Internal State Language and Coping In Narratives of COVID-19: Relation to Psychological Well-Being

Divya Pradipkumar Patel

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INTERNAL STATE LANGUAGE AND COPING IN NARRATIVES OF COVID-19: RELATION TO PSYCHOLOGICAL WELL-BEING

by

DIVYA PRADIPKUAMR PATEL

A thesis submitted in partial fulfillment of the requirements for the Honors in the Major Program in Psychology in the College of Sciences and in the Burnett Honors College at the University of Central Florida
Orlando, Florida

Spring Term, 2022

Thesis Chair: Dr. Widaad. Zaman, Ph.D
ABSTRACT

The Covid-19 pandemic had global consequences for billions of individuals, including high rates of mortality and morbidity, lost income, and prolonged social isolation. In the short and long term, this crisis will have an impact on people's lives and mental health. The current correlational study looks at how internal state language, stress, and coping are used in college students' narratives concerning the COVID-19 pandemic and lockdown experiences in relation to psychological well-being. A sample of 216 undergraduate students completed surveys that recorded their narrative experiences of COVID-19, psychological well-being, depression severity, and measure of how stressful occurrences in one’s life are perceived. The participants’ narratives, stress, coping, stress categories, and coping categories were all coded from the obtained data. According to the findings, the more internal state language individuals used to describe their COVID-19 experiences, the greater their depression levels were. The use of greater internal state language in Covid-19 narratives was also linked to improved overall psychological well-being. In Covid-19 narratives, more stress is linked to worse mental health, depression, perceived stress, and environmental mastery. Greater attempts to cope are linked to improved mental health. We also observed that people become less autonomous when they are under a lot of social and relational stress. Overall, our findings expand existing knowledge about trauma narratives and coping in the context of the COVID-19 pandemic by giving significant theoretical and practical insights into how narrative processing of the pandemic helped students cope with stress.

Keywords: COVID-19 Narratives, mental health, stress, coping, psychological well-being.
DEDICATION

I want to dedicate my thesis to Dipa Patel, my mother; Pradip Patel, my father; and Janvi Patel, my sister. Even if you didn't understand what I was doing, you've always been supportive of my aspirations. With all of your love and support, I genuinely believe I am capable of achieving anything. I am a very fortunate daughter and sister to have every one of you in my life. I wouldn't have gotten this far in life if it weren't for my loving parents and sister who have showed me that you just have to keep going through the good times and the bad. I wouldn't have made it this far in life if it weren't for your courage and love.
ACKNOWLEDGMENTS

I would like to express my gratitude to Dr. Grace White, a member of my committee, for providing helpful advice and insight into my thesis. Thank you for being a part of my committee; it was truly a pleasure working and learning with you. Dr. Widaad Zaman deserves a special thank you for her unwavering support and attention to my thesis. I want to convey my gratefulness for her generosity, time, and feedback, which inspired me to think outside the box and push the boundaries. Thank you for taking the time to be my mentor. Your unwavering patience, insightful approach, and feedback have helped me to not only explore but also progress in the field of research. Thank you for instilling confidence in my ability and reminding me to keep going.
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INTRODUCTION

The COVID-19 pandemic, widely known as the coronavirus pandemic, is a current coronavirus disease pandemic that began in 2019 (COVID-19). Coronavirus causes severe acute respiratory syndrome (SARS-CoV-2). The epidemic began in December 2019 in Wuhan, Hubei, China (Centers for Disease Control and Prevention, 2020). On March 11, 2020, the World Health Organization (WHO) declared it a pandemic. According to the WHO, more than 240 million cases of COVID-19 have been confirmed in more than 223 nations and territories as of October 19, 2021. COVID-19 has claimed the lives of almost 4 million individuals, but the illness has been fought or recovered by over 219 million people. Many countries have implemented lockdown precautions and drastically altered their lifestyles by relying on protective gadgets and social isolation (Centers for Disease Control and Prevention, 2020). A study conducted by Browning et al. (2021) during the pandemic showed that COVID-19 has had a significant influence on people's mental health, producing stress, anxiety, depressive symptoms, sleeplessness, denial, rage, and dread. Quarantine has had negative psychological effects such as health concerns, financial stress, and loneliness (Marroquin et al., 2020). In this study, we examined college students’ narratives about their pandemic and lockdown experiences for the use of internal state language, stress and coping in relation to psychological well-being.

Effects of Covid-19 on Mental Health

For billions of people worldwide, the COVID-19 pandemic had global impacts, including high rates of mortality and morbidity, loss of income, and protracted social isolation. This crisis will affect people's life and mental health in both the short and long term (Dawel et al., 2020).
Workplace and social functioning were impaired as a consequence of the pandemic, which resulted in increased depression and anxiety symptoms and a decline in psychological well-being. The epidemic caused financial hardship for people worldwide, which is also a primary indicator of poor mental health. People who tested positive for the COVID-19 viruses also needed to be isolated and self-quarantined for two weeks, which resulted in depression, Generalized Anxiety Disorder (GAD), intrusive emotions and thoughts, stressors, and insomnia symptoms (Dawel et al., 2020). Due to the apparent transformation of their educational experiences from in-person to fully web-based with no physical interactions with their peers, COVID-19 also had a significant influence on college students' mental health (Dawel et al., 2020).

College students' early academic years' experiences during the COVID-19 pandemic have been traumatizing, taking a toll on their mental health. Madrigal and Blevins (2021) conducted a study to see how COVID-19 has impacted college students' mental health by evaluating their perceived challenges and coping mechanisms. 585 college students completed an online survey between July 27, 2020, and October 12, 2020, with open-ended questions about the issues they faced due to COVID-19. Content analysis was conducted, and it identified patterns for COVID-19-related problems and coping methods for dealing with challenges, such as a) mental, emotional, and physical problems, as well as b,) online learning, c,) addressing the "new normal," d) concern for self and others, e) positive experiences, and f) societal challenges. The three types of coping strategies studied were a) problem-focused coping, b) emotion-focused coping, and c) avoidant coping. While students used all types of coping mechanisms during the pandemic, many students reported using emotion-focused coping strategies including socializing.
with friends/family (28.24%), active leisure activities (20.80%), inactive leisure activities (25%), and reframing and acceptance (16.79%) (Madrigal & Blevins, 2021). Similarly, in this study, we looked at how internal state language, stress, and coping were used in college students' narratives concerning pandemic and lockdown experiences in connection to psychological well-being.

