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## COVID-19's Psychological Influences: How Have University Students Been Affected?

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**COVID-19's Psychological Influences:  
How Have University Students Been Affected?**

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NURS 4500.3: Nursing Research and Senior Thesis

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December 4, 2020

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### Abstract

Undergraduate students are well-known as a vulnerable population prone to stress, anxiety, depression and various other psychological problems during their academic time at university or college. With the introduction and sudden integration of the COVID-19 pandemic into the daily lives of these high-risk students, globally, many people are concerned with how the mental health of this population will be affected, given the presence of the pandemic in addition to the multiple safety measures put in place in an attempt to contain the virus. This includes students having been subjected to prolonged implementation of shelter-in-place mandates and requirements of social-distancing across the globe that caused widespread feelings of newfound isolation.

Several questions are explored in this paper: How were post-secondary students handling their emotions surrounding COVID-19 and how has it drastically altered life as we once knew it to be? What were some significant coping strategies that students used and felt were effective or even ineffective during this time of extreme stress and anxiety? Most importantly, how did *nursing students* fare in comparison to students with different majors since nursing students also have, in addition to their academic stress, clinical and healthcare setting stress and feelings of uncertainty?

This paper investigates with a literature review the manifestations and/or exacerbations of negative mental health issues associated with Coronavirus on higher education students, especially taking a closer look into nursing students. Furthermore, this paper proposes a research study aimed toward collecting more data on California students and perspectives of their mental health status and coping mechanisms in relation to COVID-19.

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## **Introduction**

The introduction of a new form of infection known commonly as Coronavirus, during late 2019 and into early 2020, caused a sudden disruption to life on a global scale, which we are all still currently enduring. The novel infection of COVID-19 is still a phenomenon that is not completely understood. Most especially, the mental health effects of its sudden emergence and consistent presence is a concept that has not been researched thoroughly at this time. Populations at most concern for the detrimental effects of shelter-in-place mandates and overall isolation requirements include those who already have predisposing lifestyles and factors that put them at risk for mental health issues: undergraduate nursing students and college students as a whole. Stress, anxiety, depression and various other mental health problems are known to arise in postsecondary level students that are subject to several academic, personal and social stressors. Adding to their usual psychological distress as college students, the mental health problems that may occur or become exacerbated due to COVID-19 creates a need to identify these potential negative outcomes. The purpose of this paper is to analyze the negative mental health effects caused by isolation from COVID-19 on university students, putting a special emphasis on nursing students because of their responsibilities with clinical practice in healthcare settings as a supplement to their classroom instruction.

## **LITERATURE REVIEW**

### *Objective*

The objective of this literature review is to identify new and/or pre-existing mental health problems that have been exacerbated by the occurrence of Coronavirus and its public health safety precautionary measures (i.e., shelter-in-place isolations and social distancing practices) within the well-known “developmentally vulnerable” (Hamza, 2020, p. 1) populations of university students, especially nursing students. This paper will also further explore the coping

mechanisms that were ineffectively and effectively utilized by the targeted populations from these studies.

### *Search strategy*

Articles collected were gathered from the Dominican University of California, Archbishop Alemany Library online resource. The primary databases used were PubMed and Iceberg. Key focus search terms that had been relied on were: Coronavirus/COVID-19, university students, nursing students, mental health effects and isolation. There were six primary research articles found to be the most relevant and useful for the making of this paper. Articles were chosen based upon their focus on the relationship between either collegiate students and their mental health in general or in comparison to a time period including COVID-19. In addition, various methods discussed regarding supportive measures to best manage the sudden psychological damages caused by the novel infection were also assessed in article selection.

### *Road Map*

For the purpose of the literature review section of this paper, these six research articles are organized into three categories. First, articles explaining the overall health issues outlined specifically within nursing students without the context of Coronavirus. Second, the breakdown of how Coronavirus caused an influx of several mental health issues within the general populations of postsecondary university students. Then lastly, the interpretation of the detrimental psychological effects of coronavirus on nursing students. These categories will facilitate the direction of this paper, allowing there to be a build-up and thus a summation of information of the three categories as individual concepts and then easily pieced together as a whole. This will clearly define the picture of how nursing students are currently at high risk for suffering from the onslaught of mental health complications during this global pandemic.

