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Impact of COVID-19 Pandemic on Women Interpersonal Violence Survivors

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by

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Abstract

Impact of Coronavirus-19 pandemic on women interpersonal violence survivors

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Women have a significant risk of experiencing interpersonal violence over the course of their lifetime. There has been some suggestion that this risk has been exacerbated by the isolation experienced during the COVID-19 pandemic. The proposed study will evaluate levels of stress associated with interpersonal violence during the COVID-19 pandemic. Depression, coronavirus anxiety, Posttraumatic symptoms, and COVID-19 stress levels will be evaluated. It is hypothesized that participants who experienced interpersonal violence (childhood abuse, physical assault, unwanted sexual experiences, and/or intimate partner violence) will endorse higher levels of COVID-19 stress, Posttraumatic symptoms, depression. These outcomes would be mediated by experiential avoidance. Moreover, there would be an increase in COVID-19 stress in those experiencing more types of exposure to interpersonal violence. Finally, barriers to assistance seeking behavior will be explored.

Keywords: interpersonal violence, experiential avoidance, COVID-19 Stress, trauma, Posttraumatic symptoms, Depression

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Chapter 1 Introduction

Women experience high rates of interpersonal violence during childhood and adulthood (Cprek, et al., 2020; Finkelhor, Turner, Shattuck, & Hamby, 2015). The literature indicating that women are exposed to a range of traumatic experiences both in childhood and as adults is clear. One in three women has experienced sexual violence involving unwanted physical contact during their lifetime (Black, et al., 2011; Center for Disease Control & Prevention [CDC], 2021). One in four women have experienced physical violence and/or stalking by an intimate partner during their lifetime. Nearly half of all women in the United States have experienced at least one form of psychological aggression by an intimate partner (CDC, 2020; World Health Organization, 2016). Over 43 million women have experienced psychological aggression by an intimate partner in their lifetime (CDC, 2020).

Experience of one form of violence significantly increases the likelihood of experiencing another form of violence (Bradel, Rosenbaum, & Orcutt, 2019). Women who have experienced eight or more Adverse Childhood Experiences (ACEs) are 3.5 times more likely to experience interpersonal violence as adults (Cprek et al., 2020; Jones, Peck, Sharp & McLeod, 2019; Whitfield, Anda, Dube, & Felitti, 2003). Furthermore, co-occurrence of one or more other forms of violence (childhood physical or sexual abuse) among women who have experienced prior abuse is increasingly common.

The World Health Organization (2013) defined interpersonal violence within two contexts: family/intimate partner violence and community violence. Family and intimate partner violence include child maltreatment; intimate partner violence (IPV), and elder

abuse, while community violence includes youth violence and assault by strangers. Interpersonal violence perpetrated upon women and childhood abuse on young females is an internationally recognized significant public health issue (APA, 2020; United Nations, 2020; WHO, 2021). Individual and societal costs are high and range from; physical injury, death, negative health outcomes of the heart, digestive, reproductive, HIV/AIDS, muscles and bones, and nervous systems (CDC, 2020 & 2021; Peterson et al., 2018; Resnick, Acierno, & Kilpatrick, 1997; WHO, 2020). Survivors of abuse also experience mental health concerns such as anxiety, depression, and PTSD (Iverson, et al., 2013). Trauma resulting from interpersonal violence appears to have a cumulative impact (Follette, Polusny, Bechtle, & Naugle, 1996). Individuals who endorse multiple types of interpersonal violence consequently show increasingly higher levels of post-trauma symptomology (Follette, Polusny, Bechtle, & Naugle, 1996) and higher rates of revictimization (Ghimire & Follette, 2012). Sexual violence victimization is linked to problematic behaviors like later substance use (CDC, 2021; Ulibarri, Ulloa, & Salazar, 2015), suicide (Wolford-Clevenger, Smith, Kuhlman, & D'Amato, 2019), self-harm (Jaquier, Hellmuth, & Sullivan, 2013) and sexually risky behavior (Polusny & Follette, 1995).

Chapter 2 Review of Literature

Estimated Prevalence During COVID-19

During the COVID-19 pandemic, the United Nations has reported an international uptick in interpersonal violence against women (UN, 2020). The United Nations Population Fund, a United Nations sexual and reproductive health agency, estimated an additional 31 million gender-based violence cases would occur due to the COVID-19 shelter-in-place mandates (UNFPA, 2020). In a COVID-19 special report, The National Domestic Violence Hotline (2020) noted an increase in total calls during the COVID-19 pandemic and a disturbing trend of abusing partners using the virus to increase fear and perceived vulnerability in their partners. Over ninety percent of callers reported experiencing verbal aggression, intimidation, manipulation, and humiliation. Sixty-one percent endorsed physical abuse resulting in physical injury, pain, or impairment. Reliance on the abusive partner for care, assistance, and financial means is a barrier for reporting abuse and seeking assistance (Emezue, 2020; Lund, 2020). Some abusers may also use the threat of contamination of the COVID-19 virus to coerce their partner out of seeking assistance from informal networks and/or medical or psychological care (Jarneke & Flanagan, 2020). Others have reportedly threatened contaminating their partners (Emezue, 2020). Coercive tactics such as these limits women's personal freedom and exert control over their activities, their bodies, and their lives. These tactics are frequently used in human trafficking, child abuse, intimate partner violence, and sexual violence perpetration (Duron, Johnson, Hoge, & Postmus, 2021; Hamberger, Larsen, & Lehrner, 2017). Fear of retaliation and the lack of knowledge or uncertainty of available resources during the pandemic are magnified (Lund, 2020; Wood et. al, 2020).

Recent research confirming the increase in interpersonal violence against women is limited. Preliminary studies and commentaries on the subject also predict an increase in rates and severity of interpersonal violence and child abuse during COVID-19; citing economic vulnerability, isolation, and lack of resources as risk factors (American Psychology Association, 2020; Picquero, et al., 2020; Racine, Hartwick, Collin-Vézina, Madigan, 2020; Wood, et al., 2020). Protecting the public from exposure to the virus has created new stresses for families such as; isolation, loneliness, job losses, and the lack of childcare from the closing and shifting of places of business and education (Bradbury-Jones & Isham, 2020). Under the threat of the COVID-19 pandemic, women are spending increased time with their abusers, without a safe space, or interaction with their children's educators or public health workers who would typically intervene on their behalf (Racine, Hartwick, Collin-Vézina, Madigan, 2020). The recommended COVID-19 "stay at home" guidelines created to keep the public safe has paradoxically limited interaction with informal social networks that could provide a means to safety (Racine, Hartwick, Collin-Vézina, Madigan, 2020; Sinko et al., 2021; Wood, et al., 2020). Community institutions like churches and schools can be a source of reprieve from the stress and violence and a gateway to assistance (Campbell, 2020).

There is an active public call stop to violence against women and assist those who seek help (Bradbury-Jones & Isham, 2020; United Nations, 2020;). Some public commentaries on interpersonal violence during the COVID-19 pandemic describe new methods of requesting or receiving assistance through e-technology, social media, and text hotlines for those seeking formal help (Emezue, 2020; Slakoff, Aujila, & PenzeyMoog, 2020). The commentaries also suggest that with abusive partners in such

proximity during COVID-19 shelter-in-place restrictions it may be difficult or near impossible for women to communicate their needs (Jarnecke & Flanagan, 2020; Kofman & Garfin, 2020; & Messing, et al., 2020).

