

Mental Health of Psychiatry Nurses Related with Fatigue, Resilience and Self-Compassion in COVID-19 Pandemic

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ABSTRACT

Patients and nurses experienced much stress because of infection prevention rule, limitation of meeting families, or going out freely. Then the present study examined 1) the relationships among mental health, mental fatigue, physical fatigue, self-compassion, and resilience, 2) the relationships between mental fatigue and factors of resilience or self-compassion, 3) the most effective factor on mental health of psychiatry nurses in COVID-19 pandemic. Participants were 132 psychiatry nurses at 4 hospitals in Western Japan. They completed questionnaires about mental health by the General Health Questionnaire (GHQ), mental fatigue, physical fatigue, self-compassion, and resilience. The ethical committee permitted this research. Results showed the following. The GHQ related with mental fatigue ($r=.70$), physical fatigue ($r=.54$), self-compassion ($r=-.50$), and Resilience ($r=-.40$). The GHQ related with "Positivity in nursing ($r=-.42$)" in resilience factors: positivity in nursing, interpersonal skill, having anchor in personal life, responsivity to novelty. Also the GHQ related with "Over-identification ($r=-.35$)" of self-compassion factors: self-compassion, self-judgment, common humanity, Isolation, mindfulness, and over-identification. From the multiple regression analysis, the mental fatigue was the most effective factor on GHQ ($\beta=.59$). These results suggest that mental health related with fatigue, resilience, and self-compassion. Nurses with positivity in nursing and over-identification had high mental health. And mental fatigue was the most effective factor on mental health of psychiatry nurses in COVID-19 pandemic. The intervention to alleviate their mental fatigue will be required.

Keywords: mental health, psychiatry nurse, fatigue, resilience, self-compassion

INTRODUCTION

In 2021, we experience a prevalence of COVID-19 and many nurses worked very hard coping with prevention. Frontline health care workers, including clinical nurse who work directly with COVID-19 patients, are particularly vulnerable to developing mental and psychological issue [1]. Labrague [2], or Usher et al. [3] showed higher prevalence rates of anxiety, emotional

exhaustion, depression, mental disorder, and fatigue among nurses during the height of the pandemic. Since nurses' mental health affects quality of care for patients, it is very important. Resilience is one of the factors to cope with stress. Cooper et al. [4] demonstrated that resilience is defined as "a complex and dynamic process which when present and sustained enables nurses to positively adapt to workplace stressors, avoid psychological harm and continue to provide safe, high-quality patient care. Some previous studies showed the relationships between resilience and mental health. Hen, et al. [5] showed that in China citizens with a higher resilience level had a lower prevalence of generalized anxiety disorder, and resilience also showed a mediating effect, with a negative influence on worry factors. Resilience of nurses in Spain negatively correlated with the reported levels of perceived stress, anxiety and depression, and resilience mediated the relationships between stress and mental health [6].

Moreover, self-compassion is another influential factor. Neff [7] showed that self-compassion involves being open to and moved by one's own suffering, experiencing feelings of caring and kindness toward oneself, taking an understanding, nonjudgmental attitude toward one's own experience is part of the common human experience. Self-compassion entails three basic components: 1) extending kindness and understanding to oneself rather than harsh self-criticism and judgment; 2) seeing one's experiences as part of the larger human experience rather than as separating and isolating; and 3) holding one's painful thoughts and feelings in balanced awareness rather than over-identifying with them. This self-compassion negatively related with depression or anxiety, and positively related with satisfaction with life [8]. Self-compassion of nurses positively related with the professional quality of life [9] and negatively with burnout [10]. And Kemper et al. [11] showed that self-compassion of medical staffs positively related with and resilience or sleep disorder, and showed the negative relationships between self-compassion and burnout. On the other hand, recently fatigue is focused as an important factor to mental health. Pandemic fatigue (PF) is an emerging health concern among individuals during the COVID-19. PF, which defined as physical and mental tiredness, may occur during a pandemic as a consequence of the interpretations in the usual routines and activities of an individual due to various measures implemented to decrease virus transmission by World Health Organization [12]. As frontline health care workers, clinical nurses face tremendous amount of stress due to several factors like long work shifts in PPE, constant changes protocols and a lack of relevant experience caring for highly infectious patients [13]. These factors increase nurses' fatigue and lead to poor nursing care provision and poor patient outcomes [14]. We need to examine relationships among mental health, fatigue, resilience, and self-compassion, and the most effective factors on mental health of nurses. Psychiatry nurses may have much stress than other nurses because some of patients are hard to understand importance of infection control by characteristic of illness. So the present study aimed to examine relationships among mental health, fatigue, resilience, and self-compassion of psychiatry nurses.

METHODS

Participants

Participants were 132 psychiatry nurses in 4 hospitals in Japan.

Procedure

We used 4 kinds of questionnaires:

- 1) Japanese version General Health Questionnaire 12 (GHQ12) [15] which is translated from Goldbbberg.
- 2) Self-compassion scale [16], was consisted of 6 factors (self-kindness, self-judgement, common humanity, isolation, mindfulness, over-identification).
- 3) The Resilience scale for nurse [17], was consisted of 4 factors (positivity in nursing, interpersonal skill, having an anchor in personal life, responsivity to novelty).
- 4) The Self-diagnosis fatigue checklist [18], was consisted of 2 factors (mental fatigue, physical fatigue).

The head nurse in a hospital introduced the research and pass the envelope including questionnaires and explanation about the research. A nurse answered the questionnaire and submitted it into a collection box voluntarily. We get informed consent when the nurse submitted. After about 2 weeks, the head nurse mailed the envelope back to the researchers.