*Academic and Clinical Stress of Nursing Students without Consideration of Coronavirus*

This category encompasses two nursing journal articles that highlight the complex stressors that nursing students endure on a daily basis. Both articles were written before the integration of COVID and thus are representative of what normal nursing stress was like without context of the current global pandemic. Student nurses must balance their lives not just with challenging academics from a higher institution like their peers of other majors, but also endure stress from various responsibilities expected of them as future healthcare professionals. Not only are nursing students held to the same academic standards of other regular university students, they must also take on the responsibility of learning about the healthcare field and thus be subject to build a foundation and expertise in hospital settings with clinical experience in order to supplement their classroom lectures (Karaca, 2019, p.44).

Evans and Kelly (2004) investigated the perception of stress that nursing students reported in addition to their strategies of either maladaptive or adaptive coping for the management of stress. Researchers had conducted a self-reporting 109-item questionnaire on fifty-two third year students undertaking the Diploma of Nursing Studies in a Dublin, Ireland teaching hospital. The questions on the survey revolved around: the kinds of clinical and academic stress that they were exposed to and the emotions surrounding their experiences with stress, the coping strategies that were utilized during times of stress and then the personality factors that nursing students reported to be beneficial for carrying the strenuous psychological burdens (Evans and Kelly, 2004, p.476).

It was found that:

...examinations, the level and intensity of academic workload, the theory–practice gap and poor relationships with clinical staff were the leading stressors identified. Emotional reactions to stress included feeling exhausted and upset under pressure. Students adopted short-term emotion focused coping strategies when attempting to deal with stress. A sense of achievement, and determination, were personal factors, which assisted students to continue in the event of stress being present (p.473).



With this study in mind, one can easily understand the emotional consequences from the academic and clinical practice stressors (i.e. burnout, exhaustion, immense feelings of pressure in academic and clinical settings) of nursing students are not to be taken lightly. Even with the use of stress management techniques to aid with their psychological distress, nursing students had reported that they feel as though they harbor a heavy burden on their shoulders juggling all of their responsibilities.

Moreover, Chan, So and Fong (2009) reinforce the findings of Evans and Kelly by offering a cross-sectional descriptive study design survey conducted in Hong Kong on 205 baccalaureate nursing students that assessed their individual demographics, perceptions and types of stress that they were exposed to in clinical practice, in addition to what coping methods they utilized to alleviate their stress and what factors caused them to cope the way and as often as they did. It was found that the most significant precursor to stress for students was the lack of familiarity with necessary professional knowledge and skills in the hospital (Chan, et al., 2009, p.307) It should also be noted that:

...transference was the most frequently used [coping strategy]. Furthermore, senior students who perceived a higher level of stress from taking care of patients were more likely to choose problem-solving strategies. Senior students who had no religious belief and perceived a higher level of stress from teachers and nursing staff were more likely to use avoidance strategies (p.307).

Although it was found that senior-level nursing students reported the effective use of problem-solving strategies to best combat their stressful situations, it can also be noted that this is a skill that must be developed overtime and is not always a fool-proof strategy because “when students are inexperienced in providing nursing care for patients with complicated physio–psycho–social problems, they might have difficulty in applying the problem-solving approach” (Chan et al., 2009, p. 311). So, although senior nursing students do report the use of this adaptive

stress management method, they may still be subject to the detrimental mental health issues associated with stress especially when their method to cope is not enough to completely or effectively handle their psychological distress. In addition, to further emphasize the magnitude of mental health risks of this population, Hong Kong nursing students had also reported that their stress originated from their worries about their grades and the accumulated number of clinical assignments and academic workload, which all significantly exceeded their personal physical and emotional capacities (Chan et al., 2009, p. 311).

As opposed to their counterparts of other regular university students that do not bear the same responsibilities of a curriculum requiring clinical placement demands with higher academic studies, nursing students are in a position that poses them at higher risk for the slightest exacerbations of mental health issues even if they are well-equipped with reportedly effective coping strategies.

### ***General University Students and Their Mental Health Effects from COVID-19***

For this category there are three research articles that describe the negative mental health implications of COVID-19 upon the general population of post-secondary students within this year, 2020. The primary research article "*When Social Isolation Is Nothing New: A longitudinal Study Psychological Distress During COVID-19 Among University Students With and Without Preexisting Mental Health Concerns,*" focuses on 733 university students at a large academic institution in Canada. Participants were given a survey in May of 2019 assessing their mental health as a student and then were contacted again to take the same survey in May of 2020 in light of the recent outbreak and integration of Coronavirus into their everyday lives. On a scale of one to four (one indicating "not at all part of my life" and four being "very much part of my life") the participants reported their stressful experiences with the use of the Inventory of College Students

Recent Life Experiences, which assess seven stressors associated with university students (Hamza, Ewing, Heath and Goldstein, 2020). These stressors include developmental challenges, time pressure, academic alienation, romantic problems assorted annoyances, social mistreatment and friendship problems.

