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Covid, Inequalities and Health: A Sociological Analysis About the Resilience Found in Unique Student Life Experiences

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COVID, INEQUALITIES AND HEALTH: A SOCIOLOGICAL ANALYSIS ABOUT THE
RESILIENCE FOUND IN UNIQUE STUDENT LIFE EXPERIENCES

by

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ABSTRACT

This study demonstrates how adversity during the covid pandemic has impacted the lives of diverse college students. Specifically, this study analyzes students' perspectives on how they respond through resilience to daily academic, financial, and social stressors impacting their health during the pandemic. For this study, the research questions are: 1) what themes and forms of coping emerge among marginalized racially, ethnically diverse U.S. college students about their mental health and daily life experiences exacerbated by the covid pandemic? 2) And to what do experiences with stressors in combination with the covid pandemic reveal about the mental health of marginalized groups of students? The method used was semi-structured phone call interviews with 14 college students. Results reveal how students deal with covid and non-covid stressors, manage both physical and mental health concerns, and how they utilize resources from formal and informal social support, gaining thriving or surviving style coping strategies. Overall, the findings provide novel insight to the large body of literature on life experiences in response to social inequities, stressors, and adverse life events in times of crisis, highlighting the significance of listening to diverse college students' needs and their physical and mental health concerns.

Keywords: Stressors; Health; Covid; Social Support; Resilience; Marginalized; Students

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TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

INTRODUCTION

The coronavirus disease (covid) has killed over 4 million people, with the U.S. reporting 607, 289 death cases, it has become an alarming concern to the public as the numbers have continued to grow (Czeisler et al. 2020; Center for Disease Control and Prevention 2021). When considering this global pandemic and how it began in March 2020 with the spread of the virus, which involved quarantining, lockdowns and "social isolation," emerging research shows that there is an impact on people's social lives and states of well-being in a plethora of ways (Czeisler et al. 2020; Center for Disease Control and Prevention 2021; Pfefferbaum and North 2020). Especially for some racial and ethnic marginalized groups, such as Black or Latino/a populations, the problems that arose due to covid have worsened their living conditions. The pandemic has worsened living conditions, even as some schools, businesses, or workplaces began re-opening in phases with everyone having to wear face masks and practicing social distancing, impacting these groups' mental health (Czeisler et al. 2020). According to the NIH US. National Library of Medicine, mental health, "Includes our emotional, psychological, and social well-being. It affects how we think, feel, and act as we cope with life. It also helps determine how we handle stress, relate to others, and make choices" (MedlinePlus 2021). Thus, feeling anxious, worried, nervous, or showing signs of withdrawal, sadness and no pleasure in day-to-day activities are attributed to anxiety and depressive-related symptoms, which are commonly tied to complex social and environmental life influences (Lee et al. 2019; MedlinePlus 2021; Ross 1997).

Notably, with this understanding of mental health in combination with the unsettling and ongoing racial injustices in society, social isolation and loneliness, individuals will have to resort to alternative measures to cope. Additional to a lack of social support, which is where potentially

useful information or resources are provided by other persons, individuals will have to respond with positive or negative coping strategies to adapt with the new temporary normal of life (Cohen and Syme 1986). Both the presence of informal social support, which includes the individual level of families, peers, significant others, church members, or formal social support, which includes the institutional level of co-workers and mental health service therapists, can impact how people will respond to life experiences, thus, impacting their health outcomes (Hinojosa, Hinojosa and Chiara 2014; Ekas, Lickenbrock and Whitman 2010; Krause 2009; Taylor and Chatters 1988). Based on Holland and Heidi's (2016) work, coping is a way people manage adverse experiences and try to balance their health, which can be done with adaptive, and also known, "thriving" coping strategies meaning healthy ways to maintain mental health, or with maladaptive, also known as "surviving" coping strategies meaning unhealthy ways to maintain mental health (Amnie 2018; Holland and Heidi 2016). For instance, using acceptance, positive framing humor or religion are seen as an adaptive, while maladaptive coping strategies can include using self-distraction, negatively venting, substance use or behavioral disengagement (Holland and Heidi 2016). Positive or negative forms of coping are used more frequently in response to the pandemic since individuals are struggling with their mental health, like feeling worried or anxious due to being distant to friends or loved ones and losing contact with others as no large social gatherings have been permitted in the past (Fox and Afzal-Khan 2020; Pfefferbaum and North 2020).

Many scholars have prioritized their research to focus on mental health during the covid pandemic and findings indicate that symptoms of depression and anxiety have sky-rocketed among individuals, especially among adolescents and young adults (Czeisler et al. 2020; Ramon 2020). Before covid, extensive research that indicated how daily life stressors, including

discrimination and a lack of access to resources, such as materials to succeed in work or school environments, or supportive services, such as therapy, were key factors to explaining marginalized groups' mental health outcomes (Williams and Etkins 2021; Czeisler et al. 2020; Twenge and Thomas 2020; Williams 2018). More recently due to covid, an increasing amount of awareness has been made about the worsening mental health effects within different racial and ethnic groups of individuals (Williams and Etkins 2021; Czeisler et al. 2020; Twenge and Thomas 2020; Shanahan et al. 2020; Williams 2018; Paradies et al. 2015; Whaley 1998). Additional to previous research and the concern for racially or ethnically diverse individuals' mental health, like analyses demonstrating how Blacks and Latino/a individuals can likely experience depressive or anxiety symptoms, due to frequent discrimination in the environment and oppressive stressful factors in their daily life experiences. However, additional research that addresses those root causes of mental health disparities concerning individuals with diverse social identities is still needed to provide interventions, including policies and equitable quality health services, with resources for them to succeed in life and maintain well-being (Czeisler et al. 2020). Overall, research providing insight on the worsening health and well-being outcomes in racially, ethnically, and other intersecting social status diverse young adult college students, is essential to critically understand how unique groups of individuals may adapt with resources from social support and cope with their daily life experiences amid the covid pandemic. As well, this line of work will not only provide novel understanding but will also give voice to young adults who often feel unheard or aren't given spaces to share their valuable and knowledgeable experiences about what is going on in the social world. Results will provide further evidence of students' perspectives on the relation between social inequities and social stressors in times of crisis.

REVIEW OF LITERATURE

Covid Mental Health Effects

On a global level, the covid pandemic has put an enormous amount of pressure on individuals, changing their daily life experiences and across various countries. Patterns of distress and worsening mental health outcomes have been attributed to several factors (Farris et al. 2021). For example, a recent study reports that 78% of Australians, who have and do not have pre-exisiting mental health concerns are experiencing worse mental health, and 50% reported that their decline in mental health was due to feeling loneliness induced by the covid-19 pandemic (Newby et al. 2020). Another study shows how Filipino's report feeling that covid has been a trigger for stress responses leading to increased anxiety and depressive symptoms (Montano and Acebes 2020). In China where the disease first emerged, with extensive quarantining and lockdown, Chinese residents have experienced increased feelings of fear, anxiety, and many who have internalized stigmas from covid, have had increased feelings of shame and depression (Gan et al. 2020; Li et al. 2020). Further, research has gone to show that even after the pandemic, there will probably be lingering effects of elevated signs of distress and anxiety (Kwong et al. 2020). Evidently, a recent systemic review concluded that the mental health effects are similar in various countries, and increased stress, depression, and anxiety-related symptoms have continuously been seen throughout the public across the United States, Spain, Nepal, Denmark, Italy, Turkey, and other European countries (Xiong 2020).

Particularly, in the United States, which is where this study takes place, a longitudinal analysis reveals how those diagnosed with anxiety or depressive mood disorders have drastically changed from 2019 to 2020 (Twenge and Thomas 2020). Interestingly, the U.S. Census Bureau's screening for anxiety and depression, findings reveal that from April to May 2020 that the

prevalence of diagnoses has increased, where U.S. adults are three times more likely to positively report that they have mental disorders in comparison to when there was no pandemic in 2019 (Twenge and Thomas 2020). Another study shows that U.S. young adults, aged 18-24, have had increased rates of depressive symptoms compared to other age groups, and 26% of which have had increased suicidal ideations (Czeisler et al. 2020). Notably, research demonstrate that Americans, dealing with psychological distress and mental health concerns that arose from the covid pandemic, have begun to maladaptively cope by relying on excessive substance use to feel better (Park et al. 2020; Pfefferbaum and North 2020; Rodriguez, Dana and Sherry 2020). In comparison to men, women have had an increase in heavy alcohol drinking behavior (Park et al. 2020; Pfefferbaum and North 2020; Rodriguez, Dana and Sherry 2020). On the other hand, individuals report engaging in more positive or adaptive ways of coping with the impact of the pandemic, such as relying on religious or emotional support by reaching out to mental health professionals, and others by relying on distractions which includes, watching TV or reading to reduce stress (Park et al. 2020; Wardell et al. 2020; Holmes et al. 2020). In other words, what is noteworthy is that specific racial, ethnic, young adult aged, gendered groups have become more vulnerable and susceptible to developing mental health problems due to the covid pandemic effects, and that different groups are learning to cope with this in a variety of positive or negative ways.