Interpersonal Violence Studies During COVID-19 Pandemic

In response to the United Nations' urgent call to combat the upsurge in interpersonal violence, a few researchers have begun to generate surveys on the relationship between COVID-19 stressors and interpersonal violence (Buttell, Cannon, Rose, & Ferriera, 2021; Wood et al., 2020). Currently, there is limited empirical support for the projected estimates and anecdotal information found in media. Research that has the potential to understand the implications of COVID-19 pandemic and to shed light on risks and protective factors in times of crisis is sorely needed (APA, 2020; CDC, 2020; Horesh & Brown, 2020; WHO, 2020).

Wood et al. (2020) conducted a study to assess health, safety, and economic needs of women who experienced interpersonal violence during shelter-in-place COVID-19 restrictions from April to June 2020. Over eighty percent of women who experienced sexual assault and/or IPV reported relationship difficultly had increased in their home since start the pandemic. Forty percent of women reported their safety decreased during the COVID-19 pandemic. The women surveyed describe mixed results with experiences with virtual service. Some women preferred in person assistance, others reported having difficulty with technology, and yet others appreciated the ease of access to services. Paradoxically, the most used safety approach endorsed by these women was using social media to connect to others to receive emotional support (Wood, et al., 2020). Noting the womens' emphasis on social support and safety approaches, such as de-escalation and

avoidance of their partner, the authors recommend future assistance should focus on a range of virtual supportive services. Flexibility in women's choices (in the context of stay-at-home) for women who do not want to or choose not to leave their abuser would provide much need alternatives for safety.

Buttell, Cannon, Rose, & Ferreira (2021) found differential impacts on stress and resilience with women experiencing IPV during the COVID-19 pandemic. The authors operationalized resilience as a "person's ability to cope with adversity and stress in response to exposure from a serious stressor;" and stress as, "the degree to which a person perceives a threat of a stressor and how capable they feel behaviorally and cognitively to adapt to it" (Buttell, Cannon, Rose, & Ferreira, 2021, p. 21). Research conducted over a two-month period (commencing in April 2020) utilized items from the Connor Davidson Resilience Scale (Connor and Davidson, 2003) and the Perceived Stress Scale (Cohen, 1994), to ask respondents to rate their own resilience and stress in an online survey. Thirty-nine of the 374 respondents (10.4%) reported experiencing IPV. When compared to those who were not in an abusive relationship, those who were in a relationship with IPV endorsed experiencing lower resilience and higher perceived stress. Though nearly all respondents experienced stress during the lockdown, the group who had experienced IPV were less resilient, the authors suggest, due to sheltering at home with the added stress of conflictual relationship.

Tsur, & Abu-Raiya (2020) found individuals with a history of childhood (physical, sexual and/or emotional) abuse who experienced trauma symptoms, also experienced more elevated levels of COVID-19 fear and acute stress when compared to those who did not undergo childhood abuse or who did experience childhood abuse but

did not experience significant trauma symptoms. A sample of 837 individuals from two social media outlets were queried about coping with COVID-19 psychosocial challenges using items from the Acute Distress Disorder Scale and the Fear of COVID-19 scale. They were also assessed for childhood abuse history using the stressful life event checklist (Schouten et al., 2017) and trauma symptoms using the International Trauma Questionnaire (Cloitre et al., 2018). When a history of child abuse was present, only some of the abused individuals experienced more disturbances in self-organization (i.e., affective dysregulation, negative self-concept, and disturbances in relationships) and Acute Stress Disorder symptoms during COVID-19 shelter-in-place months. The authors point to the heterogeneity of responses to trauma for explanation as to why some respondents experienced less COVID-19 stress than others who experienced childhood abuse. They also suggested that stress caused by the COVID-19 pandemic and its associated health risks are perceived as less threatening than experienced childhood abuse for some participants. One important issue is to identify factors that may impact the stress response, such as avoidance of thoughts and feelings related to stressors.

Experiential Avoidance

Given the severity of the problem of interpersonal violence against women, it is important to identify a theoretical mechanism for understanding outcomes associated with abuse. Polusny and Follette (1995) have proposed experiential avoidance as a construct that can explain the diverse problems, such as depression, PTSD, and anxiety that survivors experience. Though women with interpersonal violence histories are more likely to experience PTSD and depressive symptoms, not all women who experience interpersonal violence develop trauma and depressive symptoms (Forbes et al., 2014).

Experiential avoidance has been proposed as an underlying development and maintenance of trauma-related symptoms (Polusny and Follette, 1995; Reddy et al., 2011). Experiential avoidance is a term used to describe attempting to control or alter evaluated physical and emotional responses (i.e., unwanted thoughts, memories, bodily sensations) to life (Hayes, Strosahl, & Wilson, 1999; Hayes, et al., 1996). Experiential avoidance also involved attempting to change the form and frequency of uncomfortable or painful internal events to make them less distressing. There is additional support for the role of experiential avoidance in the development and maintenance of psychopathology across a wide arrange of clinical disorders (Hayes, et al., 1996; Kashdan, 2006) and as a significant predictor of psychological functioning (Hayes & Duckworth, 2006; Hayes et al., 1996; Littleton, Horsely, John, Nelson, & 2007). Aside for etiology and maintenance of some clinical syndromes, experiential avoidance has been implied as a core mechanism in the disruption of pleasant, engaging, and spontaneous activity that leads to a better quality of life (Eifert and Forsyth, 2011; Kashdan, 2006).

Experiential avoidance is significantly related to trauma and depressive symptoms in women who have experienced interpersonal violence (Palm & Follette, 2011). For example, when social support, a protective factor, is experientially avoided, women who have experienced interpersonal violence are vulnerable to the development of PTSD and depression (Thompson, Fiorillo, Rothbaum, Ressler, & Michopoulus, 2019). Social support, not help-seeking behavior, has predicted severity of future IPV (Perez & Johns, 2008).

Impacts of COVID-19 on Stress

Daks, Peltz, and Rogge (2020) surveyed 742 participants online between March and April 2020 to understand the possible impact of the COVID-19 crisis on families. The authors hypothesized that parent's psychological flexibility would predict less COVID-19 stress. Psychological flexibility, operationalized as a set of skills individuals use to respond to challenging and difficult thoughts, feelings, and experiences; was proposed to buffer COVID-19 stress while psychological inflexibility would exacerbate stress from COVID-19. Experiential avoidance is a key process of psychological inflexibility (i.e., a rigid response to stressors that attempts to control and avoid experiences; Hayes, et al., 1996). The results found that parental inflexibility predicted family functioning during the pandemic; higher levels of family discord, lower levels of family cohesion, and higher levels of COVID-19 stress. The results highlight how an inflexible response (e.g., experiential avoidance) to a challenging experience like the COVID-19 crisis generates additional stress that contributes to poor functioning.