To further understand the effectiveness of coping strategies in students, a study by Hussong et al. (2021) evaluated changes in overall mental health symptoms in youth from the southeastern United States before and after the COVID-19 outbreak and the potential moderating effects of self-efficacy, optimism, and coping. Participants for this study included 105 parent-child duets, where parents completed surveys when their children were 6 to 9 years old, 8 to 12 years old, 9 to 13 years old, and 12 to 16 years old during the COVID-19 outbreak. At ages 11 to 16 years, children took online surveys to measure their self-efficacy, optimism, and coping skills. Results revealed a within-person rise in mental health symptoms from before to after the outbreak. Symptom increases were reduced in adolescents with more self-efficacy, and to a lesser extent, problem-focused, engaged coping but amplified in youth with higher emotion-focused engaged and disconnected coping. Similarly, the effect of COVID-19 coping strategies on the relationship between COVID-19 anxiety and general health was investigated in a study by Yıldırım et al. (2021). 4624 adults filled out the COVID-19 Anxiety Scale, COVID19 Coping Scale, and General Health Scale. The study revealed that COVID-19 anxiety was negatively associated with COVID-19 coping and overall health. COVID-19 coping had a beneficial effect on overall health.
Narratives as a Method of Coping with Trauma

Narrative theory asserts that humans are natural storytellers who comprehend and interpret their lives as continuing narratives/stories (Fisher, 1984). It is essential to translate the experiences of our lives into narrative form as narrative messages assist individuals in making sense of their surroundings. Narratives are the process by which a person derives meaning from a story, as well as the characteristics that make a narrative/story engaging, moving, and convincing (Lee et al., 2016). Narratives explain people's perspectives on situations and help readers identify with specific events; as a result, it is a process of identity building that can be utilized to create meaning around traumatic experiences in order to overcome the mental health symptoms that come with them. Crossley (2000) presents a narrative psychology method to examine self and identity in research, in which he argues that the organizing principle for human behavior is narratives, and that narratives may be utilized to re-establish a feeling of order and connection and a fragment of purpose in a person's life after experiencing certain negative events (Crossley, 2000).

Additionally, Tuval-Mashiach et al. (2004) reported narrative and cognitive measures of coping in five young males who experienced a traumatic incident shortly afterward. The narrative measures were presented from two perspectives: first, a comparative perspective, comparing different people at the same time point—showing how different people's immediate perceptions of the same traumatic event were—and second, a developmental perspective, demonstrating how narratives change over time (Tuval-Mashiach et al., 2004). The findings suggest a preliminary link between narrative, cognitive measures, and symptoms of PTSD, with lower levels of PTSD symptoms when the narrative was well-constructed, with a cohesive storyline, relevance, and a good self-image. The study also revealed that at a narrative and
cognitive level, it appears that the period immediately following a traumatic incident is when the most intensive processing of that event occurs (Tuval-Mashiach et al., 2004). There is no cohesive narrative with meaning at this time; this occurs in the weeks following the occurrence. During this period, the story evolves and changes, and a number of factors impact this process, including new information, the circumstances surrounding the incident, the survivor's perspective of the trauma and subsequent symptoms, and the survivor's cultural background (Tuval-Mashiach et al., 2004).

Experimental disclosure, which includes disclosing knowledge, ideas, and feelings about personal and relevant issues is also vital where traumatic experiences are concerned. Experimental disclosure is said to have a variety of physiological and psychological effects (e.g., Pennebaker, 1993). A meta-analysis of 126 studies showed that experimental disclosure of traumatic experiences is successful (Frattaroli, 2006). This report utilized participants with a health condition or a past of trauma, paid participants, administered a large dose of disclosure (e.g., requiring at least three disclosure sessions), had participants disclose events that had not yet been completely produced (e.g., more recent events), and provided very precise and thorough disclosing instructions (e.g., less than 1 month). It was discovered that experimental disclosure was beneficial to one's psychological, physical, and overall functioning. Expressive writing is a technique for delving deeper into our ideas, views, and feelings about events, memories, and trauma (Frattaroli, 2006).

**Relations between Narratives and Mental Health**
As alluded to above, narrative writing may be beneficial to a person's psychological well-being. Thomsen et al. (2018) investigated the relationship between narratives and grief responses. Nearly 2–3 months after losing their partner, 161 older adults completed questionnaires assessing bereavement symptoms, positive affect, and neuroticism. Later, based on their descriptions of previous and future chapters in their life experiences, researchers assessed life chapters for positive and negative emotional tone. Previous chapters were evaluated to see if they were connected to a spouse's death, and these loss chapters were scored for emotional tone, both positive and negative, and whether the content indicated new roles/activities (any responsibilities or life events) or continued roles/activities in future chapters. Participants completed questionnaires assessing grieving symptoms and positive affect after a 5- to 6-month follow-up period. People with more positive future chapters and future chapters concentrating on role and activity continuance had less severe grief feelings and more positive affect (Thomsen, 2018). As a result, translating traumatic experiences into narrative form, and putting a positive narrative spin on a great loss, seem to help participants overcome the grief associated with that experience.

It is essential to transform traumatic events into narrative form in order to transcend the emotions connected with them. Römisch et al. (2014) systematically tested three hypotheses related to narratives of traumatic experiences: a) that they contain less evaluation, b) that they contain more immersion, c) that they contain more fragmentation. Fourteen traumatized and non-traumatized women were asked to narrate their most distressing, angering, and happiest events. Narratives were coded for evaluations (language expressions reflecting a particular point of view on the narrated event), immersions (reliving the traumatic event in its fullness, without the
sensory rooting in the present that is part of normal remembering), and fragmentations (use of a basic measure of complexity, termed reading ease; Römisch et al. (2014). Participants also completed a posttraumatic diagnostic scale. The study revealed that more immersion distinguished trauma narratives both from narratives of other emotions and distress narratives by non-traumatized women. The lack of evaluations and stronger fragmentation were not specific to the trauma group but were found in distress narratives from all groups which suggests that more immersion separated trauma narratives from narratives about other emotions as well as non-traumatized women’s distress narratives. This result was influenced by the length and dramatic nature of the speech. (Römisch et al., 2014).

Narrative intervention can be helpful in preventing conditions such as frailty. Frailty is a syndrome of increased vulnerability with negative consequences that worsen with age in the elderly. Freitag and Schmidt (2016) investigated the impact of a biographical disclosure design on older persons’ psychological fragility and health. A total of 198 older adults were recruited and randomly allocated to one of four disclosure conditions: a) oral biographical disclosure (verbally talk about their biography), b) written structured and unstructured biographical disclosure (in unstructured biography group participants were requested to write their biographies in a default chronological order, beginning with childhood, youth, adolescence, middle age, retirement, and ending with now, with a life review included. The structured biography group was required to write their biography in a chronological fashion, but they were given additional instructions to elaborate on each life stage), c) daily diary (participants were asked to write about their daily experiences in a diary), and d) control group. Measurements were taken before and after the intervention, as well as three months later. Results indicated that
mental and physical health in the oral biographical disclosure, structured biographical writing, and daily journal groups improved significantly. That is, the writing intervention helped those with high frailty symptoms and poor mental health to improve overtime. The findings demonstrate a short-term improvement in both mental and physical health in the elderly due to writing down experiences (Freitag & Schmidt, 2016).