In the United States: Marginalized Black and Latino Mental Health Effects

Considering prior research, it can assist in grappling with which groups have experienced being in worse mental health states due to other complex social determinants of health with the pandemic going on. Markedly, evidence suggests that in the United States, Black and Hispanic individuals' experiences with racial discrimination and encounters with people who have racial

biases have been associated with increased risk for developing mental health disorders (Center for Disease Control and Prevention 2021; Williams and Etkins 2021; Conrad and Leiter 2019). As well, the risks for developing mental health concerns due to racism, which can involve internalizing feelings of exclusion, underappreciation, or devaluation, is seen to develop partly due to an overload of chronic, toxic stress as the body and mind interact with the environment (i.e., daily prejudicial encounters at school or work) (Williams 2018; Lovallo 2016). Specifically, when looking at the combined research analyses on populations of Latinos/Hispanics in the United States, there is strong evidence of this association as well (Williams 2018; Lovallo 2016). For example, unlike Mexicans, Puerto Ricans have had significantly more positive associations between perceived ethnic discrimination, depression and anxiety, and Black Latino youth in comparison to Non-Black youth, have had higher depressive symptoms partly due to experiences with the deeply embedded structural racism within society (Burgos and Rivera 2009; Rivera 2012; Piedrahita 2007). This comparison across different studies signifies where some racialized groups can have positive associations while others don't, which is key in really understanding how implicit ethnic/racial differences exist, impacting some more than others. There is a similar trend seen with other minority racial groups who are affected by everyday discrimination. For example, research shows that Asian Americans experiencing different forms of discrimination have increased odds of developing mental health disorder comorbidities (Williams 2018).

Likewise, previous research comparisons of other racial and ethnic groups, including African Americans, continuously reveal the trend of numerous adverse mental health effects and outcomes associated with racism and racist-related experiences. For instance, one study shares how internalized racism was a stronger predictor for serious psychological distress in U.S. born African Americans and U.S. born Caribbean Black individuals in comparison to foreign-born

Caribbean Black individuals (Mouzon and McLean 2016). Furthermore, African Americans compared to other minority groups within the United States have not only disproportionately experienced adverse mental health outcomes due to daily racist or micro-aggression public reactions but have also been psychologically traumatized by the day-to-day stressful interactions with police brutality and constant news of the killings of unarmed African Americans (Alang et al. 2017; Bor et al. 2018; Wilson and Wolfer 2020). As an example of the many studies analyzing their mental health outcomes, one reveals how in comparison to White Americans, Black Americans' exposure to police killings of unarmed Black Americans after 1-2 months was more associated with poorer mental health outcomes (Bor et al. 2018). Additionally, more in-depth research confirms how there is not only psychological effects from experiencing or witnessing stressors like police brutality, but that this can lead to increased allostatic loads, which results in even negative physical health outcomes, like diabetes, strokes, accelerated aging, and death (Alang et al. 2017).

Moving forward with U.S. research conducted to assess the mental health of racial minority groups, recent research supports how there can be more detrimental mental health outcomes for racialized individuals due to covid (Purtle 2020). According to Pew Research Center since March 2020, among Hispanic and Black individuals, especially young women, there have been reports of higher psychological distress caused by the pandemic in comparison to their white counterparts, attributing it to some stressful factors, such as problems related to worsened socioeconomic instability and social-relation issues (Purtle 2020). The analyses reveal how there has been a lack of mental health equity with disadvantaged groups and how the covid pandemic has magnified the disproportionate amount of risk for developing mental health problems in marginalized groups like Latino/Hispanics, Asian and African Americans (Purtle

2020). Notably, current medical sociology research also highlights considering the mental health consequences of the pandemic's effects, including prolonged isolation, distancing and trauma imposed in these groups (Farris et al. 2021; Jenkins et al. 2021). Thus, from these analyses, it is explicitly evident that previous factors, such as discrimination with a lack of informal and/or formal social support, have affected the mental health outcomes of racial groups, and that overall, with the pandemic, there appears to be an association with increased mental health concerns. With this mind, what does current research indicates about age groups, such as young adult students in college?

Diversity in College Student's Mental Health Concerns During the Covid Pandemic

A qualitative study has investigated the mental health effects of stress and covid in a sample of young adult college students (Son et al. 2020). In the interview study, researchers bring attention to how lots of existing work about covid's impact focuses primarily on children, parents, and health workers, but not much focus has been on young adult college students (Son et al. 2020; Sun et al. 2020). Notably, they reveal in survey analyses, that 71% of 195 college students report experiencing increased stress and anxiety due to covid (Son et al. 2020). As well, through a qualitative interview analysis, scholars express that most students indicate elevated levels of social isolation, and that of the 44% of students who expressed depressive thoughts, 33% of them attributed it to feelings of loneliness (Son et al. 2020). Also, this study highlights that the college students' mental health states exacerbated by covid had resulted in some of them trying to reach out for social support from others as a form of coping and using self-management techniques to deal with the increased stress, anxiety, and feelings of loneliness, but that some may have had or have not had the opportunity to utilize the college's counseling services (Son et al. 2020).

From this qualitative study, significant findings support the vulnerable mental state that many young adult college students can be in due to the covid pandemic; however, an important gap to note is that it does not reveal the group-based similarities and differences based on positionality (Crenshaw 1991). Son et al. (2020) inform readers that they did not take into consideration how student mental health problems differ by demographic characteristics or other personal and social contextual factors. Specifically, these scholars do not share any insight about the outlook on social life, the sense or lack of sense in belonging, and the unique positionality of different Black, Latino/a, and marginalized students (Crenshaw 1991). Therefore, understanding students' positionality, social determinants of health, and discriminative experiences can lead to a better awareness of college students' lives during the pandemic, especially in understanding worse mental health outcomes among marginalized groups (Billingsley and Noelle 2019; Williams 2018). What's more, this study also does not go in-depth to explore how individuals have been coping and forming resilience due to mental health struggles exacerbated by the covid pandemic.

Connecting Social Stress Theory to Covid and Mental Health Outcomes

Before getting into the social stress theory, it is important to consider what literature defines as stress and know that stressors in stressful experiences have inter-individual variabilities. Stress is considered something that can get in the way of individuals obtaining their basic needs, values, perceptions, resources, and skills and that when these are not met, there can be profound psychological and physical health effects (Pearlin 1999; Aneshensel 1992; Pearlin et al. 1989; Lazarus 1966). Daily stressors found in negative social life experiences, including discrimination or a lack of social support, can explain how there can be worse health outcomes for some individuals more than others (Anehsensel 1992, 2009; Meyer, Schwartz and Frost

2008; Rivera and Burgos 2014). The social stress theory gives clear insight about how stress can affect non-dominant status marginalized individuals, as they can experience more acute or chronic stressors than "others" (i.e., Black college students with lower SES and white college student with higher SES) (Park 2019; Aneshensel 2009; Pearlin 1999). Research by Aneshensel (2009) demonstrates how an accumulation of social inequities, which can include those chronic stressors that marginalized Black or Hispanic individuals cope with, can explain mental health disparities. Aneshensel (2009) suggests that with these mental health disparities interventions are continuously needed. Specifically, research demonstrates that there is still complexity in understanding the association between stressors as being status-generated and resources being status-limited as descriptive work (Anshensel 2009). The complexity is seen with the high levels of depression found in women, young adults, lower SES, Hispanics, and African American groups (Aneshensel 2009). Ultimately, stress can harm mental health, such that marginalized individuals who encounter more discrimination and unequal oppressive stressful experiences tied to their status (i.e. academic, work, financial-related) will have to engage with different coping strategies in adaptive or maladaptive ways, and that along with having to form resilience due to covid, they may engage more extensively in these stress coping strategies more than ever to overcome (Farris et al. 2021; Park et al. 2020; Rodriguez et al. 2020; Pearlin 1989).

Moreover, other research with regards to covid pandemic and stress supports the idea that an overload of stressors can affect the mental health of distinct status groups of individuals as global level meta-analyses reveal how women and those with higher levels of education report experiencing higher levels of stress, depression, and anxiety (Salari et al. 2020). These are interesting findings to consider when applying this to marginalized college students dealing with covid pandemic pressures, affecting their mental health outcomes. Students will likely have a

variety of coping strategies to rely on that should be further investigated to not only point out differences, but to truly demonstrate what problems need to be addressed to reduce disparities. With covid bringing more anxiety-provoking stressors to an individuals' life, the amount of daily acute and chronic stressors combined with those covid concerns, can predict poorer mental health outcomes as the options to adaptively cope, like seeking out social connections, declines, due to social isolation aggravating feelings of loneliness, which research consistently suggests will produce long-term health consequences (Van Bavel et al. 2020).

The social stress framework can reveal further insight into the consequences of social structures, to bring awareness of where mental health services are lacking, allowing for deeper investigation of individuals' perspectives about the social world. Subsequently, this gives a better understanding of the indirect impacts on mental health, especially when considering how people in the United States have responded to the covid pandemic (Farris et al. 2021; Dzigbede, Gehl and Willoughby 2020; Ensel and Lin 1991; Schwartz 2002). Particular groups of individuals experience distinct daily and chronic stressors more than the others who are of privileged groups, which could result in worse mental health outcomes; yet, there is still a lack of evidence to demonstrate these relationships with how covid stressors have created more complications in their lives affecting mental health and that dismantling this overload of oppression is more than essential for the marginalized to flourish and receive equitable support from health services.