It was found that students with preexisting mental health challenges showed significant signs of improvement and/or stagnant states even during the pandemic. Students with no preexisting mental health issues indicated that they were struggling the most with increasing psychological distress with the introduction of Coronavirus into their academic and personal lives (Hamza et al., 2020). Moreover, Hamza (2020) and the researchers specifically found that “students without preexisting mental health challenges reported increasing sadness, depressive symptoms, anxiety symptoms, Post Traumatic Stress Disorder symptoms and burdensomeness”.

It is evident those students that had not initially reported any problems with their mental health in 2019 are the same students that are currently experiencing the most mental health deteriorations in 2020 because of the pandemic requiring social isolation and social distancing during the time. The comparison of the social mistreatment scales from the two separate years is seen to portray marked increases within the population of people having no initial mental health concerns. This suggests that COVID-19 devastated this population significantly due to students not being familiar with the feeling of being alone and isolated, in comparison to the other group that is more accustomed to those feelings. Essentially, this article reports significant mental health concerns to be newly identified in students that did not already have existing mental health issues and primarily linked to the isolating lifestyle caused by Coronavirus.

This article is particularly relevant and strong in the way that it is a study that examines both the pre- and post- COVID-19 statuses of mental health in university students, not just a study done at a single point in time with no reference to a baseline period.

Furthermore, Yang, Tu and Dai's (2020) research article title "*The Effect of the 2019 Novel Coronavirus Pandemic on College Students in Wuhan,*" encompasses a multiple mediation model of 384 university students from four different academic institutions in Wuhan, China. An online questionnaire had been sent out from February fourth to February seventh which was during the time China's government had mandated Wuhan city's closure. Participants had completed scales on their COVID-19 victimization experience, of positive thinking, of resilience and of mental health. These variables were reported through the use of a 5-point Likert scale which includes the range from 1 (strongly disagree) to 5 (strongly agree). Through the use of these structured instruments, it was concluded that the Coronavirus victimization experience was significantly related to negative mental health predictions. However, positive thinking and resilience were also strong factors that influenced the victimization experience of COVID and mental health concerns (Yang et al., 2020). It was stated that,

In college students, who had mainly been experiencing, witnessing or facing various stressful events related to the occurrence of 2019-nCoV resulted in negative psychological symptoms, such as a sense of tension, fear of infection, insomnia, and a low mood. Despite the spread of 2019-nCoV being already controlled by blocking cities and limiting transportation, 2019-CoV resulted in trauma and numerous negative emotions (Yang et al., 2020, p.11).

Refer to Appendix A for the Literature Review Table, which is organized alphabetically by author, which is a resource that entails more detail about the specific constructs, strengths and limitations of this article.

Finally, in the article "*How Have COVID-19 Isolation Policies Affected Young People's Mental Health - Evidence from Chinese College Students*" authored by Chen, Sun and Feng

(2020), there is an investigation of the relationship that isolation associated with various implementations of policies intending to contain COVID-19 has with mental health of university students. There were 992 Chinese students that had participated in this online survey during their period of self-isolation. The seven dimensions of psychological well-being were measured, those being an individual's: mental status, knowledge of stress management, behavioral patterns, risk perception, academic stress, family relationships and peer relationships (Chen et al., 2020).

Through the performance of this study, researchers found that isolation played a significant and complex influence on the symptoms: obsessive-compulsive disorder (OCD), fear, hypochondria, depression and neurasthenia. Researchers had proven that “the impact of anxiety, controllability and vulnerability that when young people receive excessively negative pandemic information, it leads to more grave psychological problems” (Chen et al., 2020, pg. 4). In addition, when being forced to stay at home with their families, students reported family relationships having adverse effects of OCD, depression and neurasthenia. Exacerbations of these symptoms are attributed to the students not being able to properly leave their homes when needed for a break and instead causes more susceptibility of conflict within familial relationships. Lastly, there was a very significant finding of negative impacts upon academic stress on depression and neurasthenia (Chen et al., 2020). For more information about the content, strengths and limitations of this study refer to Appendix A for the Literature Review Table.

