COVID Burnout: A New Phenomenon?

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Table of Contents

Abstract

The COVID-19 pandemic has brought with it a range of issues and concerns for individuals. The fear of a potentially fatal disease, isolation, quarantine, being out of work and various restrictions have seen a steady increase in psychological distress. Contemporary research indicates that a specific type of burnout due to COVID-19 (COVID Burnout) is prevalent in the general population. As such, the present study aimed to investigate whether it was prevalent in this sample and to what extent. Furthermore, this study investigated if COVID Burnout (CB) could be mitigated using renowned and empirical supported variables that have previously decreased levels of burnout: resilience, social support, and optimism. The effects of CB on gender were also studied. A total of 145 participants completed questionnaires relating to CB, resilience, social support, and optimism as well as demographic variables. Results from a multiple regression analysis displayed that optimism, social support and resilience together predicted CB, however only optimism significantly predicted CB independently. Subsequently, a Mann Whitney *U* test revealed that women suffered from higher levels of CB than their male counterparts. Moderate levels of CB were also reported within the sample. Optimal interventions to increase optimism and interventions modelled to decrease burnout are discussed.

COVID Burnout: A New Phenomenon?

COVID-19 has aggressively spread across the globe in recent times (Yildirim et al., 2020). As of March 4th, 2021, there have been over 115,000,000 cases globally, of which 2,000,000 have resulted in deaths ("WHO Coronavirus Disease (COVID-19) Dashboard", 2021). Many people have seen themselves pushed into unprecedented times as lockdowns and vast restrictions have been put in place in many countries, due to the danger of the virus and the ease at which it spreads (Lancet, 2020). The enormity of COVID-19 virus has produced significant psychological problems due to these restrictions (Cao et al., 2020; Duan & Zhu, 2020; Marmarosh et al., 2020; Wang et al., 2020). Recent literature indicates the severity of the situation, as there has been steady a rise in prevalence of anxiety and depression due to COVID related issues specifically (i.e lockdown, isolation, quarantine), which has been well documented (Arslan et al., 2020; Atalan, 2020; Qiu et al., 2020). Researchers also discovered that those who have experienced long extended amounts of time in quarantine have presented increased levels of fear and frustration (Brooks et al., 2020). Continually, those who had to quarantine faced extremely high rates of emotional distress (Fernández et al., 2020; Qiu et al., 2020; Xin et al., 2020).

Ample evidence also suggests that the recent COVID-19 virus and its restrictions have caused a plethora of mental health issues and disorders, one of those being burnout (Fessell & Cherniss, 2020; Griffith, 2020; Kannampallil et al., 2020; Yildirim & Solmaz, 2020). Burnout is an emotional and psychological affection typically associated with working (Worley et al., 2008), although it has been seen in a variety of different contexts and samples such as sport, education, parenting, and frontline work/EMS work (Brunsting et al., 2014; Demir et al., 2003; Goodger et al., 2007; Mikolajczak et al., 2018). Even though there is no consensual definition of burnout (Bianchi et al., 2015), large portions of the burnout literature have been conducted under the pretence, set by Maslach and Jackson (1981), that burnout

consists of three core components: emotional exhaustion, cynicism (depersonalization) and personal efficacy/inefficacy. Burnout has continually been linked with a variety of negative outcomes such as insomnia, injury and mental health issues (Ahola et al., 2013; Armon et al., 2008; Morse et al., 2012). This concept of burnout has been the most used also, as entering the 21st century, it is estimated that the Maslach Burnout Inventory (MBI) was used in up to 90% of studies investigating burnout (Worley et al., 2008). Emotional exhaustion is essentially the withering away of emotional resources. Those who are emotionally exhausted report feelings of inability, depletion, and fatigue (Argentero et al., 2008). The depersonalization aspect (also known as cynicism) centres around the detachment of a worker from their tasks. They develop a sense of carelessness for the task at hand and their job in its entirety (West et al., 2009). Personal inefficacy refers to one's diminished sense or perceptions in regard to their ability to carry out their duty. Reduced levels of accomplishment usually imply that one feels as though they no longer possess competency (Argentero et al., 2008).

While originally designed to investigate burnout within the workplace, the three key fundamentals of burnout theory have shown to be amenable and non-prescriptive. For instance, the same method of analysing and measuring burnout has been seen in a wide variety of areas such as sport (Goodger et al., 2007), education (Salanova et al., 2010), illness (Honkonen et al., 2006) and parenting (Mikolajczak et al., 2018). Each of these different areas still used the fundamentals of the original three-dimensional theory but slightly altered each measurement. Continually, Maslach and Leiter (2016) describe the three-dimensional model as an individual stress experience that involves one’s cognition of the self and others in a social context, describing how broad the model is and not specific to one field (i.e occupation). Moreover, scales have been invented which have drawn inspiration from the MBI and the three-dimensional theory, such as the human services burnout scale (MBI-HSS)

(Maslach & Jackson, 1981), parental burnout scale (Roskam et al., 2017) and athlete burnout scale (Raedeke & Smith, 2001). As such, it is only natural that there will be some occurring overlap with these specific contexts as there is a high degree of congruence within burnout research. Moreover, other researchers have labelled burnout a multi-domain syndrome, stating that burnout cannot and should not be solely related to the occupational field alone (Bianchi et al., 2014). Bianchi and colleagues (2015) provide further rationale, stating that burnout related to occupation does not provide a solid basis for the singularity of burnout to operate within one specific domain (Bianchi et al, 2015). Other researchers have also drawn from other domains of burnout (occupation) to investigate their own areas and even developed interventions (athletics) (Gustafsson et al., 2017).

This provides rationale for the use of the burnout theory for COVID-19 specifically (Yildirim & Solmaz, 2020). A recent study by Yildirim and Solmaz (2020) aimed to assess burnout which could be due to a lengthy exposure to psychologically and emotionally demanding situations during the COVID-19 pandemic. Results of said study suggest that this new construct, known as COVID burnout (CB) seems to be prevalent in the general population (Yildirim & Solmaz, 2020). Furthermore, and as Yildirim specifically highlighted, there is a lack of research on the general population regarding CB. As of late, this has been the only study to look at the possibility that the COVID-19 world (i.e isolation, fear of sickness, lockdowns etc) can cause a specific type of burnout. Most of the burnout work regarding COVID-19 has been investigated in samples of nurses, frontline workers, and doctors (Talaee et al., 2020). As such, this study aims to further investigate the extent of CB in the general population. Also, while Yildirim and Solmaz (2020) identified the need for such a scale, they did not identify how CB can be mitigated. As such this study aims to investigate if it can be mitigated, using variables renowned for combatting the effects of burnout. Continually, and as previously stated, due to the overlap in burnout fundamentals,

this study proposes that these same factors that alleviate burnout can mitigate COVID specific burnout. Continually, this study aims to investigate if gender plays a role in CB, as such findings can further the understanding of this new construct.

