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COVID-19 Social Isolation and Young Adult Mental Well-Being and Socioeconomic Status as a Moderator

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This is to certify that the doctoral dissertation by

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Abstract

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Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

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Abstract

It is not currently known how social distancing guidelines impact mental health for emerging adults and whether socioeconomic status moderates this relationship. The psychosocial development theory states that emerging adults experience a psychological conflict—intimacy versus isolation—where the goal is to seek connections. Without connection, emerging adults are likely to experience impaired psychological well-being, which was exacerbated by the COVID-19 pandemic. The purpose of this study was to examine the effects of perceived social distancing guidelines on the mental health of emerging adults and if this relationship is moderated by socioeconomic status. This study followed a quantitative comparative design of emerging adults (ages 18–25) who completed an online survey ($N = 103$). Data were analyzed using regression analyses and a moderation analysis. Results revealed no support for moderation of socioeconomic status. However, perceived social isolation, as measured by loneliness, was negatively associated with mental well-being. The results illustrate that perceived social isolation as measured by loneliness is related to mental health issues. The findings on socioeconomic status may be due to the low variability of socioeconomic status and access to social media, regardless of status. The results of this study show the consequences of perceived social isolation during a pandemic, which can be used to promote positive social change by supporting emerging adults when they deal with social isolation during a pandemic.

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Dedication

I dedicate this dissertation to my family. Thank you for your patience and understanding as completed this degree. To my husband Clayton Sr., you have been a listener and supporter of my educational journey from the start. I love you with all of my heart. Thank you for telling me that I can achieve anything, even when I did not believe that I could. To my three sons Kendrick, Clay Jr., and Kentrell. I hope I have instilled in each of you the importance of education and it is never too late to pursue a degree. Finally, I would be remiss if I do not dedicate this work to God. If it had not been for the Lord's help, I would not have the strength to complete this endeavor.

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I would like to express my deepest appreciation to my professor and chair, for his invaluable patience and feedback. This endeavor would not have been possible without you. Words cannot express my gratitude to my committee who provided knowledge and expertise. Thank you for your continued support and feedback. Finally, I would like to thank the participants who took part in the study and enabled this research to be possible.

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Chapter 1: Introduction to the Study

To reduce the spread of the COVID-19, the U.S. government enacted social distancing guidelines forcing organizations to enforce remote work (Zhang & Zhao, 2020) and/or forcing organizations to lay off nonessential employees (Kniffin et al., 2021). These guidelines shut down all social gathering in public areas, such as schools, churches, nonessential employment, which led many to isolate from their social networks. Given the isolation as a consequence of these measures shifting in how people interact with others, it is important to understand how social distancing guidelines impacted the mental health of emerging adults. Additionally, socioeconomic status may play a role in the consequences of social distancing guidelines. The goal of this study was to discover the extent social distancing guidelines impacted mental well-being of young adults and whether socioeconomic status moderates this relationship. This study can help give guidance to promote the health and well-being of emerging adults. This study can also help those in professional areas recognize that pandemics such as COVID-19 bring about significant health concerns around the world to those who are in difficult situations, such as overcrowded housing, lack of resources for daily needs, and lack of clean water and other utilities, which all have long-term negative impacts on individuals' mental health (Benach, 2021).

Chapter 1 states the problem that led to the study and the purpose of the study. After the purpose of the study, Chapter 1 will talk about Erik Erikson's (1985) psychosocial development theory. Although all eight stages will be mentioned, the focus will be on intimacy versus isolation and its relationship on the recollected social

distancing guidelines and the mental health of emerging adults. Chapter 1 also covers the nature of the study, research questions and hypotheses, definition and key terms, assumptions, scope of delimitations, and significance of the study. The final section includes the summary.

Background

The mental health of emerging adults is essential to their overall health and development. There is a need to address whether preexisting psychological distress was heightened due to the COVID-19 pandemic or if the psychological distress was brought about by social distancing guidelines (Zheng et al., 2021). COVID-19 and social distancing guidelines created the perfect environment for individuals to experience mental distress (Shanahan et al., 2020). Another study suggests that due to the socioeconomic status individuals felt that their lives were disrupted more than normal and reported that their mental health was impaired (Khubchandani et al., 2020).

Overall, there remains gaps in the literature on social distancing, emerging adult health, and socioeconomic status. The study addresses the extent recollected COVID-19 social distancing guidelines impact the mental health of emerging adults, especially those who are in the low socioeconomic statuses. The results of this study can assist developmental psychologists in measuring future relationships and the mental well-being of young adults who are affected by natural disasters. To promote social change associated with recollected COVID-19 is to create an environment that strengthens the response to mental health disorders. The results of this study may not only address the identified gaps but also assist in informing broader changes to policies, interventions, and

treatments to those needing support due to the pandemic.

Statement of the Problem

Research indicates that mental well-being difficulties increased during the height of the pandemic, March 2020 (Zhang & Zhao, 2020). Individuals were instructed to decrease their social interaction and stop all social activities (de Oliveira et al., 2020). The social isolation and deprivation of social networks and decreased social interaction prompted individuals to have anxiety, depression, emotional issues, financial problems increased chances of suicide (Centers for Disease and Prevention Control, 2020; Shanahan et al., 2020; Smith et al., 2020). Some young adults may not have adapted to the life changes that they experienced due to COVID-19, such as changes to finances, health, and social life (Volk et al., 2021). Further, those with low SES were left without necessary resources, in overcrowded accommodations, and employed in occupations that did not afford opportunities to work from home (Patel et al., 2020). These groups further experienced evictions, displacement, and challenges to public health (Benfer et al., 2021).

Purpose of the Study

The purpose of this quantitative study is to examine recollected COVID-19 social distancing at the height of the pandemic (March 2020) and its effect on mental wellbeing of young adults between the ages of 18-25 from a variety of SES backgrounds. More specifically, the questions that still need answers are how social distancing guidelines impact mental wellbeing, and how does SES impact the relationship between social distancing guidelines and mental wellbeing. Recollected COVID-19 social distancing guidelines impact mental wellbeing prompting depression, anxiety, and stress, especially

those in low socioeconomic status. Williams et al. (2021) and Kumar and Nayar (2020) both concur that COVID-19 social distancing increase negative mental wellbeing. Given that socioeconomic status contributes to mental health difficulties as well during COVID-19, this study, seeks to understand the moderation of SES for recollected social distancing guidelines and mental health for emerging adults.

Research Questions and Hypotheses

RQ 1: To what extent, if any, does recollected COVID-19-related social distancing requirements inversely correlate with 18–25-year-old young adults' current mental well-being?

H_a1: COVID-19 related social isolation requirements will inversely correlate to the mental well-being of young adult respondents.

H_o1: COVID-19 related social isolation requirements will not correlate with the mental wellbeing of young adult respondents.

RQ 2: To what extent, if any, does socioeconomic status moderate the relationship between recollected COVID-19 social isolation and young adult mental well-being?

H_a2: Socioeconomic status will moderate the relationship between recollected COVID-19 social isolation and young adult health, where those from lower SES backgrounds will exhibit lower levels of mental well-being as a result of social isolation compared to those from higher SES backgrounds.

H_o2: Socioeconomic status will not moderate the relationship between recollected COVID-19 social isolation and young adult health, where those from lower SES

backgrounds will exhibit lower levels of mental well-being as a result of social isolation compared to those from higher SES backgrounds.

Theoretical Foundation

The theory that grounded this study is Erik Erikson's (1950) psychosocial development theory, which focuses on the eight stages of development and entails individuals' social experiences encountered across their lifespan. Of the eight stages, the intimacy and isolation stages is significant for the current study, as this stage occurs during early adulthood. The intimacy versus isolation stage consists of the latter part of an individual's development and displays comparatively significant distinction in their maturity (Waterman, 1972). Emerging adults begin to experiment with an intimate relationship that may or may not result in longer-lasting commitments. Disruption or avoidance of committed relationships can result in the adult becoming lonely, depressed, or isolated or may lead to psychological difficulties. Social isolation is considered a stressor that, even without a crisis, can adversely affect mental well-being. Waterman (1972) stated that if a stage is not mastered, the individual may not meet the challenges of the following stage, which hinders development in future stages (Meacham & Santilli, 1982).

There is a logical connection between the framework and the nature of this study. In the intimacy and isolation stage, the focus is on developing personal, close relationships with others. Young adults are a vulnerable population during this stage because this is the phase, according to Erikson's theory, where they become interdependent by seeking out relationships, career choices, and life choices. Completing

the intimacy versus isolation stage could mean building secure, caring relationships now and in the future (Ellison, 2011). However, unsuccessful completion of the stage thwarts the connectedness during a young adult's life (Ellison, 2011). Failure to achieve the intimacy stage could lead to isolation, loneliness, and depression. The failed accomplishment leads to the current crisis that has affected the United States and countries worldwide. Social distancing has caused an insufficient amount of social networking needed during the stage of intimacy for young adults. Due to the lack of social interaction, there have been psychological consequences such as heightened fear of isolation, loneliness, loss of life, anxiety, depression, stress, emotional difficulties, and health issues (Fedorenko et al., 2021). Generally, this unresolved conflict can prompt declines in well-being.

Nature of the Study

To address the research questions in this quantitative study, the specific research design includes comparative/quasi-experimental design using regression analysis for RQ 1 and moderation analysis for RQ 2. A comparative design was used to discover the correlation between the independent variable (recollected social distancing guidelines) and the dependent variable (mental health) for an action that has already taken place. The goal was to find out to what extent social distancing guidelines impacted the outcome of mental health (see Brewer & Kubn, 2010) Additionally, this study's aim was to understand how socioeconomic status moderates the relationship between recollected social distancing guidelines and mental health.

I used primary data for my planned research design by recruiting 100 participants

to complete an online survey. The Depression, Anxiety, and Stress Scale (DASS-21), Social Disconnectedness-8 item scale, and the University of California, Los Angeles Loneliness Scale 20-item and the Nam Powers Boyd were used. The DASS-21 is the dependent variable intended to quantify the emotional status of depression, anxiety, and stress (Lovibond & Lovibond, 1995). Socioeconomic status is an assessment of objective and subjective indicators focusing on social ladders and the psychological well-being of individuals. The Nam Powers Boyd Occupation scale uses three metrics of socioeconomic status (income, education, and occupation) to assign a quantitative score (Boyd & Nam, 2016). The Social Disconnectedness Scale-8 items measure the participants' absence of connectedness to others in social groups (Cornwell & Waite, 2009). The UCLA Loneliness Scale measures the feelings of loneliness of individuals and the feeling of social isolation that the individual may experience (Wu & Yao, 2008). The loneliness and social isolation scales were used to measure the independent variables and will be adjusted to account for the pandemic.

Definition of Key Terms

Mental well-being: Defined as positive emotional, psychological, and social health (Thieme et al., 2015). Mental health is defined as the state of wellbeing in which an individual determines their ability to cope with life stressors, their ability to work productively through any situation, and their ability to contribute to society. Mental health difficulties are expected over the life period of an adolescent due to having biological changes and life role changes that sometimes lead to mental health problems. In fact, there are periods that exists in the life of individuals, adults, and adolescent alike,

that increases the chances of mental health problems. For the current study, mental well-being was measured using stress, depression, and anxiety.

Recollected social distancing guidelines: A nonpharmaceutical way of mitigating the spread of COVID-19 by keeping distances from individuals to avoid infection, especially in closed parameters (Sajjadi et al., 2021). Pandi-Perumal et al. (2021) defined social distancing as staying approximately six feet from other individuals who do not live in the same household. The World Health Organization instead called the term physical distancing and added that individuals needed to keep away from others physically, by staying a distance of 2 meters away from each other and avoid areas where there are crowds (Pandi-Perumal et al., 2021). However, for this study the term "social distancing guidelines" was used, though participants were questioned about their "recollected" social distancing guidelines.