Writing about emotional events is also beneficial as a therapeutic practice. Pennebaker (2018) argues that emotional disclosure of stressful experiences leads to improved physical and psychological health, as well as positive responses from participants regarding the impact of disclosure. He developed the Expressive Writing Paradigm (Pennebaker & Beall, 1986) to allow patients who have experienced trauma to express their trauma in narrative form. In one study, Pennebaker (2018) asked a total of 800 participants to complete 80 questions primarily based on the developmental, personality, and situational factors. Surprisingly, 15% of the total participants said yes to the question: "Prior to age 17, did you experience a traumatic sexual experience?" Results showed that those who had experienced any form of trauma and kept it hidden were more likely to have health issues. Furthermore, Pennebaker (2018) discovered that people's internal state language word usage in their narratives of trauma was indicative of their mental health outcomes. Using the Linguistic Inquiry Word Count, or LIWC, which was developed by Pennebaker and colleagues (Pennebaker et al., 2001) participants who used more cognitive and emotion words in their narratives of trauma had less hospital visits and less symptoms of PTSD and depression (Pennebaker et al., 2001).
The Pennebaker writing assignment, which helps people to express their thoughts, fears, and feelings via writing, is beneficial in a variety of health domains, not only mental health. In an experimental assessment of a Pennebaker writing interference in primary insomnia, analyzed the importance of pre-self-cognitive arousal, fear, and suppression in sleep onset difficulties (Mooney et al., 2009). The potential of the writing paradigm to lower pre-sleep cognitive arousal (PSCA) and sleep onset latency (SOL) in individuals with insomnia was investigated in this study. Following a one-night baseline, twenty-eight participants with insomnia were randomized to three nights of Pennebaker writing. According to the findings, writing considerably decreased PSCA symptoms (Mooney et al., 2009).

Furthermore, a study by Neto and Mullet (2020) analyzed the relationship between recalled saudade and positive and negative affect, loneliness, close and social connectivity (Study 1), self-esteem (Study 2), and inspiration (Study 3). Saudade is a feeling of longing or a sad state for something or someone who is not present. Sixty-four undergraduate participants were asked to think about a prior incident that made them feel saudade or a neutral occasion, and then write a narrative followed by responding to sets of questions assessing affect, connectedness, loneliness, self-esteem, or inspiration. This study uncovered that those participants in the recalled Saudade condition scored better on positive emotion, intimate connectivity, and inspiration than those in the neutral condition suggesting that emotions play a vital role in narratives.

Covid-19 has a substantial impact on college students' mental health due to the apparent transition of their educational experiences from in-person to totally web-based with no physical
connections with their peers (Dawel et al., 2020). While students utilized a variety of coping methods throughout the pandemic, many reported adopting emotion-focused coping strategies such as networking with friends/family, active leisure activities, passive leisure activities, and reframing and acceptance (Madrigal & Blevins, 2021). Symptoms were reduced in adolescents with more self-efficacy and, to a lesser extent, problem-focused, engaged coping, but increased in adolescents with higher emotion-focused engaged and detached coping (Husson et al., 2021). Furthermore, narratives explain people's perspectives on situations and assist readers in identifying with specific events; as a result, it is a process of identity building that can be used to create meaning around traumatic experiences in order to overcome the mental health symptoms that accompany them. Expressive writing is utilized to delve deeper into our experiences, memories, and trauma-based thoughts, opinions, and feelings (Frattaroli, 2006). In summary, the previous research suggests a close link between narrating stories of one’s past experiences and one’s ability to cope, to be mentally healthier, and to recover from illness.

The Current Study

The covid-19 pandemic has undoubtedly been a traumatic experience for most individuals around the world, which has impacted their mental health. Considering all the previous research studies, it is essential for research to examine the narratives of COVID-19 pandemic experiences. Hence, in keeping with Pennebaker’s (2001) expressive writing, the present study evaluated COVID-19 pandemic narratives for the use of internal state language (emotion and cognition words), and coping mechanisms in relation to psychological well-being. The data for the current study were collected from 216 college students by asking them to write about their COVID-19 pandemic experiences. Participants filled out the RYFF Psychological
Health Questionnaire, which measures psychological well-being in 6 areas: autonomy, environmental mastery, personal growth, positive relations with others, purpose in life, and self-acceptance. Additionally, the Beck Depression Inventory was used for evaluating the presence of depressive symptoms; and the Perceived Stress Scale was used to determine how stressful events in one's life are perceived. Narratives of COVID-19 experiences were coded for internal state language, level of stress, and coping, and examined in terms of psychological well-being, depression symptoms and perceived stress. We hypothesized the following: 1) More use of internal state language (emotion and cognition words) will be correlated with greater psychological well-being, less depressive symptoms and less perceived stress; 2) Greater levels of reported stress in the narratives will be associated with lower psychological well-being, more depressive symptoms and greater perceived stress on the stress questionnaire; 3) More positive coping will be associated with better psychological well-being, less depressive symptoms and less perceived stress. Additionally, exploratory hypotheses will examine the coping categories and stress categories in relation to psychological well-being.
METHODS

Participants

The participants used in this study included 216 undergraduate students from the University of Central Florida. The participants consisted of females \((n = 128, 59.3\%\) and males \((n = 88, 40.7\%)\). Three additional participants identified their gender was other, but were not included in the analyses because of the small \(n\). Most participants were between the ages of 18-23 years \((n = 199, 92.1\%)\), 24-29 years \((n = 11, 5.1\%)\), 30-35 \((n = 2, 0.9\%)\), and the rest were older than 35 years \((n = 4, 1.9\%)\). Most of the participants identified as White/Caucasian \((n = 118, 54.6\%)\). Other self-reported ethnicities included Hispanic \((n = 44, 20.4\%)\), Black \((n = 18, 8.3\%)\), and Asian \((n = 15, 6.9\%)\). Some participants also reported they belonged to two or more ethnic groups \((n = 15, 6.9\%)\), and the rest reported their ethnicity as “other” \((n = 6, 2.8\%)\). The majority of participants reported being unemployed \((n = 140, 64.8\%)\), part-time employment \((n = 61, 28.2\%)\), on call employment \((n = 4, 1.9\%)\) and full-time employment \((n = 11, 5.1\%)\). Most of the students were freshmen \((n = 129, 59.7\%)\), and sophomores \((n = 38, 17.6\%)\). Participants also reported junior class standing \((n = 22, 10.2\%)\), and senior class \((n = 27, 12.5\%)\). The majority of the participants were non-immigrants \((n = 184, 85.2\%)\), while others reported being immigrants \((n = 32, 14.8\%)\). Lastly, participants reported they were single \((n = 149, 69\%)\), in a relationship \((n = 60, 27.8\%)\), married \((n = 5, 2.3\%)\), or divorced \((n = 2, 0.9\%)\).