These three articles are categorized together because they offer similar insight into the manifestations of negative and detrimental mental health concerns of university students within the context of COVID-19's global integration into the daily lifestyle of the general population. Each of these articles provide different perspectives of the university student and use various tools to assess mental health during the time of Coronavirus and through the different measures

that are being taken by each geographical area in order to best contain the spread of this pandemic. They all come to the same conclusion that, even early on during this pandemic, there are negative outcomes on a student's mental health. The developmentally vulnerable population of postsecondary students are already severely at risk for mental health complications and with the implementation of safety measures and the uncertainty around Coronavirus, the literature has shown that the status of their declining mental health is being exacerbated by the circumstances.

### *Nursing Students and Their Mental Health Effects from COVID-19*

This category encompasses a single article that sums up the recent research of stress and anxiety on nursing students during the COVID-19 outbreak while also providing information pertaining to coping strategies that were utilized during this time. The nursing journal article, "*Anxiety and coping strategies among nursing students during COVID-19 pandemic*," by Savitsky, Findling, Erel, and Hendel (2020) details a cross-sectional study on 244 students, first to fourth years of educational cohorts, undergoing nursing while on their third week of a national lockdown in Ashkelon Academic College, Southern District, Israel. They found that although nursing students already normally experience an elevated level of stress, emotional and psychological trauma especially in clinical settings and before the introduction of Coronavirus, the integration of anxiety associated with this novel infection into daily life and academia has proven to cause significantly negative adverse effects upon the mental health statuses of this high-risk population.

Lack of personal protective equipment, concern for the future and fear of becoming infected were all significant factors that contributed to a nursing student's level of anxiety in this study. In addition to the moderate and severe levels of anxiety collected from this survey, it was also found that anxiety was linked to mental disengagement (coping in the form of recreational and

sedative drug usage, alcohol intake and excessive eating), which is an ineffective and maladaptive coping method that may actually cause further unhealthy coping strategies (Savitsy et al., 2020, p. 5). Researchers attribute the high prevalence of anxiety to the conditions and the consistency of COVID-19 including social isolation, economic instability, dependents to care for at home, uncertainty of the future, difficult transitioning into fully online learning, fear of becoming infected and a plethora of other circumstances causing high-anxiety within the population.

### *Overall Discussion of Literature Review*

Upon review of all of these collected six articles, it can be concluded that university students, nursing students at the center point are experiencing extreme psychological distress and mental health issues with the arrival and integration of Coronavirus into their daily educational and personal lifestyles. Strengths of these studies would be the fact that they are all innovative and unique studies conducted. Moreover, the studies pertaining specifically to COVID-19 are original research articles that are relevant to global situations still and there are currently not many thorough articles written yet about this ambiguous disease and its mental health implications on this specific population.

However, limitations about these studies overall would be that all, except one, were conducted at only a single point in time and the sample populations that were experimented on were all limited to the geographical regions in which they were all respectively based (i.e. Hong Kong questionnaires were limited to students in a single Hong Kong university and the survey conducted on the university in Israel was limited to that specific university's nursing department as well). In addition, for each of these articles that had been done on the university student population, the participants reflect a larger percentage of the perspective of women, primarily

because women were more likely to consent and complete the various surveys within the different research. With that in mind, it is a limitation that the data collection is skewed and not representative of the whole population of students by a smaller sample of men.

These articles do offer a guiding line of thought that includes valuable information and evidence to establish a foundation for further study. There is a gap in the literature in which I hope to bridge with the research proposal in this paper: a Western perspective of nursing students in comparison with other university student majors and their collective perceptions on how Coronavirus has affected their education and clinical experiences several months after the outbreak of COVID-19, especially through the lens of their mental health statuses. The question I aim to answer through this research study is: what are the negative mental health implications that were caused by the integration of COVID into the lives of nursing students in California, months after the initial start of the pandemic?