This research aims to develop a deeper understanding of diverse students' experiences, which can provide an inclusive research approach when examining the variabilities in the way each student copes with stressors, while managing their mental and physical health concerns impacted by the pandemic (Ensel and Lin 1991; Cassel 1974; Park et al. 2020). Using the framework of social stress theory in the context of the covid pandemic and documenting the

voices of diverse college students, an exploratory investigation should take place to consider young adult students' experiences through a qualitative realm of work. Therefore, this leads into asking what themes and forms of coping emerge in conversations with marginalized racially, ethnically diverse U.S. college students about their mental health and daily life experiences exacerbated by the covid pandemic? What do experiences with stressors in combination with the covid pandemic reveal about the mental health of marginalized groups of students? To answer the important question, in-depth interviews will be conducted with the University of Central Florida's undergraduate and graduate college students (age range: 18-30).

METHOD

Data

This study used qualitative interview data collected from young adult graduate and undergraduate students. Advertisement flyers through UCF emails and social media platforms which included Instagram, Twitter, and LinkedIn profiles, targeting all racial groups of students were used. Details to contact the principal investigator's email and information about the study, such as how it covers covid in relation to social inequalities and mental health experiences, were made known for recruitment. Following this, scheduled interview appointments were made to fit according with the students' schedule and availability.

Method of Research

This study intended to conduct semi-structured interviews lasting 30-90 minutes based upon the length of student's open-ended responses in discussion. Demographic questions were collected at the beginning, interviewees were assigned a code number rather than requesting their real names, which later were replaced with a pseudonym to maintain anonymity. Throughout the interview session, non-direct prompt questions were used such as, "Can you tell me a little more about this?," "What do you mean about that term?" and "Is it alright if we move on?" (See Appendix 1). As a general overview of the topics that discussed throughout this interview, questions consisted of how students' mental health states during the covid pandemic in comparison to over time and how it differed in terms of social stressors, negative life events, covid experiences in relation to overall well-being. This study involved 14 phone call interviews, which was determined based on other existing qualitative research studies that have revealed small samples to deliver rich insight and support saturation for interviews or focus groups (Cash,

Isaksson, Maier, and Summers 2022; Hansen et al. 2022). The interviewees were found as readily available students through convenience sampling and the audio was recorded with a voice recorder. Once data were collected, transcripts were uploaded to the software NVivo 12, where cycles of coding that reveal emerging themes in participants' responses began.

Research Design

For this current study, the research design is a Thematic Analysis (TA) of narratives derived from each participant's coded responses as described down below (Braun and Clark 2006; Hinojosa et al. 2019; Aurini, Heath and Howells 2016). Through an inductive manner, analyses of semi-structured in-depth interview responses were transcribed onto a document, uploaded onto NVivo. In the final stage, analysis for themes related to coping with discrimination, daily stressors, negative or positive mental health effects, and covid impact occurred. For this thematic analysis, examining emerging categories and themes as an outcome of coding, categorization, and analytic reflection through an interpretive process, without any specific form of predetermined classification to create codes through NVivo will be used (Braun and Clarke 2006; Belotto 2018; Miles and Huberman 1994). In this process of a thematic analysis, identifying the initial thoughts of students' standpoints began through categories to themes to specific codes and to final write up, which involved six phases (Braun and Clarke 2006). The six phases consisted of (1) getting to know the data; (2) creating initial codes; (3) searching for themes; (4) reviewing themes; (5) defining and naming themes; (6) and producing the final report. Throughout the process of specific coding analyses and written memos, pseudonyms were given to keep the anonymity of participants, and their encrypted recorded information will be permanently deleted on the recording devices and drives based upon IRB protocols (Aurini, Heath, and Howells. 2016; Strauss 1987).

Unit of Analysis

The study sample consists of 14 UCF participants, 78.6% undergraduate and 21.4% graduate students of different backgrounds and disciplines, such as majoring in psychology, sociology, biology, or health sciences. Participant demographics, which include race, ethnicity, and gender, were collected at the beginning of the brief interview, following subsequent questions to have some basic knowledge on who the participants are. Specifically, this study included 35.7% Black, Hispanics, 64.2% Latino/a, Non-Hispanics, 35.7% males, 64.2% female, with an age range of 18 to 30 years old, 71.4% fell between 18-24, and 28.6% fell between 25-30 years old, of which 78.4% reported having a mental health concern. They were not recruited based on status requirements as all students who have a wide range of social identities were all welcome to ensure inclusion and diversity. All students from these groups are recruited.

RESULTS

Through exploratory analyses, the data collected on resilience of marginalized college students living in the covid pandemic fell under four categories: health, coping, stressors and social support (See *Figure 1*). Under each of these, students varied on how they responded through their life experiences based on various demographic characteristics collected (See *Table 1*). The subcategories that emerged for health were physical and mental, for coping were thriving and surviving, for stressors were covid and non-covid, and for social support were formal and informal. After in-depth review, dimensions that emerged from these physical and mental health subcategories during the pandemic included uncertainty and individualism for physical health, and anxious and depressive for mental health. In the subcategories of thriving and surviving coping strategies, dimensions that emerged for thriving coping strategies were spiritual, physical, and mental, while for surviving coping strategies, they were substance use, venting and excessive indulgence. Moreover, covid and non-covid types of stressors emerged had distinct dimensions. The dimensions for covid stressors were academic, work, and relational, while the dimensions for non-covid stressors were covert and overt forms of discriminative stressors. Social support had informal and formal forms of support that were evident. Informal support dimensions evident in participants' narratives individually were significant others, peers, and family. Formal support dimensions evident across participants' narratives structurally were co-workers and therapists. Each of these in latent and manifest contexts are discussed next and provide deep understandings about what their implications could suggest in discussion.

In *Figure 1*, there are major four themes that depict the resilience responses college students had during covid. This figure models how health, coping, stressors and social support are all interconnected in participants' lives and displays how the collective impact of covid has

16

been evident across these areas. All four of these categories are connected such that the circles are purposely linked with an unending orange thick line, suggesting that they can impact each other in either direction, or are infinitely displayed across a college students' life experiences during covid.

Table 1 Demographic characteristics of student participants.

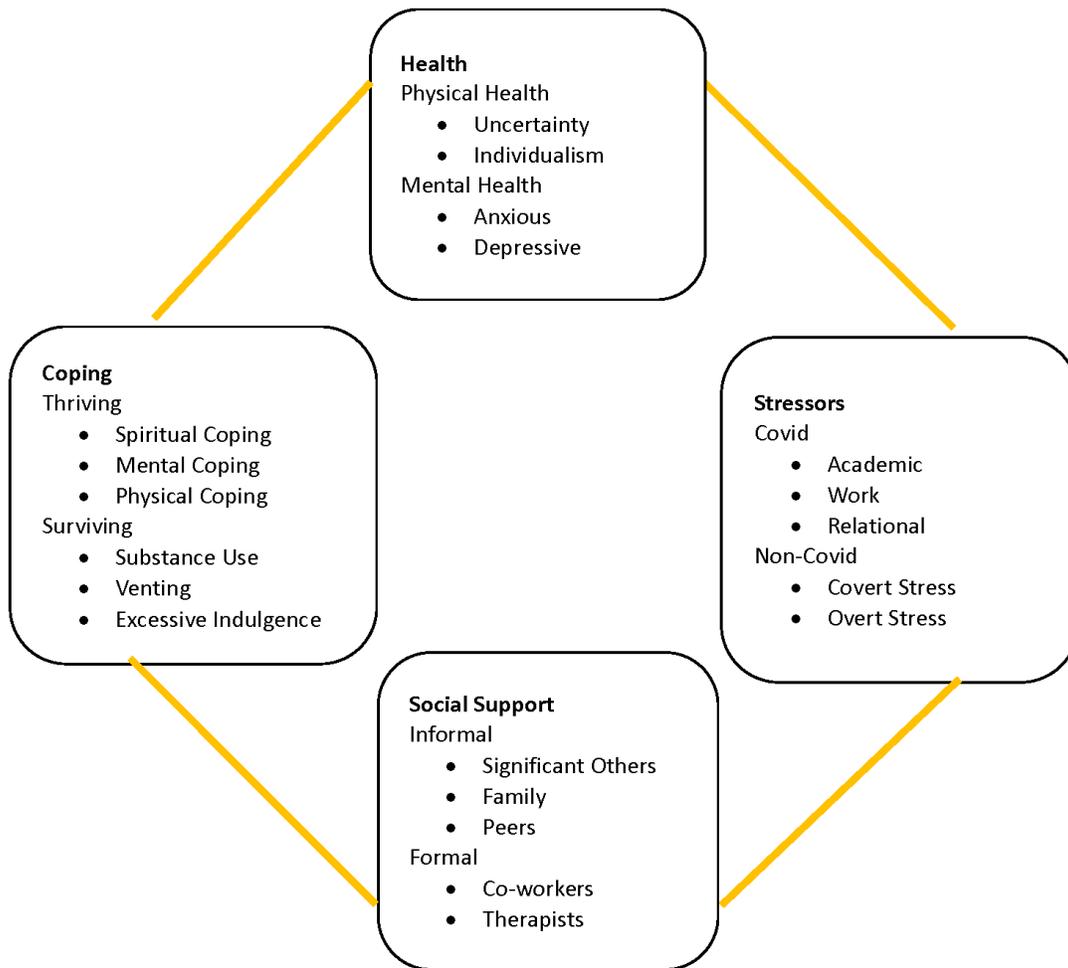|	**Frequency (n)**	**Percentage (%)**
Total (N)	14	*100%*
Gender		
Male	*5*	*35.7%*
Female	*9*	*64.2%*
Race/Ethnicity		
Black	*5*	*35.7%*
Latino/a	*9*	*64.2%*
Hispanic	*9*	*64.2%*
Non-Hispanic	*5*	*35.7%*
Age (years)		
18-24	*10*	*71.4%*
25-30	*4*	*28.6%*
Socioeconomic Status		
Low	*5*	*35.7%*
Middle	*9*	*64.2%*
Student		
Undergraduate	*11*	*78.6%*
Graduate	*3*	*21.4%*
Discipline		
Natural Science	*10*	*71.4%*
Social Sciences	*4*	*28.6%*
Mental Health Concern		
Yes	*11*	*78.4%*

Figure 1 Four interconnected subcategories and dimensions from student narratives.