Socioeconomic status: Defined as possessing the following resources: financial capital, human capital, and social capital. Having these resources is said to influence physical health and wellbeing (Bradley & Corwyn, 2002; Kivimäki et al., 2020). Financial capital is the tangible resources that is gauged by monetary value (Bradley & Corwyn, 2002). Human capital is a nontangible resource that is gauged by an individual's skillset (Bradley & Corwyn, 2002). Social capital is gauged on the relationships achieved within social networks (Bradley & Corwyn, 2002). Socioeconomic status was measured by the Nam Powers Boyd Occupation scale. The Nam Powers Boyd scale measures SES by using occupation as a measure of education and income (Boyd & Nam, 2016).

Assumptions

The current study has a number of assumptions. The first assumption was that people would able to recall their experiences with COVID-19 social distancing guidelines. It is likely that some participants were unable to recall their experiences with social distancing guidelines. It is also assumed that each participant would take their time and answer the survey questions honestly and with integrity. Another assumption was that emerging adults have had similar experience with COVID-19 social distancing guidelines, which may not be true.

Scope and Delimitations

The study was designed to examine to what extent, if any, recollected COVID-19 social distancing requirements inversely correlates with 18–25-year-old young adults' current mental well-being. The participants had to be 18–25 years of age and be able to recall their experiences of social distancing during the height of the pandemic. Participants must also have access to the Internet due to SurveyMonkey being specifically an online survey platform. The focus was placed on individuals between the ages of 18–25 because this population is understudied and mirrors Erikson's conflict of intimacy versus isolation. This delimitation also exists because social isolation impacted young adults more than normal (Khubchandani et al., 2020). Participants also needed to be able to recall their experience with social distancing guidelines since that is the independent variable in this study.

Limitations

One limitation of this study is the measure of social distancing guidelines. First,

the use of social distancing guidelines may pose an issue. On March 11, 2020, the World Health Organization began enforcing social distancing guidelines that restricted all nonessential employees to work from home (Teater et al., 2021). Those who worked from home may not have trouble with their mental well-being. However, those who were forced to continue working or were laid off may have experience depression, anxiety, and stress. Because I measured depression, anxiety, and stress related to social distancing guidelines, participants who did not experience direct social distancing guidelines may not have trouble to their mental well-being. Another limitation to this measure is that there is no existing measure for social distancing guidelines. I alterd the scales to capture the participants' recalled experiences of social distancing. This also means that another limitation is that these are perceptions of social distancing guidelines and not actual social distancing guidelines, so participants' responses may be incorrect as they reflect on the past. Despite these limitations this research methodology is optimal given that this is the first study to explore the relationship between perceived social distancing guidelines and mental health.

Further, the use of self-report surveys may increase the probability of social desirability bias. This is due to how a participant tends to respond showing themselves in a favorable light (Latkin et al., 2017). To prevent desirability bias participants were allowed to answer the survey anonymously. I did not interact with the participants due to the potential for personal bias since I worked from home due to being an essential part of the workforce during the height of COVID-19. Another limitation is that the moderator is only a single item measure of SES; although the scale is reliable and valid, more precise

measures may be better, although they are unavailable to me as a researcher.

Significance of the Study

This study is significant in that it will fill a gap in understanding to what extent recollected COVID-19 social isolation has impacted the mental illness of young adults particularly those from low socioeconomic status. The results of this study should assist developmental psychologists in measuring future relationships and the mental wellbeing of young adults who are affected by natural disasters. Recollected COVID-19 posed a significant health issue globally to low-income and vulnerable social groups (Benach, 2021). Additionally, long-term isolation has a damaging impact on mental wellbeing (Benach, 2021). To promote positive social change, during recollected COVID-19, is to create an environment that strengthens the response to mental wellbeing disorders. This study will enlighten professionals on how those with low SES are mostly at risk during the pandemic, particularly emerging adults. These results can provide evidence on why support is needed to help emerging adults through the pandemic and future natural disasters. The study will assist in making broader changes to national mental well-being policies, interventions, and treatments.

Summary and Conclusions

There are significant gaps in the literature that points to the effects of social distancing guidelines and the mental well-being of young adults. The pandemic has created an opportunity for professionals to learn more about the effects of social distancing guidelines on the mental health of emerging adults and how socioeconomic background as a whole plays a significant role in mental well-being. Chapter 1 of this

study gives a synopsis of the study's purpose. Chapter 2 will show the gaps in the

literature. Chapter 3 talks about the research design of the study.

Chapter 2: Literature Review

With the abundance of infections and deaths due to the COVID-19 pandemic, most countries implemented preventive measures to slow down the rapid spread of the virus (Ravens-Sieberer et al., 2021). Many individuals faced changes in their daily lives such as school closures, home confinement, and strict social distancing rules. These strict preventive measures were more detrimental to young adults as this is the sensitive time in their lives for social development and the need for social interaction. The COVID-19 pandemic may have led to more mental health issues (Guo et al., 2020; Ravens-Sieberer et al., 2021). Furthermore, these preventive measures may have affected those from low socioeconomic statuses more than those with high socioeconomic statuses due to limited living spaces, low education, and limited financial resources. Thus, the goal of this study was to examine to what extent young adults' mental well-being has been adversely impacted by COVID 19 and the recollected social distancing guidelines, especially those with low socioeconomic statuses. This study is necessary to establish the need for mental health intervention during and after the pandemic, particularly for young adults from low socioeconomic backgrounds. There is no way of knowing how the pandemic impacts the mental health of emerging adult youth and it is unclear what role socioeconomic status plays with mental health issues among emerging adults.

To address the goals of the study the current chapter is organized in the following way. First, I will discuss Erikson's psychosocial theory of development and how his theory correlates with the current study. Next, I will discuss the literature review. The literature review will provide insight into the effect of COVID-19 social distancing on

mental health well-being of young adults and how these affects could be predicated on their low socioeconomic status. Finally, I will provide a conclusion of this chapter.

Literature Search Strategy

The research and literature for the current study were retrieved from the following databases: EBSCO, ProQuest, Academic Search Complete, Thoreau, PsycInfo, ERIC and Google Scholar. The following keywords were used for the search regarding whether recollected COVID-19-related social isolation requirements inversely correlate with 18–25-year-old young adults' current mental well-being: *COVID*, *coronavirus*, COVID-19, *pandemic*, *social isolation*, *social distancing*, *young adult*, *emerging adult*, *adult*, *mental health*, *mental wellbeing*, *low socioeconomic status*, and *psychosocial development*. Additional search criteria used *mortality*, *morbidity*, *distress in young adults*, *psychological distress*, *lockdown*, *eviction*, *health inequity*, and *negative impact on livelihoods due to COVID-19*.

Theoretical Foundation

Erikson's Psychosocial Theory of Development

Erikson's psychosocial developmental theory can be used to understand the relationship between social distancing and emerging adult mental health. Erikson's psychosocial development theory was established from Freud's psychosexual stages (Erikson, 1951). Both Freud and Erikson suggest that children develop through stages. Freud's theory focused on the id, ego, and superego of the child, whereas Erikson focused on the ego (Erikson, 1951). The ego stage has several relating connotations. One meaning is that it reflects the "self" of the individual, for instance, self-love or self-

concept (Erikson, 1957). The other meaning of ego is how the person psychologically relates to their environment (Erikson, 1957). Erikson used this information about the ego to expand Freud's theory into the psychosocial development theory, which also uses stages of development.

Erikson's stages consist of basic trust versus mistrust, autonomy versus shame and doubt, initiative versus guilt, industry versus inferiority, identity versus role confusion, intimacy versus isolation, generativity versus stagnation, and ego integrity versus disparity (Erikson, 1950). In each stage comes a crisis that needs to be resolved in order to develop healthily. The trust versus mistrust stage is when an infant begins to trust their caregiver. During the autonomy and shame stage, the child gains mental and motor skills and begins to make decisions independently. As the child continues to develop, additional skills are gained. For instance, in the initiative versus guilt stage, the child becomes aware of their self, and their desire and needs to develop through the support of their caregiver; however, too many demands and control from the caregiver can cause the adverse effect called guilt. The industry versus inferiority stage is where the individual completes independent activities. This is where the child enters school and their imagination, hopes, and dreams are tamed. For example, this is where the individual learns to produce, apply themself, and follow instructions. Success at this stage results in the child exhibiting that they are competent with their skills. Failure at this developmental stage will bring about feelings of inadequacy.

The fifth phase of Erikson's psychosocial developmental theory is identity versus role (identity) confusion. During this stage of development, the adolescent is transitioning

from childhood to adulthood (Erikson, 1950). They are trying to identify who they are and what role they will play in society. For example, here is where the adolescent begins to search out which careers to choose and what relationships they will accept, as these are central parts to adolescent identity development.

The intimacy and isolation stage is the next stage in Erikson's psychosocial development theory. This is the stage where young adults establish intimate relationships (Erikson, 1951). When forming intimate relationships is disrupted, it is hard for young adults to develop close bonds with others. This stage of development is where emerging adults are grappling with who they are as young adults. When emerging adults are unable to form intimate bonds, it can result in feelings of loneliness and isolation (Beyers & Seiffge-Krenke, 2010).

In the stage of generativity versus stagnation, Erikson (1950) conceived that a person moves from self-centeredness to others centeredness—for example, mothering a child. A mother no longer thinks of herself but for the well-being of her child or an athlete knows that it takes a team effort to win rather than just his or herself. In the generativity versus stagnation stage, the crisis that one may face could be divorce or childlessness. This can cause a reexamination of life roles.

The last stage in Erikson's theory of psychosocial developmental stages is integrity versus despair. In this last stage the individual is faced with the fact that they are at the end of life's journey and do not have the opportunity of starting over (Erikson, 1950). The individual looks back over their lives and realizes the lost opportunities and failures they have had along the way or may view their life as accomplished and fulfilled.

Some can deal with it openly and honestly while others struggle to face uncomfortable situations. These phases are not stagnant. Although a child may be at a specific level, it does not mean that they cannot achieve other levels.

Erikson's (1950) psychosocial developmental theory suggests that individuals progress through eight stages of development; however, the adult ego is not prevalent until the identity, intimacy, generativity, and integrity stages (Erikson, 1951). Erikson suggested that each stage carries over to the next stage in the life cycle. Individuals encounter a psychosocial crisis or normative development crisis during each stage, promoting growth and maturation throughout their lifespan. According to Erikson (1957), a crisis involves an engagement between the individual growth processes and the cultural and social networking pressures. The growth or maturation occurs when the individual copes with and resolves the crises and moves to the next stage of life. Erikson contended that instead of developing their personality, they become more self-stabilized.

The stage of Erikson's theory that is most impacted is the intimacy versus isolation stage. Loneliness is a public health and well-being concern, as social distancing guidelines brought about loneliness and isolation (Teater et al., 2021). Although young adults have different resources such texting, social mobile applications, and online education that they can rely on, the absence of face-to-face contact increases feelings of loneliness and isolation (Teater et al., 2021). During the pandemic, human capacity to recover mentally from social deprivation depends on social connections with groups and communities (Bzdok & Dunbar, 2020). Social distancing regulation and the disruption of daily activities and networking caused psychological difficulties (Fedorenko et al., 2021).

These psychological difficulties consist of anxiety, depression, stress, fear, and physical health insecurities. As a result, many emerging adults likely struggle to resolve the conflict of intimacy versus isolation, which is likely to hinder mental well-being.

Literature Review

To begin this literature review, it is imperative to understand several facets of the COVID-19 pandemic. COVID-19 began in Wuhan, China and quickly became a World Health Organization emergency due to its rapid spread (Velavan & Meyer, 2020) and high mortality rate (Yang et al., 2020) in many countries. By February 6, 2020, there were over 28,276 confirmed and documented cases and 565 deaths globally from the disease (Wu et al., 2020). COVID-19 impacted all races and ages. African Americans were 34% more likely to die from COVID-19 than their White counterparts despite only accounting for 13% of the total population in the United States (Holmes et al., 2020). As of January 2022, there has been approximately 834,000 deaths from the COVID-19 pandemic (CDC, 2022).