The Mitigating Factors

Resilience

Resilience is primarily the stability of mental health throughout an exposure to a significant stressor (Herrman et al., 2011). While quite extensive, resilience theories have highlighted recurring factors, which consistently appear in the literature providing us with some information regarding its function. Resilience is regarded as a multidimensional construct consisting of many variables, both internal and external, such as personal difference, temperament, culture, social environment (Campbell-Sills et al., 2006; Mancini & Bonanno, 2009; Ungar, 2008). Evidence also suggests that biology plays a role in resilience, as research indicates that certain biological processes associated with resilience act as a buffer against the impact of stress (Feder et al., 2019). Furthermore, certain biomarkers have been identified as having a positive association with resilience, across every stage of life (Feder et al., 2019). Mancini and Bonanno (2009) dispute that a variety of characteristics such as coping strategies, social support, individual differences, and even exogenous resources (i.e physical fitness, financial resources) can determine the extent or levels of resilience from person to person (Nezhad & Besharat, 2010). Furthermore, many psychologists believe that resilience can differ significantly from one individual to another and is not specific to one person also, as research has shown that it can be seen in a variety of individuals (Davis et al., 2009).

Resilience as a construct itself is so vast and encompassing that Richardson (2002, p.309) described resilience as ‘metatheories providing an umbrella for most psychological and educational theories. Therefore, the research seems to indicate that resiliency is not a

characteristic which increases and decreases regarding the stressor to which it is prompted, but a more independent exclusive trait structured within each scenario and situation we find ourselves in. Continually, contemporary research within the last two decades describes resilience as an active process (Friedman et al., 2014; Friedman et al., 2016). Richardson (2002) prefers a more sequential structure for resilience, stating it comes in waves or stages, while other research has also noted the longevity of resilience as it has been documented in childhood, adulthood, and later life (Fuller-Iglesias et al., 2008; Luthar, 1993; Masten et al., 2004).

Ample evidence indicates that resilience is a fundamental component of combating burnout in a variety of conditions (Dunn et al., 2008; Murali et al., 2018; Vitali et al., 2015). Furthermore, ‘resilience plans’ (i.e increasing resilience through educational techniques) have been recommended and promoted in nurses to diminish burnout frequency (Rushton et al., 2015). In the same study, the result displayed that the author's specific resilience intervention programme explained 40% of the variance (linear regression) in each of the three aspects of burnout. Moreover, a greater level of resilience contributed to personal accomplishment and offered protection from emotional exhaustion. Other studies have also promoted the strengthening of resilience to decrease or mitigate the intensity levels of burnout (Back et al., 2016; Goldhagen et al., 2015). Back and colleagues initiated this by asking a sample of clinicians to draw on their ‘specific-resilience skills’, when they feel as though they perceive themselves to lack character or grit. This was instigated for clinicians to notice their skills/ develop an active repertoire in the face of adversity and was subsequently built on. While difficult to extract an intrinsic value such as resilience and mould into a successful intervention, it is worth noting that the literature indicates that characteristics such as self-compassion and mindfulness are a core component of resilience (Pidgeon et al., 2014) and can be thought to decrease levels of burnout (Olson et al., 2015). More specifically, a study

conducted by Yildirim and colleagues (2020) aimed to investigate certain properties of burnout that were specifically COVID related. Results indicated that resilience was negatively associated with COVID related burnout. A recent study found that lower levels of COVID related worries were associated with higher levels of resilience (Barzilay et al., 2020). This is the only study to assess levels of CB as of late. Empirical evidence indicates that by teaching small components shown to promote resiliency/resilience has shown to be successful in limiting the damage of burnout (Murali et al., 2018).

Optimism

Optimism can be defined as a personal construct that reflects, to a certain extent, the favourable view individuals possess regarding their future (Carver et al., 2010). Derived from the Theory of Learned Helplessness (Abramson et al., 1978), much of optimism research has centred around its key functions and its definition. The construct has been studied in different contexts, one being the dispositional model. Dispositional optimism is the general conception of the expectation of good things happening in the future and bad things being minimal (Scheier & Carver, 1992). The dispositional model is based on value-expectancy theories, stating that people tend to focus on the expectations of a certain thing happening to them. Due to this, subjects with relatively favourable goals will increase their effort in order to obtain said goal (Higgins, 2006). The dispositional theory also polarises optimism and pessimism, implying that both constructs are in a continuum of sorts and that the theory of optimism is unidimensional (Rauch et al., 2007). Essentially, pessimism and optimism are broad descriptions of doubt and confidence (Carver et al., 2010), but this confidence or doubt is pertained over extended amounts of time and not specific to each situation (Scheier & Carver, 1992). Thus, a person's level of optimism may relate to the perception of difficulty towards the task at hand or whether they give up altogether (Hayes & Wetherington, 2007). Therefore, optimists tend to be more confident and less stressed in times of challenge and

tend to persevere in difficult circumstances. While pessimists tend to display hesitance and apprehension in similar circumstances. Therefore, research shows that people who tend to be more optimistic have an easier time in social situations and forming relationships (Scheier & Carver, 2014). Optimists are believed to have flexibility in their behaviour and cognitive processing making it easier for them to align or adapt their beliefs when encountering a stressful event (Aspinwall et al., 2001).

In recent times, optimism was also shown to mediate the relations of COVID stress in adults (Arslan et al., 2020; Arslan & Yıldırım, 2021). While those more optimistic showed higher levels of preventative behaviours and lower levels of fear regarding the COVID-19 (Park et al., 2021). But how does optimism fair with burnout? It has continually displayed robust findings in mitigating the effects of burnout (Berengüí et al., 2013; Chen et al., 2008; Malagón-Aguilera et al., 2020). A 2000 study found that optimism was negatively correlated with cynicism and exhaustion in the MBI scale in a sample of part-time working college students. The study also displayed that there was a positive association between optimism and feelings of professionalism and accomplishment (Chang et al., 2000). Continually, Hayes and Weathington's (2007) results indicated that restaurant managers who displayed higher levels of dispositional optimism recorded lower levels of job burnout and stress. Optimism can also limit the extent of academic burnout and positively affect academic performance (Vizoso et al., 2019). With optimism also showing to be beneficial in mediating sport/athletic burnout (Berengui et al., 2013). Ample research points to the strength of optimism combating burnout, however, the bulk of research carried out has been cross-sectional, implying that the levels of optimism prior to the adversity is unknown. Longitudinal research however tells us that optimism is a relatively stable construct across periods of time (Atienza et al., 2004).

Social Support

Social support can be described as the experience or perception that one is part of a mutual social support network and is cared for (Taylor, 2011). Social support can come in a variety of forms and mediums from that of a friend, partner, family member, co-workers, and other community ties or even a house pet (Allen et al., 2002). There is a plethora of evidence showing the benefits of social support, as it has shown to be beneficial for those suffering from illness (Schwarzer et al., 2004), alleviating depressive and anxiety symptoms (Lin et al., 1999), improves ability to cope with stress (Coffman & Gilligan, 2002), can increase quality of life (Leung & Lee, 2005) and improve emotional regulation (Marroquín, 2011). With more relevance to the current study, social support has shown to be beneficial in such times, with the construct displaying that familial support has increased during the pandemic (El-Zoghby et al., 2020). Furthermore, social support decreased the risk of levels of depression and poor sleep quality in those in isolation (Grey et al., 2020). Medium to low levels of social support were also associated with higher levels of anxiety and depression in a sample of Chinese adolescents (Qi et al., 2020).