Health

In the health category, subcategories that emerged were physical and mental health. Physical health is defined broadly as an experience that deals with how covid did or did not impact college students' overall physical health. This definition accepts that each person defines physical in a way that is meaningful for them. Physical health had unique dimensions, one of which includes the norms of uncertainty. This includes those unexpected changes in areas of life (e.g., unforeseen re-scheduling of appointments or unforeseen changes in routines that involve meeting other people) because of the impact of covid on physical experiences. The second dimension of physical health, individualism, includes those obligated self-reliant changes in areas of life (e.g., taking self-control of one's health by seeking medication or treatments for health concerns) because of the impact of covid on physical experiences.

Mental health is a component of health, which generally includes the psychological and emotional state of well-being, which can vary depending on how we think, feel, and act in life. Having defined it in this manner, distinct from mental illnesses and "mental disorders," allows individuals to freely and significantly express how they make their own life choices, handle stress, and relate to others across different life experiences. Some of the dimensions of mental health include being anxious and depressive. Anxious being the psychological feelings or emotions of worrying, panic or anxiousness expressed, and depressive being the psychological feelings or emotions of sadness, withdrawal or suicidal tendencies expressed. Consistent with previous quantitative findings about health concerns, which were not only mental, but also physical, findings reveal that overall health was worse for participants' during the pandemic, as signs of this are seen across the dimensions of mental and physical health concerns.

Physical Health and Covid

Participants discussed how covid impacted their physical health. For example, the student stated, "[The] situation was stressful…I had covid-19 and having to deal with my mother having covid" (Jeremy, male, 29). The person noted that, "I think that with [having] covid, that's what really push me off the edge" (John, male, 23). Another student states, "…In my family I am the only asthmatic that I know of… [during the pandemic] I struggled with [quarantining, social isolation and regulations]" (Abby, female, 21). Overall, however they expressed it, covid had a clear physical impact on participants. Two dimensions of physical health emerged. Uncertainty and individualism.

Uncertainty

Uncertainty is a subcategory of health because it covers how individuals deal with the unknowns in daily life experiences of being unwell or sick. This is illustrated with John, a Hispanic Latino senior undergraduate student in the natural sciences. He explains the seriousness of having to seek out a health professional to deal with his painful lymph nodes during the pandemic, and how this physical experience, impacted by covid, has prevented him from moving forward in other areas of his life. Uncertainty is evident as this physical experience he faces with cancer and sickness during the pandemic, had a toll on him. The gravity in which it had a toll on him is evident with how he had to deal with the changes in his personal life, including his mental health and social areas of life. He explains that along with the scare and worries, his physical experience will be a part of what makes it even harder for him to go back to school in-person since the covid pandemic has allowed schools to open back up again. He states,

> "I had another health scare, I had these large lymph nodes, so my doctor recommended I
>
> see an oncologist, it was really scary…I was very sensitive to the idea of having

cancer…I feel like I will struggle with acclimating back [to school] …I still worry about being able to spread covid and those kinds of diseases to them [my friends]…" (John, male, 23).

As well, on the dimension of uncertainty in physical health, it is evident as a present issue about how physical experiences were impacted by covid, such that those dealing with sicknesses or illness with the impact of covid, had disruptions in their day-to-day schedules of life. Uncertainty is seen with Tina, a Hispanic Latina recently graduated student from the natural sciences. She deals with her sickness symptoms, like having difficulty with breathing, impacting her needs in other areas of life, making it visible that she had to postpone seeing a therapist for her mental health concerns, which appear to be worsening with the impact of the covid pandemic changing regulations for school as well. She states,

"I also got sick, literally when covid hit. I'm barely certain that it was covid- it was before when things started happening, and I had a couple of appointments with CAPs for therapy and I had to postpone because I literally couldn't breathe… I think before covid, it was better…with covid…it [my mental health] did get a little bit worse [with academic concerns as] … I'm used to having a specific study routine and obviously [with all of that it] was disrupted" (Tina, female, 27).

Individualism

Interestingly, in physical health, participants display the dimension of individualism through the impact of covid on sickness and illness experiences, and other areas in their lives becoming worse during covid are expressed. Ruth, a Hispanic Latina graduate student in the social sciences, displays individualism. She first describes that on top of dealing with her thyroid disease and depression, she explains how the covid virus has affected her life when she got sick

22

at the same time as she took the responsibility to take of herself and be a productive independent individual, by not only seeking out treatment, but getting the "hang of it" to meet the demanding changes of school responsibilities. She states,

"As a student the transitioning was so hard last year…I'm not really an online person type of student and there's a reason why I'm not an online student… I got the hang of it […] I had covid so that threw all of my plans…I ended up in the ER because of it, um I got hit pretty hard…I'm healing from it because I still have side effects… …in a way it is worse from some people…[but] I would say I'm pro-active…so when I kinda start seeing my own red flags, I know I'm heading down that path of depression or the [sickness] symptoms are starting to come up again, I'll start looking or I'll start asking for help, ya know I force my way out of it right … (Ruth, female, 27).

The idea of it being worse during covid is expressed as David, a Non-Hispanic Black junior undergraduate student in the natural sciences, expresses individualism distinctively. He discusses his battle of being sick with what appears to be the covid virus, as his physical experiences are impacted by covid, impacting other areas of his life. He states how over time, over 4 weeks, he had to deal with the unpleasant side effects from the sickness and the process was very real, suggesting the severity and alarming impact this sickness had on his physical health, while other areas of his life were impacted because he as he had to isolate and recover from being sick, he had to take responsibility for school work that shifted to online format, which impacted his capability to maintain friendships and stay active. He states,

"…I had to quarantine, isolate myself from the population, I had to focus on my grades and schooling because as a freshman I was told that that was the most important thing for me to do …when I got sick that's when it was super real, I wasn't saying it was covid

because I didn't go in to check to see what it was but I was losing weight, I was losing 7

pounds, I was lying in bed…I dealt with it, I tried to fight it off, and I fought it off … I

had no time to socialize, I didn't have time to work-out" (David, male, 22).

Mental Health and Covid

Participants also revealed various forms of how covid impacted their mental health. One

participant stated "…during covid I felt pretty anxious… [it affects me since it is] more about

how [the pandemic] affects the outside world" (Jacob, male, 23). Another student states, "I felt

like I had to be at home [with the pandemic] and that kind of exacerbated my anxiety" (Abby,

female, 21). The student highlights, "I feel like I had a lot more depressive episodes…because

of the social isolation components as well as just the fear of the pandemic happening"

(Catherine, female, 26). All in all, they reveal a variety of distinct ways about how the mental

impact was explicit on individuals. Two of those specific dimensions that emerged were anxiety

and depression.

Anxiety

Furthermore, there is evidence of mental health getting worse during the pandemic, as

several students convey that being anxious was something that appeared during the pandemic,

and that especially, a few of those with who had pre-existing diagnosed mental health illnesses,

had worse experiences. Tina explains this exact problem occurring with her as she worries

during the pandemic about it having an impact on her capability to maintain a routine for her

need to study to get schoolwork done as she states,

> "I have a pre-existing general anxiety disorder umm I was diagnosed around 20…and I
>
> feel like I've gotten worse…just because of a lack of structure in routine… having a quiet
>
> place to study like going to the library or like a quiet coffee shop was no longer

feasible… it was really hard to study at home…that negatively impacted my mental health for sure" (Tina, female, 27).

In the same way just as Tina expresses the impact of covid by being anxious through worrying and Sally, a Hispanic black sophomore undergraduate student in the natural sciences, conveys this to a greater degree with panicking. With panic attacks, she suggests how this impact on her mental health was not like before as covid's effects also impacted other areas of her life, including her academic study habits. She expresses,

"Yeah, I have been having a lot of panic attacks more lately…prior to covid, I can't really recall um other than I haven't had recent panic attacks before covid… My studying habits have been affected because like I'm worrying, like I get lost in my head, from one thing to the next" (Sally, female, 22).