### **Theoretical Framework**

According to Krohne's (2002) "Stress and Coping Theories," the Lazarus' Theory of Stress is defined as a relationship of an individual and their environment. Lazarus claims that psychological stress is regarded as a person's relationship with their environment and how they appraise their situation in correlation to their own sense of well-being and how it affects their ability to effectively cope with available resources to meet the demands that the stress is putting on the individual (Krohne, 2002). The "transaction" of the relationship between the individual and their environment is the key factor of Lazarus' theory on psychological stress, which relies heavily upon the cognitive appraisal and the coping of an individual. Appraisal consists of the perceptions and expectations that a person holds on situations that they may or may not have during certain stressful events. All people are different in the ways that they perceive challenges,



in such that the quality, intensity and duration of the emotions one may have will significantly depend on individual characteristics, even if the environment/event is objectively the same for all individuals (Krohne, 2002). Essentially, appraisals are all based upon the personal and situational factors related to the individual and the event. The way one perceives and thinks about their stressful situation may be cause for more or less stress in comparison to others. Furthermore, the appraisals one holds for their stress also puts an individual at risk for exacerbating the stressful situation by making the stress evolve into even more negative outcomes.

In order to achieve effective relief from stress, Lazarus states that coping, which is strongly related to the appraisal of stress, encompasses “cognitive and behavioral efforts made to master tolerate or reduce external and internal demands and conflicts among them” (Krohne, 2002). Deliberately taking charge of one’s thoughts and physically taking on the tasks of changing behaviors serve as efficient and key methods to facilitating and managing stress, as defined by Lazarus’s Psychological Stress Theoretical Framework. The end goal is essentially to reduce negative emotional states that have resulted from stress by altering external factors contributing to the stress and to then reframe the appraisals one has about the stress-inducing problem in itself.

### **Proposal for Further Study: Research Design**

#### ***Primary Research Aim***

- Collect data that describes the kinds of mental health attributes associated with COVID-19 in the lives of nursing students in California
- Find out what kinds of coping strategies were used by nursing students both ineffectively and effectively during the time of managing with COVID-19 and nursing school

#### ***Literature Review Relevance***

This study takes into consideration the literature that has been earlier reviewed by using the foundation that nursing students are already predisposed to an elevated amount of stress and negative mental health problems, associated with clinicals and academics, and thus further investigates the additional mental health concerns attributed to the COVID-19 pandemic. The following proposed study utilizes the information gathered from the literature to accurately predict the higher chance of even more psychological distress within the population of nursing students that has yet to be fully understood and identified with current research studies.

### *Ethical Considerations*

This study will be reviewed by the Internal Review Board of Dominican University of California before participants will be recruited. Consent will be ensured by participants as they decide, of their own volition, to complete the online survey/questionnaire and submit their information as they wish. There is no need for a consent form to be sent out, signed and collected because a participant choosing on their own free will to submit the Google Form survey will act as consent in and of itself.

The confidential information will be stored in a password protected account on a password protected personal laptop that only the sole researcher and research course instructor and facilitator of this study will be able to access. Resources will be made clearly available and listed at the end of the survey so that students may reach out to appropriate professionals to discuss their mental health issues if needed.

### *Sample Description and Size*

The primary target population for this online survey to be completed by are university students who attend school within California, including Baccalaureate nursing students. Only collegiate students currently enrolled in and taking courses at a college will be included in for

this sample population. An anticipated sample size would be approximately 100 university students. Participants will comprise a convenience sample, and I hope to expand this sample size through use of snowballing.

### ***Research method***

The design of this study is intended to be a cross-sectional, quantitative through the use of assigning responses to numerical choices when participants are asked to respond to a series of questions and decide which answer best describes their personal experiences and level of stress. An online survey and questionnaire that nursing students may easily access through the use of a Google form will be the instrument used to conduct this research study. Students will be using a Likert Scale to assess levels of stress, which are numbers assigned to coordinating choice responses to questions, in order to assess students' perceptions both during the months following the introduction of COVID-19 into everyday life and prior to the COVID-19 pandemic. Questions will be created originally by the researcher to identify specific areas of assessment for students but will be using the Likert Scale for participants to decide on their levels of various mental health statutes that may have come up or been exacerbated during this time of study.

Both, or all, university students of majors including nursing and non-nursing will be eligible to complete this survey in order to gain a better understanding of the comparison of stress from the two groups of populations. This study will identify if there is a stark contrast between the populations and if, as predicted, nursing students will display an excessive amount of stress especially in comparison to their peers of several other majors.

### ***Assessment Questions for Proposed Research Study***

The survey will be organized by initially starting off with collecting general demographics of the participants such as: age, gender, ethnicity, major (nursing or not nursing

and possible choices to define their specific line of education (major) if needed) and what university or higher education institution they currently attend.

*Demographic questions that next will be asked are:*

Age

Gender

Ethnicity

Class level at the university (Freshman, etc.)