Social support consists of both structural and functional components of relationships (Hartley & Coffee, 2019). Thoits (1986) suggests that these structures and functions of social support can come in multiple forms. Thoits hypothesized that the assistance can come in the form of helping someone with their perception of a certain obstacle, changing the obstacle/problem itself or help change the individual's affective response to said stressful stimulus. Furthermore, behavioural taxonomies have categorized certain aspects of social support such as, informational (providing guidance), instrumental (tangible aid, financial support) and emotional (providing a source of comfort) (Taylor, 2011).

Perceived social support has continually shown to be strongly negatively associated with burnout (Coffman & Gilligan, 2002; Freeman, Coffee & Rees, 2011; Liu & Aungsuroch, 2019; Setti et al., 2016). Perceived social support showed to have a negative

association with burnout in a sample of Iranian nurses (Ariapooran, 2014). DeFresse and Smith (2013) indicated that perceived social support was inversely associated with burnout levels. Empirical evidence also suggests that social support can act as a mediator for burnout and other characteristics (Gabana et al., 2017). Moreover, Brouwers, Evers and Tomic (2001) displayed that teacher's level of perceived support controlled their level of burnout. A negative perception of their social environment also stopped teachers reaching out for support. In a sample of Turkish patients living with fibromyalgia, perceived social support was shown to have negative correlations of all three dimensions relating to burnout (Molero et al., 2018). Social support works against burnout by influencing our perception of our capabilities and resources to cope with stressful stimulus (Freeman & Rees, 2010). Scientific literature indicates that as social support increases, levels of burnout decrease.

The relationship between social support and burnout robust and comprehensive. The vast number of different samples of individuals operating in different domains (students, nurses, teachers, athletes) gives hope that social support may have similar positive effects for CB. Withal, the results are staggeringly positive, with social support shown to be a critical factor in minimizing the deleterious effects of burnout, particularly perceived social support. Hartley and Coffee (2019) indicated that perceived social support outperformed received social support regarding levels burnout and stress. DeFresse and Smith (2013) also showed that perceived social support was inversely associated with burnout, while received support was not an important correlate of burnout. Perception was shown to have a significant effect on reaching out for support also (Brouwers, Evers & Tomic, 2001). As such, perceived stress will be measured during this study.

Gender and Burnout

Intricacies in characteristics of men and women, difference and research methods all seem to play a role in the level of inconsistencies on levels of burnout and gender (Purvanova

& Muros, 2010). The empirical evidence in this matter can be somewhat inconclusive and conjectural. Again, these specific burnout studies have been attempted across different areas, all leading to rather inconcistent results. It appears women tend to score higher on more dimensions than men do (Backović et al., 2012; Cecil et al., 2014). For example, women will score high on emotional exhaustion and personal inefficacy, while men will score higher on detachment/cynicism (Backović et al., 2012). This has been seen in job-related, athlete-related and student-related contexts (Cecil et al., 2014; Templeton et al., 2019). However, from a comprehensive review of the literature, women are seemingly slightly more affected by burnout than males, regarding overall burnout scores (Cecil et al., 2014; Innstrand, et al., 2011; Salmela-Aro et al., 2018; Smith et al., 2010; Templeton et al., 2019).

Continually, contemporary literature on the psychological effects of the COVID-19 virus (isolation, social distancing, fear of sickness) have indicated that women are more likely to suffer from psychological distress than men (Mazza et al., 2020). Mazza and colleagues (2020) also indicated that women are more at risk of feeling stressed, depressed, and anxious in comparison to men. Moreover, Power (2020) indicated that women are feeling the burden of the current climate, as the need for home care increases due to the COVID-19 pandemic (i.e around the clock care, homeschooling, out of work etc). While this is a study on the investigation of burnout, these studies must be considered due to the current pandemic we are now living in.

The Current Study

Ample evidence suggests that burnout is indeed a potent and deleterious phenomenon to the individual's mental and physical health (Toppinen-Tanner et al., 2005). What makes it such a threatening and critical issue is the wide variety of predictors in which it can be triggered or related back to (Shanafelt & Dyrbye, 2012). Research also indicates that COVID related stressors can and have been conducive to burnout, Yildirim and colleagues showed

that resilience is an efficient characteristic in the fight against COVID specific burnout. Moreover, this could perhaps give an indication that many of the mitigators of burnout could be an efficient tool against CB. Furthermore, and as Yildirim highlighted, there is insufficient evidence on the factors that suppress CB. While there is evidence to suggest that CB can be softened or weakened, the research is specific to frontline workers alone. As we know from previous research (Xiao et al., 2020), the results would not be generalizable to the general population, as the stressors from frontline working and their similarity to CB are unknown.

The three variables explained above (optimism, resilience, and social support) have consistently indicated that they are effective in combating burnout. These constructs have been the foundations of interventions created and applied to manage burnout in certain populations, of which have been successful (Rushton et al., 2015; Back et al., 2016). If effective, perhaps a similar intervention could be put into place using these variables. It is worth noting however that no prior research has been conducted with these three variables together and burnout, as such the inter-relationship between them is unknown. Similarly, investigating whether male or females suffer more intensely from CB could also further studies and promote interventions. While gender and burnout studies remain inconclusive, studying gender and CB further develops CB as a construct and enables a more intensive understanding. Moreover, CB and gender are relatively new and unknown, with no other study having investigated CB and gender. This study aims to investigate if levels of CB are high within the sample, and if so, can it be decreased and by which factors. Withal, true investigating prior research, this study has developed the following hypotheses:

1. Resilience, Optimism and Social Support (PV's) will all decrease levels of CB (CV)
2. Females will have higher levels of CB than their male counterparts.

Methodology

Participants

A total of four scales were completed by approximately 145 participants. The sample consisted of 59 males (40.7%) and 86 females (59.3%). The participants ranged from 18 - 63 years old (M = 30.53, SD = 11.90). The participants were recruited via social networking sites (Facebook). As a goal of this study was to assess the level of COVID burnout within the general population, simple random sampling was used to obtain results specifically generalizable to the population. The majority of the sample declared an average socioeconomic status (75.2%). The sample showed a relatively high level of education with just below half having a bachelor's degree (45.5%). Of the 145, 27 (18.6%) participants reported at least one family member having been diagnosed with COVID-19, while only 1 (.70%) participant reported having been diagnosed with COVID-19. Out of the 145 participants, 97 reported either being married (24.1%) or being in a relationship (42.8%)

Design

The study was quantitative and cross-sectional. For hypothesis 1, a multiple regression was conducted using four variables. Resilience (CD-RISC), optimism (LOT-R), social support (MSPSS) acted as predictor variables while levels of COVID burnout (COVID-BS) was the criterion variable. For hypothesis 2, a Mann - Whitney U Test was conducted to assess the difference between gender (IV) regarding levels of COVID burnout (DV). Gender was split into two categories: male and female. Level of COVID burnout was measured by the COVID-19 BS.

Materials

The study questionnaire was design using google docs. Question regarding the participants demographic information were asked to build a general understanding of the sample. Demographic questions included age, gender, residence, level of education,

socioeconomic status, marital status, and questions regarding if participants received a personal and or a family member COVID diagnosis.

