**Going to College During a Pandemic: How does social support moderate the relationship between feelings about COVID-19 and fall-term GPA?**

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**Going to College During a Pandemic**

For first-year college students, 2020 has been a year of lost traditions and uncertainty about their future due to the COVID-19 pandemic. Many students had to make the decision whether they would go to college as planned or take a gap year and wait out the virus until things returned back to normal. For those that decided to go to college, how will this unique transition affect their academic achievement? Also, what factors were involved in determining their academic achievement? This study will seek to answer these questions by understanding how social support moderates the relationship between feelings about COVID-19 and fall term GPA.

**Literature Review**

***Feelings About COVID-19***

 Research has proven that infectious disease outbreaks commonly cause negative psychological responses such as “insomnia, reduced feelings of safety, scapegoating, increased use of alcohol and tobacco, lack of energy, general aches and pains, and increased use of medical resources” (Morganstein, 2020). The COVID-19 pandemic is no different. This novel virus has created uncertainty about one’s health and ability to stay safe. One study on college students found that a majority of students are experiencing heightened stress and anxiety during the COVID-19 pandemic (Son et al., 2020). Some of the main stressors for the students were fear and worry about their health and of their loved ones, difficulty in concentrating, disruptions to sleep, decreased social interactions, and increased concerns on academic performance (Son et al., 2020). The literature is crucial to understanding how numerous stressors created by the COVID-19 pandemic can have adverse effects on one’s mental health.

In this study, we will be focusing on the feelings of fear and vulnerability to the virus as potential stressors for college students. Fear is an emotional response to a threat (*Fear – APA Dictionary of Psychology*, n.d.). The novel coronavirus is a threat to many as the number of confirmed cases and deaths from the virus continue to increase in the United States (CDC, 2020). A study done in March 2020 found that higher levels of fear were predicted by the amount of information intake about the virus, health anxiety, and risk of loved ones contracting the virus (Mertens et al., 2020). It is important to understand the implications of fear in the context of the virus as it may cause numerous negative psychological responses, such as the one’s previously stated.

Fear, worry, and threat related to COVID-19 have been found to not be equitably distributed across the United States (Fitzpatrick et al., 2020). This study interviewed a national sample and concluded that heightened stress was due to proximity to hotspots of the virus (Fitzpatrick et al., 2020). Although the results were skewed to participants in the Northeast having the highest levels of fear and worry, we can predict that we will also see varying levels of fear about the COVID-19 pandemic from college students who may be returning to campus from various parts of the country and the world. In addition, the Fitzpatrick (2020) study found women to have higher levels of fear, worry, or threat than men.

Most of the research about the fear of COVID-19 is motivated by finding effective coping strategies and interventions to mitigate future psychological distress from the pandemic. The most common strategies found to be effective during previous outbreaks were problem-focused coping, seeking social support, avoidance, and positive appraisal of the situation (Chew et al., 2020). These strategies of coping were more likely to be adopted based on the appraisal of the threat and the person’s perceived vulnerability to the disease. In addition, Chew’s 2020 study showed how using social support as a coping mechanism was positively related to life satisfaction. Another study with a sample of Chinese college students investigated the relationship between the onset of acute stress disorder (ASD) and stressful experiences due to COVID-19, and any associations with psychological coping mechanisms (Ye et al., 2020). The results found resilience, adaptive coping strategies, and social support to mediate the relationship between ASD and stressful experiences related to COVID-19 (Ye et al., 2020). Understanding the fear caused by COVID-19 is important to understand how to develop coping strategies not only during the pandemic but with other stressful situations that may come about in the future.

Based off the literature, social support seems to be an important coping mechanism for COVID-19-related stress and other forms of psychological distress. In the United States, social interaction has decreased due to the preventative measures of stay-at-home orders and social isolation. This study will investigate how college students perceive social support and understand its role as a moderator between feelings about COVID-19 and academic achievement of college students.