Depressive

Moreover, the narratives suggest signs of emotional distress that during the pandemic, certain significant dimensions are evident across marginalized students' narratives. John describes how the impact of the covid pandemic, brought out more of this, as at one point his suicidal ideation thoughts were worsening during the pandemic, which impacted other areas of his life, including socializing to maintain relationships and financial concerns. He states,

"Um around last year [2020] I was something active for suicidal ideation, suicidal thoughts, and making plans to commit suicide so I checked myself into an ER and I was in a facility for four days before being released. After that I was on Lexapro um which made my suicidal thoughts and ideation much worse… [on top of] struggling to make a means at that time, mostly getting food from Knights pantry… [just] knowing that a lot

of my friends do not really um adhere to covid as much as I would like them to … I think I [took] that personally…" (John, male, 23).

Other participants display worsening depressive emotional distress, including expressions of withdrawal and sadness during the pandemic. Jeremy, a Non-Hispanic African American senior undergraduate student in the natural sciences, conveys experiencing worse depressive episodes during the pandemic. He expresses the marked concern of his withdrawal or feeling like he must withdraw from others, affecting his ability to maintain social relationships during the pandemic as he states,

"Um [in terms of] my depression, I was just really down, I didn't want to associate with anyone, and didn't want to seek the help needed so I didn't get better…" (Jeremy, male, 29).

This notion of being depressive continues as sadness is displayed with April, a Non-Hispanic African American senior undergraduate student in the natural sciences. She wishes she could normally socialize with others during the pandemic lockdown as she expresses,

"It [the pandemic] can make me feel a little bit sad just because I'm an extrovert and I like interacting and being with other people…overall, it is a little discouraging because you cannot see people because they are immuno-compromised or live distant" (April, female, 22).

In sum, under the health category, the participants reveal how there was a combination of pain and healing from sickness, illness, or disease, with warning signs of being anxious, and being depressive, as forms of physical and psychological responses to resilience towards the covid pandemic. It is evident that the participants' narratives on their physical and mental health struggles during the pandemic are important and begs further questions about how the impact of

race/ethnicity on health is impacted by covid. This component of race and ethnicity's impact on health is seen with the impact of stressors, and the presence of social support, with coping, during covid, described below.

Coping

Coping subcategories that emerges were thriving and surviving. Thriving coping strategies entails participants who thrive as they create resilience responses with adaptive ways to feel better and cope in life circumstances, impacted by covid. Thriving coping strategy dimensions include using spiritual, physical, and mental strategies to cope with the impacts of covid. Spiritual involves those resources or tools learned through religious practises, physical, involves self-care routines of exercise or physical activities to care for the self, and mental, which involves the usage of internal self-reflection or introspective meditation techniques, as coping aspects of life.

Surviving coping strategies signify participants who survive as they create resilience responses with maladaptive ways to cope or feel better with life circumstances, impacted by covid. Surviving coping strategy dimensions include using substance use, venting and excessive indulgence. Substance use involves the usage of drugs or alcohol to feel better, venting, involves expressing negative or a combination of positive and negative views about the covid pandemic to feel better or cope, and excessive indulgence, which involves overusing or over-engaging in some type of behavior in lifestyle like over-eating or over-exercising that leads to extreme loss or weight gain.

Thriving and Covid

Covid had an impact on the participants' capability to choose to utilize and engage with thriving coping strategies. For instance, "I have been trying to get out and do some

exercise…there is a little bit of an escape in there [from covid]" (Jacob, male, 23). Another participant states, "With some meditation as well that helped me [deal with covid]" (Jeremy, male, 29). In sum, they all expressed the impact in distinct ways, but it is evident that their ways to utilize thriving coping strategies had been a result and continuous impact by the pandemic. Three dimensions emerged from thriving coping strategies. They were spiritual, physical, and mental coping strategies.

Spiritual Coping Strategies

The spiritual dimension in thriving coping strategies is commonly seen across some participants. An explicit illustration of spiritual coping strategies is quite visible in Sally's narrative, as she finds comfort and a way to thrive in difficult times with the impact of the covid pandemic, through religious resources she has gained in the past, which has impacted her ability to move forward after her miscarriage, to excel and be productive in other areas of her current life even with the covid lockdown, included her improving her mental health state and maintaining relationships with her friend during the pandemic. Sally expresses,

> "I have been trying to better myself out…Speaking with her [the friend] … She showed me [a verse], and it was Isaiah 45:3 – and it says, 'I will give you the treasures of darkness, riches stored in secret places, so that you may know that I am the LORD, the God of Israel, who summons you by name,' and within that she was just like…you might feel surrounded by darkness and fear but your situation is not one randomly so don't be in despair…God knows your name because he is a God of promises, and he gives new light…[which really helps me to have this]…and [now] we read the bible together as some [form of] coping mechanisms" (Sally, female, 22).

In addition, Rachel, a Hispanic Latina senior undergraduate student in the natural sciences, displays how the thriving spiritual coping strategies of placing faith in God with the impact of pandemic's regulations and lockdowns has really impacted and enabled her to stay well in other areas of life. These other areas impacted include maintaining a positive mental health state, having a good relationship with others, and keeping up with her daily physical exercise routines. She states,

> "…I had a lot of faith in God, and I kept praying and it [pandemic] didn't break me… I don't think it [the covid pandemic lockdown is] difficult at all... I did the same thing [during] covid, it worked. I did exercise, I talked with my friends, and I did a whole bunch of things [which includes practising my beliefs in faith]" (Rachel, female, 22).

Physical Coping Strategies

Rachel also demonstrated that she had been thriving in terms of her physical coping strategies as well, that even with the impact of covid, during the pandemic, she took the initiative to stay active in her exercise routines, which impacted other areas of her life. Like her spiritual coping strategies, her physical coping strategies impacted with the covid pandemic lockdown, which was her having to stay at home, also had an impact on her mental health, as she was able to stay optimistic. She states,

> "I would just say that it [covid pandemic] wasn't really affecting me…when I had to exercise I would do it in my room or do it outside…I mainly did exercise, not to be really fit [but] to have a healthy mental health [state], to stay positive" (Rachel, female, 22).

Specifically, the indication of thriving physical coping strategies is revealed as she states that rather than dwelling or taking in the pros and cons of what the pandemic brought (e.g., lockdown, social isolation and regulations] upon everyone, she simply lived her life adjusting for

the circumstances, continuing to do her exercise routines and religious practices while growing as a person, which impacted her outlook on other areas of life, including social relationships.

In addition, other forms of thriving for physical coping strategies include the self-care routines that were impacted by covid lockdowns. With the impact of pandemic lockdowns forcing participants to stay indoors at home more and re-openings, Tina describes having time to do skin care routines, and engaging in other at-home physical activities, which impact other areas of their life, including their capability to have a better outlook on life circumstances towards work at the clinic. Tina states,

> "Things are a little bit better [at the clinic] … I just kind of do self-care to not be too overwhelmed… [during the pandemic, by] doing my nails every couple of weeks…keeping up with my skin care routine… occasionally doing like once a week treating myself, trying on new clothes and just taking care of myself in those ways…" (Tina, female, 27).

Mental Coping Strategies

Interestingly, Jennifer, a non-Hispanic black sophomore undergraduate student in the social sciences, expresses the notion of thriving. She explains how her mental coping strategies, impacted by covid because the regulations and news, have led her to engage in more internal self-reflection. Through the impact of covid lockdown procedures and news regulations on her mental coping strategies to engage in self-reflection, it has led her to learn how to seek out relational therapist support and improve academically as well. She states,

> "…Covid has given me a lot of time to self-reflect and like focus on myself and figure out ways to cope out social thing […] Specifically [I do] meditation and things like that and self-reflection on my part […] But during covid I feel like because of my self-

reflections, that gave me more of the chance to start looking more intrinsically instead of looking out – more within my self- and that's why I am more open to going to a psychiatrist and figuring out like why I am so bad a focusing at school… like I am able to look into myself more…" (Jennifer, female, 19).

Another dimension of thriving, with the use of meditation as his mental coping strategies, is evident with John. The use of engaging in meditation with the impact of covid in other areas of life, has helped him stay well and have better mental health. When the interview asks John how he currently copes with the pandemic, he conveys,

"…Meditation helps a lot, which helps a lot with wellness…I'm more cautious with my thoughts and being able to recognize unhealthy patterns…" (John, male, 23).

Surviving and Covid

Covid also had an impact on participants' decisions to engage in surviving coping strategies. A student said that "[Earlier during covid] I was much more prone to drug abuse" (John, male, 23). Also, another said, "This pandemic has made me realize I have had harmful behaviors…I would complain a lot more" (Catherine, female, 26). This student vents, "I do not want to be sitting around people without a mask for a long time, I don't want to be affected" (Tyler, male, 21). With these in mind, each participant had a unique way of stating what they did to deal with the impact of covid. Three dimensions that emerged in students' surviving coping strategies were substance use, venting and excessive indulgence.

Substance Use

As well, a few clear examples of surviving coping strategies are evident as participants suggest that they engaged in substance use. Catherine, a Hispanic graduate student in the social sciences, describes it as a form of a social activity, suggesting that this is a societal norm to

31

engage in with others, since the covid pandemic had brought lockdown procedures early on, this seemed to be a form of an escape from present troubles during the pandemic, which also impacts her social life to continue to hang out with others. Catherine states,

"…This pandemic has made me realize that I have had harmful behaviors…I would go out and drink a lot to cope, it was a social activity to do…" (Catherine, female, 26).

