**Shared Trauma During the COVID-19 Pandemic: Psychological Effects on Israeli Mental Health Nurses**

Abstract

Mental health nurses, tasked with constant care of consumers undergoing mental health treatment, have faced unique challenges arising from the uncertain outcomes of the global COVID-19 pandemic. The psychological effects of the shared trauma on mental health nurses arising from the pandemic is the subject of this study. An online survey was used to examine personal levels of anxiety and concern, personal and national resilience, and posttraumatic growth among 183 mental health nurses working in mental health services in Israel. Overall, the study revealed moderate levels of concern and relatively low levels of anxiety, with significant negative correlations between personal resilience and levels of concern and anxiety. Higher levels of national resilience were related to lower levels of concern and anxiety, and there was a significant positive correlation between assessments of personal resilience and national resilience. A significant positive correlation was found between personal and national resilience and posttraumatic growth. Higher religiosity was associated with higher resilience, and higher professional seniority was related to higher posttraumatic growth. This study emphasizes the need for mental health policy supervisors to support mental health nurses by encouraging them and being attentive to their concerns. In Israel, special attention should be given to mental health nurses who have immigrated to Israel, are non-Jews or have less professional experience.

Keywords: COVID-19, posttraumatic growth, psychiatric nursing, psychological trauma, resilience.

Introduction

The spread of COVID-19 pandemic has posed unique challenges to mental health nurses (Foye et al 2021). Recent studies have demonstrated that the COVID-19 pandemic may be experienced as a global traumatic event, with evidence from populations in Italy (Forte et al., 2020), China (Lai, 2020), and Israel (Lahav, 2020). This global trauma is collective trauma, which simultaneously affects therapists and clients (Masiero, Mazzocco, Harnois, Cropley & Pravettoni 2020). Some people will inevitably develop mental health problems following a disaster, such as pandemics. In spite of that, many people continue to function well and may even have positive emotional experiences resulting from the traumatic event (Brooks, Amlot, Rubin, & Greenberg 2020). . This study aimed to examine the negative and positive psychological effects of the COVID-19 crisis on mental health nurses.

Background

Mental health nurses routinely face concrete stressors and professional challenges in their workplace (Foster et al. 2019). Their stress is a product of their inherently demanding vocation, which involves being exposed to verbal and physical violence and other threats, and having to cope with clients’ suicidal ideations (Foster 2020). During the pandemic, mental health nurses found themselves dealing with a unique situation, defined as a shared traumatic reality, in which therapists and the clients are simultaneously exposed to a collective trauma. (Day, Lawson & Burge 2017). Shared Trauma is a phenomenon born out of a traumatic event, be it an individual or collective trauma, that is experienced at all levels – worldwide / multinational, societal, community, interpersonal, intrapsychic. This phenomenon has been extensively researched among social workers (Tosone, 2020). Studies among nurses are scarce.

Shared traumatic reality can cause damage, but it can also induce change, with studies showing that a shared experience of a traumatic reality can lead to both positive and negative outcomes (Baum 2014; Nuttman-shwartz 2016; Day, Lawson & Burge 2017; Tosone, 2020 ). While nurses working in a shared traumatic reality may perceive their work as stressful and even traumatic, this reality may also spur posttraumatic growth (Lev-Wiesel et al. 2009), defined as positive psychological change, reported by an individual as a consequence of struggling with stressful life events’ trauma or highly challenging life situations (Tedeschi & Calhoun 2004; Tedeschi et al. 1998). Recent review on the positive aspects of trauma following COVID -19 argue that positive outcomes are also possible, as underlined by the trauma literature on resilience, coping strategies and posttraumatic growth (Finstad et al. 2021).Resilience as a collective capacity defined as the capacity of the profession to withstand adversity and continue to develop positively in the face of change, group resilience was considered context-specific, with mental health nurses viewed as a ‘resilient group’ due to being able to survive and grow within the context of multiple professional changes over time. (Foster et al. 2019).

