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NURTURING WELL-BEING: EXPLORING THE INTERPLAY OF SELF-COMPASSION, SELF-AFFIRMATION, AND DEPRESSION IN UNDERGRADUATE NURSING STUDENTS

[1]Yuki Saito and Akira Nakamura[2]

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Abstract

The escalating demand for nurses in Japan, driven by factors such as the impact of new coronavirus infections and an aging population, has led to a surge in the number of nursing schools and universities. Despite a seemingly full university enrollment era attributed to a declining population under 18 years, the nursing workforce continues to expand, totaling approximately 1.27 million according to the Japan Nurses Association. However, the profession grapples with a persistent challenge – a high turnover rate among nurses.

This study delves into the intricacies of the nursing profession in Japan, with a particular focus on the factors contributing to the high turnover rate. Notably, nurses often internalize others' distress, leading to empathy fatigue and self-negative cognitions due to secondary stress. This phenomenon has been identified as a significant precursor to burnout, underscoring the critical need for self-compassion in the nursing domain.

The research aims to explore the relationship between empathy fatigue, self-negative cognitions, and the resultant burnout experienced by nurses in Japan. Drawing on existing literature and empirical data, the study investigates the psychological toll of continuously perceiving others' distress as one's own and its implications for the well-being and job satisfaction of nurses. Furthermore, the research will delve into the role of self-compassion as a potential mitigating factor against burnout in the nursing profession.

Understanding the unique challenges faced by nurses in Japan is crucial for the development of targeted interventions and support mechanisms. By shedding light on the psychological aspects contributing to the high turnover rate, this study aspires to inform policies and practices that foster a more compassionate and sustainable work environment for nurses. The findings are anticipated to contribute not only to the improvement of nurses' well-being but also to the overall enhancement of healthcare services in the country.

[1]Lecturer, School of Nursing, Faculty of Nursing, Reiwa Health Sciences University, Japan.
[2]Assistant Professor, School of Nursing, Faculty of Nursing, Reiwa Health Sciences University, Japan.

Introduction

Although Japan is considered to be in an era of full university enrolment due to a decline in the population under the age of 18 years, the number of universities and nursing schools are increasing (Ministry of Health, Labour and Welfare 2017). Recently, the demand for nurses has become more pronounced due to the impact of new coronavirus infections, among other factors. The number of nurses has been increasing annually, with the Japan Nurses Association reporting that the total number of nurses is approximately 1.27 million (Japanese Nursing Association 2019). However, while the number of nurses is increasing, the high turnover rate of the profession remains a problem (Japan Nursing Association 2020). One of the factors contributing to the high turnover rate of nurses is that nurses tend to perceive others' distress as their own and are prone to empathy fatigue and self-negative cognitions due to secondary stress. This can lead to burnout, and the importance of compassion for oneself in such situations has been highlighted previously (Akiyama and Sugawara 2017).

Against this background, the importance of self-compassion as a Buddhist ideology, which recognises commonality with others but also directs compassion towards oneself, has been highlighted in Japan. Many people seek their own ideals and get immersed in self-criticism, especially when they do not achieve satisfactory results. However, self-criticism and other self-negative cognitions do not necessarily lead to positive cognitions and actions, although there are elements of 'reflection' and 'looking back' on what has occurred. As a way of coping with self-criticism, Neff, a leading researcher in self-compassion research, identifies the importance of understanding self-criticism and then turning to compassion towards oneself and replacing it with gentler ways of coping (Neff 2003a) (Neff 2003b). Self-compassion consists of three core elements: 'self-kindness', which refers to kindness towards oneself as opposed to self-critical behaviour; 'a sense of common humanity', which is not something that occurs only to oneself but is an experience in mutual relations with others; and 'mindfulness', which is accepting events as they occur to oneself, thereby demonstrating compassion towards oneself.

It has been reported worldwide that those with higher levels of self-compassion have fewer negative emotions and are less likely to experience catastrophic cognition (Leary et al. 2007), which lead to reduced depression, anxiety, and stress (Macbeth and Gumley 2012). Previous research examining the effects of selfcompassion in university students reported that higher self-compassion increased psychological well-being and mental health and reduced the impact of academic burnout (Lee 2013). The effects of self-compassion have attracted attention, and intervention programs to increase self-compassion have been developed to improve selfnegative cognitions. In Japan, the effects of self-compassion on anger, depression, and anxiety (Nakamine et al. 2018) and a positive causal relationship between self-compassion, self-efficacy, and other self-affirmations have also been reported (Ryu et al. 2016). However, the relationship between self-compassion, self-affirmation, and depression confined to undergraduate nursing students has not yet been examined. To prevent the development of empathy fatigue and self-negative cognitions to burnout among nurses, it is important to learn how to maintain mental health using self-compassion from the basic nursing education stage.