In a national survey, examining the levels of anxiety, depression, traumatic symptoms, and COVID-19-related stress in United Kingdom general population during the COVID-19 pandemic, depression and anxiety symptoms were found to be only slightly higher during the pandemic when compared to previous population studies (Shelvin et al. 2020). Trauma symptoms were reported to be much higher than The English 2014 Adult Psychiatric Survey (APMS). Those with higher COVID-19 stress had their income being affected, children living within the home, and/or pre-existing health conditions that made them more vulnerable to the effects of the virus. The authors

concluded that it is still unclear if the impacts of COVID-19 social, health, and economic threats are in themselves potential traumatic stressors.

Across the studies reviewed, COVID-19 stress was generally described as how much an individual perceives a threat/risk of a COVID-19 stressor (i.e., isolation, income loss, contamination, new work environments, childcare demands) and how capable they feel behaviorally and cognitively to adapt to it (Buttell, Cannon, Rose, and Ferreira, 2021; Daks, Peltz, and Rogge, 2020); Wood et al., 2021). Given women with trauma histories have already experienced highly stressful events; the proposed mechanisms or pathways to further stress during a global crisis is important to understanding their experience.

Cumulatively, the findings of studies on interpersonal violence and its relationship to the pandemic provides critical information to policymakers and providers on the public health impact of COVID-19 on vulnerable women (Abramson, 2020; Kanzler & Ogbeide, 2020). Bender (2017) described how conducting research on women who experienced interpersonal violence in shelters and places of aid skews the vision of women with IPV, since women who are at these places typically experience more serious forms of violence and control (Hegarty et al., 2013). Rather than just quantifying their experience (e.g., how many instances of violence, what kind of abuse), researchers should attempt to conceptualize the psychological threats and mechanisms related to functioning of women who experience interpersonal violence.

Chapter 3 Study Objective and Hypotheses

The study sought to add to the limited literature on the impacts of the COVID-19 stress on women's life experiences, particularly regarding interpersonal violence. Isolation is a significant risk factor for interpersonal violence. Researchers and clinicians have suggested that this isolation would be associated with increased exposure to IPV. To assess these questions, we used a crowd sourcing platform to access survey data from women about their experiences during the pandemics.

The hypotheses for the present study are as follows:

H1: Survivors of interpersonal violence (childhood abuse, unwanted sexual experiences, and/or intimate partner violence) would have higher COVID-19 stress.

a) Experiential Avoidance would be a significant factor related to increased COVID-19 Stress
b) Survivors of interpersonal violence will have higher rates of Depression and PTSD.

H2: There would be a cumulative effect of exposure to stress and trauma. Specifically, those individuals with higher numbers of violent events will have higher levels of COVID-19 stress, depression, PTSD, and generalized distress.

H3: Women who are currently in an abusive relationship will experience higher levels of COVID-19 stress as compared to those who are single or not in an abusive relationship.

Chapter 4 Method

The study commenced after receiving approval from both the Florida Institute of Technology Institutional Review Board (IRB), as well as the Doctoral Research Project (DRP) committee.

Participants and Recruitment

Participants were recruited via an online crowd-sourcing platform, Amazon Mechanical Turk (MTurk). A power analysis conducted with a desired of effect size 0.5, a significance level 0.05, and a statistical power of 0.8 revealed a total number of participants needed 63 participants are needed. Only female respondents over the age of 18 years old were eligible to complete the survey (See Appendix C). Participants were given an $0.75 incentive to the complete survey. Women who have been exposed to interpersonal violence were asked to answer questions on the nature of violent experiences. All participants provided information on stressful experiences during the COVID-19 pandemic. When assessed for COVID-19 stress, the participants were instructed to think retrospectively, including times when they were sheltered-in-place or isolated from others due to the COVID-19 pandemic. Two questions on assistance seeking were included to assess for potential barriers due COVID-19 concerns.

An attention check was inserted into the study as part of the eligibility screener. This attention check served to assess participants' engagement, comprehension, and effort, as they are important to the validity of the study.

Procedure

Participants were provided access via a link to the survey located on the FIT Qualtrics website. The data was collected and saved onto a secure server located at the

Department of Psychology at Florida Institute of Technology. The primary components of the survey included the following assessments (see Appendices for the list of survey questions):

Measures

COVID-19 Stress Measure

The women's coronavirus distress was measured using the COVID-19 Stress Measure (Ellis, Dumas, & Forbes, 2020; See Appendix E), an instrument used to assess fear about the spread of COVID-19 virus, becoming infected, and specific concerns related to impact on family finances, education, and access assistance for general health, mental health, and safety concerns. This measure contains two questions related to barriers in seeking assistance due to COVID-19 related concerns.

Coronavirus illness anxiety was measured with the Coronavirus Anxiety Scale (Lee, 2020). Questions were created specific to unique manifestations of anxiety; repetitive thinking, worry, processing biases, avoidance, compulsive behaviors, fear, sleep disturbances, and somatic distress. Internal structure, consistency, and convergent validity were found to be preliminarily adequate for both measures, yielding an average score of ($a = .60$) (Cortez, Joseph, Das, Bhandari, & Shoib, 2020; Ellis, Dumas, & Forbes, 2020; See Appendix E). Prevalence was established by proportion of women endorsing one or more anxiety illness in each of the subscales during the COVID-19 pandemic. Chronicity was established by the average number of days experienced in each of the subscales during the COVID-19.

General Psychological Distress

The General Health Questionnaire – 12 (GHQ; Goldberg & Williams, 1998; See Appendix F) measured general distress. The GHQ has been used extensively as a screening instrument for non-psychotic psychiatric distress across a wide range of populations and has robust external validity (.82) and reliability (.76) (Tait, Hulse, and Robertson, 2002). A mean General Psychological Distress scale score was calculated.

Depression

The Patient Health Questionnaire-9 (PHQ-9; Kroenke, Spitzer, & Williams, 2001; See Appendix G) assessed depression for this sample population. The PHQ-9 is a brief, easily administered and scored instrument. A review by Blackwell & McDermott (2014) supports the used of the PHQ9 as a screener for depression, as it has excellent diagnostic validity $a = .89$. The authors found it to have comparable sensitivity and specificity for major depression in the adult population. A mean Depression scale score was calculated.

Posttraumatic Stress Disorder

Post Traumatic Symptom Severity was measured with The PTSD Checklist – DSM-5 (PCL-5: Weathers, Litz, Keane, Palmieri, Marx, & Schnurr, 2013; See Appendix I). This 20-item self-report measure assesses DSM-5 symptoms of PTSD. Psychometric evaluation indicates the PCL-5 demonstrates strong reliability and validity ($\alpha = .93$) like its predecessor, to the PCL-C (Blevins, Weathers, Davis, Witte, & Domino, 2015). A mean PTSD scale score was calculated.

Experiential Avoidance

Experiential Avoidance was measured with The Acceptance and Action Questionnaire II (AAQ-II; See Appendix H). Higher scores indicate greater experiential

avoidance. Items are rated on a scale from 1 (Never true) to 7 (Always true). Sample items include "I am afraid of my feelings," and "emotions cause problems in my life." Sufficient evidence has been provided for the measure's convergent, discriminate, and concurrent validity (Bond, Hayes, & Bayer, 2011). The AAQ-II demonstrates remarkable internal consistency ($\alpha = .94$). Test-retest reliability for 3-month retest is .81 and 12-month test-retest reliability is.79 (Bond, Hayes, & Bayer, 2011).