National resilience (NR) is people's subjective perception of an entire country's capacity to withstand crisis and recover from them as quickly as possible (Kimhi,

Eshel, Lahad, & Leykin, 2019). Recent studies (Ballada et al. 2021; Kimhi, Marciano, Eshel, & Adini. 2020) proposed four elements that identify NR in times of COVID-19 crisis: individuals' identification with their country, sense of solidarity and social justice, and trust in public institutions.

To the best of our knowledge, this study represents the first time the psychological effects of the COVID-19 crisis on mental health nurses, who faced a shared traumatic reality and a stressful work environment, has been examined.We hypothesize that, as with other traumatic events, the COVID-19 crisis has negative and positive psychological effects on mental health nurses in this shared traumatic reality.

In this study, negative psychological effects were assessed through analysing mental health nurses’ concerns and anxiety, and positive effects through analysing their personal resilience, national resilience, and posttraumatic growth.

**Methods**

Research Design

A cross-sectional study was carried out between from April 1 and 30, 2020. STROBE reports for cross-sectional studies (Vandenbroucke et al. 2007), were used in this study.

Participants: The research sample included 183 mental health nurses, all members of the Psychiatric Nursing Association in Israel. The participants worked at Israeli mental health centres, in psychiatric wards at general hospitals, and as community mental health nurses. Their ages ranged from 24–66 years old (M = 47.37, SD = 10.71) (Table 1).

Study Setting

Data collection: An online survey was sent by text message to 800 registered members of the Israeli Psychiatric Nursing Association. A total of 183 participants provided valid, complete data, which are included in the analysis. The response rate was 23% (N=183). This survey instruction included information on the purpose and significance of the study. Nurses were required to expressly consent to participate by clicking on the ‘Agree’ button before beginning the survey. Participation in the study was voluntary and anonymous. The study was approved by the IRB of XXX-XXXX Mental Health Medical Center (LH3/2020).

Analysis: To assess the negative effects of the COVID-19 pandemic on mental health nurses, we probed their concerns and anxiety. The concern questionnaire developed for this study assessed concern about the virus for themselves, for relatives, and for the larger economic and political situation. Examples items included: “How concerned are you about being infected by COVID-19?” and “How concerned are you for your ability to cope the disease if you get it?**”** (Cronbach’s α = 0.83). Eight questions were included, and answers were rated on a Likert scale of 1–5.

The degree of anxiety was assessed by with the seven-item Generalized Anxiety Disorder scale GAD-7 (scores ≥ 10 indicate likely generalized anxiety disorder) (Spitzer, Kroenke, Williams, & Löwe, 2006). In general, higher scores indicate higher anxiety levels. Scores were derived from the average response for all items (Cronbach’s α = 0.84).

To assess the positive psychological effects of the pandemic among mental health nurses, we examined personal resilience, national resilience and posttraumatic growth. We used the shortened version of the Connor-Davidson Resilience Scale (CD-RISC) (Campbell-Sills and Stein 2007), a self-report questionnaire of 10 items, using the Hebrew translation by Fridenzon (2011), to test for personal resilience. The questionnaire had convergent validity (Cronbach’s α = 0.88).

The National Resilience Questionnaire included 13 items on a scale ranging from 0, very low, to 5, very high. Example of items include: “In a national crisis, the entire Israeli society will be behind the decisions of the government and its leader” and “Israel is my home and I do not intend to leave it.” The internal reliability of the scale was measured at Cronbach’s α = 0.90. (Kimhi et al. 2019). The measure of national resilience was computed by the average score for responses.