Venting

The dimension of surviving coping strategies also included pessimism, and this was another maladaptive way participants used to cope to deal with the impact of covid. It was also seen to suggest that it was having a large impact on making life decisions. Sally expresses how the vaccines coming out during the covid pandemic, impact her life decisions, including those for her physical health. She states,

"It [the covid pandemic's social isolation, regulations and quarantine routines] honestly makes me feel boxed in. It's hard to tell the difference between a cough, or a flu cough, or you don't know what it is anymore…The only thing I can think of this past year is that it has been suffocating, it's just been suffocating…I have not been vaccinated… I don't trust it…We can't live our lives the way we use to live. We are just taking it all in. We don't even know how we will react to the vaccine…" (Sally, female, 22).

Jacob, a Non-Hispanic senior undergraduate student in the natural sciences, also demonstrates venting, with the impact of the covid pandemic's regulations making him express his views, and how this affected his ability to socialize with others and impacts his mental health, by being more anxious as well. He states,

"I was at home very much so following guidelines, ya know wearing a mask to go out…It was very hard for me because I am very very social… it probably does have a

little bit of an impact in some way, like anxiety just because I am seeing less people…"

(Jacob, male, 23).

Excessive Indulgence

This is evident with the participant Ruth, as she reached a point of engaging in these maladaptive

tendencies by using excessive indulgence coping strategies to handle her physical and mental

health concerns (i.e., having covid, immune disorder and anxiety related symptoms such as panic

attacks), which were exacerbated by the pandemic. She conveys that the impact of the covid

pandemic on her binge eating, also impacted her daily routines. She expels,

> "…I couldn't do it by myself anymore. I couldn't cope. I just was out of control, so like I
> said I'm an emotional eater… [I] especially [engaged in] binge eating…some days it was
> really bad, and I wouldn't even shower and like [I had] a loss of appetite kind of things,
> so I guess I [was] coping in unhealthy ways…" (Ruth, female, 28).

As well, Ethan discusses this idea of excessive indulgence as he explains that the pandemic

threw off his capability to cope well at certain times. Although there was improvement in his

mental health struggles, during the pandemic he still had a tendency to cope in excessive

behaviors, impacting his physical heath, and work as well. He states,

> "I suppose like covid had kind of broke me…. I was very prone to over-exercise and
> over-eating…I could fast for hours and would go on complete eating binge and eat like a
> bag of chips in one sitting... [it] was like a feeling that I needed to put those [my health
> and work] off" (Ethan, male, 23).

> Surviving coping strategies was seen as a much less as a common subcategory among

participants during the pandemic compared to the thriving coping strategies participants already

had already had present or gained from others over time. Findings suggest that those thriving

coping strategy dimensions, which were spiritual, physical, and mental ways to cope, were used much more often in response to the covid pandemic, which impacted other areas of their lives, suggesting how students have the capabilities to form resilient healthy responses to adversity and times of crisis.

Stressors

Stressors are seen throughout participants' life experiences during the covid pandemic. As with non-covid stressors, covid stressors, which specifically emerged during the pandemic, impacted students' responses for their threshold of resilience, continuously revealing how other areas of their lives were impacted. Covid stressors are directly related to have come out of the covid pandemic, while non-covid stressors are more of those stressors in life that exist and worsen during the pandemic. The dimensions of covid stressors, that worsen and impact participants' lives, include effects on their academic, work and relationships parts of life. Dimensions of non-covid stressors, which are impacted by the covid pandemic, include different forms of covert stressors (i.e., subtle discrimination) and overt stressors (i.e. explicit discrimination) displayed.

   Covid Stressors with Covid

The covid stressors that emerged out of the impact of covid clearly varied across participants. One of them said, "Well I have to say yes with covid…it was stressful" (Rachel, female, 22). The other said, "Due to covid-19…I feel like I didn't have a place to release my stress" (Jeremy, male, 29). Another noted, "…It [covid] was just a lot of a learning curve, very stressful" (April, female, 22). Three dimensions were evident as covid stressors. These dimensions were academic, work, and relational stressors.

Academic

Academic stressors are a part of the dimension found in covid stressors during the pandemic, impacting students' capabilities to do well in other areas of life. An example for academic stressors impacted by the covid pandemic, impacting overall well-being is visible with David. He explains his frustration with the pandemic shifting his experience to become more challenging, from in-person classes to an online format of isolation in an academic context. He states,

> "Oh yeah it makes everything harder, in school, just being on zoom call with 500 people and having to deal with it all – it's not for me honestly, it made my life really harder… I feel like a robot… in a pandemic how long can you do that for…" (David, male, 22).

Jennifer expresses a combination of issues with stressors, by being worried about academic responsibilities tied to her academic-related financial concerns that arose during the pandemic. These covid related stressors due to job loss to pay school fees and the changes of academia going virtual, lead to major impacts on her enjoyment and mental health state as well. She states,

> "…For stressors academically, I would say that I didn't do a really good job because I was kind of getting depressed… I was in classes that I didn't like [due to the pandemic shifting virtual] and […this impacted my] financial [area of life] … [as I was] figuring out how to navigate first year at UCF…" (Jennifer, female, 19).

Work

Also, work stressors are another dimension that came out of covid stressors, that demonstrate the impact of what the covid pandemic did to individuals having to navigate work environments. Jeremy describes an issue with his job at the office during covid as the pandemic

brought hardship for him to maintain himself not only financially but also academically. He states,

> "…I just felt a lot of pressure as far as trying to maintain all of the classwork on top of…
> having the will to work to financially maintain everything. Those were the things that
> were contributing to my mental health, [like] being depressed…" (Jeremy, male, 29).

Relational

Moreover, relational stressors exhibit the dimension of covid stressors, as relationships with friends, family or significant others seem to get worse due to covid, which impacts other areas of students' lives. April explains how the death of her family members due to covid, impacted her relationship with her family as she struggled to be available for them, and this lead to have an impact on her ability to continue performing well academically too. She states,

> "I lost two of my family members to covid, my grandpa and my aunt so that affected me
> a lot because I couldn't be there for them and I was in school, knowing that there was a
> death in my family and having to still operate semi-normally was like really hard for
> me…I was feeling a lot of pressure about the future and I just took all of that on in a
> negative way…" (April, female, 22).

Non-Covid Stressors with Covid

Non-covid related life stressors have an impact on top of new covid stressors, which are seen across some of these marginalized participants' narratives. One said, "I always have felt extreme pressure to prove myself [in self-identity] …I guess I'm [currently] very stressed…" (Abby, female, 21). Another stated, "My life became literally so stressful..." (David, male, 22). Once more, we can see how these different comments made by participants express the presence

of non-covid types of stressors in their lives. Two dimensions emerged. They are overt and covert stressors.

Overt

Overt stressors are seen as a dimension of non-covid stressors, as participants display explicit narratives of discrimination as an additional burden to the impact of covid, which affects other areas of their lives. An example of the frustration and the impact of stressors during covid pandemic is seen from a different view with stress from non-covid stressors, like conforming to social norms and forms of discrimination. The non-covid stressor of covert racism is evident with Sally, as she exclaims her experience with racism impacted on top of the covid pandemic' lockdowns, which impacted her social relationships with others (i.e., the bond with her neighbor). She states,

"…Like no one out here is called a black devil just for being outside and attempting to make conversation with somebody, because I had my neighbor refer to me and my family as devil worshippers, because all us black people just do is worship the devil. I have a neighbor who doesn't refer to me as my first name anymore, she just refers to me as that colored girl. I don't feel like anyone has to deal with that, just black people" (Sally, female, 23).

On the same matter, several other participants express discriminative encounters as stressors impacting their day-to-day life experiences, which relate back to health, social support, and coping themes in other areas of their lives as well. A participant describes their experience as having to try harder than others in the school and work environment. Ruth demonstrates the concern of stress and the impact on her mental health before and during the pandemic as she was always labelled as just some "brown girl," graduate student who navigates academia and work environments. These young adult undergraduate and graduate women of color share similar

experiences of stressors from constant micro-aggressions and racist encounters. Abby, a young

Hispanic senior undergraduate majoring in sociology states,

"I have felt marginalized in a lot of ways in school and I mean just in a lot of ways…

there have been a lot of racist comments…I had some comments about me being deported

[because I was] Puerto Rican…I had some […] people assume that I was from another country, I

had some people thinking that I was building bombs, which was ridiculous" (Abby, female, 21).

Covert

Covert stressors are a dimension of non-covid stressors that participants display through

implicit narratives of more subtly expressed discrimination as an additional burden to the impact

of covid, which affects other areas of their lives. Catherine describes covert stressful experiences

with academic and professional contexts, where with the impact of covid, she also experienced a

major impact of these covert discrimination on her work performance as a lecturer to students

and mental health state. She states,

"…. I feel as though I have to try harder to be looked at the same playing field as other

people… like being a lecturer, being young, female, person of color, ya know…I have had

classes where students would talk when I'm lecturing even after me saying can you quite down...

But I feel like I have had a lot of instances where I was challenged in situations where I feel like

I wouldn't be challenged if I was a white male… it put me in a position where students felt

comfortable to disrespect my authority…students did not even stop to question their behavior

and how that impacted me [with depression] …" (Catherine, female, 26).