Partner Abuse

Partner abuse was assessed with by asking women to report how many times they experienced verbal abuse, physical abuse, injuries, or property damage by their partner over the COVID-19 pandemic. Four questions were derived from the Conflict Tactics Scale (CTS2-R) which is used to measure violence by women's partners (Straus, Hamby, Boney-McCoy, & Sugarman, 1996). The CTS2-R is a commonly used, well validated instrument of intimate partner violence, with a Cronbach's ($\alpha = .84$). Response categories ranged from *not at all* to *more than 20 times*. The instrument is scored on prevalence of the abuse and chronicity. Prevalence was established by proportion of women reporting and experience of one or more acts of violence in each of the subscales during the COVID-19 pandemic. Chronicity was established by the average number of acts of violence experienced in each of the subscales during the COVID-19. A mean partner abuse score was calculated for the individual abuse items and a mean scale score was calculated for partner abuse dimensions.

Interpersonal Violence

The Life Events Checklist for DSM-5 (LEC-5) was used to assess exposure to interpersonal violent events known to potentially result in PTSD or distress (Weathers et

al., 2013; See Appendix I). Four items (numbered 6–9 on the checklist) related to interpersonal violence was used: Physical assault (e.g.,, being attacked, hit, slapped, kicked, beaten up); Assault with a weapon (for example, being shot, stabbed, threatened with a knife, gun, or bomb); Sexual assault (rape, attempted rape, made to perform any type of sexual act through force or threat of harm); and other unwanted or uncomfortable sexual experience. Contractor et al. (2020) confirm this item cluster belongs to the Victimization Trauma type, as the items are consistent (.80) with empirical evidence on the detrimental psychological impact of interpersonal violence. Women were asked to report if they had experienced, witnessed, learned about physical violence, assault with a weapon, sexual violence, unwanted or uncomfortable sexual experiences during their lifetime and occurrences during the COVID-19 pandemic. They were also assessed if any of these experiences were a part of their job. There is no formal scoring protocol for the LEC-5, only identifying if the person has experienced one of these events and indicating the level of exposure. Respondents may report multiple levels of exposures to the same trauma type (Weathers et al., 2013). Prevalence was established by proportion of women reporting and experience of one or more acts of violence in each of the subscales during the COVID-19 pandemic or during their lifetime.

Chapter 5 Results

Sample Characteristics

One hundred forty responses were collected in the survey, 46 responses from males were not included in data as study was indicated for women. Thirty-four responses under five minutes were not included in calculations due to concerns with quality. The total sample size was 60 participants. Eighteen women did not answer the partner abuse questions. Table 1 indicates most women were between the ages of 18 and 39 years (76.7%), were White (70%), and married (75%). Just over half of the women surveyed had obtained a college degree (51.7%). About 26.7 % were military veterans and 10% were in active military service.

Table 1

Sociodemographic for Sample of 60

Variable	*N*	%
Age		
18-29 years	17	28
30-39 years	29	48
40 years or older	14	23
Race		
Black or African American	6	10
White	42	70
American Indian or Alaskan Native	1	1.7
Asian	1	1.7
Native Hawaiian or Pacific Islander	0	0
Hispanic/Latina	8	13.3
Biracial	2	3.3
Education		

Professional (Master's degree, doctorate, or professional degree)	13	21.7
College degree	31	51.7
1-3 years college or business school	4	6.7
High school graduate	8	13.3
10-11 years of schooling	3	5
7-9 years of schooling	1	1.7
Military Service		
Veteran	16	26.7
Active	6	10
Neither	38	63.3
Relationship status		
Single	9	15
In committed relationship	4	6.7
Married	45	75
Divorced	2	3.3

COVID-19 Stress

The women were asked about stress and fear related to the spread of COVID-19 virus. These questions assessed specific issues such as fear of becoming infected, concerns related to impact on family finances, education, and access assistance for general health, mental health, and safety concerns during the COVID-19 pandemic. Most women (96.7%) were concerned at some level with the COVID-19 pandemic (See Table 2). A quarter of the women (25%) were very much concerned, and half were somewhat concerned (50%) with the COVID-19 pandemic overall. Only 3.3% of women were not at all concerned with COVID-19 virus and its impacts.

Barriers to Seeking Assistance

Questions 9 and 10 of the COVID-19 Stress measure assessed for barriers to seeking assistance due to COVID-10 concerns. Over three fourths of the women (78.7%) were afraid to seek assistance with COVID-19 related, general health, or mental health concerns during the COVID-19 pandemic (See Table 2). Nearly half (46.7%) of the women were somewhat or very much concerned enough with the COVID-19 pandemic to impact their assistance seeking for safety concerns.

Table 2

Prevalence of COVID-19 Stress Among a Sample of 60 Women over the COVID-19 Pandemic

	Not at all		*A little*		*Somewhat*		*Very Much*	
Event	*N*	%	*N*	%	*N*	%	*N*	%
Concerned with the COVID-19 crisis	2	3.3	13	21.7	30	50	15	25
Concerns with the COVID-19 virus stopped them from seeking assistance for COVID-19 related, other health general health, or mental health concerns	13	21.7	19	31.7	21	35	7	11.7
Concerns from the COVID-19 virus stopped them from seeking assistance for safety concerns	15	25	11	18.3	18	30	16	26.7

Coronavirus Anxiety

The women were questioned about their anxiety related to fear about the spread of coronavirus, which was expressed in repetitive thinking, worry, processing biases, avoidance, compulsive behaviors, fear, sleep disturbances, and somatic distress. Most women surveyed experienced some form of coronavirus anxiety (81.6%; See Table 3). Psychomotor retardation and trouble falling or staying asleep were the most frequently endorsed anxiety symptoms.

Table 3

Prevalence of Coronavirus Anxiety Among a Sample of 60 Women over the COVID-19 Pandemic

	Not at all		*Rare, less than a day or two*		*Several days*		*More than 7 days*		*Nearly every day over the last two weeks*	
Event	*N*	%	*N*	%	*N*	%	*N*	%	*N*	%
Feeling dizzy or lightheaded	15	25	7	11.7	17	28.3	13	21.7	8	13.3
Sleep disturbances	13	21.7	7	11.7	10	16.7	26	43.3	4	6.7
Psychomotor retardation	17	28.3	11	18.3	11	18.3	11	18.3	10	16.7
Eating disturbances	15	25	7	11.7	9	15	16	26.6	13	21.7
Somatic distress	17	28.3	9	15	15	25	12	20	7	11.7

Exposure to Interpersonal Violence

The sample was surveyed on the incidents of exposure to interpersonal violence events from each of the four dimensions (physical assault, assault with a weapon, sexual assault, uncomfortable or unwanted sexual experience,) and the type of exposure (experienced, witnessed, learned about it, part of job, and doesn't apply). Just under a third (30%) of the women said one or more interpersonally violent event happened to them (see Table 4) and 20% witnessed an event. The most frequently experienced violent event was an unwanted or uncomfortable sexual experience (30%), followed by a physical assault (20%) and sexual assault (20%). Eight of the women (13.3%) endorsed witnessing two or more interpersonal violent events during their lifetime. Twenty-six percent of the women endorsed experiencing two or more interpersonally violent event during their lifetime.