Post-Traumatic Growth (PTG) was examined using the Questionnaire PTG-Inventory. The Hebrew translation by Laufer & Solomon (2006) of the original scale by Tedeschi and Calhhoun (1996) was used. This questionnaire, with 21 statements on the lifestyle and feelings of the examinee, evaluates positive changes reported by a respondent that occurred following exposure to a traumatic event. Responses to each statement indicate to what extent change has taken place in regard to a particular issue in the respondent’s life, on a 4-point Likert scale (1 = no change, 4 = significant change). The question was "For each of the following statements, state the extent to which this change has occurred in your life as a result of coping with the COVID-19 pandemic". The questionnaire has structural validity, internal consistency (for the overall score and for each scale separately), and test-retest reliability (Cronbach’s α = 0.92). The measure of posttraumatic growth was computed by the average of these items.

Data analyses were performed using SPSS Statistics 23 (IBM, 2015). We examined the descriptive statistics of the research sample and the main research variables. To test the research hypotheses, we used Spearman correlation analysis, one-way ANOVA analysis, and an independent sample t-test. To predict anxiety, personal and national resilience, posttraumatic growth, and the socio-demographic variables of the sample, a linear hierarchical regression analysis was performed.

Significance was set to *p* < 0.05.

**Results**

The results indicated that the level of concern for COVID-19 was moderate (M = 3.20+0.82), and the level of anxiety was relatively low (M = 1.50+0.49). The level of personal resilience was high (M = 3.09+0.61), and the level of national resilience was high (M = 3.44+0.66). The level of posttraumatic growth was moderate (M = 3.01+0.81) (Table 2).

Significant negative correlations were found between personal resilience and levels of concern (*rs* = -0.17, *p* < .05) and anxiety (*rs* = -0.24, *p* < .01), with a higher level of personal resilience associated with lower levels of concern and anxiety (Table 3). In addition, significant negative correlations were found between national resilience and levels of concern (*rs* = -0.21, *p* < .01) and anxiety (*rs* = -0.14, *p* < .05). Finally, we found a significant positive correlation between personal and national resilience (*rs* = 0.25, *p* < .01).

The results of a Spearman test on the relationships between personal and national resilience and posttraumatic growth are given in Table 4. A significant positive correlation was revealed between personal resilience and posttraumatic growth (*rs* = 0.24, *p* < .01). We also found a significant positive correlation between national resilience and posttraumatic growth (*rs* = 0.29, *p* < .01).

**Predictive model**

A linear hierarchical regression analysis was performed to predict anxiety, personal and national resilience, posttraumatic growth, and socio-demographic variables (Table 5). Some socio-demographic variables could significantly predict national resilience (*F* (8, 176) = 6.10, *p* < .01). The regression coefficients show that predictors of religion and religiosity had a significant positive contribution, adding 18% to the model variance. Being Jewish and having higher religiosity were related to higher national resilience. The regression for the prediction of posttraumatic growth and socio-demographic variables was significant (*F* (8, 176) = 3.61, *p* < .01). Religiosity and professional seniority had a significant positive contribution, adding 15% to the model variance. Higher religiosity level and higher professional seniority were related to higher posttraumatic growth (Table 6).

**Differences in concern, anxiety, personal and national resilience, and posttraumatic growth by country of origin**

Differences in concern, anxiety, personal and national resilience and posttraumatic growth between participants according to whether they were born in Israel or elsewhere were examined with an independent sample t-test (Table 7).

We found significant differences between participants according to their birthplace within or outside of Israel in posttraumatic growth (*t* (181) = 2.44, *p* < .05). The level of posttraumatic growth was significantly higher among participants who were born in Israel than among those born elsewhere. There were no significant differences in concern, anxiety or personal/national resilience according to this factor.

**Discussion**

The COVID-19 pandemic presents an unprecedented opportunity to study the experience of mental health nurses experiencing a simultaneous dual trauma. These nurses must face both the pandemic’s stressors and occupational stressors. They fear for their own personal well-being as well as for the health of those close to them. Nurses are trapped between the desires to work, continuing with their routine, and fulfilling the role that defines them and gives them meaning, in spite of the stresses of the workplace, and the desire to care for their children, parents and those left at home (Wu et al. 2020). Shared traumatic reality has both negative and positive outcomes (Baum 2014), and this study examines both. We found that the COVID-19 crisis had negative and positive psychological effects on mental health nurses in this shared traumatic reality.