Procedure

This study was part of a larger study examining the effects of Covid-19 quarantine on students’ identity development and well-being. Only the procedure applicable to this thesis will be discussed.
This study was approved by the University of Central Florida Institutional Review Board. Participants were given information about the study and requested to fill out a general demographics form that included questions on their age, gender, education level, race/ethnicity, and language. The participants in this study were given written assurances that their data would not be shared with anybody except the researchers and that the study was anonymous. All personally identifiable information was eliminated from the data, and only ID numbers ranging from 1 to 100 were produced randomly.

The study was advertised on SONA, an online platform that allows undergraduate students to sign up for research studies for credit. Alternative writing assignments are provided for students who could not participate in research for credit. Once a participant signed up for the study through Sona, they were then directed to Qualtrics to complete the study. Study participation took about 1 hour.

Participants completed a nine-question narrative questionnaire on their COVID-19 pandemic experiences, including how the pandemic impacted their relationships, personal circumstances that occurred, and their coping techniques. Participants also completed a series of well-being questionnaires, including the RYFF Psychological Health Questionnaire, Beck Depression Inventory, and the Perceived Stress Scale.

**Measures**

**Narratives of COVID-19 Experiences Questionnaire.** Participants were specifically requested to report their COVID-19 experiences and how they dealt with the pandemic's quarantine protocol. Question prompts were developed by the primary and co-investigators of
this study and included: 1. “Describe your experiences of being quarantined during the Covid-19 pandemic. Discuss your feelings and thoughts, the difficulties that you encountered, and how the quarantine process has affected you both positively and negatively. Give as much detail as possible.”, 2. “Describe one goal that you have since the quarantine began. Goals may be short-term, such as completing your school homework, or a long-term goal like planning to complete a graduate degree. Tell us why this goal is important and how you are planning to meet this goal.” 3. “How has the Covid-19 pandemic affected your relationship with your family? Describe your feelings and thoughts, the difficulties that you encountered, and how the pandemic has affected your family relationships both positively and negatively.” 4. “How has the pandemic affected your relationship with your friends? Describe your feelings and thoughts, the difficulties that you encountered, and how the pandemic has affected your friendships both positively and negatively.” 5. “How has the pandemic affected your relationship with your partner/significant other? Describe your feelings and thoughts, the difficulties that you encountered, and how the pandemic has affected your romantic relationship both positively and negatively.” 6. “Describe your most difficult experience during the pandemic. Describe in detail what happened or is happening (including when it happened, your feelings, and who was involved).” 7. “Describe your most recent stressful experience during the pandemic. Give as much detail as possible about that stressful experience (including what happened, when it happened, your feelings, who was involved).” 8. “Describe how this situation has changed the way you cope with stress. Tell us specifically how you have dealt with increased stress due to the pandemic. Give specific examples of coping strategies that you’ve used, such as exercising, counseling, working, etc.” 9.
“Describe how your spirituality/religiosity has been affected during the pandemic. Give examples that demonstrate an increase or decrease in your spirituality/religiosity.”

**The RYFF Psychological Health Questionnaire.** The RYFF Psychological Health questionnaire (Ryff, 1989) is a 42-item self-report Psychological Wellbeing Scale that includes statements that represent the six domains of psychological well-being: autonomy, environmental mastery, personal growth, good interpersonal relationships, life purpose, and self-acceptance. Statements are rated on a Likert scale of one to six, with one indicating strong disagreement and six indicating strong agreement. For instance, "I'm not interested in activities that will expand my horizons." For six subscales, internal consistency ranged from 0.87 to 0.96, while test-retest reliability coefficients ranged from 0.78 to 0.97. These findings show that the scale is a valid and reliable measure.

**Beck Depression Inventory.** The Beck Depression Inventory (Beck, 1996) is a self-report questionnaire used to assess depression severity in both healthy and psychiatric patients. It is based on the idea that depression is caused by negative cognitive distortions. The scale consists of 21 questions on a 4-point scale ranging from 0 to 3, with 0 indicating no symptoms and 3 indicating severe symptoms (for example, "0" indicates that I am not very concerned about the future, "1" indicates that I am concerned about the future, "2" indicates that I have nothing to look forward to, and "3" indicates that the future is hopeless and that things cannot change).

**The Perceived Stress Scale.** The perceived Stress Scale (Reis et al., 2010) is a self-report measure of how stressful occurrences in one’s life are perceived. The questions evaluate how unpredictable, unmanageable, and overburdened respondents’ lives are. The scale also
contains a number of straightforward questions concerning present stress levels. The PSS questions inquire about feelings and ideas from the previous month. Respondents are asked how often they feel a specific way in each situation. It consists of ten items, e.g., “In the last month, how often have you been upset because of something that happened unexpectedly?”.

*Narrative Coding*

**Coding of Internal State Language.** Given the Pennebaker (2001) research on the use of internal state language in narratives of traumatic experiences associated with fewer PTSD and depression symptoms, all nine narratives were coded for internal state language. Two coders were trained by the primary investigator on how to recognize and code emotion and cognition language, and further sub-code emotion language into positive or negative. After training, two coders established reliability on 10% of the narratives. To measure the internal reliability between the two coders, Cronbach’s alpha was used. For the coding of Internal State Language, Cronbach’s alpha of $\alpha = .769$, indicated good internal reliability. The remaining narratives were then evenly divided between the two reliable coders to be coded. Coders read the responses to the 9 narrative questions and recorded the number of positive emotion words (e.g., proud, excited, enjoyed, better, comfortable, relieved, special, calm, hilarious), negative emotion words (e.g., frustrated, hard, mad, disturbed, upset, awful, terrified, disgust, nervous), and cognition words (e.g., I think, she believed, I wanted, he was wondering, I feel).

**Scale Coding of Stress.** Next, to examine the level of stress, we developed a 4-point scale with “0” indicating no stress, “1” indicating little stress or low stress, (e.g., little difficult to go out), “2” in which the participant describes being somewhat stressed or having medium stress, and “3” in which the participant describes feeling extremely, or very stressed, having severe
anxiety, or a large source of stress (e.g., not being able to pay the rent due to financial circumstance). See Table 1 for Stress coding scheme.

*Table 1: Stress Coding Scale*

<table>
<thead>
<tr>
<th>Stress Scale</th>
<th>Level of Stress</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td><strong>no stress</strong>: the participant describes feeling no stress.</td>
</tr>
<tr>
<td>1</td>
<td><strong>low stress</strong>: the participant describes feeling little stress or low stress,</td>
</tr>
<tr>
<td></td>
<td>E.g., I feel a little stress with my anatomy homework.</td>
</tr>
<tr>
<td>2</td>
<td><strong>medium stress</strong>: the participant describes feeling somewhat stressed. The participant described feeling stressed for a period of time.</td>
</tr>
<tr>
<td></td>
<td>E.g., I was stressed last week when my hours were cut.</td>
</tr>
<tr>
<td>3</td>
<td><strong>high stress</strong>: the participant describes feeling extremely, or very stressed, experiencing severe anxiety, the biggest problem, a large source of stress, feeling frustrated, intense, challenging, a different level of hard.</td>
</tr>
</tbody>
</table>
E.g., The biggest problem during the pandemic was our finances.