***Social Support***

Social support is the belief that someone is cared for, loved, esteemed, and a member of a social network (Cobb, 1976). Social support can be provided from several sources such as family, friends, significant others, etc. Two main sub-constructs of social support are perceived and received support (Turner & Brown, 2010). Perceived social support is a subjective understanding of support from social connections versus received social support is the objective quantity of support (Eagle et al., 2019). Perceived social support is frequently tied to mental health (Eom et al., 2013; Hefner & Eisenberg, 2009; Lakey & Orehek, 2011; Prati & Pietrantoni, 2010). It has been shown to have many benefits for one’s mental health and serves as a buffer to stress (Lakey & Orehek, 2011; Turner & Brown, 2010). This study will be investigating perceived social support as it relates to the fear and vulnerability of the COVID-19 pandemic.

Researchers are currently studying how social support will buffer the negative psychological impacts from the COVID-19 pandemic. Previous literature has shown that social support is a “protective factor against the negative psychological impact of natural disasters” and a coping mechanism in times of crisis (McGuire et al., 2018; Saltzman et al., 2020). One study found that perceived social support was inversely related to lower levels of anxiety, depression, loneliness, irritability and quality of sleep during the COVID-19 pandemic (Grey et al., 2020). It was reported that for individuals with high social support their risk of increased depression symptoms was 63% lower than those with low levels of social support. Currently, the COVID-19 safety and prevention measures involve social distancing so how are students able to receive social support during these difficult times?

Gender differences exist with regard to social support. Research has found that female college students may report higher levels of social support than their male counterparts (Rayle & Kuo-Yi, 2007). This may mean that males are not able to cope with stressful times as well as females, if they do not perceive the same levels of social support.

***Academic Achievement***

 There is extensive research on what factors may predict a student’s academic achievement. One study found that parental social support is the most predictive of college grade point average (Cutrona et al., 1994). Another study showed that a higher perception of social support is associated with better academic achievement in female college students (de la Iglesia et al., 2014). We should see a positive relationship between high social support and college student’s academic achievement. In addition, living on campus has been found to be correlated with higher GPA (Nicpon et al., 2006). Due to the COVID-19 pandemic, students have the option of staying on campus or taking classes from home. Will this atypical living situation for some students affect their fall-term grades?

 Another obstacle college students are facing is transitioning to online learning. At the University of Pittsburgh, the COVID-19 Medical Response Office created three operational postures based on confirmed cases of students and faculty as well as the surrounding Pittsburgh community. In the high-risk posture, all classes are taught through an online format while elevated risk and guarded risk allows in person instruction for some classes. Regardless of the posture, students are always allowed to attend classes virtually.

Results are mixed for understanding how college students traditionally perform academically in distance learning environments (Bettinger et al., 2017; Fischer et al., 2020; Xu & Jaggars, 2013, 2014). While there may be advantages to online learning, there is increasing evidence that compared to face-to-face courses, online learning negatively impacts academic success. It may be too early to tell if COVID-19 has impacted college student’s academic achievement as there is very little literature available. A Spanish study found the COVID-19 pandemic to have a positive effect on college student’s performance (Gonzalez et al., 2020). The students had to adjust their learning strategies in order to be successful. Another study based in Jordan investigated the differences in performance based on the testing format of exams (online exams vs pen and paper exams) (Omari, 2020). The results presented no significant differences between the testing formats but gender differences were present as male students scored higher on the online exam. A study at the College of Medicine, Qassim University found opposite results where female students academic performance significantly increased with online assessments (Elzainy et al., 2020). The literature shows that there are significant effects on academic performance from the COVID-19 pandemic but proposed gender differences seem to be inconclusive. There is a great need to observe a United States college student sample as most U.S. studies focus on K-12 students dealing with school closures due to the COVID-19 pandemic.

***Hypotheses***

As there is a lack of research about how feelings about COVID-19 affect academic achievement and social support buffering this relationship, I propose this study to further understand the implications of the COVID-19 pandemic. First, this study will show how well students are doing academically during the pandemic by analyzing their fall-term GPA. With the transition to new learning formats due the pandemic restrictions, this study will be able to show how well students are adapting. Moreover, by understanding the buffering relationship of social support, we can determine what resources students will need to succeed during a pandemic and generally stressful times. Lastly, the collection of demographic information will allow us to understand which groups struggled most during a semester of college during the COVID-19 pandemic. This study will be influential in understanding how students cope and how best to accommodate students during an unprecedented global pandemic.