Table 4

Lifetime Prevalence of Interpersonal Violence Among a Sample of 60 Women

	No Violence Happened		*Part of their Job*		*Witnessed it*		*Happened to them*	
Event	*N*	%	*N*	%	*N*	%	*N*	%
Physical Assault	22	36.7	16	26.7	10	16.7	12	20
Assault with Weapon	45	75	5	8.3	12	20	1	1.7
Sexual Assault	33	55	8	13.3	8	13.3	12	20
Other Unwanted Sexual Experience	27	45	10	16.7	8	13.3	18	30

Interpersonal Violence During the COVID-19 Pandemic

Forty percent of the women sampled endorsed either experiencing or exposure to an interpersonally violent experience during the COVID-19 pandemic (See Table 5). One or more interpersonal violent event (10%) was reported to have happened during the COVID-19 pandemic.

Table 5

Prevalence of Interpersonal Violence Among a Sample of 60 Women Over the COVID-19 Pandemic

	No Violence Happened		*Part of their Job*		*Witnessed It*		*Happened to them*	
Event	*N*	%	*N*	%	*N*	%	*N*	%
Interpersonal Violence Exposure	39	65	11	18.3	7	11.7	6	10

Partner Abuse During the COVID-19 Pandemic

The sample of women were questioned on the incidents of partner abuse from each of the four dimensions (verbal, physical abuse, minor injury, property damage) and whether the event happened during the COVID-19 pandemic. Half (50%) of the women sampled reported partner abuse incidences within one of the four dimensions of types of partner abuse (See Table 6). Verbal abuse (insulted, swore at, yelled at) was the most

frequently endorsed partner abuse (40%). Minor injury (small cut, scrape, bruise) and personal property damage closely followed at 36.7% each. Physical abuse by a partner was the least endorsed at 31.7%, yet still remarkable.

Table 6

Prevalence and Frequency of Partner Abuse Among a Sample of 60 Women over the COVID-19 Pandemic

	Did not answer		*Not at all*		*Once or more*		*More than 20 times*	
Event	*N*	*%*	*N*	*%*	*N*	*%*	*N*	*%*
Verbal Abuse	18	30	15	25	24	40	3	5
Minor Injury	18	30	15	25	22	36.7	5	8.3
Physical Abuse	18	30	16	26.7	19	31.7	7	11.7
Property Damage	18	30	15	25	22	36.7	5	8.3

H1: Interpersonal Violence Experiences and Distress during COVID-19 Pandemic

Within this study, it was hypothesized that a significant relationship between interpersonal violence experiences, COVID-19 stress, and coronavirus anxiety would be present. A correlation table demonstrates a weak relationship between COVID-19 stress and Coronavirus Anxiety Symptoms (See Table 7).

Table 7

Correlations of Dependent Variables for H1

Measures	**1**	**2**
1. COVID-19 Stress	- -	
2. Coronavirus Anxiety	.12	--

Note: *Correlations are significant at the .05 level.

No statistical difference was found between COVID-19 stress or Coronavirus Anxiety scores when comparing women who reported interpersonal violence happening to them and those who did not (See Table 8).

Table 8

Results of t-test for COVID-19 Stress and Coronavirus Anxiety by Interpersonal Violence Happenings

Outcome	Group						95% CI for Mean Difference		
	No Violence			Interpersonal Violence Experiences					
	M	*SD*	*n*	*M*	*SD*	*n*		*t*	*p*
COVID-19 Stress	27.8	5.91	25	27.7	5.83	35	2.00, 2.43	.00	.47
Coronavirus Anxiety	9.36	6.09	25	8.89	6.55	35	2.25, 2.52	.28	.38

Note: * p < .05.

H1a: Exploration of Experiential Avoidance and Stress during COVID-19 Pandemic.

It was hypothesized that experiential avoidance would be a significant factor related to COVID-19 Stress. A linear regression analysis was conducted to test the hypothesis and the hypothesis was supported as the model was significant. Experiential avoidance explained 22% of the variance in COVID-19 stress (R^2 = .22, F (1, 59) = 16.25, p =.00).

H1b: Exploration of Depression and PTSD for Interpersonal Violence Experiences and Stress during COVID-19 Pandemic.

Within this study it was hypothesized survivors of interpersonal violence would have higher rates of Depression and PTSD. Table 9 t-test analysis demonstrates there was no significant difference between women who experienced interpersonal violence and

those who did not on depression scores, however there were significantly lower PTSD symptom scores (p = .02).

Table 9

Results of t-test for Depression and Posttraumatic Symptoms by Interpersonal Violence Happenings

Outcome	Group						95% CI for Mean Difference		
	No Violence			Interpersonal Violence Experiences					
	M	*SD*	*n*	*M*	*SD*	*n*		*t*	*p*
Depression	15.16	7.77	25	14.09	8.41	35	1.73, 2.75	.72	.24
PTSD	46.84	21.14	25	35.03	22.22	35	7.63, 8.73	2.08	.02*

H2: Effects of Experiences to Interpersonal Violence to COVID-19 Distress, Depression, & Posttraumatic Symptoms during COVID-19 Pandemic

It was hypothesized there would be a cumulative effect of exposure to stress and trauma. Specifically, those individuals with higher numbers of violent events would have higher levels of COVID-19 stress, coronavirus anxiety, depression, posttraumatic symptoms, and generalized distress. A correlational matrix was also developed to determine the relationships between COVID-19 stress, coronavirus anxiety, depression, PTSD symptoms, general psychological distress, and experiential avoidance (See Table 10). COVID-19 Stress and general psychological distress were found to have a strong correlation (r=.82), general psychological distress and depression (r =.91), as well as PTSD symptoms and experiential avoidance (r=.89).

Table 10

Correlations of Variables

Measures	1	2	3	4	5	6
1. COVID-19 Stress	- -					
2. Coronavirus Anxiety	.12	- -				
3. Depression	.74	.16	- -			
4. PTSD Symptoms	.30	.03	.46	- -		
5. General Psychological Distress	.82*	.10	.91*	.44	- -	
6. Experiential Avoidance	.46	.04	.57	.89*	.59	- -

Note: *Correlations are significant at the .05 level.

A multiple regression analysis was conducted to test the hypothesis and the hypothesis was not supported as the model was not significant. Interpersonal Violence experiences explained only 14% of the variance in COVID-19 stress, coronavirus anxiety, depression, PTSD, and general psychological distress (R^2 = .14, F (6, 59) = 1.49, p =.20).

H3: Partner Abuse Distress during the COVID-19 Pandemic*, *COVID-19 Distress

It was hypothesized women who experienced partner abuse would experience more COVID-19 related stress. Women who had experienced one type of partner abuse recently were not significantly more distressed, as measured COVID-19 Stress Scale. A t-test analysis demonstrates a non-significant relationship between women who have endorsed partner abuse during COVID-19 pandemic and their experience of COVID-19 stress (See Tables 11).

Table 11

Results of t-test for COVID-19 Stress by Partner Abuse

Outcome	Group						95% CI for Mean Difference		
	No Partner Abuse			Partner Abuse					
	M	*SD*	*n*	*M*	*SD*	*n*		*t*	*p*
COVID-19 Stress	25.75	5.21	12	27.60	5.76	30	2.15, 3.31	-1.01	.16

Note: * p < .05.