In this study, the relationship between self-compassion, self-affirmation, and depression among undergraduate nursing students was clarified, and findings that could lead to mental health measures for undergraduate nursing students were obtained.

Definition of terms

1. **Self-compassion**

Self-compassion, as defined in this study, includes 'current self-compassion value', as measured by the Japanese version of the Self-Compassion Scale, and 'response to self-compassion', as measured by the Japanese version of the Self-Compassion Response Inventory.

2. **Self-affirmation**

Self-affirmation is defined as the integration of self-efficacy and self-esteem.

Methodology

1. Research objectives

The purpose of this study is to clarify the relationship between self-compassion, self-affirmation, and depression among undergraduate nursing students and to gain knowledge that would lead to mental health measures for this population. The degree of depression will be clarified by grade, and the timing of learning about mental health will also be examined.

2. Research methods

2.1 Study subjects

This study included 402 undergraduate nursing students from University A.

2.2 Survey method

Before conducting this study, the purpose, content, and ethical considerations of the study were explained orally and in writing to the research participants, and questionnaires were distributed after obtaining their consent. The questionnaires were collected using the retention method.

2.3 Survey period

The survey period was between 1 September 2018 and 11 January 2019.

2.4 Survey items

Only sex, age, and year of study were investigated for the background of undergraduate nursing students. Self-compassion was measured using the Japanese version of the Self-Compassion Response Inventory (SCRI-J) and the Japanese version of the Self-Compassion Scale (SCS-J); self-esteem was measured using the General SelfEfficacy Scale (GSES), the Japanese version/Hoshino Translation of the Rosenberg Self-Esteem Scale (RSES), and the Self-Rating Depression Scale (SDS) for depression.

2.4.1 Japanese version of the Self-Compassion Response Inventory

The SCRI-J is a questionnaire developed by Leary et al. that captures self-compassion in terms of reactions to eight specific distress situations that may be encountered in life. Four specific reactions are presented per situation, and the respondent is asked to choose two reactions. Of the four reactions presented, two are items that indicate self-compassion (e.g., 'I behave nicely towards myself').

2.4.2 Japanese version of the Self-Compassion Scale

The SCS-J consists of 26 items proposed by Neff that measure an individual's current degree of kindness and compassion. It uses a five-point scale ranging from 'almost never (I don't)' to 'almost always (I do)'.

2.4.3 Self-affirmation measurement scale

The GSES is a questionnaire designed to measure an individual's general perception of self-effectiveness, created in response to Bandura's concept of self-effectiveness. Self-efficacy refers to the anticipation of being able to carry out some behaviour well and is assessed using a two-case 'yes' or 'no' method. Self-efficacy is defined as being 'about the judgement of how well one can perform the sequence of actions required to handle a future situation'.

Rosenberg proposed the RSES as a comprehensive measure of self-esteem. It considers self-esteem as 'a positive or negative attitude towards one particular object, the self' and targets self-esteem in the sense of selfacceptance rather than in the sense of confidence or superiority over others. It consists of 10 questions in total, which are rated on a four-point scale of 'not at all applicable', 'not applicable', 'applicable', and 'very applicable'.

2.4.4 Self-Rating Depression Scale

The SDS is a validated test for measuring depression and is useful for adults and older people who are able to self-evaluate. SDS scores below 40 indicate 'little or no depression', scores in the 40s indicate 'mild depression', and

scores above 50 indicate 'moderate depression'. In clinical practice, a score of 50 or higher indicates a depressive tendency.

3. Method of analysis

After comparing each scale score by grade level, confirming normality using the Shapiro–Wilk test, an analysis was conducted using Pearson's correlation to identify correlations between each scale. In addition, multiple regression analysis was conducted to examine the effect of self-compassion and self-esteem on SDS scores. SDS scores were entered as the dependent variable and SCRI-J, SCS-J, GSES, and RSES scores as independent variables. Analysis was conducted using the stepwise method (variable increase/decrease method) because only variables with a significance probability of less than 5% could be extracted. The data obtained were tabulated and analysed using IBM SPSS Statistics, version 22.0 for statistical processing.