***The COVID-19 Burnout Scale*:**

The COVID-19-BS was adapted from the BSMV and consists of 10 items. To adapt the scale, questions tailored around the workplace were replaced with 'COVID-19'. For example, 'How do you feel when you think about COVID-19. It is a 5 item likert scale ranging from 1 (never) to 5 (always). Scores are calculated by summing all 10 items. The score range is 10-50. Higher scores are indicative of higher levels of burnout. The time scale used was present. The scale showed good to excellent information in regard to the construct burnout, with factors ranging from .58-.88. A high internal consistency was reported with the Cronbach's reliability (.92) (Yildirim et al., 2020). Furthermore, the study split the sample randomly, with item-total correlation ranged between .58 - .85 in the first sample and .60 - .82 in the second sample. In the current study a Cronbach's alpha coefficient of .88 was reported

The Connor - Davidson Resilience Scale

The CD-RISC (Connor & Davidson, 2003) comprises 25 questions. Each one rated on a 5-point likert scale, which has a range of 0 (*not true at all*) to 4 (t*rue nearly all the time*). The minimum score is 0 and the maximum 100. Higher scores indicate higher levels of resilience. Subjects are asked to answer based on how they have felt over the past month. Reliability and validity have shown to be sufficient. Cronbach's Alpha score of .89. Test-retest reliability showed to be sufficient, with an intraclass correlation score of .87. In the current sample a Cronbach's alpha coefficient of .90 was reported.

The Life Orientation Revised Scale

The LOT-R is a 10 item likert scale, only 6 of the 10 items are used to generate a score of optimism. Of the 6 items, 3 are worded in a positive (items 1, 4 and 10) way (e.g in

uncertain times I usually expect the best) while the other 3 (items 3, 7 and 9) are worded in a negative way (e.g., if something can go wrong for me it will). The other 4 items (items 2, 5, 6, 8) are fillers and are not used when calculating a score (e.g it is important for me to keep busy). Higher scores indicate higher levels of optimism. Participants are instructed to answer each question honestly and to not let certain answers influence others. Participants are asked to state how much they agree with a statement using a range of 0 (*strongly disagree)* to 4 (*strongly agree).* The time scale used was present. A maximum score is 24 and a minimum score is 0. A Cronbach's alpha for the entire six items involved in scoring was .78 (Scheier and Carver & Bridges, 1994). The LOT-R has shown to be stable over time also, with test-retest reliability of .68 (4 months), .60 (12 months), .56 (24 months) and .79 (28 months). Cronbach's alpha of .90 was reported in the current study.

The Multidimensional Scale of Perceived Social Support

The MSPSS is a 12-item scale. It is a 7 type likert scale, in which the scores range from 1 (v*ery strongly disagree*) to 7 (*very strongly agree*). A sum of the 12 items provides a total score for the scale, providing a range of scores from a minimum of 12 to a maximum of 84. The scale consists of three subscales: Family (items 1, 2, 5, 10), Friends (items 6, 7, 9, 12) and Significant Other (items 3, 4, 8, 11). Higher scores indicate higher levels of social support. Reliability for the three subscales of significant other, family and friends were .91, .87, .85 respectively. A Cronbach's alpha .88 was reported for the entire scale (Zimet, Dahlem, Zimet & Farley, 1988). A Cronbach's Alpha coefficient of .78 was reported for this study.

Procedure

Participants were recruited via a social networking site (Facebook). When participants clicked on the link, they were met with a participation information sheet which outlined the role of the participant in the study, what was required of them, what was being tested and how long it would take to complete. Participants were also informed that their data is

confidential, unidentifiable, and anonymous. Once participants read the information sheet describing the study, they were then asked if they consented and if they were over the age of 18. Consent was given in the form of simply clicking yes on both questions. Access to the form was not allowed until consent was provided.

Participants filled out their demographic information and then the four scales. The scales which were presented were the COVID-19 Burnout Scale (COVID-19-BS), The Connor-Davidson Resilience Scale (CD-RISC), The Multidimensional Scale of Perceived Social Support (MSPSS) and The Life Orientation Scale Revised (LOTR) (in that order). Once each scale was finished participants clicked 'next' and would be brought to the next scale. Once each scale was complete the participants were then brought to a debriefing form which thanked them for their time and included the researchers and the supervisors contact details.

Ethical Considerations

Further helplines were also presented in case of a participant feeling distressed due to their participation, which is highly unlikely as a potential risk which comes to mind could possibly be if a participant who is taking part has had COVID themselves or has possibly lost someone due to COVID. However, this risk is considered minimal as almost everything surrounding us in these difficult times is generating COVID awareness (i.e face masks, social distancing, limited numbers in social areas, constant reminder to sanitize/wash hands). In its entirety the survey took no longer than 10 minutes to complete.

Results

Descriptive Statistics

A total of 145 participants from this sample provide the current data (n = 145). The current sample consisted of 40.7% males (n = 59) and 59.3% (n = 86) females. As many as 47.6% of participants (n = 69) resided in urban areas, closely followed by suburban, which was 42.8% (n = 62). The remaining 9.7% (n = 14) lived in a rural area. The sample showed a relatively high level of education with just below half, 45.5%, having a bachelor's degree (n = 66). Furthermore, 97 participants had a partner, with 24.1% (n = 35) married and 42.8% (n = 62). Of the entire sample, 18.6% (n = 27) participants reported at least one family member having been diagnosed with COVID-19, while only .70% (n = 1) participant reported having been diagnosed with COVID-19.

There are four continuous variables which consist of COVID burnout, resilience, optimism, and social support. Mean, standard deviation, minimum and maximum scores are displayed in the table below (see Table 1)

Table 1

Table for descriptive statistics – continuous variables

Variable	Mean	Median	*SD*	Skewness	Kurtotis	Minimum	Maximum
COVID Burnout	29.83	30	8.77	.10	-.86	12	50
Resilience	68.79	69	13.42	-.22	-.58	32	93
Social Support	67.54	69	13.29	-1.05	1.35	20	84
Optimism	13.20	13	4.77	.01	.00	0	24

Inferential Statistics

Levene's test of equality for variance was conducted, with results indicating a non-significant result for COVID Burnout (p =. 42), implying that the data is not in violation of

the assumption of homogeneity. However, COVID Burnout total was non-normally distributed, as such, a non-parametric Mann-Whitney *U* test was conducted to compare levels of COVID Burnout between males and females. The Mann-Whitney *U* test revealed a significant difference in the COVID Burnout levels of males (*Md* = 26, **n** = 59) and females (*Md* = 33, **n** = 86), *U* = 3134, z = 2.41, *p* = .016, r = .20

A standard multiple regression analysis was performed to investigate to what extent can resilience, optimism and social support mitigate the level of COVID burnout. Preliminary analyses were conducted to ensure that no violation of the assumptions of normality, linearity, multicollinearity, and homoscedasticity. Furthermore, correlations between the predictor variables and the outcome variables were examined. All correlations were weak to moderate, ranging between r = -.27, p < .001, r = -.16, p < .026 and r = -. 41, p < .000 (see Table 2). All predictor variables were statistically significantly correlated with levels of COVID burnout which indicates that the data was suitably correlated with the outcome variable for examination through multiple linear regression.