Pre-Nursing Student (yes or no)

Nursing Student (yes or no)

Currently in a clinical course (yes or no)

Student in Healthcare Major other than Nursing

Major \_\_\_\_\_

Minor \_\_\_\_\_

*Questions to assess the stress of students include:*

- How would you best describe your stress in terms of your *overall life* **before** the introduction of COVID-19?
- How would you best describe your stress in terms of your *overall life* **immediately following** the introduction of COVID-19?
- How would you best describe your stress in terms of your *overall life* **currently, months after** the introduction of COVID-19?
- How would you best describe your stress specifically in respect to your *academics* **before** the introduction of COVID-19?

- How would you best describe your stress specifically in respect to your *academics* **currently** in consideration of COVID-19?
- How would you best describe your stress specifically in respect to your *clinical rotations* before the introduction of COVID-19?
- How would you best describe your stress specifically in respect to your *clinical rotations* **currently** in consideration of COVID-19?

These questions will be answered with the use of the five-point Likert scale of : (1) No Stress; (2) Minimal Stress; (3) Not applicable; (4) Moderate Stress; (5) Extremely Stressed.

- Would you say that your overall stress and anxiety levels related to your *academics* have **worsened** with the integration of COVID-19 safety measures being put in place?
- Would you say that your overall stress and anxiety levels related to your *academics* have **improved** with the integration of COVID-19 safety measures being put in place?
- Would you say that your overall stress and anxiety levels related to your *clinical rotations* have **worsened** with the integration of COVID-19 safety measures being put in place?
- Would you say that your overall stress and anxiety levels related to your *clinical rotations* have **improved** with the integration of COVID-19 safety measures being put in place?

These questions will be answered with the use of the five-point Likert scale of: (1) Strongly disagree; (2) Disagree; (3) Neither agree nor disagree; (4) Agree; (5) Strongly agree.

- What coping strategies have **effectively** been successful for you when managing stress associated with COVID-19 related to your *academics and clinical rotations*?

- What coping strategies have **ineffectively** been successful for you when managing stress associated with COVID-19 related to your *academics and clinical rotations*?

These questions will be answered with the use of the five-point Likert scale of: (1) Alcohol and Substance Use; (2) Unhealthy eating habits causing excessive weight gain or loss; (3) Exercise; (4) Personal Hobbies; (5) Other.

### **Data Analysis**

For data analysis an ANOVA and T-test will be utilized to decipher the significant differences between populations of this study This includes the questionnaire findings of nursing students in comparison to other majors. The group of “other majors” may even be further broken down into more specific subcategories such as: healthcare professions, social studies and business majors, to better understand the differences between the more detailed groups. Further demographic groups may also be identified (i.e. students raising children, students independently responsible for their tuition and living situations) to build a more developed analysis between the mental health issues of these demographics and the average university student. A content analysis will also be conducted to better understand the open-ended questions that allow students to write in what coping strategies that had been utilized.

### **Conclusion**

This study is vital to gain a more in-depth understanding of COVID-19's mental health effects on the university student population, especially in California. This literature review and research proposal allows for a foundation to be laid and to serve as an opportunity to effectively gather information that can be useful towards the medical field. Resources and techniques adapted by these potential findings from the research would be significant tools to best manage mental health distress originating from COVID-19 which would prove beneficial for current and

incoming university students, especially nursing students who will soon be adjusting to the professional realm of the healthcare field. As nurses, accumulating this knowledge of how to better treat, prevent and manage negative mental health issues during this time would facilitate making this pandemic much more smoothly integrated (through effective coping) into everyone's lifestyle, on a global scale.

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**Appendix A**

*Analyzing the Negative Mental Health Effects of Isolation from COVID-19 on University Students*