**Categorical coding of stress.** Narratives were also categorized based on the type of stress participants discussed – financial stress, health stress, school-related stress, relationship stress, and an unclassified category. As with the internal state coding scheme, two coders established reliability on 10% of the narratives, after which the remaining narratives were divided between the two coders and coded. To measure the internal reliability between the two coders, Cronbach’s alpha was used. For the coding of stress, Cronbach’s alpha of $\alpha = .769$, indicated good internal reliability.

**Scale Coding of Coping.** The researchers developed a scale to measure the level and type of coping in participants’ narratives, with “0” indicating no coping, “1” indicating negative coping (a coping strategy that might be destructive or counterproductive to the person that may lead to negative outcomes), “2” indicating moving towards or progressing towards better coping, but not quite there yet (or the participant mentions that they have developed ways of coping but did not mention any specific strategies), and “3” indicating positive coping (identifying a strategy that gives rise to a productive mindset during the pandemic that may lead to positive outcomes; the participant further mentions specific strategies for coping with the stress of the pandemic). See Table 2 for the Coping Coding Scheme.

*Table 2: Coping Coding Scale*
<table>
<thead>
<tr>
<th>Coping Scale</th>
<th>Level of Coping</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>no coping mentioned</td>
</tr>
<tr>
<td>1</td>
<td>Negative coping: a coping strategy that might be destructive or counterproductive to the person that may lead to negative outcomes. E.g.s. crying, lashing out, drinking.</td>
</tr>
<tr>
<td>2</td>
<td>moving towards or progressing towards better coping, but not quite there yet. The participant mentions that they are trying different strategies or trying to get better but have not found one that works. E.g., I have been talking more to my parents about the stress of online classes.</td>
</tr>
<tr>
<td>3</td>
<td>Positive coping: identifying a strategy or strategies that give rise to a productive mindset during the pandemic that may lead to positive outcomes and improvements. The participant mentions specific strategies for coping with the stress of the pandemic. E.g., working out/exercising.</td>
</tr>
</tbody>
</table>
**Categorical Coding of Coping.** As with the stress coding, narratives were categorized based on the type of coping strategy discussed, including emotional coping (the goal is to fix my feelings about the problem, make myself feel better, but not tackle the problem itself), problem-focused coping (taking active steps to resolve the problem itself, even if those steps may not prove to be effective), and social coping (connecting with others to feel better or take my mind off the problem). To measure the internal reliability between the two coders, Cronbach’s alpha was used. For the coding of coping, Cronbach’s alpha of $\alpha = .820$, indicated very good internal reliability.
RESULTS

This study was part of a larger study examining the effects of Covid-19 quarantine on students’ identity development and well-being. Only the results applicable to this thesis will be discussed.

Hypothesis 1: Females will use more internal state language compared to males.

To test this hypothesis, we ran an independent samples t-test with gender as the grouping variable and average positive emotion, negative emotion, and cognition as testing variables. Results showed significant gender differences between males and females in all 3 types of internal state language – positive emotion, \( t(1, 214) = 2.372, p = .019 \), such that females (M = 2.14, sd = 0.268) used more positive emotions than males (M = 2.04 , sd = 0.276 ); negative emotion, \( t(1, 214) = 2.372, p = .019 \), such that females (M = 4.28, sd = .535) used more negative emotions than males (M = 4.09 , sd = 0.552); and cognition, \( t(1, 214) = 2.320, p = .021 \), such that females (M = 8.44, sd = 1.02) used more cognition than males (M = 8.11 , sd = 1.071).

Hypothesis 2: We hypothesize a correlation between the use of internal state language and the Beck Depression Inventory.

To test this hypothesis, we ran a Pearson’s Bivariate correlation with average positive emotions, average negative emotions, average cognitions, and the Beck Depression Inventory. Results indicated moderate positive correlations between the use of positive emotions and the Beck Depression Inventory, \( r(n=216) = .367, p = .001 \), the use of negative emotions and the Beck Depression Inventory, \( r(n=216) = .367, p = .001 \), and the use of cognitions and the Beck Depression Inventory, \( r(n=216) = .269, p = .001 \). These results suggests that the more internal
state language participants use to describe their COVID-19 experiences, the higher their depression scores.

**Hypothesis 3:** We hypothesize that Internal State Language is correlated with Perceived Stress.

To test this hypothesis, we ran a Pearson’s Bivariate correlation with average positive emotions, average negative emotions, average cognitions, and the Perceived Stress Scale. Results indicated no significant correlation between the use of Internal State Language and the Perceived Stress Scale.

**Hypothesis 4:** We hypothesize that the use of Internal State Language is correlated with the RYFF sub-scales of psychological well-being.

To test this hypothesis, we ran a Pearson’s Bivariate correlation with average positive emotions, average negative emotions, average cognitions, and the 6 subscales of the RYFF. Results indicated that positive emotions, \( r (n=216) = .139, p = .042 \), negative emotions, \( r (n=216) = .139, p = .042 \), and cognition, \( r (n=216) = .190, p = .005, p = .005 \), were all positively correlated with environmental mastery. Similarly, positive emotions, \( r (n=216) = .169, p = .013 \), negative emotions, \( r (n=216) = .169, p = .013 \), and cognition, \( r (n=216) = .197, p = .004 \), were all positively correlated with growth. In addition, cognition was positively correlated with the purpose, \( r (n=216) = .182, p = .007 \) \( r = .182, p = .007, n = 216 \). These results suggest that the use of more internal state language in narratives about Covid-19 are associated with better overall psychological well-being.

**Hypothesis 5:** We hypothesize that stress and coping in Covid-19 narratives is associated with depression on the Beck Depression Inventory, and perceived stress.
To test this hypothesis, we ran a Pearson’s Bivariate correlation with the coping rating scale, stress rating scale, the Beck Depression Inventory, the Perceived Stress Scale, and the six RYFF subscales. Results with the Beck Depression Inventory showed a small positive correlation with stress, \( r (n=216) = .155, p = .023 \), suggesting that the more stress reported in narratives of COVID-19, the higher participants’ depression scores were. The correlation results with the Perceived Stress Scale indicated a positive correlation between narrative stress and the Perceived Stress Scale, \( r (n=216) = .200, p = .003 \) Additionally, results with stress, coping, and the subscales of RYFF showed a negative correlation between stress and environmental mastery, \( r (n=216) = -.188, p = .006 \), and a positive correlation between coping and growth, \( r (n=216) = .202, p = .003 \). These results suggest that greater stress in Covid-19 narratives is associated with worse mental health (greater depression, and perceived stress, and less environmental mastery), but greater attempts to cope is associated with better mental health (growth).

**Exploratory Analyses**

**Question 1: Which coping category would be more common in narratives with greater Internal State Language in their narratives?**

To examine this question, we ran a 3 (coping categories: problem focused, emotion focused and social focused) X 3 (positive emotion, negative emotion, and cognition) Multivariate ANOVA, with coping categories as the fixed factor, and internal state language as the dependent variables. There were no significant effects.