Data Analysis

We calculated basic statistic and mean score about each questionnaire. The correlation analysis was conducted on each mean score. Next we conducted correlation between mental health and each factor of resilience and self-compassion. Then we conducted a multiple regression analysis, a dependent variable was mental health, and independent variables were fatigue, resilience, and self-compassion.

RESULTS

The correlation scores were all significant (Table 1). The General Health Questionnaire (GHQ) related with mental fatigue ($r=.70$), physical fatigue ($r=.54$), self-compassion ($r=-.50$), and resilience ($r=-.40$). Also, physical fatigue related with mental fatigue($r=.78$), resilience($r=-.35$), and self-compassion($r=-.27$). Moreover, mental fatigue related with resilience ($r=-.43$) and self-compassion.

Table 1 Correlation coefficients among variables

	GHQ	physical fatigue	mental fatigue	resilience	self -compassion
GHQ	-				
physical fatigue	.54 **	-			
mental fatigue	.70 **	.78 **	-		
resilience	-.40 **	-.35**	-.43 **	-	
self-compassion	-.50 **	-.27 **	-.34 **	.30 **	-

** $p<.01$

Next, we investigated relationships between mental fatigue and factors of resilience and self-compassion (Table 2). Resilience included the 5 factors: (positivity in nursing, interpersonal skill, having anchor in personal life, responsivity to novelty). The correlation scores “positivity in nursing ($r=-.42$)” and “responsivity to novelty ($r=-.34$)” were high in Resilience. Self-compassion included the 6 factors (self-compassion, self-judgment, common humanity, isolation, mindfulness, and over-identification). The correlation scores “over-identification ($r=-.35$)” or “isolation ($r=-.29$)” were high in self-compassion.

Table 2 The correlation between mental health and factors of Resilience or Self-compassion

	General Health Questionnaire (GHQ)	t-value	p-value
resilience	positivity in nursing	-.42	$P=.000$
	interpersonal skill	-.15	$P=.04$
	having anchor in personal life	-.20	$P=.01$
	responsivity to novelty	-.34	$P=.000$
self-compassion	self-compassion	-.17	$P=.03$
	self-judgment	-.27	$P=.001$
	common humanity	-.15	$P=.05$
	Isolation	-.29	$P=.000$
	mindfulness	-.19	$P=.01$
	over-identification	-.35	$P=.000$

Lastly, we show the results of multiple regression analysis (Table 3). From the standardization score, the mental fatigue significantly predicted GHQ ($\beta=.59$) and following self-compassion ($\beta=-.29$). physical-fatigue and resilience were not significant. Since GHQ include both mental and physical symptoms and we investigated the multicollinearity. The scores were under 10 points, and there was not a problem.

Table 3 Results of a multiple regression analysis when GHQ score was dependent variables

	Standardization coefficient	t value	p value
physical fatigue	-.02	-.17	$p=.86$
mental fatigue	.59	5.87	$p=.000$
resilience	-.05	-.80	$p=.43$
self-compassion	-.29	- 4.58	$p=.000$

DISCUSSION

The GHQ score indicating mental health correlated with physical fatigue negatively, resilience, and self-compassion positively. Correlation between resilience and mental health are similar to Ogata et al. [17] in which resilience related with depression or burnout, or Lara-Cabrera, et al. [6] in which resilience negatively correlated with perceived stress, anxiety and depression. In Resilience score, factors of “positivity in nursing” and “responsivity to novelty” related with GHQ highly. It may show that nurses who took care patients positively and could responded to novel situation like pandemic of COVID-19 had high mental health state.

Moreover, GHQ related with self-compassion. It supports Duarte & Pinto [9] in which self-compassion related with professional QOL positively, and with burnout negatively. This results are line with literature review by Sugimoto [19] in which nurse with high level self-compassion had high mental health, high compassion satisfaction, and low burnout. In detail, the correlation coefficient of “over-identification” and “isolation” of self- compassion were high. It shows that nurses who could think such that every nurse feel stress, and it was common, and who could talk or consult with other nurses and isolated, and they had good mental health. Also, nurses who experience difficulties in nursing and don’t blame themselves with over identification get high mental health.

And resilience positive related with Self-compassion. It supports Kemper et al. When nurses have high self-compassion and their resilience may increase.

Mental fatigue was the most effective factor on GHQ, that is, mental fatigue predicted mental health. Psychiatric nurses had to take measure against infectious disease for patients who could not understand infection well. Previous study reported higher prevalence rate of anxiety, emotional exhaustion, depression, mental distress, fatigue and so on [2]. Nurses who felt mental fatigue affect low mental health. A previous study by Ando et al. [20] showed that psychiatric nurse felt increase of stress and fatigue caused of infection control, and infection control affected nursing in wards. Labrague [2] demonstrated that increased levels of pandemic fatigue may adversely affect nurses' job contentment. Sagherian et al. [21] showed persistent exposure to fatigue might negatively affect job outcomes of nurses, such as reducing their work satisfaction and job engagement. Management in a hospital may be important. To reduce mental fatigue, one of the resolution is to increase the number of nurses. Moreover, since fatigue affect mental health intermediate of resilience by Labrague [1], mindfulness-based resilience programs, or mindfulness self-care may be useful [22]. Much more evidence to reduce mental fatigue will be required.

CONCLUSION

We investigated the relationships among mental health, fatigue, resilience, and self-compassion of psychiatry nurses. The correlation analysis showed that mental health significantly related with fatigue, resilience and self-compassion, particularly with mental fatigue. In detail, mental health related with positivity of resilience, and over identification of self-compassion. The multiple regression analysis showed that mental fatigue was the most effective factor on mental health. Intervention to reduce mental fatigue and evidence will be required in future.

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