4. Ethical considerations

The study participants were informed orally and in writing about the research theme, purpose of the research, survey content, protection of their privacy, the fact that there would be no disadvantages caused by no participation or discontinuation of the survey as it may be time-consuming and lead to fatigue and a sense of burden, handling of data, and the publication of research results. Questionnaires were collected using the retention method, and consent was deemed to have been obtained when the questionnaires were deposited in the collection box. Two researchers managed the data by using the retention method. This study was conducted after obtaining approval from the Ethics Review Committee of the International University of Health and Welfare (approval number:18-Ifh-050).

Results

1. Collection rate and valid response rate

Of the 150 students who completed the survey (37.3% response rate), 131 (87.3% valid response rate) were included in the study after excluding those with missing data. A total of 122 (93.1%) students were female and 9 (6.9%) were male. There were differences in response rates between grades, with 23 (17.6%) students in their first year, 44 (33.6%) in their second year, 45 (34.4%) in their third year, and 19 (14.5%) in their fourth year.

2. Comparison of scale scores between grades

Comparisons between grades for the SCRI-J, SCS-J, GSES, RSES, and SDS scores are shown in Table 1. No significant differences were found between grades. All grades had an average SDS score of ≥40 (mild depression).

3. Examination of the correlation of the SCRI-J, SCS-J, GSES, and RSES with the SDS

As shown in Table 2, the correlations between the scales were identified, and the SDS showed a strong negative correlation with the SCRI-J, SCS-J, GSES, and RSES.

Table 1. comparison of scale scores between grades

n=131

	first year students (n=23)	second year students (n=44)	third year students (n=45)	fourth year students (n=19)	P 値
SCRI-J	7.6±3.5	8.7±3.6	8.9±3.5	8.8±3.6	n.s.
SCS-J	72.4±11.3	73.6±12.7	75.4±16.6	74.6±14.0	
GSES	6.7±4.4	6.3±3.8	6.4±4.0	7.3±4.0	
RSES	14.7±5.2	14.8±4.3	14.6±4.4	15.9±4.7	
SDS	42.1±7.2	44.0±7.6	43.4±7.6	42.5±8.1	

n.s.=not significant

Table 2. correlations between scales

n=131

	SCRI-J	SCS-J	GSES	RSES	SDS
SCRI-J	—	.73***	.46***	.50***	-.54***
SCS-J		—	.50***	.62***	-.56***
GSES			—	.63***	-.52***
RSES				—	-.66***
SDS					—

*** p < .001

Following the correlation results, a preliminary analysis was conducted using the Shapiro–Wilk test to examine the normality of the variables affecting depression scores; the quantitative variables were found to be normal. When the correlation matrix table was checked, no variable was found to have a value of |r|> .8. The VIF values were all below 10.0 and no multicollinearity was found. Therefore, multiple regression analysis using the stepwise method (variable increasing/decreasing method) with SDS as the dependent variable and SCRI-J, SCS-J, GSES, and RSES as independent variables was performed. The results showed that SCRI-J and RSES were significantly associated (p<.001), as shown in Table 3. The GSES variable was not significantly associated with SDS. The ANOVA (analysis of variance table) results were significant, with an adjusted R^2 of .49. The Durbin– Watson ratio was 1.904 and was not an outlier, with predicted values exceeding ±3 standard deviations relative to the measured values.

Table 3. variables affecting SDS reduction

	unstandardized coefficient (B)	standardized coefficient (β)	significance level （p）	VIF （Variance Inflation Factor）
RSES	-.87	-.52	.000***	1.34
SCRI-J	-.60	-.28	.000***	

coefficient of determination (R^2)= .50 adjusted coefficient of determination (R^2)= .49 ***p＜.001

Discussion

1. **Response rates and valid response rates**

The response rate varied between grades, with third- and fourth-year students having the highest and lowest response rates, respectively. The reason for the low response rate for fourth-year students may be that the survey period was at the end of their job search, when they were physically and mentally preparing for the national nursing

examinations. Although difficult to say, it is possible that such a situation imposed new challenges on the nursing students and resulted in psychological burden, leading to their low response rate. Therefore, the possibility that the results of this study represent a biased group of undergraduate nursing students should be considered.