**\*Table is organized alphabetically by primary author’s last name\***

Authors/ Year of Publication/ Article Title	Purpose/ Objective of Study	Sample	Study Design	Study Methods	Major Finding(s)	Strengths/Limitations
<p>Christine <b>Chan</b>, Winnie So and Daniel Fong (2009)</p> <p>Hong Kong Baccalaureate Nursing Student Stress and Their Coping Strategies in Clinical Practice</p>	<p>To examine stress and coping strategies of Hong Kong nursing students undergoing clinical practice</p>	<p>205 nursing students from a Hong Kong university</p>	<p>Cross-sectional descriptive design</p>	<p>Self-reporting survey including: demographics, Perceived Stress Scale, Physio-Psycho-Social Response Scale and Coping Behavior Inventory (CBI)</p>	<p>Most common stressor was lack of professional knowledge and skills.</p> <p>Stress associated with assignments and workload in addition to stress from taking care of patients</p>	<p>Strengths:</p> <ul style="list-style-type: none"> <li>● Study is innovative and original</li> </ul> <p>Limitations:</p> <ul style="list-style-type: none"> <li>● Convenience sampling was used, causing limited data collection to a single Hong Kong university</li> <li>● Data was collected during a lecture session so absent students did not complete this survey, further limiting this sample</li> <li>● Cross sectional design was only a single perspective at a single point in time</li> <li>● The instruments used in this study were not widely used before the creation of this paper</li> </ul>
<p>Bo <b>Chen</b>, Jinlu Sun and Yi Feng (2020)</p> <p>How Have COVID-19 Isolation Policies Affected Young People’s Mental Health? – Evidence From Chinese College Students</p>	<p>To investigate the mental health status of young people in isolation due to the policy response to coronavirus disease</p>	<p>992 Chinese College Students</p>	<p>Cluster Analysis</p>	<p>Online survey in a period of isolation</p> <p>Seven dimensions of psychological well-being measured: mental status, knowledge of stress management, behavioral patterns, risk</p>	<p>Isolation policy had a complex influence on the symptoms of obsessive-compulsive disorder, fear, hypochondria, depression, and neurasthenia via various factors.</p> <p>Family relationships can have an adverse effect on the three symptoms: OCD, neurasthenia and depression. Staying at home causes young people to spend more time with their parents and makes these relationships more susceptible to conflict, which exacerbates the above three symptoms.</p> <p>Negative impact of academic stress on depression and neurasthenia was</p>	<p>Strengths:</p> <ul style="list-style-type: none"> <li>● Study is innovative and original</li> </ul> <p>Limitations:</p> <ul style="list-style-type: none"> <li>● Survey conducted in Henan, China. May have cultural differences or there may be different patterns may exist in other areas</li> <li>● Survey completed in March but no baseline study for reference.</li> <li>● Only proposed a framework for intervention, no interventions measured at this time</li> </ul>

				perception, academic stress, family relationships, and peer relationships	extremely significant. Gender and age affected depression: male and younger students were more prone to depression.	
William <b>Evans</b> and Billy Kelly (2004)  Pre-registration diploma student nurse stress and coping measures	To examine the stressful experiences and coping abilities of student nurses	52 third year student nurses taking the Diploma in Nursing Studies in the Republic of Ireland, taking clinicals at a teaching hospital in Dublin	Cross-sectional study self-reporting survey design	A 109-item questionnaire utilizing the Likert scale  Measured five constructs related to student nurse stress: clinical stress, academic stress, coping, emotions and personal factors which assist students nurses during periods of stress.	Examinations, the level and intensity of academic workload, the theory–practice gap and poor relationships with clinical staff were leading stressors identified by the nursing students. Prominent emotional reactions to stress: feeling exhausted and upset under pressure. Students adopted short-term emotion focused coping strategies when attempting to deal with stress. A sense of achievement, and determination, were personal factors, which assisted students to continue in the event of stress being present.  Student nurses are exposed to a variety of stressors ranging from their academic and clinical environment and responsibilities.  Emotional consequences of stress on nursing students: immense and frequent exhaustion and pressure	Strengths: ● Study is innovative and original  Limitations: ● Only represented students from a single institution of higher education in Ireland\  ● Small and limited sample size of just 52 participants