In April 2020, in the middle of the first COVID-19 wave in Israel, when public and health workers were expressing significant concerns about a new pandemic outbreak, the level of concern among Israeli mental health nurses was moderate, and their level of anxiety was low. Their level of personal and national resilience were high, and the level of posttraumatic growth was moderate.

Our findings differ from those of a study also conducted in Israel at the same time, which examined 503 Israeli citizens (Shapiro et al. 2020). In that study, almost a quarter of the sample expressed high or very high levels of anxiety or worry. However, that study included the general population and did not focus on health care workers (Shapiro et al. 2020). Similar to our results, study that focus on mental health nurses during the actual pandemic found mild rate of anxiety (Kameg et al. 2021). These findings may be related to mental health ability to used strategies to promote mental health self-care in the context of the COVID-19 pandemic (de Pinho et al 2021). Self-care is the foundation for work with clients in shared trauma reality and should be a continual piece of professional and personal development especially utilized during times of crisis (Day, Lawson & Burge 2017). Recent study who compared mental health nurse to non-mental nurse found that mental health nurses had less depression, anxiety and stress and used more strategies to promote mental health than other nurses use (de Pinho et al 2021). It seems that mental health nurses, as mental health professionals, have sufficient coping skills to enable them to cope with psychological stressors. Resilience is an important factor in mental health nurses’ ability to cope with stressful situations (Itzhaki et al. 2015).It could explain the negative correlation between resilience and levels of concern and anxiety. Our finding showed similarities to resilience research in current pandemic (Kimhi et al. 2020) and among mental health nurses (Foster et al., 2019). Resilience is a good indicator of people's ability to cope with various crises and threats (Kimhi et al. 2020).

In the COVID-19 context, the link between personal resilience, NR and PTG have not been deeply studied. This study revealed that personal resilience, national resilience and PTG were positively related to each other.

Recent studies shows that resilience and PTG have positive correlation among nursing students and healthcare workers during the current COVID-19 pandemic ( Yıldız 2021; Kalaitzaki et al. 2021) However, Itzhaki et al. (2015) did not find a correlation between resilience and posttraumatic growth among mental health nurses who were exposed to violence. Following COVID-19 Adaptive coping strategies and resilience contribute to the development of PTG (Finstad et al. 2021). Mental health nurses have ability to used strategies to promote mental health self-care in the context of the COVID-19 pandemic (de Pinho et al 2021). Apparently, this explains our findings.

National resilience has not been examined among mental health nurses, However, our findings are comparable to those of Kimhi et al (2020), who found a negative correlation between national resilience and distress symptoms during the COVID-19 crisis in the Israeli general population (Kimhi et al. 2020). In Israel, during Covid-19 pandemic, the unemployment rate was very high, however health care workers were strongly supported by the government and no nurses lost their job. Additionally, government provided special structures for children of health workers, so they would not be concerned about closed schools and day-care. Further research are needed to support this explanation.

 This finding is consistent with earlier studies indicating that people who have a greater capacity to bounce back from adversity are more likely to trust their national leaders and government institutions to resolve crises and maintain stability in the country (Callueng et al. 2020; Kimhi & Eshel, [2019](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7461071/%22%20%5Cl%20%22jcop22438-bib-0033); Kimhi & Eshel 2009)

To the best of our knowledge, the current study is the first to show a positive connection between national resilience and posttraumatic growth following COVID-19. Previous research argue that national resilience is the best predictor of posttraumatic recovery, in time of war (Kimhi and Eshel. 2009). A review of the literature indicates a rather small number of empirical investigations of national resilience and its association with antecedent variables (Kimhi and Eshel 2019). More research is needed to examine this important issue.