Chapter 6 Discussion

One out of three women experience interpersonal violence within their lifetime, typically at the hands of an intimate partner. During times of peace and stability this fact remains. During times of crisis, as with the COVID-19 pandemic, risks for interpersonal violence generally escalate. Women who have experienced interpersonal violence are more likely to access healthcare symptoms for a variety of abuse related reasons even though they do not explicitly disclose their interpersonal violent experience history (WHO, 2018). Understanding the psychological risks related to the functioning of women who experience interpersonal violence will help healthcare providers offer relevant instrumental support. Research on how patient concerns may be noted during the pandemic is needed.

The literature has consistently shown that the most common symptoms associated with interpersonal violence are post-traumatic stress symptoms and depression. There is also some evidence that experiential avoidance is a mediating factor of long-term psychological outcomes associated with trauma and stress (Cisler, et al., 2017; Hayes, et al., 1996; Palm, & Follette, 2011, Polusny & Follette, 1995). Very little is known about how these factors may be impacted during the social isolation imposed by the COVID pandemic. COVID precautions have been associated with a range of negative

psychological outcomes, and it is reasonable to assume that the increased isolation would exacerbate problems for women who experience or fear interpersonal violence. Moreover, it was deemed important to document how COVID-19 stress was associated with other psychological variables.

This study assessed the impact of interpersonal violence on stress and increased psychological symptoms experienced the during COVID-19 pandemic. Participants were recruited through Mturk, and after screening participants based on inclusion criteria, 60 met criteria. Response sets delivered under five minutes were excluded to safeguard the quality of data included. The sample ranged in age from 22 to 63 years old and most participants were Caucasian, married, and had a college education. Thirty percent of the women said one or more interpersonally violent event happened to them and 20% witnessed an event. The most frequently experienced violent event was an unwanted or uncomfortable sexual experience (30%), followed by a physical assault (20%) and sexual assault (20%). Thirteen percent endorsed witnessing two or more interpersonal violent events during their lifetime while twenty-six percent of the women had two or more interpersonally violent event happen to them during their lifetime. Half of the women surveyed endorsed some form of partner abuse during their lifetime.

In the study it was hypothesized that participants who experienced interpersonal trauma and partner abuse would endorse higher levels of PTSD, depression, COVID-19 related stress, and experiential avoidance compared to those who did not experience interpersonal violence or partner abuse. While interpersonal violence and partner abuse were not found to be a significant factor in increased stress and symptoms within this sample of women, the women did endorse COVID-19 stress, depression, generalized

psychological distress, and PTSD symptoms. COVID-19 stress was proposed to relate to increased symptomology.

COVID-19 stress measures describe how much an individual perceives a threat/risk related to a COVID-19 stressor (i.e., isolation, income loss, contamination, new work environments, childcare demands) and how capable they feel behaviorally and cognitively to adapt to it. The COVID-19 stress measure was comprised of factors related to the fear of the spread of COVID-19 virus and concerns that may result from social distancing. It was important to assess the fear of the spread of COVID-19 virus, as it was key to identify the potential constraining effects on assistance seeking. Likewise, assessing concerns that result from social isolation provides information on how a potential risk, social isolation, could impact women survivors of interpersonal trauma's experiences. Within this study, COVID-19 stress was found to be significantly related to the experiential avoidance endorsed by these women. Worry and concerns over a potential threat, like the COVID-19 virus, that negatively impacts their current life experience, yet is out of their control is not unlike the attempt to control thoughts and emotions internally, as is with experiential avoidance. COVID-19 stress was found to be correlated with general psychological distress. The General Health Questionnaire is a measure of general psychological well-being that factors include anxiety and depression, social dysfunction, and loss of confidence. These factors point to the potential impacts of the fear of COVID-19 virus and social isolation. Experiential avoidance was found to be highly correlated with PTSD symptoms. As experiential avoidance is thought to be a mechanism related to developing trauma symptoms, it is not surprising that experiential

avoidance is highly correlated to the PTSD symptoms assessed with these women (Palm, & Follette, 2011).

We did not detect a relationship between those participants who had experienced interpersonal violence and lower symptomology in PTSD, depression, or COVID-19 stress. This may well be a reflection or the lack of power to detect a statistical difference in outcome scores with relation to interpersonal violence experiences, or partner abuse compared to those who did not have these experiences. These findings do not support our hypothesis that participants who experienced interpersonal trauma or partner abuse experienced higher levels of COVID-19 stress or trauma symptomatology.

Regarding the impact of interpersonal violence, current findings suggest interpersonal violence may not be the factor that leads to increased stress during COVID-19 pandemic. The participants that did not disclose interpersonal violence had higher PTSD within this data, which is contradictory to findings from many studies on long-term problems associated with interpersonal violence. We may have missed assessing other important stressors that were more salient than interpersonal violence in this study. The COVID-pandemic has several additional impacts that have been noted. For instance, most of the partner abuse endorsed was verbal abuse. Assessing for psychological or financial abuse and/or coercive control would have possibly provided more information on the stress experienced during this time. The survivors or their family members may have been sick with the COVID-19 virus or cared for those who were infected with the virus. It is likely that some participants may have known friends or loved ones who died of the disease. Further identification and exploration of the effect of COVID-19 related stressors on the symptomology and stress of interpersonal survivor's experience is

important and a needed research area. Thus, in assessing stress in a population that is going through a major crisis, a wide range of stressors should be assessed.

Limitations and Future Work

As this study is retrospective in terms of assessing for previous interpersonal violence, there cannot be any direct assumptions about causality between participants' scores and outcomes. Causality cannot be determined in a retrospective study because of the many possible intervening variables outside the control of this study. In future research, it would be beneficial to conduct longitudinal studies of mental health outcomes of survivors of interpersonal violence so that casual assumptions can be made.

A limitation of this study was the difficulty in determining the magnitude of impacts of interpersonal violence experienced due to relying on participants self-reports. Further research may include a semi-structured interview component to accurately assess experience, and symptoms. The data drawn would be likely be more reliable, as it may reveal more overall themes regarding participants past and current experiences. Eighty responses were discarded from the data analyzation due to concerns with the genuineness of the responses. Many have criticized the quality of MTurk data, as there is a current debate in literature about the validity of data acquired in this way (Chmielewski & Kucker, 2019).

Additionally, it is also important to examine the experiences of men with history of interpersonal violence. While this was beyond the scope of our study, it is important to recognize that both men and women can be victims of violence.

Conclusion

The data were enlightening in women's experiences; most (96.7%) of the sample reported they experienced some level of stress and concern over the COVID-19 pandemic. Just under a third endorsed experiencing interpersonal violence over their lifetime and half endorsed current partner abuse. These findings point to an important point; interpersonal violence and partner abuse is happening, and the current health crisis may be impacting barriers to assistance and social connection. Survivors may be unaware how previous interpersonally violent experiences can impact current stress levels and responses to issues related to the COVID-19 pandemic. Conversely, current research has not yet identified how COVID-19 related stress has impacted survivors. Additionally, there is a need for long-term follow-up with survivors of interpersonal violence. Data from longitudinal studies would help researchers better recognize and understand any causal relationship between interpersonal violence and the development of trauma-related symptomology, which may impact everyday experiences. Despite the limitations of this study, it contributes to the growing body of literature in which understanding the experiences interpersonal violence is a challenge, as these women have developed specific strategies to protect themselves, which includes experiential avoidance, denial, and lack of disclosure. This study aligned with the World Health Organization's reports of one out of three women in the world experience physical and sexual violence in their lifetime, "which makes it the most widespread but among the least reported human rights abuses" (WHO, 2018, p. 1). It is the hope and intention of this author that through research efforts, interpersonal violent survivors will receive the attention and support they need to live in safety.