Another student expresses covert hidden forms of discrimination as stressors that impact

other areas of her life. Ruth explains her encounter with a doctor, who she sought out when she

was sick with covid and was dealing with her auto-immune disorder, who made subtle racial

ethnic comments towards her. This brought more turmoil as she discusses how much worse it was for her to maintain her own combined physical and mental health concerns. She states,

> "…I gained a lot [of weight] and kind of like one of the doctors said, 'Well […] Hispanic people are usually bigger than usual people'…that was like the only ethnic comment that was thrown at me during the [pandemic] time…[and] I kind of lost my identity…[that] made my mental health a little worse" (Ruth, female, 28).

Social Support

Social support, both formal and informal, had varied across all students' life experiences during and before the pandemic; however, in some instances, the presence and impact of informal and formal social support groups appears to have a greater effect on marginalized students' resilience responses, affecting health and coping areas of life with stressors. Some of the dimensions of informal social support include those significant others, which are romantic partners or couple relations, family, which are parents, siblings or extended family member relatives, and peers, which are those friendships formed at the individual level. Formal social support's, which includes those resources or tools gained through others at institutions, dimensions consist of co-workers, which are those employees who form relationships in the work environment, and therapists, which are the psychologists or counselors providing services at the institutional level.

Informal Support and Covid

Participants discussed how covid impacted their need for informal support as many of them relied on this heavily. For example, a student said, "I called my parents and they supported me. My boyfriend came and hugged me… [he is] very supportive" (Rachel, female, 22). This student said, "[With my] 3 friends… I do feel like I have a very good support system" (Jacob,

male, 23). Another student exclaimed, "[My parents,] they check on me and I check on them…" (Tyler, male, 21). In sum, the students state how informal support was crucial to deal with the impact of covid in distinct ways. Three dimensions emerged from informal support. These were significant others, peers, and family.

Significant Others

A dimension of informal support is seen with participants' narratives that describe how with the impact of covid, students engaged in support from significant others, which impacted other areas of their lives for the better. Examples of informal social support having a major impact on overall health and well-being are strongly evident with the John as he explains that his girlfriend was bringing him encouragement during the difficult times of covid. He states,

"Yeah, um my romantic sexual partner at the moment has made me feel very understood and seen. It has had a positive aspect for myself- encouraging me and caring for myself better […] she struggled as well, she struggled with ADHD and being able to keep up with school…And being able to provide support for her has also been great for me. I'm able to recognize coping strategies in myself and soothe her myself…" (John, male, 23).

On the other hand, David also displays the impact of a significant other, but the impact more being about how he felt like he did not have the support needed with the issues of covid happening, which affected other areas of his daily life routines. During covid, with the isolation lockdown procedures, he had a lot more time to spend with his romantic partner, which had a significant impact on his physical and mental health. He states,

"I felt like I had no support to help me with my mental issues. And it was no better that I had someone [girlfriend] in my life that was stressing me out… [while pandemic lockdowns occurred] …it affected my academic routines, it actually really affected my

health too because I started having night sweats [when I spent more time with her] …"

(David, male, 22).

Peers

Peers are another dimension of informal support that participants reveal as having an impact on their lives with the covid pandemic, which impacted their life decisions to keep moving forward. April states how as she was dealing with various forms of stressors, an informal form of social support through her friend, really assisted her through giving her attention and care when the covid pandemic brought her uncertainty. The support she needed during the impact of covid, impacted her to stay encouraged, to move forward with life. She explains,

"…There is a lot of unknowns with covid and being unemployed, so it is stressful… [but when] I just asked my friend, and she was just like ya know are you okay?... [and] I didn't want to unload on her, but she called me, and she said like hey let me know like what you're going through, I'll just listen and honestly that just boosted my mood that day...and [to know that] there are people who really care about me" (April, female 22).

Jacob describes how his few close peers were very supportive and a way to relax during the pressures of covid. He stated that his friends had a tremendous impact on him as their friendship brough comfort and relief to his anxiety that arose because of the covid pandemic. He expels,

"…When covid started the anxiety kind of raised up [but] I don't have to worry about anything else when talking to them [my friends] …making jokes with them, laughing and just having a good time. It's just uh I guess relaxing" (Jacob, male, 23).

Family

Family is another key dimension of informal support that students engaged with quite often as well due to the impact of covid, which brought an impact on other areas of their lives. An illustration of this is seen with Tina who conveys that she received a lot of emotional support and encouragement from her parents who helped her improve in well-being when the covid pandemic worsened her academic abilities. She states,

> "My parents are amazing, they are very supportive, they thankfully live just about an hour away, I try to talk to them every day… they listen to my concerns, being supportive of my [school] decisions [because with the pandemic changing school] it made it harder to focus and made me lose a lot of motivation and drive- um so it made me more in a depressive way [and they had a] positive influence" (Tina, female, 28).

Suzy also explains how her family members were providing a lot more support for her during the pandemic when it hit, changing the school system to virtual format, and forcing people to stay home, which disrupted her mental health. Her family was more supportive by just being present and offering a place for her to take a break when lockdown made her struggle, feeling alone and distant from others. She explains,

> "…It [the covid pandemic lockdown] was so tiring. Just being quarantined and not having somewhere else to go ya know just staying at home… it was really hard; it was a struggle [because] last semester I wasn't able to focus. I still had classes but not all seven which made me struggle [with anxiety] …When I was with my family, they were there for me when I really felt alone…I have more social support [from family] because of everything that happened during the pandemic" (Suzy, female, 21).

Formal Support and Covid

Participants discussed how covid also impacted their need to seek out support with others formally, as some of them relied on this as an outlet to move forward in other areas of their lives during the pandemic. One noted, "The experience [with my therapist] has been good…" (Catherine, female, 26). This student said, "…I have co-workers and mental health counsellors that work in the health department that have been helping me out" (Jeremy, male, 29). One other said, "I am seeing a psychologist…she seems to be a very good listener" (Abby, female, 21). In sum, the students state how informal support was important with the impact of covid in distinct ways. Two dimensions emerged from formal support. These were co-workers and therapists.

Co-workers

Co-workers are a dimension of formal support that are evident across some participants' narratives, as a form of support due to the impact of covid, which impacts other areas of their lives, particularly improved mental health and the capability to move forward during the pandemic. Notably, on formal social support, Jeremy briefly conveys the importance of how in his work environment, there were co-workers, providing available resources and emotional support to help him cope adaptively and thrive when covid impacted his health and his mothers' health. He states,

> "I was trying to cope with everything with covid going on…I had to relocate to Orlando to help my mother [who's sick with covid but my co-workers] … they have a positive impact on my mental health because I can lean on their education background which can really help me in those [covid emergency] situations [with my mom.]… they are able to pray for my mother… [they have] been helping me out by taking me to the hospital…and taking me for a walk to help support me as well" (Jeremy, male, 29).

Tyler is another student who explains how his co-workers were very supportive by providing him resources to not only have access to drive to school during covid but also suggest mental health services when he experienced the impact of covid pandemic changing everything to virtual format. He states,

"…I couldn't drive myself, doing all the school online [because of covid], so my co-workers said we will take care of you…that helped me out because it was an hour from my house… At work, they offer services and soon they [my co-workers] were more than happy to talk to me, instead of me just talking to them [about my issues] …" (Tyler, male, 21).

Therapists

Therapists are another dimension of formal support evident across participants' narratives, displaying the impact of covid and how it impacted other areas of their lives. John describes his experience with a therapist who provides emotional support because he feels much more comfortable to talk to about the issues, including the covid pandemic that affected his academic struggles, brought on to his mental health state, which impacted his capability to cope well. He expresses,

"I am using mental health services through a therapist that I see every 2 weeks… it's been much better… I feel like my therapist understands me much better than any other therapist has…I hated the feeling like I was too much to [be] handled and needed to be pushed off…it made me feel like my problems were much bigger than they were because CAPs did not have the capacity to handle it" (John, male, 23).

This participant's use of a CAPs therapist and seeking out an alternative solution of support, looking for who was best fit to help support him, to make him have a sense of belonging and feel

understood as a form of formal support here, displays how the student gained tools to combat his mental health issues and this becomes a part of his resilience response, serving as a buffering effect to thrive.

Notably, Jeremy demonstrates how additional to his co-workers, his current therapist during the pandemic has brought support to him by providing him with techniques to deal with the stress of the pandemic that made him take on more responsibility for his mother with covid, financial concerns, and the depression he had. He states,

"I'm currently seeing a therapist… [it has been] making me feel a little bit better each day…[providing me] with some meditation…and getting ways to destress with the impact of covid… it has been good for me to have a release…dealing with financial stressors, it has been nice to just have somewhere to have an outlet" (Jeremy, male, 29).

DISCUSSION

The interview responses yield rich findings about diverse college students' experiences in the pandemic, as their forms of resilience varied; overall, they suggest that there is potential to "thrive" and fight off their combined physical and mental health concerns, due to the adversity brought on by the pandemic, when there are present forms of social support from individuals. (Kaz et al. 2021; Aneshensel 2009; Carver 1998; Aneshensel 1992). These individuals are key social agents that aid in diminishing the impact of covid and non-covid stressors. As well, through the social stress theory in combination with the status characteristics theory, findings are consistent and thoroughly reveal why students varied. Specifically, we find that black and latino/a students who experienced racism as an additional stressor to daily stressors with covid stressors had overall poorer health outcomes. Experiences of racism was a notable difference that varied between groups of marginalized individuals, but race and gender as factors alone were not demonstrating differences among groups. Findings suggest how covid did magnify the academic, work, and relational stressors that racially and ethnically diverse students experience in addition to those status-limited and status-generated daily stressors, including discrimination. Thus, through multiple theories and existing frameworks on stressors, adverse events in relation to health outcomes, and the presence of social support, consistent work does suggest why the pandemic could change students' responses to life's circumstances in such distinct ways.