**Question 2: Which stress category would be more common in narratives with more Internal State Language in their narratives?**
To examine this question, we ran a 6 (stress categories: financial stress, relationship stress, emotional stress, academic stress, health stress and social stress) X 3 (Positive emotion, negative emotion, and cognition) Multivariate ANOVA, with stress categories as the fixed factor, and internal state language as the dependent variables. There were no significant findings.

**Question 3: Which stress category is more common in participants with higher psychological well-being?**

To examine this question, we ran a 6 (stress categories) X 6 (RYFF subscales) Multivariate ANOVA with stress categories as a fixed factor and RYFF subscales as dependent variables. Results showed a significant difference in stress categories with the RYFF Autonomy subscale, $F(6.211) = 3.156, p = 0.006$. Participants who described more academic stress ($M = 30.410, SD = 6.680$), compared to social stress ($M = 25.680, SD = 6.296$) and relationship stress ($M = 24.077, SD = 4.554$) scored higher on autonomy. Therefore, participants who experience more social and relationship stress feel less autonomy.

**Question 4: Which coping strategy is more common in participants with higher psychological well-being?**

To examine this question, we ran a 3 (coping categories) X 6 (RYFF subscale) Multivariate ANOVA, with coping categories as the fixed factor, and the RYFF subscale as the dependent variables. There were no significant findings.

**Question 5: Which coping strategy is more common in participants with lower depression and perceived stress scores?**
To examine this question, we ran a two separates Univariate ANOVAs with coping categories as the fixed factor, and the Perceived Stress or BDI as the dependent variable. There were no significant findings. Similarly, we ran separate Univariate ANOVAs, with stress categories as the fixed factor, and Perceives Stress or the BDI as the dependent variable. Results showed no significant effects.
DISCUSSION

Given that the pandemic has been a traumatic experience for most individuals, examining the narratives of pandemic experiences in relation to mental health is an important avenue for research. In this study, we examined college students’ narratives about their pandemic and lockdown experiences for the use of internal state language, stress and coping in relation to psychological well-being. This study revealed that the more internal state language participants used to describe their COVID-19 experiences, the higher their depression levels were. In contrast, results also suggested that the use of more internal state language in narratives about Covid-19 were associated with better overall psychological well-being. We also found that greater stress in Covid-19 narratives was associated with greater depression and perceived stress, and less environmental mastery. On the other hand, greater attempts to cope was associated with greater personal growth. We also discovered that when people recalled more social and relational stress, they reported less autonomy.

To first examine gender differences in the use of narrative devices, we hypothesized that females would use more internal state language compared to males. Results showed significant gender differences between males and females in all 3 types of internal state language – positive emotion, negative emotion, and cognition. This outcome has been shown in other studies as well, in which females have been found to display more emotions, experience more emotions and talk about emotions in greater detail than males (Newman et al., 2008). Gender differences in language usage emerge early on; boys are more likely to use language to describe things and events, while girls are more likely to use language to express socio-emotional ties with others (Newman et at., 2008). Our findings are in line with previous research confirming that women
used more vocabulary that had to do with psychological and social processes than men (Newman et al., 2008).

We hypothesized a correlation between internal state language and depression scores and found that the more internal state language participants used to describe their COVID-19 experiences, the higher their depression scores were. This is contrary to findings by Pennebaker (1993) For some, discussing their traumatic experience is the first step toward recovery. However, talking about the traumatic experience as it’s happening or immediately after it has happened may actually be worse for participants (Thomsen et al., 2018). COVID-19 was at its peak and the lockdown was still enforced at the time of data collection. Furthermore, there was no vaccination in sight at the time of data collection. Thomsen et al. (2018) similarly found that participants experienced more trauma and grief about 2 months after losing their spouses. But after a 5- to 6-month follow-up period, the same subjects reported less acute grief and trauma. Instead, waiting until the trauma has passed and then processing the experience might be more beneficial to mental health, as indicated by Pennebaker and colleagues (Pennebaker et al., 2001).

We expected that Internal State Language would be linked to psychological well-being on the RYFF subscales. According to the findings, positive emotions, negative emotions, and cognition were all positively linked to environmental mastery and personal growth. Furthermore, greater use of cognitive words was specifically related to a sense of purpose in life. These findings imply that using more internal state language in COVID-19 narratives is linked to improved overall psychological well-being, specifically environmental mastery, growth and purpose in life. Internal state language may be a tool that participants use to process their traumatic experience, and therefore may assist them to not only grow, but also to grasp the
fundamental motivating goal of their life's purpose that would help to move them past the trauma (Pennebaker et al., 2001).

Next, we anticipated that stress in COVID-19 narratives would be linked to depression, as well as perceived stress. The BDI results revealed a slight positive connection with stress, implying that the more stress expressed in COVID-19 narratives, the higher the individual’s depression score. Similarly, reported stress in the narrative was related to higher perceived stress on the Perceived Stress Scale. There was also a negative relationship between stress and environmental mastery. Put together, all of these findings indicate that participants who expressed more stress in their recall of their Covid-19 experiences, experienced worse depressive symptoms, more perceived stress and worse psychological well-being. Most cross-sectional research on the pandemic has now shown evidence of elevated mental health symptoms in the months following the COVID-19 pandemic in nations throughout the world, and our findings are consistent with that (Sanchez-Gomez et al., 2021). This makes sense because prior studies have used stress in narratives as an indication of anxiety and depression, which explains why it is more associated with depression (Izadinia et al., 2010).

In contrast, there was a positive correlation between coping and growth, implying that more attempts at coping with stress are linked to improved mental health. According to recent research by Hussong et al. (2021), negative mental health symptom increases during the pandemic were minimized in adolescents with more self-efficacy, and to a lesser degree, problem-focused, engaged coping, but amplified in adolescents with higher emotion-focused engaged and detached coping. Therefore, greater attempts at positive coping during a traumatic experience such as the pandemic is favorable to better overall wellbeing.
Finally, we explored which type of stress and coping would be more common in participants with better overall mental health. With regards to type of stress, we found that participants who reported more academic stress compared to social or relationship stress had higher autonomy scores. As a result, people who experience higher levels of social and relational stress tend to have lower levels of autonomy. Social support is a critical component of healthy psychological functioning, and social relationships have been connected to a variety of health outcomes, including emotional, mental, physical, and psychological well-being (Hefner & Eisenberg, 2009). Thus, those who experience lesser social support is less equipped to cope with stressful or life-changing circumstances than those who do (Cobb, 1976). Thus, increases in social-relational stress, particularly during a traumatic experience may decrease feelings of being autonomous and having control in the world.