Consequences of COVID-19

As a consequence of the rapid transmission and strict guidelines associated with the pandemic, COVID-19 has influenced the young adult population. Pandemics are life changing events, full of insecurity, doubt, and loss of control, which leads to increased stress and emotional difficulty, anxiety, depression, and anger (Shanahan et al., 2020). The COVID-19 pandemic and its subsequent lockdown attributed to these mental health challenges and worries about "one's health and the health of loved ones, employment disruption and losses, disruption to lifestyle, social isolation, and loneliness" (Shanahan

et al., 2020, p. 1). The disruption of young adult lives and jobs caused high levels of stress which created depression, anxiety, and insomnia symptoms (Glowacz & Schmits, 2020, p. 1). With the unexpected changes that are imposed on the health, finances, and social life of young adults, some have coped positively while others have not been able to adapt (Volk et al., 2021). The ability to adapt or have adaptive coping responses is dependent on several demographic factors: income, age, gender, race, socioeconomic status and being a parent (Volk et al., 2021). Those with maladaptive coping responses suffer from anxiety, fear, substance abuse, or rebellion to the imposed social distancing guideline set forth by the CDC, states, and federal government (Volk et al., 2021).

Individuals have taken different approaches to assist with COVID-19. An individual with maladaptive coping response strategies have heightened anxiety and fear due to COVID-19, whereas an adaptive response is when an individual copes with the stress of the pandemic by depending on social networks and adopting mechanisms that offset any financial or health risk (Volk et al., 2021). It has been reported that young adults are likely to have an avoidant approach to adjusting to situational and solution driven coping strategies during COVID-19 (Volk et al., 2021). In other words, young adults are likely to avoid coping strategies that leads to long-term practical solutions but turn towards coping responses that have detrimental outcomes. For example, these coping strategies include increased drinking and rebellion against social distancing guidelines and curfews. Young adults are most likely to report more stress than any other age group and therefore engage in negative thought patterns to cope with COVID-19, which leads to inadequate adjustments in their coping strategies (Volk et al., 2021). Self-isolation

impacted young adults' psychological state and increased the use of substances behaviors such as alcohol misuse (Glowacz & Schmits, 2020). However, the use of social media apps like Facetime and Skype decreased some of the distress (Glowacz & Schmits, 2020).

A contributor to the declining mental well-being of young adults is misinformation. Young adults experienced negative views toward workplace COVID-19 guidelines, lack of local COVID-19 measures, inability to identify trusted sources of information, and exposure to conflicting misinformation (Wilson et al., 2020). There were also negative views received from others when young adults decided to follow the rules such as wearing mask when shopping or engaging in other activities. Young adults stated that they felt pressured by their peers not to wear masks. The pressure came in the form of being looked at strangely or receiving negative remarks because of wearing the masks. Another factor that young adults reported skewed their views about social distancing guidelines is exposure to vast amounts of misinformation or opposing views about the significance of wearing masks.

Social Distancing Guidelines

On March 11, 2020, the World Health Organization announced COVID-19 as a pandemic and the world began applying guidelines that required lockdown, social distancing, and social isolation to occur around the world (Teater et al., 2021). Subsequently, it is important to review the literature on social distancing. Johns Hopkins Medicine (2021) says that social distancing means to stay at home and socially isolate from others to prevent the spread of COVID-19 (John Hopkins, 2021). The CDC defines

social distancing as a guideline that require humans to remain six feet away from individuals that do not live with them to prevent the spread of COVID-19, limit social contact, and wash hands frequently (Teater et al., 2021). The guidelines also required that facemasks be worn in public that covers the nose and mouth as a preventive measure of infecting others (Teater et al., 2021).

Social isolation as defined by Alspach (2013) is a state of lacking social engagement with others, having small amounts of social contacts, and deficiencies in fulfilling relationships. Social isolation on the other hand is quarantining or isolating oneself at home and avoiding excessive trips out in the public. Social isolation leads to loneliness and boredom that can have long-term effects on individuals mental and physical well-being (Banerjee & Rai, 2020). With the ongoing effects of the pandemic, it is unclear when social isolation will end. Humans are innately social beings that have desires and needs to interact physically and emotionally with others (Firth, 2013; Teater et al., 2021). Young adults need social contact in order to develop that desire to engage with others and a deficit at this stage can leave young adults feeling lonely and isolated. Given the uncertainty of how long the extended isolation will be is challenging for young adults. Banerjee and Rai (2020) expressed in their study that prolonged isolation can cause anxiety and mass panic. It is uncommon for individuals to be so isolated, which makes it challenging for the WHO and CDC to contain the spread of the disease.

The digital age was a distraction from the previous pandemics that occurred such as severe acute respiratory syndrome (SARS), Middle East Respiratory Syndrome (MERS), and Ebola (Banerjee & Rai, 2020). Social media applications gave individuals a

means of communicating without risking potential exposure to the pandemic. Social media was a means for which individuals were able to maintain connection to their communities, sustain communication with friends and loved ones, and continue some sense of social interaction virtually (Geirdal et al., 2021). Even so, many humans were not prepared for such a pandemic as COVID-19.

The COVID-19 pandemic has been a life changing event. Given the significant amount of sickness and death that resulted from COVID-19, it's not surprising that the pandemic correlates with "uncertainty and loss" (Shanahan et al., 2020, p. 1). Linton et al. (2020) exhibits that the incubation period of the illness falls between 2-14 days with a 95% confidence and a mean of 5 days of the onset of the illness. They further convey that it takes 3-4 days hospitalization including treatment and isolation without truncation (shortening or cutting off) and 5-9 days with truncation from onset of illness to hospitalization (Linton et al., 2020). Additionally, they recommended the length of isolation/quarantine as approximately 14 days with a median time of 13 days from the illness to the onset of death (17 days) needed to be considered when determining COVID-19 fatality risk (Litton et al., 2020). At the time of this writing, the CDC (2020) social distancing policy states that individuals should self-isolate approximately five days after close contact with someone who has been affected with COVID-19. The uncertainty and loss of the pandemic is sensed when individuals feel there is a possibility of losing their source of income or housing, whether the pandemic will affect the health of their family or cause death, if following social distancing guidelines will be doable for their family, and how social isolation from others will affect them mentally.

Mental Health Difficulties During COVID-19

The COVID-19 pandemic negatively impacted young adults with mental health. In fact, the COVID-19 pandemic has been a public health crisis for emerging adults (Williams et al., 2021). It has increased negative mental health and decreased positive mental health among everyone, but especially those who come from African and Asian Americans backgrounds who have been disproportionately impacted. It is important to review this literature in order to understand the impact of COVID-19 on mental health. The World Health Organization (WHO) expressed their concern about the mental health and psychosocial effects on the individuals post-COVID (Kumar & Nayar, 2020). The WHO theorize that social distancing guidelines which included self-isolation and quarantining would affect the lives of many causing mental health difficulties (Kumar & Nayar, 2020). Furthermore, the WHO conveyed that COVID-19 prompted individuals to isolate from their friends and family, which prevented them from taking part in their daily activities. This led to "loneliness, anxiety, depression, insomnia, harmful alcohol and drug use, self-harm and suicidal behaviors" (Kumar & Nayar, 2020, p. 1). Cullen, Gulati and Kelly (2020) convey that during a pandemic, the expectation is that individuals' psychological reaction determines the occurrence of mental distress and social disorder. It is evident that psychological elements have a significant role in whether individuals follow public health guidelines and in how individual tend to cope with the danger of becoming infected and losing loved ones (Cullen et al., 2020). The psychological reactions to the pandemic social distancing guidelines are maladaptive behaviors, emotional stress, and defensive reactions. Those who have preexisting psychological

difficulties are made more vulnerable as a result of the pandemic.

The pandemic impacted emerging adults' mental health in unique ways. Although older adults were impacted by the pandemic, young adults were also affected by the pandemic, but in a different way (Germani et al., 2020). For example, emerging adults were reported to be asymptomatic carriers of the virus and had less hospitalization due to the virus unlikely other from older age groups. As far as the mental wellbeing of emerging adults, Germani et al. (2020) found that the virus impacted young adults in the following ways. Young adults were likely to feel unpredictability and untrustworthiness for their future. Also, young adults sensed a poor ability to self-govern, regulate, and adapt their behaviors to the pandemic guidelines (Germani et al., 2020). Emerging adults are at a critical phase in their development, which strengthens their autonomy and can ultimately promote subjective mental wellbeing of young adults. Based on the research it is apparent the pandemic uniquely impacted young adults.

Ohannessian et al. (2021), on the other hand, found that the pandemic impacted young adults in other ways. For instance, those who were essential workers had their hours increased due to the high demand for those who were essential to the needs of communities. Others, however, either had their hours decreased or were laid off from their jobs (Ohannessian et al., 2021). Both circumstances contributed to emerging adults' negative mental wellbeing. Another reason that impacted emerging adults were restrictive guidelines. For example, Zhoa et al. (2020) expressed that complying with the stringent guidelines increased mental health difficulties. This was found in previous studies on COVID-19 which communicate following the strict quarantining measures increased

emotional distress.

The pandemic affected young adults at a vulnerable developmental stage in their lives: emerging adulthood. Despite the fact that everyone was affected, young adults' independence and personal and professional growth was impacted. Ohannessian et al. (2021) listed this as stage where young adults are maturing, exploring who they are and establishing their autonomy. Based on Ohannessian and colleagues' perception and echoed by Germani et al. (2020), emerging adults wellbeing is unstable due to changes they are encountering in their lives (career, relationships, establishment of identity), a combination that increases stress and therefore psychopathology. Though emerging adults' potential for infection was low, as a consequence of their many transitions, they were at a greater risk for mental health problems (van den Berg et al., 2021). It was found that significant deterioration of mental distress within the first months of the national lockdown; also, significant increases in mental health problems were found during the strict social distancing guidelines (van den Berg et al., 2021). Additionally, there was significant increase of loneliness found during the acute phase of the pandemic, which was late March and May 2020. Within two months after the pandemic was declared, emerging adults began to report elevated levels of depression, anxiety, and post-traumatic stress disorder symptoms than compared to emerging adults prior to the pandemic (van den Berg et al., 2021). While under enforced quarantine, young adults 21 to 31 years of age experienced high levels of depression, anxiety, and traumatic stress symptoms (van den Berg et al., 2021). Essentially the period of emerging adulthood contributes to mental health risk.

Mental health plays a significant role in young adults' adherence to social distancing guidelines and health measures (vaccinations) and how they deal with the threat of infection and loss (Cullen et al., 2020). These are clearly significant issues to consider when dealing with infectious diseases such as COVID-19. Cullen et al. conveys that the response by adults to public health measures include negative psychological behaviors such as maladaptive difficulties, emotional anguish, and defensive response. Given the changes in mental health during emerging adulthood, one variable that has received limited attention, but may also likely impact emerging adult mental health during the pandemic is socioeconomic status.

Socioeconomic Status and COVID-19

Another variable to consider regarding mental health and the pandemic is socioeconomic status. Socioeconomic status is having access to financial capital, human capital, and social capital and is thought to influence health and wellbeing (Bradley & Corwyn, 2002; Kivimäki et al., 2020). Bradley and Corwyn (2002) conveyed that capital expresses the definition psychologist hold as SES. For instance, financial capital is the material resources that is measured through money and value. Human capital, on the other hand, are the non-material resources that are measured by skills and expertise (education and training) that assist individuals in doing a task (Bradley & Corwyn, 2002). Social capital is based on social connections that are achieved within and between social networks. Socioeconomic status is measured in three quantifying ways: family deprivation, educational, and occupational (Bradley & Corwyn, 2002; Kivimäki et al., 2020). It is measured based on the educational level of the adults, how much

unemployment, and quantity of individuals living in rented housing. Furthermore, studies have shown that socioeconomic status is connected to physical and mental health and social emotional outcomes of children leading from birth into adulthood (Bradley & Corwyn, 2002).