Table 2

Correlations between all continuous variables.

Variable	1.	2.	3.	4.
1. COVID Burnout	1			
2. Resilience	-.27***	1		
3. Social	-.16*	.35***	1	
4. Optimism	-.41***	.41***	.20**	1

Note: Statistical significance: *p < .05; **p < .01; ***p < .001

Since no *a priori* hypotheses have been made to determine the order of these variables, a direct method was used for this analysis. The three independent variables explained 18% of the variance in levels of COVID burnout (F (3, 141) = 10.366, p = < .0005) (see Table 3).

In the final model optimism was the only variable that significantly predicted the outcome variable ($\beta = -.356$, $p < .000$). This result indicates that increased levels of optimism mitigate the levels of COVID burnout. Implying that as levels of optimism rise, levels of COVID burnout decrease and vice versa.

Table 3

Template for standard multiple regression table

Variable	R^2	B	SE	β	*t*	*p*
Model	.181					
Resilience		-.065	.057	-.099	-1.125	.262
Social Support		-.037	.054	-.056	-.691	.491
Optimism		-.655	.154	-.356	-4.244	.000

Note: R2 = R-squared; β = standardized beta value; B = unstandardized beta value; SE = standard errors of B; *p* = statistical significance; N = 145.

To summarize hypothesis 1, all three variables play a significant role in the regression model. However, optimism is the only variable to be significantly predicting COVID burnout. This is to say that when levels of optimism rise, levels of COVID burnout decrease and vice versa. As such, results indicate, that optimism can mitigate levels of COVID burnout. While the other two variables made the regression statistically significant, nether resilience or social support were significant enough to predict COVID burnout independently. As for hypothesis 2, results indicated that there was a significant difference between males and females regarding level of COVID burnout, with females displaying higher levels of burnout than their male counterparts.

Discussion

A key aim of this study was to provide insight into CB, through investigating its prevalence in the general population. Furthermore, this study aimed to investigate whether three variables: optimism, resilience and social support could mitigate the levels of CB. The current study also aimed to investigate which sex was more likely to have higher levels of CB. Prior research indicates that optimism, resilience, and social support play key roles in combating/alleviating levels of burnout (Aungsuroch, 2019; Berengüí et al., 2013; Murali et al., 2018). These three variables were seen to have positive effects in many samples such as nurses, frontline workers, athletes, students, workers, those with severe illness etc (Back et al., 2016; Berengui et al., 2013; Coffee & Rees, 2011; DeFresse & Smith. 2013; Vizoso et al., 2019). Continually, while investigated in different samples under separate conditions, each burnout study operated in the same capacity. Maslach and Leiter (2016) describe the three-dimensional model as an individual stress experience that involves one's cognition of the self and others in a social context, describing how broad the model is and not specific to one field (i.e occupation). Therefore, this study operated on the pretence that results seen in social support, resilience and optimism studies that related to burnout and were consistent across many samples in different contexts, would be seen in a COVID-19 specific context, as it is fundamentally rooted in the three-dimensional model also.

The results displayed that of the three variables, optimism was the only one to significantly predict COVID burnout, implying that as optimism rises CB levels decrease and vice versa. Moreover, this study also aimed to investigate which sex was more likely to have higher levels of CB. Results indicated that women showed higher levels of CB than their male counterparts. More interestingly, the results displayed that the sample had a moderate level of CB, with the mean statistics just under 30 out of a possible score of 50. An indication that the general population seems to be suffering from a moderate level of CB. Hypothesis 1

was accepted, while hypothesis 2 was partly accepted. Resilience and social support did not make a unique statistically significant contribution in predicting CB, yet optimism did.

For hypothesis 1, the regression model, while statistically significant itself, only provided around 18% of the variance of CB. This is quite a low percentage. Perhaps the reason for the model doing rather poorly in explaining CB is again due to its novelty. While both resilience and social support are typically negatively associated with burnout, little is still known about burnout in a COVID context specifically. There are a plethora and multitude of reasons as to why optimism may have been the only factor to significantly predict CB. In accordance with prior burnout research, results display that optimism can be a tool to alleviate levels of burnout (Chen et al., 2008), with the current study showing stronger negative association between burnout and optimism than past studies (Hayes & Weathington, 2007) Moreover, this is yet another burnout context in which optimism can lower levels of burnout, as it has already been seen in a variety of job-related and athletic-related areas (Berengüí et al., 2013; Malagón-Aguilera et al., 2020). Optimism may have worked to lower levels of CB due to the flexibility optimists possess to adapt their cognitive processes and behaviour in the event of a stressor (et al., 2001). As was touched upon earlier, literature indicates that optimists may find it easier to adapt their mindset in a positive manner (Carver & Gaines,1987). Optimists are more likely to conceive a plan for a difficult situation and have a positive outlook on said situation. This may explain why optimism was the only variable to make a unique prediction in regard to CB, as the optimistic individual's perception of their competence and ability in tackling stressful conditions is rather robust and consistent (Carver & Scheier, 2014).

It is possible to make the connection that optimism interventions may help in reducing levels of CB. Malouff and Schutte (2017) meta-analysis illustrated that individuals can increase levels of optimism through psychological intervention. Continually, similar

interventions indicate that certain educational techniques can increase levels of optimism (Mohammadi et al., 2018; Lee et al., 2006). A plethora of interventions have been noted to be successful in increasing levels of optimism such as self-compassion, positive psychology, and cognitive behavioural therapy techniques (Drozd et al., 2014; Knaevelsrud et al., 2010; Smeets et al., 2014). However, numerous studies indicate that the Best Possible Self (envision the self in a future in which everything has turned out successfully) method may be the most efficient and consistent method of increasing levels of optimism (Malouff & Schutte, 2017; Peters et al., 2010). Meevissen and colleagues (2011) investigated the effect of daily imagery of BPS on optimism. Results displayed that daily imagery of BPS for two weeks showed a significant increase in optimism. Moreover, BPS showed that level of optimism did not matter, those in high and low levels of dispositional optimism profited from the intervention. A 2013 study by Peters indicated that BPS led to a significant increase in optimism, in comparison to the control group. Furthermore, levels of optimism continued to rise following the conclusion of the intervention (Peters et al., 2013).

Furthermore, coping strategies-based interventions which include increasing optimism have shown to be effective in mitigating the effects of burnout (Chang & Chan, 2015; Chesney et al., 2003). Again, many of these interventions are successful due to the fundamental tie they possess with the mechanism of optimism, expectancy - value models operate on the assumption that confidence will increase when progression is being made towards a goal (Carver & Scheier, 2014). Moreover, Sergeant and Mongrain (2014) study indicates that these specific interventions can be performed online, which would be more ideal and efficient due to current COVID restrictions. However, studies in person were shown to have higher effect sizes in terms of level of optimism when compared with those which were completed entirely online (Malouff & Schutte, 2017). As prior research indicates, there are a multitude of ways and effective interventions that increase levels of optimism. Perhaps,

if further studies indicate that CB is high in other samples, optimism could be used to reduce its levels. It is practical and feasible to implement some of these interventions outlined above, with some even applicable online, in line with COVID restrictions if necessary.