<p>Chloe <b>Hamza</b>, Abby Goldstein and Nancy Heath (2020)</p> <p>When Social Isolation Is Nothing New: A Longitudinal Study Psychological Distress During COVID-19 Among University Students With and Without Preexisting Mental Health Concerns</p>	<p>To determine psychological impacts of COVID-19 among postsecondary students</p>	<p>773 postsecondary students in Canada</p>	<p>Repeated-measures analyses</p>	<p>Participants completed a survey on student mental health in May 2019, again in May 2020.</p> <p>Students filled out an online survey at both time points, reporting on their recent stressful experiences and mental health.</p>	<p>Students without preexisting mental health concerns had greater increases in psychological distress during the pandemic</p> <p>Increases in social isolation were unique to students without preexisting mental health concerns (whereas students with preexisting mental health concerns showed no change), which may account for the worsening of their mental health.</p> <p>Students with preexisting mental health concerns showed improving or similar mental health during the pandemic (compared with one year prior).</p> <p>In contrast, students without preexisting mental health concerns were more likely to show declining mental health, which coincided with increased social isolation among these students.</p>	<p>Strengths:</p> <ul style="list-style-type: none"> <li>● Study is innovative and original</li> <li>● Postsecondary students were included in a large sample, increasing generalizability</li> <li>● Data points collected before and during the COVID-19 pandemic is innovative and serendipitous.</li> </ul> <p>Limitations:</p> <ul style="list-style-type: none"> <li>● Sample limited to only participants who completed an assessment at both time points (May 2019 and May 2020), resulting in attrition.</li> <li>● Results may not be generalizable to other postsecondary student samples from schools with less restrictive policies in place</li> <li>● Participants were predominantly female, East and South Asian, and Caucasian, so it is possible that these results may not generalize to other postsecondary or emerging adult samples with varying demographic backgrounds</li> <li>● Choose to resurvey participants using the same assessments used in May 2019, so that could have a comparable reference point. Psychological impacts of COVID-19 may have been greater closer to the onset of the pandemic</li> </ul>
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<p>Bella <b>Savitsky</b>, Yifat Findling, Anat Erel and Tova Hendel (2020)</p> <p>Anxiety and coping strategies among nursing students during the COVID-19 pandemic</p>	<p>To assess levels of anxiety and methods of which nursing students chose to cope</p>	<p>244 nursing students in the Ashkelon Academic College, Southern District, Israel during the third week of national lockdown</p>	<p>Cross-sectional study</p>	<p>Anxiety level was assessed using the Generalized Anxiety Disorder 7-Item Scale(GAD-7) with a cut-off point of 10 for moderate and of 15 for severe anxiety. Factor analysis was used to identify coping components.</p>	<p>The prevalence of moderate(GAD-7 scores greater than 10) and severe (GAD-7 scores greater than 15) anxiety was 42.8% and 13.1% respectively. Gender, lack of Personal Protective Equipment (PPE), and fear of infection were significantly associated with a higher anxiety score. Stronger resilience and usage of humor were associated with significantly lower anxiety levels, while mental disengagement with higher anxiety levels.</p>	<p>Strengths:</p> <ul style="list-style-type: none"> <li>● Innovative and original</li> <li>● Findings contribute to new evidence towards better understanding concerning anxiety in nursing students through the perspective of COVID-19</li> </ul> <p>Limitations:</p> <ul style="list-style-type: none"> <li>● Study limited to the largest epidemic region but this is a global pandemic - other countries need to also be evaluated</li> <li>● Limited sample; only nursing students from the single college in Israel</li> <li>● Participants were majority female and so male perspective may not have been as evident in this study</li> </ul>
<p>Dong <b>Yang</b>, Chia-Ching Tu and Xiao Dai (2020)</p> <p>The Effect of the 2019 Novel Coronavirus Pandemic on College Students in Wuhan</p>	<p>To identify the relationship of positive thinking and resilience in relationship to the 2019 novel coronavirus victimization experiences and mental health.</p>	<p>Wuhan's college students 384 from 4 universities in Wuhan, China Data collected in Feb 2020</p>	<p>Multiple mediation model</p>	<p>Four structured instruments using a 5-point Likert scale. Measured the scale of the 2019-nCoV coronavirus victimization experience, scale of the positive thinking, scale of the resilience, and scale of the mental health.</p>	<p>The findings confirmed that the 2019-nCoV victimization experience was a negative predictor of mental health; positive thinking and resilience were strong mediators between 2019-nCoV victimization experience and mental health.</p> <p>The negative effect of 2019 novel coronavirus (2019-nCoV) victimization experience would not fully affect mental health in Wuhan's college students because positive thinking and resilience partially hinders the relationship between the 2019-nCoV victimization experience and mental health.</p>	<p>Strengths:</p> <ul style="list-style-type: none"> <li>● Innovative and original</li> </ul> <p>Limitations:</p> <ul style="list-style-type: none"> <li>● Study limited to the largest epidemic region but this is a global pandemic - other countries need to also be evaluated</li> <li>● Used an online questionnaire to collect samples because of the risk of infection.</li> <li>● This study only used data from Wuhan's college students to construct a model of interventions in mental health, and the model may not be suitable for extrapolation to other groups or other types of disaster events</li> </ul>