In addition to health consequences, there were a lot of changes to individual socioeconomic status during the pandemic. For instance, job loss, out of the incredibly high unemployment rates, and economic hardships for home renters and homeowners, which caused evictions during the pandemic (Benfer et al., 2021). For those with high school diplomas or less the unemployment rate rose to an astounding 12 percent. Those with bachelor's degree or more the unemployment rate increased by 5.5 percent. Benfer and colleagues (2021) discovered that these hardships were especially found among individuals from minority groups and low-income populations. Low income and minority communities who were already experiencing economic marginalization, were subjected to more economic adversities due to the pandemic. Evictions and displacement are harmful for individuals and the public health according to Benfer et al. (2021). During the pandemic, evictions and displacement prompted some individuals to move in with others (such as doubling up with other family), causing overcrowding living settings and the spread of COVID-19 (Benfer et al., 2021). Eviction, along with low or no income, can add to individuals having limited healthcare and the inability to follow COVID-19 guidelines, such as social distancing, self-quarantining, or regular hygiene practices (Benfer et al., 2021). Thus, eviction drives the health inequity.

Minority populations (African Americans, Hispanic/Latinx, and Indigenous

Americans) were most likely to experience eviction and related comorbidities. In fact, African Americans are 2.1 times likely to die from COVID-19 than that of Non-Hispanic Whites and Hispanic and Indigenous Americans and 3 times the rate of their White counterparts (Benfer et al., 2021). Those who are at risk of the repercussions of the COVID-19 pandemic, based on their social economic background, are minority groups. Low socioeconomic groups tend to have larger families, inflexible work hours, faced with systemic biases at their places of employment and in their community. Research suggests that minorities are disproportionately affected by COVID-19. Moreover, African American and Hispanic individuals are more likely to be infected by the virus and risk hospitalization due to the virus in comparison to white individuals. The CDC has surmised that racial disparities in the pandemic's outcomes is possibly caused, by socioeconomic disadvantages that put low-income individuals at an increased risk of infection. According to Little et al. (2021), those who come from low-income homes are more likely to work as essential workers, which require that they work outside the home in jobs without sick leave. Also, these workers probably live in multi-generational homes that may be overcrowded (Little et al., 2021). Therefore, minority populations experienced more hardship as a result of covid 19.

Essentially, data suggests that those who were impacted the most during COVID-19 are individuals with low socioeconomic backgrounds. Wanberg et al. (2020) stated that individuals with low SES are most likely to be frontline workers (essential government workers, and grocery retail workers, for example), employed in jobs where the risk of exposure to COVID-19 is higher. Those who have low status and low wages

make it difficult to garner resources needed for daily living. In contrast, high SES

individuals were employed in jobs that paid higher income that afforded individuals to

purchase and protect the necessary resources to live comfortably or allowed for

temporary layoffs (Wanberg et al., 2020). Wanberg (2020) and colleagues report that

37% of individuals with low SES state that their mental wellbeing worsened due to the

pandemic. SES correlates with access to fundamental resources and when these resources

are few, people will have low mental wellbeing such as depression and low life

satisfaction. Individuals with low SES tend to worry more about their financial

circumstances; are less likely to perceive that they have locus of control over life

outcomes; have smaller social circles for support but increased levels of isolation and

loneliness; and lack the knowledge to access accurate information for health awareness

(Wanberg et al., 2020).

The pandemic also impacted people from other SES backgrounds. According to a

poll by Axios-Ipsos (2022), 47 % of those with high SES background reported that their

mental health wellbeing worsens due to the pandemic. This was compared to individuals

with low SES which polled at 34 % mental health wellbeing. Wanberg et al. (2020) stated

that individuals with higher education depressive symptoms increase, and those with the

highest level of income had a decrease in life satisfaction during the pandemic compared

to their depressive symptoms and life satisfaction before the pandemic.

Summary and Conclusions

In the present Chapter, the literature elucidated details about COVID-19, a

pandemic that spread worldwide causing many to become infected and for others led to

mortality (Ravens-Sieberer et al., 2021). Due to the wide spread of the virus, strict social distancing guidelines were implemented to decrease and prevent the infection rate. Although many young adults experienced infections, few experienced hospitalization or death (Germani et al., 2020). However, young adults were subjected to mental health issues as a result of the pandemic (Guo et al., 2020).

The study is important as it will help to fill in the gaps to determine to what extent recollected COVID-19 social isolation has impacted the mental wellbeing of emerging adults from low socioeconomic backgrounds by examining the effects of the strength of the relationship between COVID-19 social distancing guidelines and mental health. Many studies examined mental health and the pandemic, but few examined social distancing guidelines and SES as it pertains to mental health (Teater et al., 2021; Zheng et al., 2021). Other studies did not focus on a specific population, such as 18-25, however, each study examined a broad array of participants (Salameh et al., 2020). In other words, there are many gaps that have yet to be addressed in the current study.

The current study is rooted in Erikson's (1985) psychosocial theory of development. In particular, the intimacy versus isolation stage which focuses on emerging adults. During this phase of development, emerging adults begin to build intimate relationships, gain autonomy, and self-directedness (Erikson, 1951). This stage is very important in the development of young adult leading into adulthood where young adults make decisions on which careers to pursue, whom to enter a personal relationship with, and the roles that will take on in life (Erikson, 1951).

In the aftermath of the virus, the world began to shut down and many countries

relied on social distancing guidelines, which resulted in many countries shutting down business and schools, social distancing, and isolating from others (Teater et al., 2021). Young adults have a need to be social and have intimate contact with others to develop interpersonal relationships. A deficiency in this phase in a young adult life can contribute to feeling of loneliness and isolation. Pandemics relate to the feeling of uncertainty and loss in young adults (Shanahan et al., 2020). Therefore, the pandemic is likely to hinder development according to Erikson's theory.

The pandemic is a national health crisis for young adults according to Williams et al. (2021). Mental health increased negatively among young adults during the pandemic. especially, for those who are of African American, Asian American, and Hispanic backgrounds. The pandemic has led to feelings of loneliness, anxiety, depression, insomnia, a harmful alcohol and drug use, self-harm, and suicidal ideations (Kumar & Nayar, 2020).

Lastly, those who are at risk of repercussions of the COVID-19 pandemic are young adults from low socioeconomic backgrounds. These usually consist of frontline workers who are usually employed in jobs where they are highly exposed to COVID-19 and do not have adequate sick leave (Wanberg et al., 2020). Some of the individuals are subjected to eviction due loss of income or loss of employment. Evictions can cause individuals to have limited healthcare and lack of reasoning to follow pandemic guidelines. Eviction, along with low or no income, can add to individuals having limited healthcare and the inability to follow COVID-19 guidelines, such as social distancing, self-quarantining, or regular hygiene practices (Benfer et al., 2021).

The goal of the study is to determine to what extent COVID-19 social distancing guidelines impacted the mental health of young adults with socioeconomic as a moderator. The finding of the study would assist Developmental Psychologist in gauging the mental health and the relationships developed by young adults during a pandemic. Young adults are a vulnerable social group and experience mental health difficulties during the recollected COVID-19 (Benach, 2021). The goal of the study is to also promote social change where an environment is created to strengthen the response to young adult mental health wellbeing during a natural disaster. The study can assist psychologist and policy makers in making changes to the way mental health is approached during a pandemic, how policies are created, and how intervention and preventive measure are streamlined.

Chapter 3: Research Method

This research was conducted to understand to what degree COVID-19 social distancing guidelines impacted mental health of young adults as it pertains to socioeconomic status. The chapter focuses on the research questions, study design, data collection, data organization, data analyses, and the justification for these decisions. Next, this chapter focuses on the ethical considerations. Subsequently, the reliability and validity of the research will be discussed.

Research Design and Approach

The quantitative study was conducted to answer the research questions:

- RQ 1: To what extent, if any, does recollected COVID-19-related social isolation requirements inversely correlate with 18–25-year-old young adults' current mental well-being?

- RQ 2: To what extent, if any, does socioeconomic status moderate the relationship between recollected COVID-19 social isolation and young adult mental well-being?

Quantitative research was conducted on this study due to a lack of quantitative studies on this subject. Previous studies conducted were qualitative and did not focus on the mental health of a specific population. Instead, the studies concentrated on broad populations' mental health. Previous studies also did not use a moderator variable such as SES to determine if such a variable could also impact the mental well-being of young adults.

There are three central concepts for the research project: social distancing guidelines, mental health, and socioeconomic status. Social distancing guidelines are

regulations set by the Centers for Disease Control and Prevention (2022a) that govern the way individuals socially interact with others to deter the spread of COVID-19. The mental health status of individuals can be determined from the length of time in isolation (Linton, 2020), as isolation leads to emotional difficulties such as "uncertainty and loss" (Shanahan et al., 2020, p. 1). Mental health comprises an individual's emotional, psychological, and social well-being (What is Mental Health, 2022). Some psychological elements following the social distancing guidelines include "maladaptive behaviors, emotional distress, and defensive responses" (Cullen et al., 2020, p. 1). Thus, social distancing can have long lasting effects on the mental and physical well-being of individuals (Banerhee & Rai, 2020). The World Health Organization (WHO) has been concerned about the toll isolation would have on individuals who followed COVID-19 social distancing guidelines (Kumar & Nayar, 2020).

Socioeconomic status is the social position of an individual or group of individuals in relation to others, usually measured by their education, income, and occupation (American Psychological Association, 2022). Socioeconomic status is usually broken into three levels: high, middle, and low. The current study included all levels of SES. During COVID-19, individual mental health worsened as a result of SES (Wanberg et al., 2020). Mental health difficulties have been found among the low- and high-income brackets (Benfer et al., 2021). However, during the COVID-19 social distancing guidelines, hardships were discovered among those in the low-income population caused by evictions and loss of income (Benfer et al. 2021). Those who were likely to have low income usually worked as essential workers without all the amenities as high paying jobs

such as sick leave and may have had to live in multigenerational homes that are sometimes overcrowded (Little et al., 2021).

Role of the Researcher

A researcher's role in a quantitative study is theoretically nonexistent in that the participants act independently of the researcher (Simon, n.d.). In this study I examined the extent recollected COVID-19 social distancing guidelines impact the mental health of young adults by examining socioeconomic status as a moderator of this relationship. My role in this study was a facilitator and observer of occurrences affecting individuals who had experiences with COVID-19 social distancing guidelines, mental health issues, and affected by socioeconomic status in any way. During the study I remained unbiased by not collecting identifying information. I also maintained confidentiality and anonymity to the best of my ability.

Methodology

Quantitative inquiry is where the researcher learns about a specific population, in particular young adults, relying on scientific data the researcher observed and measured (Burkholder et al., 2016) The specific design for this study is predictive-correlational. The analyses I used are linear regression and moderator analysis. I used quantitative analysis to observe young adults and how social distancing guidelines affected their mental health. Quantitative analysis is deductive analysis rather than inductive analysis and produces objective data that can be clearly communicated through statistical analysis and numbers. In deductive reasoning if the premise is true then the conclusion is true.

Population

The population investigated in this study are young male and female adults between the ages of 18 and 25 with access to Facebook in the United States. All socioeconomic statuses were investigated. As of March 2022, of the Facebook users in the United States, 17.4% of users were between ages 18–24 (Statista, 2021). The Pew Research Center (2021) found similar statistics in that the largest population of social media users are emerging adults.

Sampling and Sampling Size

The first step in determining my sample was to run a power analysis. The software I used to determine sample size was G* Power. I set the effect size to .15, which would determine a small significant change. The alpha level was set to .01 to ensure that significant findings did not occur at random. Next, I set the power level to .8 to capture significant effects. Through this analysis, the output revealed that I needed 99 participants to achieve sufficient power. To control for attrition, I added an additional 10% of participants ($N = 110$) to account for participants who may not complete the survey or provide inadequate data.

The sampling strategy to recruit these participants was convenience sampling. The inclusion criteria are that participants have to be between the ages of 18 and 25 with access to Facebook. Additionally, participants needed previous experience with COVID-19 social distancing guidelines. Having access to Facebook was an inclusion criterion because that is where participants were recruited. Only participants between the ages of 18 and 25 were included because the focus of this study is on emerging adults. The study

excluded individuals younger than 18 years of age due to these individuals' status as minor and additional consents and ethical provisions. Children were excluded from this study due to the lack of capacity to give consent and the power differential between the researcher who is an adult and the child. The study also excluded adults over the age of 25 due to the study's focus on emerging adults.