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Appendices

Appendix A: **Informed Consent**

Please read this consent document carefully before you decide to participate in the study.

Purpose of Study:

You are being asked to participate in a study that will examine stress related COVID-19 pandemic and interpersonal violence (childhood abuse, unwanted sexual experiences, physical assault, and intimate partner violence) experiences. The researchers will also examine the level of depression, post-traumatic symptoms, and difficulty obtaining assistance for health, mental health, or trauma/victim related services.

Procedures:

The survey will take approximately 35 minutes. The goal of this research is to determine the effects of interpersonal violence, depression, and posttraumatic stress on women during the COVID-pandemic. You will be asked to complete a series of questionnaires that asks questions about demographic information (i.e., age, gender, ethnicity, relationship status) questions about interpersonal violent experiences, your current relationship, your current psychological well-being, and experiences during the COVID - 19 pandemic.

Potential Risks of Participating:

Your participation may subject you to possible discomfort when answering survey questions. If you feel unsafe answering questions because of a potential threat in your home (i.e., an abusive partner), please attend to your safety first and exit the survey. If

you choose to you may return to the survey for completion when you are completely safe. The National Domestic Violence Hotline at www.thehotline.org for a live chat or call 1-800-799-7233 or text "START" to 88788 or The National Sexual Assault Hotline at www.rainn.org for live chat or call 1-800-656-4673 are resources you can contact if you do experience discomfort or safety concerns and would like to receive assistance from a with a trained support specialist.

Potential Benefits of Participating:

It is possible that there may be no direct benefits to you during or following the completion of the study, except for compensation and awareness of resources. However, the results of this study may provide useful information about the experiences of women during the COVID-19 pandemic, childhood abuse, sexual or physical assault, and intimate partner violence on women.

Compensation:

Following completion of the survey, you will receive $0.75 in your Amazon MTurk account.

Confidentiality:

Your name will not be recorded. Responses will be given an anonymous participant identification number, and no identifying information will be recorded with your responses. Thus, all information will be kept confidential.

Voluntary Participation:

Your participation in this study is voluntary. There is no penalty for not participating.

Right to withdraw from study:

You have the right to withdraw from the study at any time without consequence.

Whom to contact if you have questions about the study:

Dr. Victoria Follette

150 W. University Blvd.

Melbourne, FL 32901

Email: vfollette@fit.edu Phone: 321-674-8105

Whom to contact about your rights as research participant in the study:

Dr. Jignya Patel

150 W. University Blvd

Melbourne, FL 32901

Email: fit_irb@fit.edu Phone: 321-674-8104

Agreement:

Pressing the accept button below indicates that you agree to participate in this research and that: 1) You have read and understand the information provided above; 2) You are over 18 years old; 3) You understand participation is voluntary and that refusal to participate will involve no penalty or loss of benefits to which you are otherwise entitled; and 4) You understand that you are free to discontinue participation at any time without penalty or loss of benefits to which you are otherwise entitled.

1. Yes, I consent
2. No, I do not consent

Appendix B: **Recruitment Description**

Dear Participant,

We are specifically seeking women, 18 years of age and older. You must reside in the United States and be fluent in English. We would like to extend an invitation to you to participate in this current study. The questionnaires used in this study are brief and this entire survey takes approximately 35 minutes to complete. As an incentive to completing the surveying you will receive $0.75 in your Amazon M-Turk account following your completion of the study. Thank you in advance for your time and participation in this study.

Sincerely,

Melissa Fernandez, M.A., M.S.; Principal Investigator, Florida Institute of Technology

Victoria Follette, Ph.D.; Co-Investigator, Florida Institute of Technology

Appendix C: **Eligibility Screen**

Read the questions carefully. If you are unsure of the answer, fill in the answer which you feel is most applicable to you.

1. **Are you 18 years old or older**?
    - Yes
    - No
        - If no, participant will be redirected to end screen
2. **Are you female**?
    - Yes
    - No
        - If no, participant will be redirected to end screen
3. **Did you read and answer the above questions to the best of your ability**?
    - Yes
    - No
        - If no, the participant will be re-administered the question.

Appendix D: **Demographic Questionnaire**

Please fill out the following questions about yourself:

1. What is your gender?
    - Female
    - Other Specify (_____)
2. How old are you, in years? ____
3. What is your race/ethnicity?
    - White
    - Black
    - Hispanic
    - Asian
    - Pacific Islander
    - Native American
    - Biracial (_____)
    - Other Specify (_____)
4. Please select the description that most applies to you.

    Educational Scale
    - Professional (Master's degree, doctorate or professional degree).
    - College graduate
    - 1-3 years college or business school
    - High school graduate
    - 10-11 years of schooling

- 7-9 years of schooling

5. What is your relationship status?

    - Single
    - In committed relationship
    - Married
    - Divorced

Appendix E: **COVID-19 Stress Measure**
(Ellis, Dumas, & Forbes, 2020)

Read the questions through carefully. If you are unsure of the answer, fill in the answer which you feel is most applicable to you.

1. To what extent were you worried about how COVID-19 would impact your own or your family member's school year?
    - Very much
    - A little
    - Somewhat
    - Not at all
2. To what extent were you worried how about how COVID-19 impact your own and your family's finances?
    - Very much
    - A little
    - Somewhat
    - Not at all
3. To what extent were you worried about how COVID-19 would impact ability to keep up your reputation?
    - Very much
    - A little
    - Somewhat
    - Not at all

4. To what extent were you worried about how COVID-19 would impact you feeling connected to your friends?
    - Very much
    - A little
    - Somewhat
    - Not at all
5. To what extent were you concerned with the COVID-19 crisis?
    - Very much
    - A little
    - Somewhat
    - Not at all
6. How likely was it that you could become infected with the COVID-19 virus?
    - Very much
    - A little
    - Somewhat
    - Not at all
7. How likely is it that someone you know could become infected with the COVID-19 virus?
    - Very much
    - A little
    - Somewhat
    - Not at all

8. If you did become infected with the COVID-19 virus, to what extent are you concerned that you will be severely ill?
    - Very much
    - A little
    - Somewhat
    - Not at all
9. Did concerns from the COVID-19 virus stop you for seeking assistance for COVID-19 related, other health general health, or mental health concerns?
    - Very much
    - A little
    - Somewhat
    - Not at all
10. Did concerns from the COVID-19 virus stop you for seeking assistance for COVID-19 safety concerns?
    - Very much
    - A little
    - Somewhat
    - Not at all

Appendix F: **Short General Health Questionnaire (GHQ 12)**
(Goldberg & Williams, 1998)
Instructions: Select the box than best describes your answer to each question**. During the COVID-19 pandemic; had you?**