Limitations and Future Directions

Considering that the COVID-19 pandemic has been a traumatizing experience for the majority of people, analyzing pandemic narratives in connection to mental health is an important area of research. The current research focused on how internal state language, stress, and coping were used in college students' narratives involving their pandemic and lockdown experiences in relation to psychological well-being. The current study includes a number of limitations that must be addressed in the future. First, the current study used a correlational study design, which does not allow for causal inference regarding the links among the study variables. Future research should use longitudinal designs to reproduce these findings and provide deeper understanding on how traumatic events might lead to distinct individual outcomes over time, such as anxiety and depression.
Furthermore, other important factors that impact response to stress and traumatic events such as the nature of stress exposure, the extent of life instability, alternate sources of assistance, parental responses to the stress, and local support networks, were not considered in this study. Future research should include surveys that assess not just psychological well-being but also elements such as the kind of stress exposure, the degree of life instability, alternative sources of aid, parental reactions to stress, and regional supportive services during the data collection process.

Additionally, given the gender differences in internal state language, future studies should examine this kind of data by separating males and females in analyses.

Finally, it should be mentioned that this study relies on self-report measurements, which might be skewed by cognitive bias. Despite its limitations, this study backs up the theoretical foundation of narratives as a way of processing negative experiences and gives new insights into the association between the COVID-19 pandemic as a traumatic event, mental health, and overall psychological well-being.

**Conclusion**

The COVID-19 pandemic has disturbed people's life on an individual and social level all around the world, with significant repercussions for psychological well-being. This research contributes to our understanding of the use of internal state language, stress and coping in COVID-19 narratives in relation to psychological well-being. All in all, our findings add to the existing knowledge in the realm of trauma narratives and coping in the context of the COVID-19 pandemic by providing fascinating theoretical and practical insights.
IRB APPROVAL LETTER
EXEMPTION DETERMINATION

September 11, 2020

Dear Widaad Zaman:

On 9/11/2020, the IRB determined the following submission to be human subjects research that is exempt from regulation:

<table>
<thead>
<tr>
<th>Type of Review</th>
<th>Initial Study</th>
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<tbody>
<tr>
<td>Title:</td>
<td>Narratives of Covid-19 Experiences: Relations to Mental Health, Identity Development and Personality</td>
</tr>
<tr>
<td>Investigator:</td>
<td>Widaad Zaman</td>
</tr>
<tr>
<td>IRB ID:</td>
<td>STUDY00002131</td>
</tr>
<tr>
<td>Funding:</td>
<td>None</td>
</tr>
<tr>
<td>Grant ID:</td>
<td>None</td>
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Documents Reviewed:
- Beck Depression Inventory, Category: Survey / Questionnaire;
- Demographics Questionnaire, Category: Survey / Questionnaire;
- Dimensions of Identity Development, Category: Survey / Questionnaire;
- HRP 254 - Explanation of Research, Category: Consent Form;
- Identity Distress Survey, Category: Survey / Questionnaire;
- Narrative Questionnaire, Category: Test Instruments;
- Perceived Stress Scale, Category: Survey / Questionnaire;
- Personality Questionnaire, Category: Survey / Questionnaire;
- Psychological Well-being Scale, Category: Survey / Questionnaire;

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

Due to current COVID-19 restrictions, in-person research is not permitted to begin unless you are able to follow the COVID-19 Human Subject Research (HSR) Standard Safety Plan with permission from your Dean of Research or submitted your Study-Specific Safety Plan and received IRB and EH&S approval. Be sure to monitor correspondence from the Office of Research, as they will communicate when restrictions are lifted, and all in-person research can resume.

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

Sincerely,

Kamille C. Birkbeck

Kamille Birkbeck
Designated Reviewer
SURVEY
Demographic Questionnaire

What is your gender?
- Male
- Female
- Non-specified

What is your age?
- 18-23
- 24-29
- 30-35
- Other

What is your race?
- White/Caucasian
- Hispanic
- Black
- Asian Two or more races
- Other

What is your status of employment?
- Full time
- Part time
- On call
- Unemployed
- Disabled; cannot work

What is your class standing?
Freshmen
Sophomore
Junior
Senior

Are you an immigrant to the United States of America?

Yes
No

If you are an immigrant, what generation are you in the USA?

First generation (I migrated myself to the USA)
Second generation (my parents migrated to the USA)
Third generation (my grandparents migrated to the USA)
I am not an immigrant to the USA

What is your marital status?

Single
In a relationship
Married
Divorced
Widowed
Separated
Other
Narratives of COVID-19 Experiences Questionnaire

1. Describe your experiences of being quarantined during the Covid-19 pandemic. Discuss your feelings and thoughts, the difficulties that you encountered, and how the quarantine process has affected you both positively and negatively. Give as much detail as possible. (Peak and nadir experience)

2. Describe one goal that you have since the quarantine began. Goals may be short-term as completing your school homework, or a long-term goal like planning to complete a graduate degree. Tell us why this goal is important and how you are planning to meet this goal.

3. How has the Covid-19 pandemic affected your relationship with your family? Describe your feelings and thoughts, the difficulties that you encountered, and how the pandemic has affected your family relationships both positively and negatively.

4. How has the pandemic affected your relationship with your friends? Describe your feelings and thoughts, the difficulties that you encountered, and how the pandemic has affected your friendships both positively and negatively.
5. How has the pandemic affected your relationship with your partner/significant other? Describe your feelings and thoughts, the difficulties that you encountered, and how the pandemic has affected your romantic relationship both positively and negatively.

6. Describe your most difficult experience during the pandemic. Describe in detail what happened or is happening (including when it happened, your feelings, who was involved).

7. Describe your most recent stressful experience during the pandemic. Give as much detail as possible about that stressful experience (including what happened, when it happened, your feelings, who was involved).

8. Describe how this situation has changed the way you cope with stress. Tell us specifically how you have dealt with increased stress due to the pandemic. Give specific examples of coping strategies that you’ve used, such as exercising, counseling, working, etc. Give as much detail as possible.

9. Describe how your spirituality/religiosity has been affected during the pandemic. Give examples that demonstrate an increase or decrease in your spirituality/religiosity. Give as much detail as possible.
Beck's Depression Inventory

1.  
   0  I do not feel sad.  
   1  I feel sad  
   2  I am sad all the time and I can't snap out of it.  
   3  I am so sad and unhappy that I can't stand it.  

2.  
   0  I am not particularly discouraged about the future.  
   1  I feel discouraged about the future.  
   2  I feel I have nothing to look forward to.  
   3  I feel the future is hopeless and that things cannot improve.  

3.  
   0  I do not feel like a failure.  
   1  I feel I have failed more than the average person.  
   2  As I look back on my life, all I can see is a lot of failures.  
   3  I feel I am a complete failure as a person.  

4.  
   0  I get as much satisfaction out of things as I used to.  
   1  I don't enjoy things the way I used to.  
   2  I don't get real satisfaction out of anything anymore.  
   3  I am dissatisfied or bored with everything.  

5.  
   0  I don't feel particularly guilty  
   1  I feel guilty a good part of the time.
2  I feel quite guilty most of the time.
3  I feel guilty all of the time.