Recruitment Procedures

Advertisements for this study were posted on Facebook group pages. The advertisement discussed the focus of the study and the criterion of the participants, which includes emerging adults between the ages of 18–25 with experience with COVID-19 social distancing guidelines:

Hello, I am conducting a research project as part of the Walden University Developmental Psychology Program. We are seeking participants to take a brief online survey that is focused on COVID-19 social distancing guidelines and how those guidelines affect mental health of young adults between the age of 18 through 25. Also, whether socioeconomic status played a role in the impact on mental health. In order to participate in this study, it is required that you are between 18-25 years of age, and that you had some experience with COVID-19 social distancing guidelines. Participation in this survey is voluntary and you may skip any questions you do not wish to answer. It takes approximately 10-15 minutes to complete the survey. If you can spare a few minutes, I would really appreciate your participation.

Data Collection

I used Survey Monkey to collect data. I recruited participants to complete an online survey incorporating valid, reliable measures—the Depression, Anxiety, and Stress scale (DASS-21), the Social Disconnectedness Scale, the University of California, Los Angeles Loneliness Scale, and the Nam Powers Boyd scale. The DASS-21 measures the dependent variable with the intention to quantify individual well-being through three subscales: depression, anxiety, and stress (Lovibond & Lovibond, 1995). The Social Disconnectedness Scale measures participants' absence of connectedness to others in social groups (Cornwell & Waite, 2009). The UCLA Loneliness Scale measures the feelings of loneliness and social isolation that a participant may experience (Wu & Yao, 2008). The loneliness and social isolation scales represent the independent variables. Many studies have shown that social isolation has a significant effect on individuals' physical health and mental well-being (Wu & Yao, 2008). I adjusted each item in the Loneliness Scale and Social Disconnectedness Scale to include recollected COVID-19 related questions to align with my research questions. The moderator used in the study is Nam Powers Boyd. Based on the U.S. Census Bureau (2021), any individual whose income is less than the family threshold then everyone in that family is considered in poverty. Thresholds vary by family size and age of each family member but do not vary geographically. For instance, the threshold of a two-family household was $17,413 as opposed to a household with two members over the age of 65 is $15,659 (U.S. Census Bureau, 2021).

Instrumentation and Measure

Recollected Social Distancing Guidelines Measure

Instrumentation included the UCLA Loneliness Scale (UCLA-20). This scale's internal consistency coefficient was .96 and the retest reliability coefficient is .94 (Dogan et al., 2011). The reliability was tested with young adults who are greater than or equal to 18 years of age (Das et al., 2021) and the elderly population with a mean age of 70 (Velarde-Mayol et al., 2016). This 8-item scale is a self-report loneliness instrument that was developed to gauge subjective feelings of loneliness and social isolation (Wu & Yao, 2008). The scale measures life satisfaction, social support, adult attachment styles (in specific avoidant attachment style), loneliness, and anxiety. Some example questions from ULS-8 item scale include, "How often do you feel that you lack companionship?", "How often do you feel that there is no one I can turn to?" and "How often do you feel outgoing and friendly?" The response options are 1 = *never*, 2 = *rarely*, 3 = *sometimes*, and 4 = *always*. Results from previous studies indicated that the measure is highly reliable in internal consistency and test and retest reliability (Russell, 1996). Each of these items were slightly altered to capture recollected COVID-19 experiences. For example, "During COVID-19, how often did you feel like you lacked companionship?" These changes to the scale are acceptable as long as the meaning of the items stays the same. This scale was calculated by taking the mean of all eight items after reverse coding two items.

Another scale used to capture participants experiences with social distancing was the social disconnectedness instrument. This scale is broken into eight items and assesses

the lack of connectedness to other individuals and social groups (Cornwell & Waite, 2009). Cornwell and Waite (2009) showed that social disconnectedness has two components: social network characteristics, which gauges the social network size, range, proportion of social network members living in the household, the frequency of interaction and the number of friends. The second component was social participation, which gauges the frequency of attending meeting or joining organization, frequency of socializing with friends and relatives, and the frequency of volunteering. Some example questions include: "Do you spend most of your time at home?" and "Do you refuse to interact with others?" Similar to the other measure each item will be edited slightly to contextualize the COVID-19 pandemic. For example, during the recollected COVID-19 did you spend most of your time at home?" and "During the perceived COVID-19 did you refuse to interact with other?" These changes to the scale are acceptable a long as the meaning of the items stay the same. The response options to these questions are 1 = yes and 2 = no. The scale has demonstrated acceptable internal consistency and moderate to strong item-rest correlations, with a sample of participants between the ages of 57 and 85 (Cornwell & Waite, 2009). This variable was calculated by taking the mean of all eight items and no items are reverse scored. These scales were selected because there wasn't a scale that correlated with social distancing guidelines but both scales focused on social isolation instead.

Mental Well-Being. The operational definition of mental wellbeing is the individual's psychology health as reflected by their feeling of depression, anxiety, and stress. The measure that was used to capture mental wellbeing is the Depression, Anxiety,

Stress scale (DASS-21). The DASS includes three subscales that measure depression, anxiety, and stress (21 items each). Example items include: "I found it difficult to work up the initiative to do things (depression); I was intolerant of anything that kept me from getting on with what I was doing (anxiety); I felt that life was meaningless (stress). The response options are: 0 = Did not apply to me at all, 1 = Applied to me to some degree, or some of the time, 2 = Applied to me to a considerable degree or a good part of time, 3 = Applied to me very much or most of the time. The scale has reported good estimates of internal consistency for the original scale and shows a Cronbach's alpha range in between .82 to .97 (Lovibond & Lovibond, 1995). The reliability of this scale was tested with adolescents from 7 to 87-years-old (Szabo & Lovibond, 2022). Like the previous scales, each item was edited to include information about the COVID-19 pandemic. For example, items would read: "During the recollected COVID-19 social distancing guidelines did you find it difficult to work up the initiative to do things?", "During the perceived COVID-19 social distancing guidelines were you intolerant of anything that kept you from getting on with what you were doing?", and "During the perceived COVID-19 social distancing guidelines did you feel that life was meaningless?" These changes to the scale are acceptable as long as the meaning of the items stay the same. This variable was calculated in two different ways. First, the mean of all twenty-one items was calculated (no items are reverse scored). This is a measure of general psychological health. Second the mean of each of the subscales (depression, anxiety, and stress) was calculated. This scale was selected for its broad way of measuring the

depression, anxiety, and stress and how it would give a since of what emerging adults experienced during the pandemic.

Socioeconomic Status. The operational definition of socioeconomic status is the measure of someone's economic status and social status compared to others. The Nam Powers Boyd Occupation scale is used to gauge an individual's socioeconomic status using one's occupation as an indicator of education and income (Boyd & Nam, 2016). This scale has been used consistently in developmental psychology and is updated every year to represent to most the recent census data. The population used in this study consist of 16 years and greater consisting of both female and male participants. The most recent version provides a numerical value for one's occupation on a scale from 0 to 100, which represents a combination of one's education and income (Boyd & Nam, 2016). For example, construction labor score of 20, teachers and instructors have a labor score of 47, and dentist has a labor score of 100 (Boyd & Nam, 2016). Because this scale has only one item, there is no record of internal consistency. However, there is data for the reliability and precision of the instrument given its updated history over the last twenty years (Boyd & Nam, 2016). Psychometric properties can be seen at this http://www.npb-ses.info/latest-scores.html. This scale was chosen due to the newness of gauging socioeconomic status as it refers to mental health.

Data Analysis

Regression analysis allows the researcher to predict the relationship between the dependent variable and one or more independent variables (Wagner, 2019). The relationship between the independent variable (recollected COVID-19 social distancing

guidelines) and the dependent variable (mental health of young adults) was analyzed by linear regression. Subsequently the moderation analysis was used to test the moderator variable (socioeconomic status) on the relationship between the independent variable and the dependent variable. Moderation happens in three steps: standardizing the variables; calculating the interaction terms; and conducting a linear regression with the independent variable, the moderator, and the interaction term on the dependent variable (Cucos, 2022). For instance, in the case of this research, I suspected that time an individual spends following COVID-19 social distancing guidelines will impact their mental health. I also suspected that this relationship will be moderated by socioeconomic status. More specifically, I predicted that individuals from lower socioeconomic backgrounds will exhibit lower levels of mental health due to social distancing guidelines compared to those from high socioeconomic backgrounds.

In order to answer the Research Questions for this study, I conducted a moderation analysis (see Figure 1). To run moderation analyses, first the sample data set was imported in SPSS. This was done by extracting the .sav file and double clicking to import the data extracted from Survey Monkey. Data was visually inspected to ensure that the data import worked. Next it was important to standardize (centering) the variables in regression analysis. To achieve standardizing the variables in the dataset, which can be done through the descriptive statistics function in SPSS. To do this, select the independent variable (social distancing guidelines) and the moderator variable (socioeconomic status) and then select "save standardized values as variable". Next, the interaction intercept was calculated. In this case, social distancing guidelines were

multiplied by the moderator (socioeconomic status). Once this is calculated, a regression analyses was ran to determine if socioeconomic status moderates the relationships between social distancing guidelines and mental well-being.

Figure 1

Moderation Model
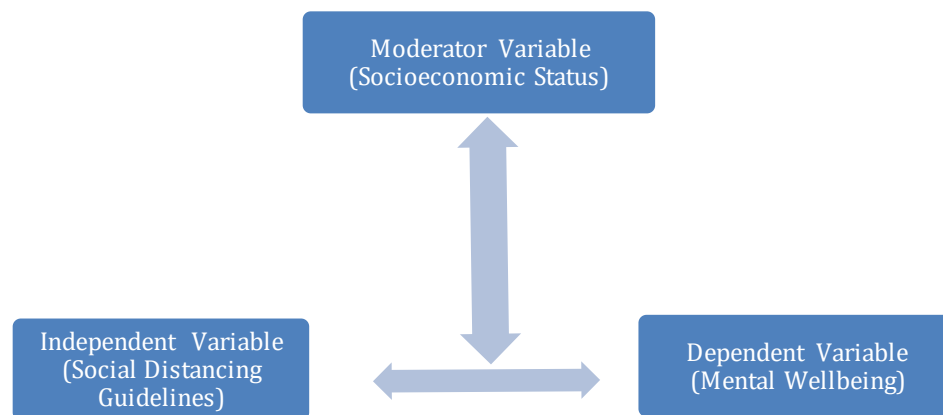
The regression analyses involved multiple steps. Step one included the control variables (age, gender). Step two included the independent variables and step three included the moderator variables. Because there are three different measures of mental well-being (stress, anxiety, and depression), three separate models was conducted. Additionally, since there are multiple measures for recollected social distancing guidelines, all analyses was ran again, but with the second measure of social distancing guidelines. These analyses answered the research question for this study.

Threats to Validity

There may be potential threats to the study that are both external and internal. External threats to validity can be the researchers' generalization of results (Creswell & Creswell, 2018). An example of an external threat is when the study's data cannot be

applied to other situations, groups, or variables. The population intended for this study were male and female emerging adults between the ages of 18 and 25 in the United States who had experiences with social distancing guidelines that may or may not affected their mental health. Internal threats to validity consist of treatments, procedures, or experience that may threaten the researcher from drawing on the correct conclusion from the data gathered about the study's population. A potential internal threat is social desirability bias. Social desirability bias is when the participant responds to the survey in a way they feel that is a desired response (Fisher, 1993). Another factor of internal threats to validity was participants skipping some or all of the questions in the survey. The participants can become comfortable with the outcome measure and remember responses for latter parts of the test (Creswell & Creswell, 2018). The most concerning threat to internal validity is how I measure social distancing guidelines. Because participants experience these guidelines in the past their recollection may not be precise or accurate.

Steps was taken to minimize threats to validity. I primed participants to recall their experience of the pandemic and social distancing guidelines. I also tweaked the scale to accommodate for recollected social distancing experiences. These threats was addressed through quality control. One quality control item that was used is writing down the preparation, procedure, and analysis of the study. Another quality control item used was measuring the cost versus the benefits of conducting the study. For instance, the study should have very few problems and the researcher should have confidence in the results from the study. Additionally, in order to minimize threats to internal validity a control item that says "For this item select 2" was added to ensure that participants are

reading the directions. Removing any participant responses that are missing data was another way of minimizing threats to the study. To address threats the researcher should examine for outliers to ensure homoscedasticity. Also, I increased participants by 10% to account for attrition and missing responses. Missing data was treated as missing at random and will be included in analyses.