2. Comparison of scale scores between grades

No significant differences between grades were found in the respective scale scores obtained from the 131 undergraduate nursing students. Nurses are prone to empathy fatigue due to secondary stress as they perceive others' distress as their own, resulting in burnout. In a survey on stress among undergraduate nursing students, clinical practice was found to be the greatest stressor (Masamura et al. 2003).

Although there are a wide range of stress factors, such as a student's relationship with their practice supervisor (Imatome and Kotake 2009), it is important to consider that clinical practice increases as the school year progresses and that third-year students have been in clinical practice for a longer period. Therefore, it is expected that third-year students experience the most stressful situations. However, stressful situations rates have been reported for second-year students due to the number of academic assignments (Tsuchiya et al. 2001). Hence, it cannot be assumed that differences in the learning environment between grades, such as the duration of field placements, necessarily affect the mental health of undergraduate nursing students. In our study, the survey for undergraduate nursing students was conducted during a period when third-year students were undertaking practical training in their specialised areas. Even taking into account that the third-year students had the highest response rate and that their opinions as a whole were less biased, there were no significant differences in scale scores, particularly depression scale scores, between the grades. The results of this study therefore suggest that differences in learning environments between grades, including field placements, may not have a significant impact on the mental health of undergraduate nursing students.

Although difficult to say, it is thought that the increase in on-the-job training and nursing knowledge as students advance to the next grade leads to the process of internalising the nursing experience and acceptance of the medical field. As a result, it is possible that the mental health of undergraduate nursing students is affected by their experience in the clinical field, as seen through their development of stress tolerance, compared to first-year students. Therefore, depression scores may not increase, even among senior students who have more experience and knowledge of clinical practice than the first-year students.

However, the undergraduate nursing students in this study were mildly depressed in all grades and showed no increase in self-affirmation characteristics, such as self-compassion, self-efficacy, and self-esteem. The stress experienced in every grade remains a major problem, even if students adapt to the environment as they advance through their schooling. Despite developing stress tolerance in response to differences in the learning environment, such as on-site training and the number of assignments in each grade, it is possible that the students did not have sufficient opportunities to improve their self-esteem or felt that they had improved it. One possible reason for the lack of improvement in self-esteem as the grades progressed is that, although their knowledge increased, students faced new self-challenges through on-site practice. Their ability to cope with the stress of new challenges may have been insufficient, leading to mild depression across all grades. It is also possible that the students were depressed. In the future, it is necessary to identify the factors that lead to ongoing depression among undergraduate nursing students and to establish a study support program specifically for this population that will enable them to maintain and improve their mental health in postgraduate clinical practice.

3. Examination of the effect of SCRI-J, SCS-J, GSES and RSES on SDS

As SDS showed a rather strong negative correlation with the SCRI-J, SCS-J, GSES, and RSES, it is expected that higher scores on the SCRI-J, SCS-J, GSES, and RSES would be related to lower depression scores. The adjusted R^2 of .49 indicates that the SCRI-Jand RSES are more strongly related to reducing SDS despite the unsatisfactory

model fit and highlights the relationship between the response to self-compassion as measured by the SCRI-J and self-esteem and depression on the RSES. Several studies have shown that self-compassion has a negative effect on depression (Macbeth and Gumley 2012), improved self-esteem leads to reduced depression (Saito and Hatono 2019), and a strong positive correlation exists between self-compassion and self-esteem (Neff 2003a; Mizuno et al. 2017). Our findings that undergraduate nursing students' responses to self-compassion and improved self-esteem may be related to reduced depression reflect those of previous research. Our findings also showed that the SCRI-J, which measures reactions to self-compassion, may be more related to the reduction of depression than that by the SCS-J, which measures kindness, compassion, etc. towards one's current self.

This suggests that the ability of nursing undergraduates to demonstrate kindness and compassion for themselves when faced with hardship, rather than their current level of kindness and compassion, may be an important factor in reducing depression.