1. Been able to concentrate on what you're doing?	Better than usual	Same as usual	Less than usual	Much less than usual
2. Lost much sleep over worry?	Not at all	More than usual	Rather more than usual	Much more than usual
3. Felt you were playing a useful part in things?	More so than usual	Same as usual	Less useful than usual	Much less useful
4. Felt capable of making decision about things?	More so than usual	Same as usual	Less so than usual	Much less capable
5. Felt constantly under strain?	Not at all	No more than usual	Rather more than usual	Much more than usual
6. Felt you couldn't overcome your difficulties?	Not at all	No more than usual	Rather more than usual	Much more than usual
7. Been able to enjoy your normal day-to-day activities?	More so than usual	Same as usual	Less so than usual	Much less than usual
8. Been able to face up to your problems?	More so than usual	Same as usual	Less so than usual	Much less able
9. Been feeling unhappy and depressed	Not at all	No more than usual	Rather more than usual	Much more than usual
10. Been losing confidence in yourself?	Not at all	More than usual	Rather more than usual	Much more than usual
11. Been thinking of yourself as worthless person?	Not at all	More than usual	Rather more than usual	Much more than usual
12. Been feeling reasonably happy, all things considered	More so than usual	About same as usual	Less so than usual	Much less than usual

Appendix G: **Patient Health Questionnaire-9 (PHQ-9)**
(Kroenke, Spitzer, & Williams, 2001)

During the COVID-19 Pandemic, how often were you been bothered by any of the following problems?	Not at all	Several days	More than half days	Nearly every day
1. Little inters or pleasure in doing things?	Not at all	Several days	More than half days	Nearly every day
2. Feeling down, depressed, or hopeless	Not at all	Several days	More than half days	Nearly every day
3. Trouble falling or staying asleep, or sleeping too much	Not at all	Several days	More than half days	Nearly every day
4. Feeling tired or having little energy	Not at all	Several days	More than half days	Nearly every day
5. Poor appetite or overeating	Not at all	Several days	More than half days	Nearly every day
6. Feeling bad about yourself	Not at all	Several days	More than half days	Nearly every day
7. Trouble concentrating on things, such as reading newspaper or watching television	Not at all	Several days	More than half days	Nearly every day
8. Moving or speaking so slowly that other people could have notices? Or the opposite—being so fidgety or restless than you have been moving around a lot more than usual	Not at all	Several days	More than half days	Nearly every day
9. Thoughts that you would be better off dead or of hurting yourself in some way	Not at all	Several days	More than half days	Nearly every day
10. If you checked off any problems, how difficult had these problems made it for you to do your work, take care of things at home, or get along with other people?	Not at all difficult	Somewhat difficult	Very difficult	Extremely difficult

Appendix H: **Acceptance and Action Questionnaire-II (AAQ-II)**
(Bond, Hayes, & Bayer, 2011)

Below you will find a list of statements. Please rate how true each statement is for you during the COVID-19 pandemic by circling a number next to it. Use the scale below to make your choice.

1	2	3	4	5	6	7
Never true	Very seldom true	Seldom true	Sometimes true	Frequently true	Almost always true	Always true

1. My painful experiences and memories make it difficult for me to live a life that I would value.	1	2	3	4	5	6	7
2. I'm afraid of my feelings.	1	2	3	4	5	6	7
3. I worry about not being able to control my worries and feelings.	1	2	3	4	5	6	7
4. My painful memories prevent me from having a fulfilling life.	1	2	3	4	5	6	7
5. Emotions cause problems in my life.	1	2	3	4	5	6	7
6. It seems like most people are handling their lives better than I am.	1	2	3	4	5	6	7
7. Worries get in the way of my success.	1	2	3	4	5	6	7

Appendix I: **Life Events Checklist Standard (LEC-5)**

(Weathers, et al., 2013)

Instructions: Listed below are a number of difficult or stressful things that sometimes happen to people. For each event check one or more of the boxes to the right to indicate that: (a) it happened to you personally; (b) you witnessed it happen to someone else; (c) you learned about it happening to a close family member or close friend; (d) you were exposed to it as part of your job (for example, paramedic, police, military, or other first responder); (e) you're not sure if it fits; or (f) it doesn't apply to you.

Be sure to consider your *entire life* (growing up as well as adulthood) as you go through the list of events.

Physical assault (for example, being attacked, hit, slapped, kicked, beaten up)	Happened to me	Witnessed it	Learned about it	Part of my job	Not sure	Doesn't apply
Assault with a weapon (for example, being shot, stabbed, threatened with a knife, gun, bomb)	Happened to me	Witnessed it	Learned about it	Part of my job	Not sure	Doesn't apply
Sexual assault (rape, attempted rape, made to perform any type of sexual act through force or threat of harm)	Happened to me	Witnessed it	Learned about it	Part of my job	Not sure	Doesn't apply
Other unwanted or uncomfortable sexual experience	Happened to me	Witnessed it	Learned about it	Part of my job	Not sure	Doesn't apply
Did any of the above experiences happen during COVID-19 pandemic?	Happened to me	Witnessed it	Learned about it	Part of my job	Not sure	Doesn't apply

Appendix J: **PTSD Checklist-DSM 5 (PCL-5)**
(Weathers, et al., 2013)

Instructions: Below is a list of problems that people sometimes have in response to a very stressful experience. Please read each problem carefully and then circle one of the numbers to the right to indicate how much you have been bothered by that problem during the COVID-19 pandemic.

During the COVID-19 Pandemic how much were you bothered by?	Not at all	A little bit	Moderately	Quite a bit	Extremely
1. Repeated, disturbing, and unwanted memories of the stressful experience?	0	1	2	3	4
2. Repeated, disturbing dreams of the stressful experience?	0	1	2	3	4
3. Suddenly feeling or acting as if the stressful experience were actually happening again (as if you were actually back there reliving it)?	0	1	2	3	4
4. Feeling very upset when something reminded you of the stressful experience?	0	1	2	3	4
5. Having strong physical reactions when something reminded you of the stressful	0	1	2	3	4

experience (for example, heart pounding, trouble breathing, sweating)?					
6. Avoiding memories, thoughts, or feelings related to the stressful experience?	0	1	2	3	4
7. Avoiding external reminders of the stressful experience (for example, people, places, conversations, activities, objects, or situations)?	0	1	2	3	4
8. Trouble remembering important parts of the stressful experience?	0	1	2	3	4
9. Having strong negative beliefs about yourself, other people, or the world (for example, having thoughts such as: I am bad, there is something seriously wrong with me, no one can be trusted, the world is completely dangerous)?	0	1	2	3	4
10. Blaming yourself or someone else for the stressful experience or what happened after it?	0	1	2	3	4
11. Having strong negative feelings such as fear, horror, anger, guilt, or shame?	0	1	2	3	4

12. Loss of interest in activities that you used to enjoy?	0	1	2	3	4
13. Feeling distant or cut off from other people?	0	1	2	3	4
14. Trouble experiencing positive feelings (for example, being unable to feel happiness or have loving feelings for people close to you)?	0	1	2	3	4
15. Irritable behavior, angry outbursts, or acting aggressively?	0	1	2	3	4
16. Taking too many risks or doing things that could cause you harm?	0	1	2	3	4
17. Being “superalert” or watchful or on guard?	0	1	2	3	4
18. Feeling jumpy or easily startled?	0	1	2	3	4
19. Having difficulty concentrating?	0	1	2	3	4
20. Trouble falling or staying asleep?	0	1	2	3	4