Based on the literature, we predict students, who have *high* fear of COVID-19 and *low* social support, will have a *lower* Fall term GPA than students with a *high* fear of COVID-19 and *high* social support.

**Methods**

**Participants**

The Intro to Psychology Student pool will be used to collect data. This sample is predominantly first year students as Intro to Psychology is a general education requirement and a popular course at the University of Pittsburgh. We will have 300 Intro to Psychology students participate in the study. Students must be 18 years or older to participate. Each student will receive one course credit for their participation.

**Procedure**

The study was approved by the Institutional Review Board at the University of Pittsburgh on September 23, 2020 and data collection began on October 12, 2020. We distributed an anonymous online Qualtrics survey through the Sona system. Students will sign up to take the study on Sona Systems and are given a link to the Qualtrics survey. Participants are then prompted to consent to participation in the study. In the survey, we will collect their demographic information and their PeopleSoft number to access their fall term GPA at the end of the term. Students will proceed to answer questions from various measures about their feelings about COVID-19 and perceived social support. The student’s participation ends once they finish the survey, which takes about 20 minutes. Participants will be granted credit after completing the survey.

**Measures**

**Feelings about COVID-19.** Feelings of COVID-19 will be measured with the Fear of COVID-19 scale (Winter et al., 2020) and the Perceived Vulnerability of Disease scale (Duncan et al., 2009). The Fear of COVID-19 scale is a 7-item scale where participants will indicate on a 7-point scale from strongly disagree to strongly agree how they feel about each statement (Winter et al., 2020). Sample questions include “I am most afraid of COVID-19” and “I cannot sleep because I am worrying about getting COVID-19”. The Perceived Vulnerability of Disease scale is a 15-item scale with two subscales: perceived infectability and germ aversion (Duncan et al., 2009). Subjects will determine how much they agree with each statement on a 7-point scale ranging from strongly disagree to strongly agree (Duncan et al., 2009). These questions include “If an illness is ‘going around’, I will get it” and “It does not make me anxious to be around sick people”.

**Social Support.** We will measure social support through the Multidimensional Scale of Perceived Social Support (Zimet et al., 1988) and Interpersonal Support Evaluation List (Cohen & Hoberman, 1983). Each scale will collect data on the student’s perceived social support from their family, friends, and significant other, if applicable.

The Multidimensional Scale of Perceived Social Support is made of 12 items: social popularity, respect, and items directly related to perceived social support (Zimet et al., 1988). Subjects will answer questions, such as “There is a special person who is around when I am in need”, on a 7-point scale from strongly disagree to strongly agree. The Interpersonal Support Evaluation List is a 12-item measure with three subscales: appraisal support, belonging support, and tangible support (Cohen & Hoberman, 1983). Each subscale is measured on a 4-point scale ranging from definitely true to definitely false (Cohen & Hoberman, 1983). Sample questions include “There is someone I can turn to for advice about handling problems with my family” and “If I wanted to have lunch with someone, I could easily find someone to join me”.

**Self-Efficacy** While self-efficacy is not a part of the research question, this exploratory measure will be used to understand how students perceive themselves compared to others. Student’s self-efficacy will be measured through the Self-perception Profile for College Students (Neemann & Harter, 1986). This scale has 13 domains that measure student’s abilities, social relationships, and self-worth (Neemann & Harter, 1986). Participants will decide which student description is more like them and how true that description is for them. An example description is “Some students feel confident they are mastering their coursework BUT Other students do not feel so confident”.

 **Academic Achievement.** Academic Achievement of the subjects will be measured by the participant’s fall-term GPA. In the survey, we collected the student’s PeopleSoft number so at the end of the fall term, we will be able to access their GPA, their credits attempted, their credits earned, and their academic plan. The additional factors listed will be used to control for differences in course load which may affect student’s GPA.

**Data Analysis Plan.** Data Analysis will include multiple regression models predicting an interaction between our variables. We will look at the correlation between Feelings about COVID-19 and student’s fall-term GPA as well as the correlation between Social Support and student’s fall-term GPA. To determine if our data supports our hypothesis, we will see if there is an interaction between the two correlations previously listed. We predict an association between *high* feelings of COVID-19 and *low* fall-term GPA, and an association between *high* social support and *high* fall-term GPA.

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