In the present study, undergraduate nursing students' self-esteem was more strongly related to reducing depression than their self-compassion. Whether or not undergraduate nursing students were able to 'self-evaluate' (Rosenberg 1965a) or 'self-accept' (Rosenberg 1965b) as indicated by self-esteem, in response to nursing education such as classroom and field practice rather than in response to 'kindness and compassion towards self' as indicated by self-compassion, is thought to be an important factor in maintaining mental health. This suggests that the degree of evaluation and acceptance may have a strong influence on mental health. Self-compassion is not influenced by evaluations of the self or others; as a result of being kind to oneself and balancing the experience as something shared with others, positive feelings arise when faced with negative evaluations. In contrast, self-esteem is influenced by evaluations of the self and others; negative feelings arise from negative evaluations (Neff 2003b). Self-esteem and the acceptance of self-esteem are only subjective evaluations.

The undergraduate nursing students in this study, whose self-esteem had a higher impact on their mental health than their self-compassion, were at risk of enhanced negative cognitions when faced with objective evaluations that included negative evaluations from others. It cannot be ruled out that the thoughts formed during undergraduate education are likely to continue in professional clinical practice. These thoughts may lead to burnout when these individuals are faced with challenges and negative evaluations. Although the ability to analyse oneself for self-evaluation and self-acceptance is a strength of undergraduate nursing students, it has been shown that students direct their attention to understanding external problems rather than the internal experience of selfevaluation. Students follow a basic nursing education curriculum where a problem-solving orientation is considered dominant (Tomita and Kikuchi 2017). To summarise our findings, undergraduate nursing students are expected to be more focused on external negative evaluations rather than their own mental health when negative evaluations occur. It is necessary to construct a mental health study support program specifically for undergraduate nursing students, which will help them understand themselves and improve their self-compassion and response to self-compassion, rather than being caught up in overly negative perceptions upon facing negative evaluations when they work as nurses.

Although self-efficacy, as indicated by the GSES, showed a strong negative correlation with depression in the present study, it did not fit the model when the strength of the relationship with depression was examined. Self-efficacy has been defined as 'the anticipation of being able to perform some behaviour well' (Bandura 1982) (Bandura 2006). When the concept of self-esteem is also integrated, the undergraduate nursing students in the present study showed that they were self-evaluative and self-accepting in terms of the subjective evaluation of their experiences. However, their anticipation of their ability to successfully implement future nursing practice was not strongly influenced by factors that maintain their mental health. Undergraduate nursing students are at a stage of developing their assessment skills, including the nursing process, and it is expected that assessing and

understanding the treatment of novel cases will be difficult, challenging their ability to view these as realistic cases that may occur in the future. As a result, novel cases are not recognised as cases that can be resolved, potentially leading to negative perceptions such as anxiety, rather than a sense of efficacy. Against this background, despite self-efficacy is a concept of a positive image of oneself, similar to self-compassion and self-esteem, the relationship may have been weak as a mitigating factor for depression. The study also suggested the need to systemise lectures, exercises, and practical training, and to provide nursing education aimed at imagining novel cases into practice. This would not only improve undergraduate nursing students' sense of efficacy for handling unfamiliar clinical situations but also their confidence and efficacy in nursing practice for the future.

Limitations of the study

First, it is difficult to generalise the findings of this study to the relationship between self-compassion, selfesteem, and depression among undergraduate nursing students, as the study only included undergraduate nursing students from University A. Second, background factors, such as the demographics of undergraduate nursing students by grade, were not fully considered. In addition, the difference in response rates between grades may have had some influence on the results of this study. Future research should be conducted to examine factors related to depression, including the background factors of undergraduate nursing students, and to establish a study support program leading to mental health measures for undergraduate nursing students.

Conclusion

This study revealed the relationship between self-esteem, self-compassion, and depression among undergraduate nursing students, and suggested that the strongest reduction in depression among students was related to an increase in self-esteem. However, self-esteem may develop from negative evaluations and shift to negative cognitions, which may also enhance depression. Therefore, it is important to construct a mental health study support program specifically for undergraduate nursing students, which also improves self-compassion and enables students to evaluate themselves, accept the cases they have experienced, and show kindness towards themselves instead of self-denial. The need to introduce this program into nursing education has also been suggested.

Key points

Undergraduate nursing students were depressed in all grades.

Negative correlations were also found between depression and other measures (self-compassion and selfaffirmation).

No significant differences were found between all grades for the SCRI-J, SCS-J, GSES, RSES, and SDS scores.

Self-esteem and response to self-compassion may be strongly associated with depression reduction in nursing students.

Conflicts of interest

There are no conflicts of interest in this study.

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