Conversely for hypothesis 1, both resilience and social support did not make a statistically significant contribution to predict CB independently, contrary to prior literature (Coffman & Gilligan, 2002; Rushton et al., 2015). Social support usually increases during times of crisis, as the evidence indicates (Chan et al., 2015). However, there is a high likelihood that the majority of this sample were Irish, and this questionnaire was released during level 5 lockdown in Ireland. This implies that participants were not able to engage in sufficient social engagements due to the stringent covid restrictions, even though perceived social support was relatively high within the sample. Currently, however, Ireland is once again in level 5 lockdown. A study conducted by Burke and colleagues (2020) on the Irish population showed that 69% of participants answered 'quite a lot' when being asked if they suffered due to not being able to meet up with their extended friends and family. This could perhaps mean that social support networks may be potentially damaged due to the restrictions put in place from COVID-19. The novelty of living in a world still affected by COVID-19 is still potent, and to date there is no research on social support and its effects on burnout in current society. Unfortunately, there is a dearth of evidence regarding social support and its role in mediating the deleterious effects seen in a COVID-19 world (Grey et al., 2020). With reference to resilience, research suggested that it could perhaps be a promising factor in lowering levels of burnout (Vitali et al., 2015). Resilience was also one of the only variables studied in the context of CB (Yildirim & Solmaz, 2020), and it showed to predict COVID-19 burnout along with COVID specific stress. However, there may be some contextual differences in regard to the sample they used when compared with this studies sample. The prior study was carried out solely on Turkish adults, which could perhaps explain why

resilience showed to predict CB in the Yildirim and Solmaz sample but failed to do so in this particular sample. It is unknown as to what, if any restrictions were in place at the time in Turkey. The societal issues the virus has brought along with it such as the effects of isolation, social distancing, lockdowns, fear of severe illness and their impact on wellbeing are simply not fully understood yet. Perhaps variables such as resilience and social support are affected by the new COVID lifestyle or mediated by other variables, thus affecting their relationship with CB. Reminding us that again, while all burnout literature is comparable and related, it is not completely identical. CB may have separate qualities and effects than athletics or the workplace for example, as burnout is a very contextual subject. There are several different characteristics and variables that can decrease levels of burnout. This study simply chose the most empirically promising and researched variables, regarding overall burnout literature. It is feasible that other variables can limit the extent to which CB can have. Empirical evidence suggests that certain personality traits, hardiness, age for example can play a role in levels of burnout (Ahola et al., 2008; Henderson, 2015; Swider, 2010). As CB is still unknown, relatively speaking, further studies should investigate which other variables play a role in stopping its increase.

As for hypothesis 2, results indicated that women suffer from higher levels of CB. While studies regarding gender are inconclusive for the most part, this result is in line with recent literature. Studies show that sex played a role in predicting psychological distress in a COVID-19 context, as females were significantly more likely to experience psychological distress than males (Mazza et al., 2020). This is relatively in line with prior literature also, as the majority of the studies tend to suggest women are more susceptible to experience higher levels of burnout in comparison to men (Cecil et al., 2014; Innstrand, et al., 2011; Salmela-Aro et al., 2018). While it remains unclear how or why men and women differ in regard to burnout, this study has laid the foundations for future research by finding a difference

between males and females. Future research should focus on the mechanism and factors that play a role in CB in regard to men and women. For example, the evidence that female gender has been associated with higher levels of stress, anxiety, and depression (Mazza et al., 2020) may play a role in the increase of CB. Continually, at home care has been significantly increased due to COVID-19 isolation, and research suggests that women with families are suffering due to the growing burden of care (Power, 2020), which could also play a role.

While the overall sample showed moderate levels of CB, it is relatively unclear what this means yet. CB specifically has not yet been linked to any type of disorders/issues due to its novelty. However, if general burnout literature is a marker in which to judge, CB could in fact be quite deleterious in many ways, as even moderate levels of burnout have been linked with a variety of issues across multiple different domains (Lemyre et al., 2008; Nyssen et al., 2003; Rosales et al., 2013; Wang et al., 2015). These concerning consistent trends within the literature of burnout could perhaps give insight into ways to mitigate levels of CB, as there have been many interventions created to tackle area-specific burnout. These interventions have shown to work on athletes, nurses, office workers and frontline workers, to name a few, in relation to lowering levels of burnout (Awa et al., 2010; Gustafsson et al., 2017; Wei et al., 2017). However, research shows that these interventions can be person and/or group based (Awa et al., 2010). Perhaps this could work in a COVID setting, as many are in and out isolation and sharing houses with family members/housemates. Therefore, perhaps it could be beneficial in these types of circumstances.

However, these interventions are very specific to whatever domain of burnout they are chosen to mitigate (i.e., occupation, athletics). It is relatively clear that these specific designs would not work in a COVID specific setting. However, what can be taken from past research, is that levels of burnout can be reduced by some type of intervention. Further studies should look at developing a template or model designed to combat CB specifically.

For example, previous models have looked to take a cognitive approach, with many interventions using cognitive behavioural therapy (CBT) to alleviate levels of burnout (Ahola et al., 2017). CBT interventions have shown to reduce levels of burnout in all three dimensions (emotional exhaustion, personal efficacy, and cynicism) (DeVente et al., 2008; Blonk et al., 2006), and have also shown to be effective on a personal and group level (Ahole et al., 2017). Moreover, this studies sample reported higher levels of burnout than Yildirim and Solmaz (2020) sample, yet that is relatively unclear as to what that means. The CB scale did not use subscales of the three dimensions to develop more of an intensive understanding and Yildirim and Solmaz did not highlight a threshold or certain level to which CB can be described as high or low, dangerous or safe. Continually, while derived from the Maslach Burnout Short Version (MBS), the COVID-19 scale used a 5 likert system rather than the MBS 7-likert system, thus making it difficult to compare against other burnout studies.

Limitations

The lack of evidence on CB is a clear and obvious limitation. As it is a relatively new construct it is difficult to infer what effect CB can have on an individual as it has only been investigated in a handful of samples. This is similar for CB's alleviating factors also. The COVID-19 Scale is a relatively new scale and has only been used in one other study, excluding this one. Furthermore, many of the MBI derived scales use its three dimensions when measuring its prevalence: emotional exhaustion, detachment, and personal inefficacy. The COVID-19 scale does not include any subscales in its measurement, making it difficult to acquire an accurate level of its prevalence in the general sample. Moreover, Yildirim and Solmaz (2020) did not necessarily describe how the three dimensions operate together and within a COVID-19 specific context. Therefore, it is difficult to assess what dimension (emotional exhaustion, cynicism, and personal inefficacy) is causing the most amount of distress precisely. This scale has only been used once in a sample of Turkish adults and many

of the participants of this study were likely to be Irish adults. Due to this, the generalizability of CB is essentially specific to two sets of samples as it is unknown to what extent the prevalence/effects of CB would have in another country or with a separate sample (children for instance). Finally, this research is cross-sectional and self-reported measures were used to obtain the data.