Data Storage

In alignment with the Ethical Principles of Psychologist and Code of Conduct (American Psychological Association, 2010), the Walden University IRB, and federal guidelines, all data and research information was stored on a password protected file storage so that confidentiality of participants in maintained. To ensure these guidelines are adhered to, personal identifying information was not collected. Additional protection was used such as configuring my personal computer with passwords to reduce access to research data and all files was password protected. After three years all data will be destroyed.

Ethical Procedures

When the Walden University Institutional Review Board (IRB) approved the study, participant recruitment and data collection started. A consent form was readily available for participant to read before they began the survey. Participants had the option of stopping the survey at any time they felt the survey was triggering. I did not collect any personal identifying information. I allowed people to skip questions that made them feel uncomfortable. If the participants were uncomfortable during the study, they could stop without any penalty. Participants who experienced direct social distancing guidelines

and were forced to work or work from home or laid off and experienced discomfort due to loss of income and social connection were referred to Mental Health America (http://mentalhealthamerica.net/search/node).

Summary and Conclusion

In this chapter, the research was aspired to discover the degree to which recollected COVID-19 social distancing guidelines influences the mental health of young adults, and the degree to which socioeconomic status moderates this relationship. Although it was established in the previous chapter that social distancing may impact the mental wellbeing of young adults, this study aimed to understand if socioeconomic status also played a role in the mental wellbeing of your adults.

This chapter also discussed the research design of the study and shared the research questions and hypotheses that this study strived to answer. These include Research Question 1: To what extent, if any does recollected COVID-19 related social isolation requirements inversely correlate with 18-25-year old adults' current mental wellbeing? and Research Question 2: To what extent, if any does socioeconomic status moderate the relationship between recollected COVID-19 social isolation and young adult mental wellbeing?

This chapter also reviewed the methodology for this study, which includes an online survey. This survey incorporated valid, reliable measures to address the hypothesis, include the depression, anxiety, and stress scale (DASS-21), the social disconnectedness scale, the University of California, Los Angeles Loneliness Scale (UCLA-20), and the Nam-Powers-Boyd Occupation scale. The UCLA-20 and the social

disconnectedness scales gauged how the young adult felt during their experience of

recollected COVID-19 social distancing guidelines. The next scale used in the study was

the DASS-21 scale that was used to measure the mental wellbeing. The final scale was

the Nam-Powers-Boyd scale that measure the socioeconomic status of the emerging

adult. A moderation analysis was conducted to answer the research question. To do this,

the data sample would be imported into the SPSS system. Then an independent variable

(recollected COVID social distancing guidelines), dependent variable (mental wellbeing)

and a moderator variable was then selected (socioeconomic status). Last, included in this

chapter are the potential threats and limitations to the study. Overall, this study addresses

important gaps in the literature, and this methodology will help advance our understand

of the relationship between COVID-19 social distancing guidelines and mental health.

Chapter 4: Results

The purpose of this study was to determine if COVID-19 social distancing guidelines had an effect on the mental health of emerging adults and if the relationship was moderated by socioeconomic status. Research questions focused on the extent COVID-19 guidelines correlated with 18–25-year-old adults' mental well-being as well as the extent socioeconomic status moderated this relationship. In this chapter, I discuss the findings of this study by analyzing the data and describing the study participants. This chapter will focus on data collection, preliminary analyses, and answering the research questions and hypotheses.

Data Collection

After approval from IRB, the participants for this study were recruited using Facebook and SurveyMonkey. First, I began cold posting on Facebook stating that I was conducting a research project and was seeking participants. Just posting in the open forum, I was able to obtain a few participants but not enough to meet the sample size needed to complete the study. Then I joined several online groups such as People Making Moves in Nashville, Memphis, and Atlanta, Greek Sororities and Fraternities, Mental Health Awareness and Support groups, Public Health Information and Advice, Walden University Doctoral Psychology, Psychology Today, and International Psychology Group. Posting in these brought in a lot more participants.

Sample Characteristics

The data were collected within 2 months through SurveyMonkey. A total of 147 participants contributed to the survey. Of the 147 participants only 103 completed the

survey in its entirety. Forty-four participants were dropped from the study because they provided incomplete or missing data. The sample size estimation included in Chapter 3 indicated that a total of 99 participants would be needed for the sample to have statistical power. Therefore, the study had enough participants to complete the analyses.

The sample participants were primarily female (93%) between the ages of 18–25 (see Table 1). Of these, the average age of the participants was 20 (32%) years old. The majority of participants were White (63%). The three most common jobs listed in the study was retail worker, student, and nanny/caregiver. See Table 1 for a summary of the information.

Table 1

Demographic Characteristics of Study Participants (N = 103)

Variable	n	Percent
Gender		
Female	96	93.20
Male	6	5.82
Other	1	.97
Age Groups		
18	12	11.65
19	28	27.18
20	33	32.03
21	12	11.65
22	10	9.70
23	1	.97
24	5	4.85
25	2	1.94
Ethnicity		
White	65	63.10
Black/African American	15	14.56
Hispanic	13	12.62
Other	10	9.70
Profession		
Administrative	2	1.94
Nanny/Childcare	4	3.88
Caregiver	2	1.94
Medical Assistant	1	.97
Registered Behavioral Technician	2	1.94
Server	3	2.91
Fitness Monitor	1	.97
Gymnastics Coach	1	.97
Cashier	2	1.94
Service Coordinator	1	.97
Train Conductor	1	.97
Sales Associate	1	.97
Veterinarian Technician	1	.97
Teacher	2	1.94
Physiotherapist	1	.97
Kinesiology	1	.97
Laborer	2	1.94
Dental Assistant	1	.97
Retail Worker	3	2.91
Research Assistant	1	.97
Area Manager	1	.97
Health Care Management	1	.97
Student	68	66.01

Preliminary Analyses

Preliminary analyses were conducted but not before coding and scoring of the measures that contained the online survey questions for the study. The independent variable in this study is perceived COVID-19 social distancing. The moderator was socioeconomic status. The dependent variable was mental health, represented by stress, anxiety, and depression. The first step was to download the data from SurveyMonkey and export into an Excel spreadsheet. This information was transposed into SPSS where data cleaning was conducted. Some data were removed due to incompleteness and incorrect data from the dataset. More specifically, I removed 36 participants because they did not answer all the questions completely. Six participants were removed due to these participants not fitting the criterion, as they were older than the requested age delimitation (not between the ages of 18 and 25).

Once the data were moved to SPSS and data cleaning was completed, I adjusted categorical data by coding the responses of ethnicity and gender. More specifically, I coded a 0 as white or Caucasian and 1 for other (African American, Hispanic, Latino, Middle Eastern, Asian, and Indian). Additionally, female was coded as a 1 and male was coded as a 0. The socioeconomic scale was coded by its occupational key. For instance, student was coded as 1, retail worker as 3, and rehab technician as 74. Then I coded "Did not apply to me at all," "Applied to me to some degree, or some of the time," "Applied to me to a considerable degree, or a good part of the time," "Applied to me very much, or most of the time" into numerical coding using 0, 1, 2, 3 for the DASS Scale and named the variables D for depression, A for anxiety, and S for stress in SPSS. For the Loneliness

scale, the responses of never, rarely, sometimes, and always were transposed into numerical code using 1, 2, 3, and 4. These variables were named L for loneliness and numbered 1-20 for all 20 items. No items needed reverse coding. Next, I created sum scores of each of these variables and labeled them loneliness, stress, anxiety, depression, social participation, isolation, and social support. Finally, I mean-centered each variable by calculating Z scores for each variable in preparation of analyses.

The next focus of the initial analyses was to compute the means, standard deviation, Cronbach's alpha, and zero order Pearson correlation between the key variables. These preliminary analyses were conducted to check the reliability of each scale and examine the distribution of the variables and identify outliers (Jhangiani et al., 2019). First, no variables needed to be reverse-coded. I used the scale reliability function on SPSS to calculate internal reliability by clicking on analyze, scale, and reliability analysis. For most of the variables in this study, the Cronbach's alphas were acceptable. The Cronbach's alpha was .95 for the Depression, Anxiety, and Stress scale. Cronbach's alpha was .96 for the Loneliness Scale and .79 for the Perceived Social Support Scale. However, for Perceived Isolation the Cronbach's alpha had a value of .61 and for Social Participation a value of .38, which is lower than generally acceptable alpha. Items on these scales were analyzed by selecting "Reliability if item was deleted," and no items allowed for either of these three scales to improve their reliability. Residuals were also examined per assumption checking, and they did not pass assumption testing. Therefore, because I could not establish internal reliability for social participation, isolation, and social support, these scales were removed from all analyses. After removing these

subscales, I examined the correlations across study variables, which are presented in

Table 2.

Table 2

Correlations of Study Variables

	1	2	3	4	5
1. Socioeconomic Status	1	-.09	-.18	-.13	-.04
2. Loneliness	-.09	1	.26*	.18	.35**
3. Stress	-.18	.26*	1	.85**	.77**
4. Anxiety	-.13	.18	.85**	1	.73**
5. Depression	-.04	.35**	.77**	.73**	1

The Pearson correlations were conducted to examine the relationship between

socioeconomic status, loneliness, stress, anxiety, and depression. To calculate

correlations in SPSS, I selected analyze, correlate, and then bivariate. Then I clicked on

all the variables in this study (socioeconomic status, loneliness, stress, anxiety,

depression) then clicked ok. Socioeconomic status was negatively related to all four

variables: loneliness, stress, anxiety, and depression, but none showed any significance.

For loneliness, there was a statistically significant correlation between stress and

depression. Stress was highly correlated with anxiety and depression. Depression was

correlated with loneliness, stress, and anxiety. Next, I selected descriptives and then

frequencies. Next, I selected loneliness, stress, anxiety, depression as variables. Last, I

clicked on statistics and selected means and standardized deviation, clicked continue and

ok. The means of each of the variables are as follows: stress ($M =.95$, $SD = .77$), anxiety

($M =.65$, $SD = .72$), depression ($M = 1.00$, $SD = .82$), loneliness ($M = 1.30$, $SD = .74$).

Tests of Assumptions for Linear Regression

Based on the study's design, both the criterion and predictor variables were measured on a continuous scale; thus, meeting the first two assumptions. Both the criteria variables were measured on a Likert scale, which is an ordinal scale of measurement. The third assumption required a linear relationship between the criterion and predictor variable. A scatterplot of stress, anxiety, and depression (criterion variable) against loneliness (predictor variable) was plotted on SPSS. Visual inspection of these scatterplots showed a linear relationship between the variables. The correlation coefficient further confirmed the linear relationship between mental health and loneliness. The fourth assumption required independence of observations. The Durbin-Watson statistic needed to demonstrate a value within a normal range of 0 – 4 to be considered acceptable (Field, 2006). The residuals were independent, as assessed by a Durbin-Watson statistic of 2.21 demonstrating that errors are independent (residuals). Therefore, this assumption was met. The fifth assumption stated that there should be no significant outliers, high leverage points, or highly influential points, which could impact data analysis (Gill, 2017). Potential outliers were assessed by visual inspection of the histogram. Based on this inspection, there were no significant outliers. The sixth assumption required homoscedasticity in which there are equal error variances for all values of the predicted dependent variable (Yang et al, 2019). A visual inspection of the scatterplot showed homoscedasticity in which there are equal error variances for all values of the predicted dependent variable. The seventh assumption assesses the normal distribution of residuals (errors), which is needed to run inferential statistics (Laerd

Statistics, 2018). This assumption was tested using a histogram with a superimposed

normal curve and a P-P Plot. Visual inspection of the normal probability plot

demonstrates normal distribution of residuals. Therefore, this assumption was met.

Because all assumptions were met, I was then able to conduct my moderation analyses.