A point for understanding why some students were thriving in health, may be that the combined extra number of resources and the quality of interaction with supportive individuals, served some as these additional external factors meeting their essential needs at times during the pandemic (Kaz et al. 2021; Carver 1998). Further explanation for this may be that there was extra implicit social support not stated, both informally and formally, which had greater impact

46

to indirectly influence the life experiences of some students facing adversity; thus, impacting the possibility for individuals to thrive, while others who received a less quality impact from others during the pandemic had responded with survival mode instead, as current literature confirms that the impact of quality social support can improve individual physical and mental health outcomes (Kaz et al. 2021; Bright et al. 2016; Thiots 2011; Cohen and Syme 1986). In sum of this, diverse graduate and undergraduate students clearly display different forms of coping in times of crisis, and some, with a presence of social support, were able to thrive through adaptive responses rather than just survive through maladaptive responses, while managing their mental and physical health issues. Students dealing with stressors, while handling both physical and mental health concerns, which were exacerbated with the pandemic, effectively utilized resources to form thriving coping strategies from informal support (e.g., family bonding time to relax, or significant others assisting with school and work problems) and/or formal support (e.g., co-workers indicating services through the work environment to assist with mental health concerns).

CONCLUSION

Implications for Research

 This novel research study provides insight about the effects of stressors derived from the covid pandemic on college students. The detailed accounts told by students, revealing their mental and physical health experiences, provides new information on how they respond in resilience to adverse pandemic and non-pandemic stressors as they cope. Through the interviews, the nature of adversity displayed in stressors during a pandemic gives medical sociologists, scholars of other disciplines, and the larger global audience a glimpse in better understanding young adult students' health experiences, marked in terms of their unique management and adaption responses to adverse events in times of crisis. This can equip the next generation of students and potential scholars to learn about how resilience responses were formed, thus, enabling them to see the next possible solution that can come when life problems or difficult times re-emerge. Further, this kind of work provides a new standpoint about the potential capabilities young people can have to truly flourish in their identities and thrive in their health and well-being, and to live their best possible life as they learn how to mitigate consequences of stressors on the body and mind. The strengths of this study are that it allows for an analysis of rich-detailed information from college students and provides a critical understanding about what their daily life experiences look like from different standpoints. This provides a better understanding of the unequal treatment and the impact on individuals', who identify with marginalized groups, mental health statuses through their expression of negative or positive emotions and feelings about the pandemic and social inequalities. As well, another strength is that conducting interviews on college students' experiences with mental health and social

48

inequities concerning the covid pandemic in a thematic analysis format offers a unique study, that further explains current research.

Limitations and Future Directions

This study does not take in to account the vast amount of predisposing and existing factors that affect student's health outcomes, as the focus is mainly on the themes of stressors that could arise out of covid, racial inequalities, and expressions of anxiety or depression in latent or manifest content revealed through interview responses. As well, during the interview, there may have been this notion of the "Hawthorne effect" occurring as participants have expectations of the principal investigator, who is a female interviewer, having to perform and display normalized cultural expressions. Additionally, a limitation of this study is how relying on retrospective reporting of mental health can lead to faulty conclusions. On the same note, students may have also displayed recall bias about how, who and what happened before covid and during covid as some of them stated "I don't know" or "It could have been" in between some of their comments.

Also, with this qualitative study there is no statistical accuracy to quantify social determinants and the stressors as a social phenomenon to numerically track mental and physical health effects and that this sample cannot be fully generalizable to the whole population of college students at UCF or across other colleges in the United States. Future research should consider other approaches to better understand the long-term effects and consequences that can potential arise from these major categories as the covid pandemic progresses. There are a plethora amount of factors, both internal and external, that could explain or predict how students respond, thus, future studies should attempt to examine the health outcomes from a large ecological model or one that focuses on the biopsychosocial framework as Kaz et al. (2021) suggests, for an a new approach to better grapple the multitude of factors, including physical,

mental and social aspects, in the midst of adverse events from diverse young adult students' standpoints. Researchers may find key insights about the long-term effects of trauma brought by the pandemic on their health outcomes and social areas of life as diverse young adult students. Withal, considering this, researchers should further consider also investigating vulnerable populations, including marginalized children or older adults with pre-existing health conditions to learn how resilient responses are formed in times of crisis.

APPENDIX A. INTERVIEW SURVEY

Interview Survey Questions

Hi my name is_____. This is an interview session and I would just like to thank you for volunteering to participate in this study.

In this study, you will be asked a series of questions concerned with understanding the general daily life and covid-19 experiences of UCF college students.

I will begin recording now. This is an interview for code:

Demographic Questions

To start off, a few short demographic questions will be asked about you.

What is your age?
What is your gender?
What race do you identify with?
What ethnicity do you identify as?
What is your socioeconomic status (low, middle or high)?
What is the highest amount of education you currently hold?
What is your academic year?
What is your major?
Do you or have you had any history with mental health concerns?

Thank you for your responses. Now, there will be a series of interview questions to ask you, but some of them are a bit long. I will give you as much time as you need to answer. Before you answer each of the questions, please feel free to take a moment to process your thoughts and formulate your response.

Interview Questions

<u>Current Covid Experiences</u>

1.) *Tell me about your mental health currently during COVID?*
   Prompts: Ask about daily stressors (I.e. financially or family-peer issues, anxiety driven related?)

2.) *Have you ever had any instance(s) where you felt you were treated unfairly because of your race/gender/ethnicity?*

3.) *How do you currently cope with the COVID pandemic?*
   Prompts: Does the pandemic have any effects on your coping strategies?

4.) *Are there any mental health services you utilize at UCF or elsewhere to help with your mental health?*

Prompts: Ask if any previously non-existing daily stressors have anything to do with it?

5.) *Do you feel that you have any social support from anyone (i.e. friends or relatives)?*
Prompts: Do you feel they have a positive or negative mental health impact on you?

6.) *Do you ever feel that your experiences are similar or completely different from the people around you?*
Prompts: Negative or positive mental health impact, overall social well-being

7.) *How does the pandemic's social isolation, regulations and quarantine routines make you feel?*
Prompts: Ask about positive or negative impacts on mental health

8.) *Are there particular experiences during the pandemic that affected your daily routines?*
Prompts: Daily stressors, negative life events at school, work environments

Pre-Covid Experiences

9.) Tell me about how your mental health differs from the way it was before COVID happened?
a. Prompt for daily stressors, negative life events, etc.

10.) Prior to COVID, have you had any instance(s) where you felt you were treated unfairly because of you race/ethnicity/gender?
a. Prompt for discrimination, microaggressions

11.) How did you cope with stressors prior to COVID?
a. Prompts: What were those coping strategies? Did they differ from now?

11.) Were there any mental health services you use to utilize at UCF or elsewhere to help with your mental health?
Prompts: Ask if other daily stressors had anything to do with it?

12.) Did you feel that you had any more or less social support from anyone (i.e. friends or relatives) prior to COVID?
Prompts: Did you feel they had a positive or negative mental health impact on you?

13.) Did you ever feel that your experiences were completely similar or completely different from the people around you?

Concluding

Is there anything that you would like to add that I may not have asked?

Do you have any other questions about what I have asked you? (stop recording)

Thank you for participating in this study. Is there anything you would like to tell me off the record?

Prompts:

Could you tell me a little more about that or what do you mean exactly?

What do you mean about X-term?

Is it alright if we move along?

APPENDIX B. IRB LETTER

IRB Approval Letter:

Institutional Review Board

FWA00000351 IRB00001138, IRB00012110 Office of Research 12201 Research Parkway Orlando, FL 32826-3246

EXEMPTION DETERMINATION

July 26, 2021

Dear Sarah Da Silva:

Type of Review:	Modification / Update
Title:	Amplifying College Students' Voices: Stressors from COVID and Social Inequities on Mental Health
Investigator:	Sarah Da Silva
IRB ID:	MOD00002070
Funding:	None
Grant ID:	None
Documents Reviewed:	• Final Updated Official "Thesis Flyer", Category: Recruitment Materials; • Final Updated Thesis HRP 255 Form, Category: IRB Protocol; • Updated Email Content, Category: Recruitment Materials; • Updated HRP-254 Informed Consent Form, Category: Consent Form;

This determination applies only to the activities described in the IRB submission and does not apply should any changes be made. If changes are made, and there are questions about whether these changes affect the exempt status of the human research, please submit a modification request to the IRB. Guidance on submitting Modifications and Administrative Check-in are detailed in the Investigator Manual (HRP-103), which can be found by navigating to the IRB Library within the IRB system. When you have completed your research, please submit a Study Closure request so that IRB records will be accurate.

If you have any questions, please contact the UCF IRB at 407-823-2901 or irb@ucf.edu. Please include your project title and IRB number in all correspondence with this office.

Sincerely,

Kamille Birkbeck Designated Reviewer

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