Conclusion

To conclude, CB is a potential new phenomenon, with results displaying a moderate level in this sample. Furthermore, optimism has shown as a key factor in combating levels of CB. Upon investigation it was also discovered that females are more likely than males to have higher levels of CB. This may be due to compelling literature suggesting that overall, women seem to be more vulnerable to psychological distress during these COVID-19 times. Withal, this study has provided insight and furthered the understanding of CB. Therefore, it is imperative that more knowledge is incrementally and gradually acquired about CB, its prevalence, its' possible outcomes, and which factors can optimally decrease its levels. Optimism may be one of these factors, and the literature suggests that interventions can increase levels of optimism, with these interventions being effective in a burnout setting also. Moreover, specific burnout interventions have shown to be successful in minimizing levels of burnout, as such maybe these burnout interventions may offer a template going forward to successfully create a CB specific intervention if the need arises. The three-dimensional theory was also broadened as a result of the study. This study pushed the three-dimensional theory forward, into another new domain, that is COVID specific burnout. Hopefully, this study lays down the marker which stimulates future research regarding CB.

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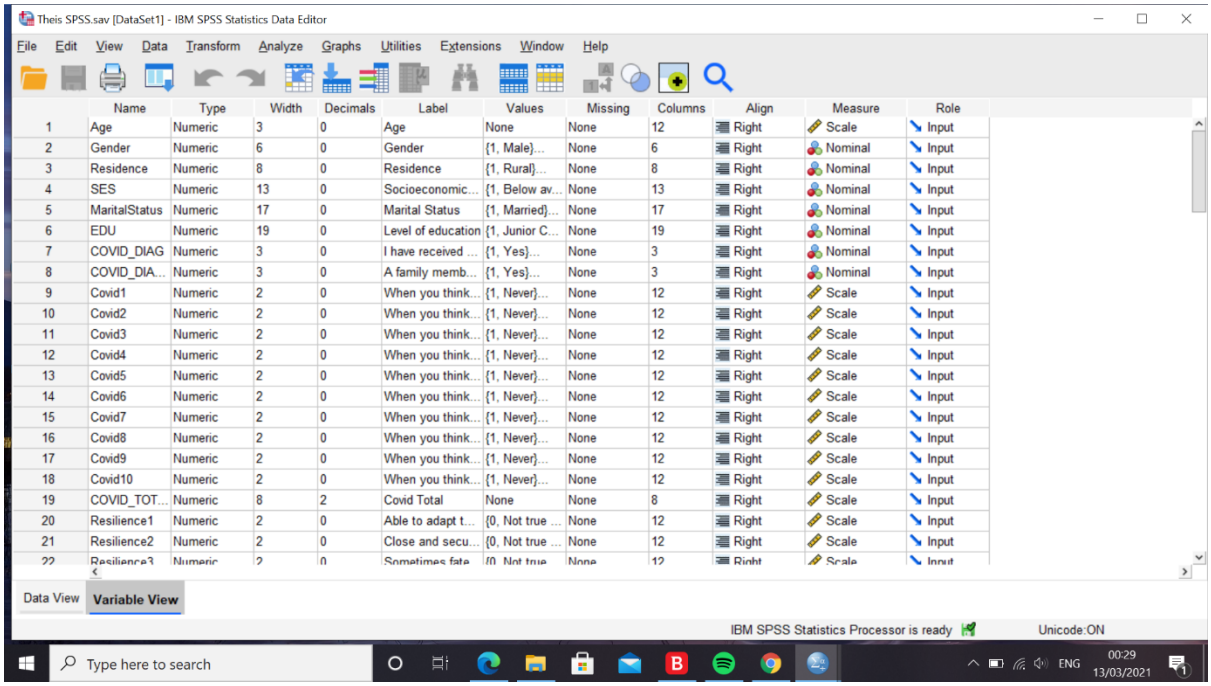
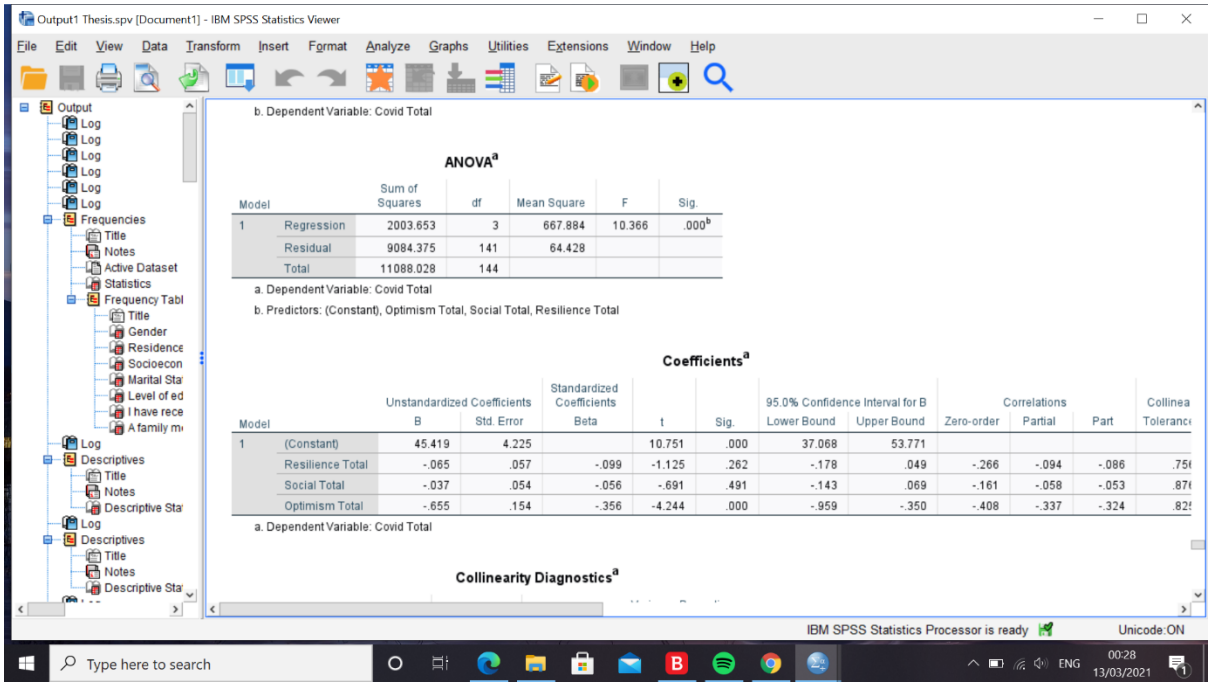
Appendices

Appendix A

SPSS evidence of analysis





Appendix B

Covid-19 Burnout Scale (Yildirim & Solmaz, 2020)

The COVID-19 Burnout Scale measures the level of burnout you have experienced throughout the COVID-19 pandemic. This is a 10-item scale. Answers range from 1 (never) to 5 (always), implying that the higher you list your answer, the more you have been bothered by what is being asked of you. Once you have completed all questions provided, please select 'next'.

1. When you think about COVID-19 overall, how often do you feel tired?
2. When you think about COVID-19 overall, how often do you feel disappointed with people?
3. When you think about COVID-19 overall, how often do you feel hopeless?
4. When you think about COVID-19 overall, how often do you feel trapped?
5. When you think about COVID-19 overall, how often do you feel helpless?
6. When you think about COVID-19 overall, how often do you feel depressed?
7. When you think about COVID-19 overall, how often do you feel physically weak/sickly?
8. When you think about COVID-19 overall, how often do you feel worthless/like a failure?
9. When you think about COVID-19 overall, how often do you feel difficulties sleeping?
10. When you think about COVID-19 overall, how often do you feel “I’ve had it”?