6.
0  I don't feel I am being punished.
1  I feel I may be punished.
2  I expect to be punished.
3  I feel I am being punished.

7.
0  I don't feel disappointed in myself.
1  I am disappointed in myself.
2  I am disgusted with myself.
3  I hate myself.

8.
0  I don't feel I am any worse than anybody else.
1  I am critical of myself for my weaknesses or mistakes.
2  I blame myself all the time for my faults.
3  I blame myself for everything bad that happens.

9.
0  I don't have any thoughts of killing myself.
1  I have thoughts of killing myself, but I would not carry them out.
2  I would like to kill myself.
3  I would kill myself if I had the chance.

10.
0  I don't cry any more than usual.
<p>| | | | | |</p>
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<tr>
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<tbody>
<tr>
<td>1</td>
<td>I cry more now than I used to.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>I cry all the time now.</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>3</td>
<td>I used to be able to cry, but now I can't cry even though I want to.</td>
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<tr>
<td>11.</td>
<td>I am no more irritated by things than I ever was.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>I am slightly more irritated now than usual.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>I am quite annoyed or irritated a good deal of the time.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>I feel irritated all the time.</td>
<td></td>
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<tr>
<td>12.</td>
<td>I have not lost interest in other people.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>I am less interested in other people than I used to be.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>I have lost most of my interest in other people.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>I have lost all of my interest in other people.</td>
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</tr>
<tr>
<td>13.</td>
<td>I make decisions about as well as I ever could.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>I put off making decisions more than I used to.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>I have greater difficulty in making decisions more than I used to.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>I can't make decisions at all anymore.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14.</td>
<td>I don't feel that I look any worse than I used to.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>I am worried that I am looking old or unattractive.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>I feel there are permanent changes in my appearance that make me look unattractive</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>I believe that I look ugly.</td>
<td></td>
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15.  
0   I can work about as well as before.  
1   It takes an extra effort to get started at doing something.  
2   I have to push myself very hard to do anything.  
3   I can't do any work at all.  

16.  
0   I can sleep as well as usual.  
1   I don't sleep as well as I used to.  
2   I wake up 1-2 hours earlier than usual and find it hard to get back to sleep.  
3   I wake up several hours earlier than I used to and cannot get back to sleep.  

17.  
0   I don't get more tired than usual.  
1   I get tired more easily than I used to.  
2   I get tired from doing almost anything.  
3   I am too tired to do anything.  

18.  
0   My appetite is no worse than usual.  
1   My appetite is not as good as it used to be.  
2   My appetite is much worse now.  
3   I have no appetite at all anymore.  

19.  
0   I haven't lost much weight, if any, lately.  
1   I have lost more than five pounds.  
2   I have lost more than ten pounds.
3 I have lost more than fifteen pounds.

20.

0 I am no more worried about my health than usual.

1 I am worried about physical problems like aches, pains, upset stomach, or constipation.

2 I am very worried about physical problems and it's hard to think of much else.

3 I am so worried about my physical problems that I cannot think of anything else.

21.

0 I have not noticed any recent change in my interest in sex.

1 I am less interested in sex than I used to be.

2 I have almost no interest in sex.

3 I have lost interest in sex completely.
The Perceived Stress Scale

For each question choose from the following alternatives: 0 - never 1 - almost never 2 - sometimes 3 - fairly often 4 - very often

1. In the last month, how often have you been upset because of something that happened unexpectedly?

2. In the last month, how often have you felt that you were unable to control the important things in your life?

3. In the last month, how often have you felt nervous and stressed?

4. In the last month, how often have you felt confident about your ability to handle your personal problems?

5. In the last month, how often have you felt that things were going your way?

6. In the last month, how often have you found that you could not cope with all the things that you had to do?

7. In the last month, how often have you been able to control irritations in your life?

8. In the last month, how often have you felt that you were on top of things?

9. In the last month, how often have you been angered because of things that happened that were outside of your control?

10. In the last month, how often have you felt difficulties were piling up so high that
The RYFF Scale of Psychological well-being

Please indicate your degree of agreement (using a score ranging from 1-6, 1 being Strongly disagree to 6 being Strongly Agree) to the following sentences.

1. I am not afraid to voice my opinions, even when they are in opposition to the opinions of most people.
2. In general, I feel I am in charge of the situation in which I live.
3. I am not interested in activities that will expand my horizons.
4. Most people see me as loving and affectionate.
5. I live life one day at a time and don't really think about the future.
6. When I look at the story of my life, I am pleased with how things have turned out.
7. My decisions are not usually influenced by what everyone else is doing.
8. The demands of everyday life often get me down.
9. I think it is important to have new experiences that challenge how you think about yourself and the world.
10. Maintaining close relationships has been difficult and frustrating for me.
11. I have a sense of direction and purpose in life.
12. In general, I feel confident and positive about myself.
13. I tend to worry about what other people think of me.
14. I do not fit very well with the people and the community around me.
15. When I think about it, I haven't really improved much as a person over the years.
16. I often feel lonely because I have few close friends with whom to share my concerns.

17. My daily activities often seem trivial and unimportant to me.

18. I feel like many of the people I know have gotten more out of life than I have.

19. I tend to be influenced by people with strong opinions.

20. I am quite good at managing the many responsibilities of my daily life.

21. I have the sense that I have developed a lot as a person over time.

22. I enjoy personal and mutual conversations with family members or friends.

23. I don't have a good sense of what it is I'm trying to accomplish in life.

24. I like most aspects of my personality.

25. I have confidence in my opinions, even if they are contrary to the general consensus.

26. I often feel overwhelmed by my responsibilities.

27. I do not enjoy being in new situations that require me to change my old familiar ways of doing things.

28. People would describe me as a giving person, willing to share my time with others.

29. I enjoy making plans for the future and working to make them a reality.

30. In many ways, I feel disappointed about my achievements in life.

31. It's difficult for me to voice my own opinions on controversial matters.

32. I have difficulty arranging my life in a way that is satisfying to me.

33. For me, life has been a continuous process of learning, changing, and growth.

34. I have not experienced many warm and trusting relationships with others.

35. Some people wander aimlessly through life, but I am not one of them.

36. My attitude about myself is probably not as positive as most people feel about themselves.
37. I judge myself by what I think is important, not by the values of what others think is important.

38. I have been able to build a home and a lifestyle for myself that is much to my liking.

39. I gave up trying to make big improvements or changes in my life a long time ago.

40. I know that I can trust my friends, and they know they can trust me.

41. I sometimes feel as if I've done all there is to do in life.

42. When I compare myself to friends and acquaintances, it makes me feel good about who I am.
REFERENCES


“I Hate It, It’s Ruining My Life”: College Students’ Early Academic Year Experiences During the COVID-19 Pandemic.


Pennebaker writing intervention in primary insomnia. *Behavioral sleep medicine, 7*(2), 99-105.


Brody, L. R., Hall, J. A., Lewis, M., &