Results

For this study, three separate regression analyses were conducted. To run each

regression analysis, I clicked on regression, linear, and used the Z-score of mental well-

being (stress, depression, and anxiety) as the dependent variable and age, ethnicity,

gender as my first set of independent variables (block one). Then the Z-score of

socioeconomic status and the Z-score of loneliness was added as my second set of

variables (block two). Next, I used the Z-score of the interaction between socioeconomic

status and loneliness as my third set of variables (block three). Finally, I clicked statistics,

model fit, R squared change, estimates and Durbin-Watson, "continue" and "okay."

The first regression model predicted stress. Block 1 showed that the control

variables only explained 3.6% of the variance for stress. Block 2 showed that 10.7% of

the variance of stress was explained by the predictor variables. Block 3 also showed that

10.7% of the variance was explained by adding the interaction between socioeconomic

status and loneliness. Next, I examined the ANOVA results (see Table 4). According to

these results, model 1 was not significant ($f = 1.00$, $p = .397$), Model 2 was also not

significant ($f = 1.89$, $p = .105$) and Model 3 was not significant ($f = 1.56$, $p = .171$). Next,

I examined the coefficient table (see Table 5). No control variables were significant with

any block. For Model 2, loneliness significantly predicted stress ($b = .23$, $p < .05$).

However, no other predictor variables were significant. Additionally, the interaction

effect was not significant ($b = -.013$, $p = .918$).

Table 3

Model Summary

Model	R Square	R Square Change	F Change	Sig F Change
1	.036	.036	1.00	.397
2	.107	.071	3.147	.048
3	.107	.000	.011	.918

Table 4

ANOVA Results Predicting Stress

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3.00	3	1.00	1.00	.40
	Residual	81.00	81	1.00		
	Total	84.00	84			
2	Regression	8.98	5	1.80	1.89	.11
	Residual	75.02	79	.95		
	Total	84.00	84			
3	Regression	8.99	6	1.50	1.56	.17
	Residual	75.01	78	.96		
	Total	84.00	84			

Table 5

Regression Coefficients Predicting Stress

Model		Unstandardized B	Coefficient SE	Standardized Coefficients Beta	t	Sig.
1	Intercept	-1.19	1.60		-.74	.46
	Age	.03	.07	.05	.42	.68
	Ethnicity	-.19	.25	-.09	-.75	.45
	Gender	.67	.48	.16	1.39	.17
2	Intercept	-1.402	1.61		-.87	.39
	Age	.05	.08	.09	.69	.49
	Ethnicity	-.11	.25	-.05	-.45	.65
	Gender	.42	.18	.10	.88	.38
	SES	-.15	.13	-.15	-1.21	.23
	Loneliness	.23	.11	.23	2.15	.03
3	Intercept	-1.38	1.64		-.84	.40
	Age	.05	.08	.8	.65	.52
	Ethnicity	-.12	.26	-.06	-.46	.65
	Gender	.43	.49	.10	.88	.38
	SES	-.15	.13	-.15	-1.21	.23
	Loneliness	.23	.12	.23	1.96	.05
	SES x Loneliness	-.01	.14	-.01	-.10	.92

The next regression model examined anxiety. The first block of this model explained 4.7% of the variance, meaning that 4.7% of anxiety was explained by the control variables. Block 2 explained 7.5% of the variance as displayed by R square. Consequently, Block 3 explained 7.5% of the variance, meaning that adding the interaction term did not increase the amount of anxiety explained by the predictor variables. The ANOVA results, presented in Table 7, revealed that Model 1 were not significant ($f = 1.34$, $p = .266$). Model 2 was also not significant ($f = 1.28$, $p = .281$) nor was Model 3 ($f = 1.05$, $p = .398$). The coefficients are displayed in Table 8. First, the control variables did not predict changes in anxiety. Second, the predictor variables were

also insignificant. The interaction effect of Model 2 was also not significant (b = .000, p

= .999). Therefore, the interaction did not predict anxiety.

Table 6

Model Summary

Model	R Square	R Square Change	F Change	Sig F Change
1	.047	.047	1.345	.266
2	.075	.016	1.176	.314
3	.075	.000	.000	.999

Table 7

ANOVA Results Predicting Anxiety

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3.99	3	1.33	1.35	.27
	Residual	80.02	81	.99		
	Total	84	84			
2	Regression	6.30	5	1.26	1.28	.28
	Residual	77.70	79	.98		
	Total	84	84			
3	Regression	6.30	6	1.05	1.05	.40
	Residual	77.70	78	1.00		
	Total	84	84			

Table 8

Regression Coefficients Predicting Anxiety

Model		Unstandardized B	Coefficient SE	Standardized Coefficients Beta	t	Sig.
1	Intercept	-.76	1.60		-.47	.64
	Age	-.00	.07	-.01	-.06	.95
	Ethnicity	-.02	.25	-.01	-.07	.94
	Gender	.90	.48	.21	1.88	.06
2	Intercept	-.86	1.64		-.53	.601
	Age	.01	.08	.01	.10	.92
	Ethnicity	.23	.26	.01	.11	.92
	Gender	.75	.49	.18	1.53	.13
	SES	-.09	.13	-.08	-.68	.50
	Loneliness	.15	.11	.15	1.35	.18
3	Intercept	-.86	1.67		-.52	.61
	Age	.01	.08	.01	.09	.93
	Ethnicity	.03	.26	.01	.11	.92
	Gender	.75	.50	.18	1.49	.14
	SES	-.09	.13	-.08	-.67	.50
	Loneliness	.15	.12	.15	1.25	.22
	SES x Loneliness	.00	.14	.000	.002	1.0

The third regression examined the effects of loneliness and socioeconomic status for depression. Block 1 of this model explained 2.7% of the variance of depression, meaning that 2.7% of the variance of depression was explained by the control variables. Adding the predictor variables in Block 2, increased the variance explained by 12.3%, which was significant (*f* change = 5.14, *p* < .01). Block 3 explained 12.6% of the variance of anxiety, but adding this interaction was not significant. Based on the ANOVA tables (see Table 10), Model 1 (*f* = .253, *p* = .859) was not significant, nor was Model 2 (*f* = 2.22, *p* = .060) or Model 3 (*f* = 1.881, *p* = .095), although it did approach significance. The coefficients of this model are presented in Table 11. First no control variables predicted changes in depression. However, when adding the predictor variables,

loneliness significantly predicted depression ($b = .342$, $p < .01$). However, for Block 3,

the interaction between loneliness and socioeconomic status did not predict depression (b

$= -.064$, $p = .602$). Essentially, loneliness predicted depression in this model, but no other

variables were significant.

Table 9

Model Summary

Model	R Square	R Square Change	F Change	Sig F Change
1	.01	.01	.253	.859
2	.123	.114	5.138	.008
3	.126	.003	.273	.602

Table 10

ANOVA Results Predicting Depression

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.78	3	.26	.25	.86
	Residual	83.22	81	1.03		
	Total	84	84			
2	Regression	10.36	5	2.07	2.22	.06
	Residual	73.64	79	.93		
	Total	84	84			
3	Regression	10.62	6	1.77	1.88	.10
	Residual	73.38	78	.94		
	Total	84	84			

Table 11

Regression Coefficients Predicting Depression

Model		Unstandardized B	Coefficient SE	Standardized Coefficient Beta	t	Sig.
1	Intercept	-.76	1.63		-.47	.64
	Age	.02	.07	.04	.32	.75
	Ethnicity	-.11	.26	-.05	-.43	.67
	Gender	.33	.49	.08	.68	.50
2	Intercept	-.40	1.60		-.25	.80
	Age	.02	.07	.03	.23	.82
	Ethnicity	-.09	.251	-.04	-.35	.73
	Gender	.10	.48	.02	.21	.73
	SES	-.00	.13	-.001	-.01	.99
	Loneliness	.34	.11	.34	3.20	.00
3	Intercept	-.28	1.62		-.17	.86
	Age	.01	.08	.01	.12	.91
	Ethnicity	-.10	.25	-.05	-.40	.69
	Gender	.15	.49	.04	.30	.76
	SES	-.01	.13	-.01	-.06	.96
	Loneliness	.32	.12	.32	2.79	.01
	SES x Loneliness	-.07	.14	-.06	-.52	.60

Summary

In this chapter, the research question and hypothesis were tested, which aimed to determine if COVID-19 social distancing guidelines influenced the mental health of emerging adults and if the relationship was moderated by socioeconomic status. The data was collected through Survey Monkey, with 147 participants contributing to the survey. After data cleaning, the author found that only 103 completed the survey in its entirety. Forty-four participants were dropped from the study due to missing data. Chapter 3 indicated that the sample size needed for the study to have statistical power was 99 participants.

In the study the primary participants were female (93%), male (5.8%) and other

(1%) between the ages of 18-25 with the average age of participants being 20 years old

(32%). The three most common jobs that the participants were employed in were student

(66%), retail worker (4%) and nanny/caregiver (3%). The participants were recruited

through Facebook Groups and SurveyMonkey.

I utilized Facebook to cold post stating that they were conducting a research

project as part of Walden University Developmental Psychology Program and sought to

find participants that were interested in taking a brief online survey. The survey

concerned how COVID-19 social distancing guidelines affected mental health of young

adults between the ages of 18-25. The author was able to obtain a few participants by

posting in the open forum, but not enough to meet the sample size of 99. By joining

several online groups such as People Making Moves in Nashville, Memphis, and Atlanta,

Greek Sororities and Fraternities, Mental Health Awareness Group and Support groups,

Public Health information and Advice, Walden University Doctoral Psychology,

Psychology Today, and International Psychology Group brought in more participants.

Preliminary Analyses were conducted before coding and scoring of the measures that

contained the online survey questions for the study. Perceived COVID-19 social

distancing is the independent variable, mental health (stress, anxiety, and depression) is

the dependent variable, and socioeconomic status is the moderator.

Data was imported into SPSS after being downloaded from SurveyMonkey and

the data cleaned. The occupational key served as the socioeconomic scale's coding

system. The depression, anxiety and stress scale have a Cronbach's alpha of .95;

loneliness had a Cronbach's alpha of .96; and perceived social support has a Cronbach's

alpha of .79. Residuals were also looked at in accordance with assumption checking but they failed assumption testing. Social Disconnectedness scale which included social participation, social isolation, and social support was dropped due to its reliability.

This study performed three regression analyses utilizing age, ethnicity, and gender as control variables. The authors findings did not support the hypothesis that the relationship between recollected COVID-19 social isolation affected young adult mental well-being: the moderation of socioeconomic status. The finding showed that loneliness predicted depression, anxiety, and stress. However, social isolation, social support, nor social participation did not predict mental health. Chapter 5 will discuss the findings and limitations in its entirety.

Chapter 5: Discussion, Conclusion, and Recommendations

The COVID-19 pandemic had an adverse effect on the physical and emotional health of many people. During the beginning of COVID-19, the Centers for Disease Control and World Health Organization established stringent guidelines, such as stay-at-home orders or social isolation as well as wearing a facemask to prevent the disease from spreading (McIntosh et al., 2020). Some of these changes had implications for individuals' physical and mental health (Volk et al., 2021). This study was based on perceived social isolation and its impacts on the mental health of emerging adults and if socioeconomic status moderated any potential effects. The goal of this study was to examine to what extent, if any, had young adults' mental well-being been adversely impacted by recollected social distancing guidelines during COVID-19, while also looking if socioeconomic statuses had any indirect effects.

In this quantitative study, the hypothesis was not supported by the findings. The findings established that loneliness had some relevance to young adult depression, anxiety, and stress, but socioeconomic status did not moderate these relationships. Perceived COVID-19 social isolation did not influence the mental health of young adults and socioeconomic did not bear any factor in the study. However, it was found that loneliness impacted the mental health of young people. In this chapter, I will discuss the findings, limitations, recommendations for future studies, and implications of study results.