Appendix C

The Conor-Davidson Resilience Scale

The Conor-Davidson Resilience Scale is a 25-item scale which measures the level of individual resilience. Answers range from 0 (not true at all) to 4 (true nearly all of the time). The scale is rated on how you have felt the past month. A statement will be given to you and you must base your answer off of how well you well or poorly this statement resembles you within the last month. Below is a description of the answers:

0 = Not true at all

1= Rarely true

2= Sometimes true

3= Often true

4= True nearly all of the time

Once all questions are complete please select 'Next'.

1. Able to adapt to change
2. Close and secure relationship
3. Sometimes fate or god can help
4. Can deal with whatever comes
5. Past success gives confidence to new challenges
6. See the humorous side of things
7. Coping with stress strengthens

8. Tend to bounce back after illness or hardship

9. Things happen for a reason

10. Best effort no matter what

11. You can achieve your goals

12. When things look hopeless, I don't give up

13. Know where to turn for help

14. Under pressure, focus and think clearly

15. Prefer to take the lead in problem solving

16. Not easily discouraged by failure

17. Think of self as strong person

18. Make unpopular or difficult decisions

19. Can handle unpleasant feelings

20. Have to act on a hunch

21. Strong sense of purpose

22. In control of your life

23. I like challenges

24. You work to attain your goal

25. Pride in your achievements

Appendix D

The Multidimensional Scale of Social Support

This scale addresses the perception of social support. The scale itself is broken down into 3 subscales; (a) Family (b) Friends and (c) Significant Others. These three items form in order to measure your level of social support i.e how you would rate your own social network. You must answer the question on how strongly you relate to the statement provided. Answers range from 'very strongly disagree' to 'very strongly agree'. Below provides more detail on how to answer each question:

1= Very Strongly disagree

2= Strongly Disagree

3= Mildly disagree

4= Neutral

5= Mildly Agree

6= Strongly Agree

7= Very Strongly Agree

Once all questions have been answered please press 'Next'.

1. There is a special person who is around when I am in need.

2. There is a special person with whom I can share joys and sorrows

3. My family really tries to help me

4. I get the emotional help & support I need from my family.
5. I have a special person who is a real source of comfort to me.
6. My friends really try to help me
7. I can count on my friends when things go wrong.
8. I can talk about my problems with my family.
9. I have friends with whom I can share my joys and sorrows
10. There is a special person in my life who cares about my feelings.
11. My family is willing to help me make decisions
12. I can talk about my problems with my friends.

Appendix E

Life Orientation Test-Revised

The Life Orientation Test Revised measures the level of optimism. Note that there are no right or wrong answers and that you must not let a previous answers influence your answers to other questions. Scores range from 0 (strongly disagree) to 4 (strongly agree). Below is a description of the range of answers you can give. Once all questions are answered please click 'next'.

0= Strongly Disagree

1= Disagree

2= Neutral

3= Agree

4= Strongly Agree

When finished please press 'Submit'

1. In uncertain times, I usually expect the best
2. It's easy for me to relax
3. If something can go wrong for me it will
4. I'm always optimistic about my future
5. I enjoy my friends a lot
6. It’s important for me to keep busy
7. I hardly ever expect things to go my way
8. I don't get upset too easily
9. I rarely count on good things to happen to me
10. Overall, I expect more good things to happen to me than bad

Appendix F

Consent Form

COVID burnout, a new phenomenon?

As previously stated this study aims to investigate the factors which explain COVID burnout and the characteristics that can mitigate/suppress its effects. The study will also look at the differences between gender and COVID burnout.

If you have not thoroughly read and understand the information that was presented on the page before this one please go back and read it. Do not click next without doing so.

By clicking next below you are agreeing that:

You understand the participation information sheet.

Aware of any risks (if any).

You are volunteering freely to this study, no coercion.

Your involvement in this study is understood and any questions you might have had have been answered.

You are 18 or older.

Appendix G

Debriefing Form

I would just like to thank you for taking part in this study. You have been of great help.

Your data will now be retained for 5 years in accordance with the NCI data retention policy.

If you have been left feeling distressed by any of the questions in the survey there are some helplines below:

Samaritans:0800726666

Pieta House: 1800247247

Also if you have any other queries regarding the study please do not hesitate to contact us;

Researchers contact details:Covidburnoutfyp@gmail.com

Supervisors details: Conor.Nolan@ncirl.ie

Appendix H

Participation Information Sheet

You are invited to take part in the present research project. Please see the information below and take your time to read and gather any questions you feel you need to ask before agreeing to participate. The information gives a general description as to why this research is being conducted. Contact details are provided at the end of the sheet for myself and my supervisor. Please do not hesitate to contact us for any queries or questions.

What is this study about

I am a final year undergraduate student in National College of Ireland. I am aiming to investigate how is COVID burnout explained and the potential of factors to mitigate COVID burnout. COVID burnout can be described as reduced personal accomplishment, emotional exhaustion and depersonalization due to COVID related stressors. Furthermore, you will also be asked to complete a self-measurement of resilience, social support (e,g the ability to turn

to friends and family when in need) and optimism. Note that the scores in these tests are not sufficient for any form of clinical diagnosis and cannot be used as such. Furthermore, data are not analysed on an individual level, and we cannot provide individual results to participants.

What will taking part in the study involve?

If you decide to take part in this study, you will be asked to fill out 4 separate questionnaires on resilience, optimism, social support and COVID burnout. Each scale will take no longer than 2-3 minutes to complete. The study in its entirety will take no longer than 15 minutes to complete. In order to take part in this study you need to be over the age of 18. Please note that taking part in this study is by no means compulsory. If you choose to take part in this study and then change your mind, you are free to leave whenever you wish. No reason must be given on leaving or quitting the study. You can exit out of the survey at any given time. On completion of the study there will be an option for you to exit the study and not have your answer submitted. If you come across any question you feel is sensitive in nature you do not have to answer and exit the browser. Please note however once you submit your questionnaire it will not be possible to remove such information as all participants are anonymous and no personal information is taken.

What are the possible risks and benefits of taking part?

There are no specific individual benefits for taking part in this study. However, the information you help gather in this survey could be of significant use in determining the factors of COVID burnout and how it is manifested. Furthermore, you could help us further the research and understanding of COVID related burnout. Your participation could help

reduce the severity/frequency of COVID burnout in the near future. Your participation is completely voluntary in this study, you will not receive any form of payment.

Will taking part be confidential and what will happen to my data?

Taking part is completely confidential. Due to the design of the survey, each questionnaire is anonymous. It is not possible to identify anyone or link any answers given to a specific individual. The data collected will be held with complete safety, assurance and anonymity. The questionnaires responses will be stored on the researchers password protected computer. Only the supervisor and the researcher will have direct access to said responses. In accordance with the NCI data retention policy, data will be retained for 5 years.

Researchers contact details: Covidburnoutfyp@gmail.com

Supervisors details: Conor.Nolan@ncirl.ie