth approach to gathering data was not possible. It should also be noted, moreover, that the participant sample for this study was small and the results gathered from this sample may not be truly representative of the University of Minnesota—Twin Cities student body.

Given the current trajectory for the spread of COVID-19 in Minnesota, maintaining public health is at the utmost importance. While containing the virus is at the forefront of this

charge, ensuring stable mental well-being is arguably just as vital for survival during this liminal time of change and uncertainty. Dealing with social anxiety in a world entirely dependent on novel variants of interpersonal connectedness may not be an immediate cause for concern, but in due time, this will eventually amount to larger complications. Thus, to combat the challenges ahead, seemingly inconsequential obstacles need to be addressed now, especially in this unprecedented time of crisis.

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## Appendix A

#### **Informed Consent Form**

You are being asked to participate in a study as part of a class project in a research methods course in the Department of Psychology at the University of Minnesota. You will be answering self-report questions related to your feelings toward online classes during the COVID-19 pandemic. If you choose to participate, no identifying information will be gathered from you, so it will be impossible to identify you as a participant. If you choose to participate, you may stop participating at any time. You may withdraw your data at any time, including after you have completed the study. If you have any questions or concerns, please contact Kiley Gilbert at gilb0555@umn.edu.

## Appendix B

## **Demographic Questions**

- 1. How old are you?
- 2. What is your racial or ethnic identity?
  - · Asian or Pacific Islander
  - Black or African American
  - Hispanic or Latino
  - · Native American or Alaskan Native
  - · Caucasian
  - Biracial/multiracial
  - · A race/ethnicity not listed here
- 3. How do you currently identify? Select one or more responses.
  - Male
  - Female
  - Transgender
  - Gender-nonconforming/genderqueer
  - Intersex/intergender
  - Something else fits better
  - Rather not say

# Appendix C

#### **CD-RISC-10 Form**

In the wake of the COVID-19 pandemic, most classes are now being delivered via online instruction. For many students, moving to virtual classes has not been an easy transition, creating additional stress and anxiety. The following survey is a measure of how well you believe you've responded to this unprecedented change in your education.

Given this context, evaluate yourself using the following statements.

Health-Screening Questions	never (0)	rarely (1)	sometimes (2)	often (3)	always (4)
I am able to adapt when changes occur.					
I can deal with whatever comes my way.					
I try to see the humorous side of things when I am faced with problems.					
Having to cope with stress can make me stronger.					
I tend to bounce back after illness, injury, or other hardships.					
I believe I can achieve my goals, even if there are obstacles.					
Under pressure, I stay focused and think clearly.					
I am not easily discouraged by failure.					
I think of myself as a strong person when dealing with life's challenges and difficulties.					
I am able to handle unpleasant or painful feelings like sadness, fear, and anger.					

# Appendix D

## **GAD-7/SM-SAD Form**

How often have you been bothered by the following problems?

Health-Screening Questions	never (0)	occasionally (1)	half of the time (2)	most of the time (3)	all of the time (4)
Felt nervous, anxious, or on edge					
Felt moments of sudden terror, fear, or fright in social situations					
Felt anxious, worried, or nervous about social situations					
Not able to stop or control worrying					
Worried too much about different things					
Had thoughts of being rejected, humiliated, embarrassed, ridiculed, or offending others					
Had trouble relaxing					
Felt a racing heart, sweaty, trouble breathing, faint, or shaky in social situations					
Was so restless that it was hard to sit still					
Felt tense muscles, felt on edge or restless, or had trouble relaxing in social situations					
Avoided, or did not approach or enter, social situations					
Became easily annoyed or irritable					
Left social situations early or participated only minimally (e.g., said little, avoided eye contact)					
Spent a lot of time preparing what to say or how to act in social situations					
Distracted myself to avoid thinking about social situations					
Felt afraid as if something awful might happen					
Needed help to cope with social situations (e.g., alcohol or medications, superstitious objects)					

### Appendix E

## **Debriefing Procedure**

The purpose of this survey is to explore the implications of a virtual semester on student well-being, with a particular focus on resilience. It is hypothesized that students with symptoms of social anxiety disorder (SAD) are less resilient than otherwise unaffected students in virtual classes, potentially hindering work ethic and deteriorating mental health. This survey should not be used for self-diagnosis; if you believe you are affected by SAD or generalized anxiety disorder, please consider seeking help and treatment from a professional.

We ask that you do not disclose the contents or purpose of this study, in order to maintain an unbiased participant pool.

Group 3-2 thanks you for your participation and completion of their survey.