This study’s finding of a moderate level of posttraumatic growth among nurses is consistent with the findings of several studies on nurses in a shared traumatic wartime reality (Lev-Wiesel et al. 2009), mental health nurses with exposure to violence (Ithaki et al. 2015) and frontline nurses during the COVID-19 pandemic (Chen et al. 2021; Pan Cui et al. 2021). Their role of being helpers, responsible for others, and needed by their clients at times of crisis, in addition to being acknowledged as an essential profession by the authorities and public, all served as sources of growth (Lev-Wiesel et al. 2009). Our results indicate that experiencing positive psychological change can coexist with a unique emergency like the COVID-19 pandemic.

In addition, our study found that the posttraumatic growth of mental health nurses is generally affected by religiosity and professional seniority. Although posttraumatic growth among mental health nurses is seldom examined, our findings are comparable to those of a meta-analysis that found clear relationships between religiosity and posttraumatic growth (Shaw et al. 2005), as well as those of a recent study conducted among nurses fighting COVID-19 that showed relationships between professional seniority and posttraumatic growth (Pan Cui et al. 2021). This could be attributed to additional years of abundant nursing and life experience, and of greater self-confidence and appreciation of life (Ogińska-Bulik et al. 2021). Shaw et al. (2005) highlighted the social support function of religious participation. These findings suggest religious disaster survivors may tend to draw on their religion/spirituality to cope with disaster-related adversity, such as during the recent pandemic.

Finally, significantly greater posttraumatic growth was reported among participants born in Israel than among those born in another country. Immigrants presented worse mental health than non-migrants intimes of COVID (Solà-Sales et al. 2021) and were more likely to both report anxiety and seek professional mental health services than were native-born Israelis during the COVID-19 pandemic (Shapiro et al. 2020). Alternatively, the lower level of posttraumatic growth among immigrant mental health nurses may be influenced by the trauma of migration, which is always accompanied by a loss of social support. Understanding the unique nature of immigration trauma is essential to developing effective strategies for enhancing posttraumatic growth among the general population (Berger & Weiss 2003).

**Limitations**

Data collection occurred at the height of the first wave, when the subjects under the height of their work pressure, work, and therefore, their responsiveness was relatively limited. Additionally those who responded may be the more resilient nurses.

**Conclusions**

The COVID-19 pandemic has added new challenges to the already stressful workplace, relational dynamics, and mechanisms of coping of mental health nurses. Little research has been published on this issue, and it would be useful for future research to focus on these nurses’ experiences and how they are affected by a shared traumatic realty.

Overall, this study describes the psychological effects of the COVID-19 pandemic among mental health nurses. These results highlight the importance of assessing psychological effects among mental health nurses, who are providing psychological assistance to clients who are themselves under severe psychological stress, intensified by the pandemic.

Health organizations should be sensitive to their nurses’ needs during crises, providing ongoing supervision and encouraging group support (Lev-Wiesel et al. 2009). Itzhaki et al. (2015) indicate the importance of enhancing staff resilience by increasing mental health nurses’ mutual support and commitment to each other.

Mental health nurses, like other health care workers, need mental support to enable them to care for their patients. To provide positive and constructive working conditions when under extreme stress, such as during the current pandemic, hospital and ward managers should encourage staff, support them, and be attentive to their concerns and needs, particularly those who are immigrants or non-Jews, and those with little professional experience. Organization and unit-level leadership support is critically important to nurse resilience. Nurse resiliency important for maintaining nurses' health and wellness as well as the quality of care they deliver. (Jo et al. 2021)

This study highlights critical factors in the work of mental health nurses during the major traumatic event of the COVID-19 pandemic. It is essential for clinical practice to learn and develop additional coping skills to increase resilience and posttraumatic growth. Doing so can better equip mental health nurses to care for themselves and their clients during times of a shared traumatic experience. Establishing and implementing more effective policies in the workplace may contribute to the development and implementation of more effective responses to traumatic events for mental health nurses and their clients.

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