Interpretation of Findings

The current study had three main findings: (a) perceived social isolation, as

measured by loneliness predicted declines in mental health; (b) socioeconomic status (SES) did not predict changes in mental health; and (c) SES did not moderate the relationship between perceived social isolation and mental health. The first of these main findings is supported by previous literature. Previous studies conveyed that mental health issues were caused by the pandemic (Guo et al., 2020). These mental health issues included sleep apnea and posttraumatic stress disorders. Emerging adults had problems following the strict guidelines, which reflected some hindrances to emerging adult mental health (Ravens-Seiberer et al., 2021). The results of this study support these studies by showing that perceived social isolation as a result of social isolation guidelines, as measured by loneliness, contributed to the mental health of young adults.

There are some possible explanations for these findings. First, the pandemic caused life changes among young adult mental health, leading to young adults to be insecure, doubtful, and lose control that led to emotional problems, anxiety, depression, and stress (Shanahan et al., 2020). Furthermore, social isolation contributed to mental health problems and stress about personal health and the health of their loved ones (Shanahan et al., 2020). It is possible that participants in this study also experienced these same concerns. Other factors that stressed young adults were the fact that they could lose or be furloughed from their jobs, which is connected to anxiety and stress (Shanahan et al., 2020). It is possible that emerging adults from this study experienced some of these same anxieties and fears. Young adults may also have felt insecure and stressed as a result of social isolation. This rationale is supported theoretically by Erikson's (1985) psychosocial theory of development, which states that emerging adults need intimacy to

achieve their developmental potential. Without being able to achieve intimacy due to perceived isolation, emerging adults' development and adjustment may be hindered, thus decreasing their mental health.

On the other hand, researchers have found that although young adults' mental well-being was disrupted by COVID-19 social isolation, they seem to cope better than most (Volk et al., 2021). The reason emerging adults were able to adapt well was due to demographic factors such as their income, age, gender, race, socioeconomic status and whether they had responsibilities such as being a parent (Volk et al., 2021). Those who were not able to adapt suffered from fear, nervousness, addiction, and dissension against following the social distancing guidelines. The findings from my study found that loneliness was the main predictor of mental health. In other words, this study supports previous studies on mental health during the pandemic and that emerging adults may have fared better than other populations. Future studies are recommended to compare the effects of perceived social isolation among other developmental groups.

Some studies say that other variables should be considered when examining social isolation and well-being. Glowacz and Schmits (2020) found that the pandemic impacted emerging adults' stress, creating mental health symptoms such as depression, anxiety, sleep issues. Glowacz and Schmits also predicted that social distancing influenced emerging adults' psychological status and increased their use of substances such as alcohol. Furthermore, Glowacz and Schmits predicted that partaking in social applications, such as Facebook, somehow improved emerging adults' psychological well-being. In other words, it is possible that when emerging adults partake in social media

applications their psychological wellbeing improved. These apps reduced uncertainty and

decreased anxiety and depressive symptoms experienced because of the pandemic

(Glowacz & Schmits, 2020). Because this dissertation did not take into consideration

whether people spent time connecting with others online, such as through social media,

future studies are commended to include social media as a control variable.

The second and third major findings of this study show that socioeconomic status

(SES) did not directly predict mental health, nor did it indirectly predict mental health.

There are a few explanations for this finding. First, the amount of connections or lack of

connections may not differ across SES. This idea is supported by studies that show that

peer network connections do not vary by SES (Wanberg et al., 2020). Additionally,

though not examined in this study, participants may have had equitable resources to meet

their connection needs. In other words, regardless of SES, people could have access to

social media to address feelings of loneliness. Because participants were recruited

through social media, it may be assumed that these participants were also able to connect

with others virtually, regardless of their SES. Although not examined in this study, social

media connections may explain why mental health did not differentiate based on SES.

The sample was also small, meaning that there were not as many low or high SES

participants. Additionally, it may be assumed that college students have more

connections simply by being a college student, regardless of their SES. It may also be

assumed that college students may experience the same perceptions of social isolation,

regardless of their SES background. College provides opportunities to connect with

others, both in person and virtually. Although many felt loneliness, this loneliness did not

vary by SES.

Another way of viewing these results is that loneliness did not vary across SES, and this result can be contextualized to the college students who participated in this project. Individuals with the highest education and highest income are less likely to have high levels of depressive disorders (Wanberg et al., 2020). Since many of the participants were students embarking on higher degrees and some were employed in high paying job, for example, healthcare management, physiotherapist, or teacher, their mental health did not appear to be impacted significantly. In other words, the lack of variance with SES among study participants shows that SES did not significantly moderate perceived social isolation and mental well-being.

Conceptual Framework: Theoretical Implications

According to Erikson's (1985) psychosocial theory of development, humans need social connections. When these connections are absent, it is harder for individuals to deal with things on their own. The intimacy and isolation stage that Erikson speaks about is where the emerging adults develop intimate relationships (Erikson, 1951). Subsequently when this relationship is disrupted, emerging adults have a hard time of building lasting relationships. During this stage in their life young adults are trying to understand who they are or their identity. When forming lasting relationships do not occur, emerging adults are left with feelings of loneliness and isolation, which can stifle development (Beyers & Seiffge-Krenke, 2010).

This study showed that in most cases, individuals who experienced loneliness also experienced depression, anxiety, and stress. These results support Erikson's (1985)

psychosocial theory of development. If individuals perceive social isolation, they may not be able to resolve the intimacy versus isolation conflict, which has implications for their development in the short and long-term. The intimacy versus isolation crisis implies that when emerging adults do not form lasting relationships during the sixth stage in their development, loneliness and isolation will occur and be a barrier to future psychosocial conflicts. This research supports the main idea of Erikson's theory.

The findings are in line with Erikson's (1985) psychosocial theory of development in that isolation may prohibit development by hindering mental wellbeing. Erikson's theory suggests that during this stage emerging adults build lasting relationships, such as through family, school, work, and online. According to this study, when perceived social isolation was measured as perceived loneliness during the pandemic, it was found that emerging adults experienced depression, anxiety, and stress (mental health issues). In other words, when intimacy is not achieved and people feel isolated, development appears to be hindered. Erikson's theory also suggests that when the intimacy and isolation stage is disrupted, this places the young adult into a crisis. Emerging adults who are able to cope with the crisis are able to be more successful in the next stage of development. Previous studies explained that loneliness and perceived social isolation is a public health issue (Teater et al., 2021). Teater et al. (2021) established that adults 18-29 felt distressed due to perceived social isolation compared to others. Furthermore, it was found that emerging adults felt higher levels of emotional loneliness. The findings from this study and the current study show that perceived social isolation can be developmentally disruptive. Emerging adults rely on different sources to

connect with others such as texting, social network applications, online education, but if there is no face-to-face interaction this can increase feelings of loneliness and perceived social isolation (Teater et al., 2021). Bzdok and Dunbar (2020) expressed that during COVID-19, the human capacity to cope mentally from perceived social isolation is dependent on connecting socially with friends, groups, and communities. Therefore, future studies should examine how to provide opportunities for connection to help address the potential isolation one may feel, particularly during a pandemic.

Limitations of Study

Although this study advanced our understanding of mental health during the pandemic, it is not without its limitations. First, data was collected using Facebook. This finding means that Facebook users were not lonely due to their constant connection to other emerging adults via the social application. Facebook allows their users to virtually speak with their loved ones both near and far, and it allows users to form new relationships with other adults. This study, therefore, was biased towards those who likely have online connections. Second, this study rendered too many individuals who were college students. Over 66% of the study's population were students. Of these students 93% were female and not diverse. The demographics of study participants limited the generalizability of these results. Future studies are recommended to investigate a more diverse and larger sample of participants. Another limitation to the study is that one of the measures (social disconnectedness) was not reliable. Past studies have used the social disconnectedness scale to test hypotheses, but this scale did not work in the current study. This unreliable measure limited the ability to determine if perceived

social isolation predicted mental health. This reliability issue may have occurred due to homogeneity issues with the sample. Again, future studies should incorporate larger and more diverse samples to address these issues.

Recommendations

This study increased understanding of perceived isolation and its effects on emerging adults. As it was learned through the study, perceived isolation impacted the mental health of young adults. First, perceived isolation is associated with emerging adult depression when considering perceived social isolation during the pandemic. Feelings of perceived isolation are a factor that brings about depression, anxiety, and stress (Alspach, 2013; Volks et al., 2021). To combat depression, anxiety and stress, emerging adults need to discover things that address these issues. For example, emerging adults may address feelings of perceived isolation by staying connected to family and friends, possibly using technology if they cannot be proximal. Using social networks such as Facebook and Twitter to stay abreast of family and friends' events is another way to help. Second, family members can assist emerging adults in tackling perceived isolation. Family can be helpful by involving emerging adults in meaningful mental or physical stimulating activities such as recreational sports, setting up virtual gatherings, or other shared interests.

Psychologists and psychiatrists can also help emerging adults with the effects of perceived isolation. These professionals can mitigate the effects of perceived social isolation by adjusting and promoting mental health interventions and treatments. Some adjustments could be offering social engagement through group therapy and self-guided

therapy and offer remote delivery using telephone or video call like Zoom. Advertising these therapeutic resources can help assist emerging adults with feelings of perceived isolation. These efforts can be effective in reducing the negative effects of perceived social isolation and loneliness.

Also, legislature can create policies that can change how perceived social isolation is viewed or create measures to help address perceived social isolation, particularly for emerging adults. For example, the federal government can create policies that increase awareness to this public health situation. Also, creating ways to spare awareness of the consequences of perceived isolation in order to encourage efforts concerning the importance of social connections. According to the National Academies of Sciences, Engineering, and Medicine (2020) perceived social isolation has an increased risk of serious health conditions and death. These conditions consist of smoking, obesity, and sedentary practices. The American Psychiatric Association (2023) names other conditions that befall individuals who experience perceived social isolation, such as heart disease, depression, anxiety and early onset of dementia. Therefore, perceived social isolation is a public health issue. Introducing policies to support connections during future pandemics would be helpful in assuaging the concerns of emerging adults.

Positive Social Change

This study aimed to help others understand that the feeling of perceived social isolation for young adults. More specifically, perceived social isolation, as measured by loneliness, can impact mental health. The results of this study help show the

consequences of perceived social isolation during a pandemic. Strengthening

relationships and promoting connections could be one way to help assist feelings of

perceived social isolation. It may be helpful to connect with friends and family or find

ways to address feelings of perceived social isolation, such as getting involved with book

clubs or sports, even in a virtual context. The results of this study will help

developmental psychologists to examine the consequences of perceived social isolation

and help them to develop interventions for those who experience mental health issues due

to perceived social isolation. These results will also help others understand how to

develop a treatment plan for those who are experiencing issues with perceived social

isolation. These results may provide evidence as to why support is needed to help young

adults deal with perceived social isolation. This study will have positive social change on

perceived social isolation which impacts everyone, despite their low or high

socioeconomic statuses. The perceived social isolation is an equal opportunist to those

who are poverty stricken and of those who are wealthy. Perceived social isolation caused

every class of individuals to be disconnected from their social connections, mental

stimulation between other individuals, and healthy interaction with groups or events.

Therefore, it created an indistinguishable platform affecting all individuals equally.

Conclusion

The results of this investigation revealed that COVID-19 social distancing

guidelines did not influence the mental health of emerging adults nor did socioeconomic

status of emerging adults was impacted. I assumed that the predictive power of the

premise would moderate the role of socioeconomic status and would show that SES

influenced the mental health of emerging adults. Although the results did not support the

hypothesized interactive relationship, the data provided some valuable insights. The

results, however, did show that loneliness was detrimental to the mental health of

emerging adults. The results indicated that loneliness brought about depression, anxiety,

and stress to emerging adults.

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Appendix: Permissions

Subject: RE: Depression, Anxiety, Stress Scale Permission

You are welcome to use the DASS in your research. You can download the questionnaires (including
translations in certain languages) and scoring key from the DASS website www.psy.unsw.edu.au/dass/
. Please also see the FAQ page on the website for further information.
Peter Lovibond

Subject: Re: Nam Powers Boyd Occupational Scale Permission

For the most complete update on the occupational scale, go to www.npb-ses.info.
Yes. We approve of your using our scale in your dissertation.
We are interested in learning the topic of your dissertation.

Charles B. Nam