

Original Paper**Relationship between depersonalization and eating disorders among Japanese nurses**

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Abstract

Among nurses, depersonalization symptoms are serious mental problems which may prevent them from accomplishing their work and may cause medical errors. Therefore, it is important to detect depersonalization among nurses and to give care when it is found. However, depersonalization symptoms are subjectively experienced and recognizing them can be difficult for both the person who experiences them and others. Moreover, depersonalization often appears with other disorders, which make it much more difficult to detect.

Eating disorder is a condition which mostly appears in women and it has been pointed out that psychological stress is one of the inducing factors. Therefore, eating disorder may also be one of the problems that needs to be solved among nurses.

We observed some cases in which depersonalization symptoms were closely related to the onset of eating disorder. However, there are no studies which describe this relationship among nurses. Firstly, this paper, we present our cases and discuss the relationship between eating disorders and depersonalization symptoms (Study 1). Secondly, we examine the relationship between eating disorder and depersonalization, empirically (Study 2).

Study 1 showed the possibility that abnormal eating behavior may be an attempt to cope with symptoms of depersonalization. Study 2 showed that there was a relationship between possible eating disorders and the depersonalization at clinical level ($\chi^2 = 7.09$, $p < 0.05$), and all symptoms of depersonalization in individuals who had a possible eating disorder were significantly higher than those in individuals without it ($p < .001-.05$).

The results indicate that when we find a eating disorder or abnormal eating behavior in nurses, it is recommended to check about depersonalization.

Keywords: depersonalization, dissociation, eating disorder, nurses

1. INTRODUCTION

In trying to encourage women's participation in society one of the central matters is to promote and maintain the mental health of working women. Among nurses, it is especially important to keep good mental health, not only so that they can accomplish their work but also so that they can care for their patients adequately. However, the nursing profession is said to be one of the most stressful professions. There have been many studies about nurses' mental problems such as burn out and depression^(7),25). Considering nurses' problems with stress, we need to have a much more comprehensive knowledge about the relation of stress to their mental problems.

Depersonalization disorder is defined by the DSM-IV¹⁾ as "a feeling of detachment or estrangement from one's self. The individual may feel like an automaton, or as if he or she is living in a dream or movie. There may be a sensation of being an outside observer of one's mental processes, one's body, or

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parts of one's body. Various types of sensory anesthesia, lack of affective responses, and a sensation of lacking control of one's action, including speech, are often present. During the depersonalization experience, reality testing remains intact." Depersonalization is included in the dissociative disorders in DSM-IV¹⁾. Common symptoms of depersonalization are visual depersonalization, altered body experience, emotional numbing, loss of agency feeling, and changes in subjective experiencing¹⁸⁾. It is well known that depersonalization syndrome accompanies most mental disease, emotional stress, somatic disease and exhaustion¹³⁾ and those who are regarded as "intellectual women" are said to experience much more depersonalization²⁴⁾. Therefore nurses may have a higher risk of developing depersonalization disorder. It has been reported that complaints of occupational impairment are very common during depersonalization experiences²⁰⁾. Furthermore, in hospitals depersonalization symptoms are a more serious problem because they are among the factors which can cause medical errors⁶⁾, even though this has not been sufficiently recognized at the clinical level²¹⁾.

Psychologically, it is generally thought that depersonalization symptoms are exclusively experienced as a "subjective experience," and that we cannot identify them unless they are expressed by individuals¹²⁾. Considering the fact that these "subjective experiences" are very difficult to express in plain language⁵⁾, depersonalization disorder is also very difficult to recognize and identify, both subjectively and objectively. Additionally, when depersonalization symptoms are accompanied with other mental problems, this makes it much more difficult to recognize and identify.

Eating disorder is mostly seen in women and it has been pointed that psychological stress is one of the most important causing factors (Ball and Lee, 2000)²⁾. The nursing profession is one of the careers most chosen by women and it involves very stressful work. Although we do not have enough information about eating disorder in working women, the nursing profession may be one of the professions in which this disorder appears most frequently.

Eating Disorder is characterized by severe disturbance in eating behavior. It is comprised of anorexia nervosa (AN), bulimia nervosa (BN) and eating disorders not otherwise specified (EDNOS) in DSM-IV¹⁾. AN is characterized by a refusal to eat enough to maintain a minimally normal body weight. BN is characterized by repeated episodes of binge eating followed by inappropriate compensatory behaviors such as self-inducing vomiting; misuse of laxatives, diuretics, or other medications; fasting; or excessive exercise. A disturbance in perception of body shape and weight is an essential feature of both AN and BN. An EDNOS category is also provided for coding disorders that do not meet the criteria for a specific Eating Disorder. Eating disorder gives damage not only to mental state but also physical state. So when nurses have an eating disorder it may prevent them from performing their work properly.

In the work place eating disorder is often difficult to detect because eating disorder symptoms occur in private, and those who suffer from these disorders are often reluctant to reveal their condition¹⁵⁾. On the other hand, abnormal eating behaviors often disturb their mind and body profoundly, which sometimes makes it easier to be noted by other people around them. So, in comparison with depersonalization symptoms, eating disorder may be more directly expressed and more often treated in counseling as a main problem.

Some researchers have pointed out that eating disorder is a way of coping with negative affects¹⁶⁾. We consider that some individuals use behavior of abnormal eating as an attempt to cope with depersonalization symptoms. Particularly among nurses, depersonalization symptoms provide difficulties regarding their work and this may lead them to recognize coping behaviors spontaneously. However, the relationship between eating disorder and depersonalization symptoms is not clear.

We have been involved in counselling and treating nurses who had eating disorder and depersonalization symptoms. In study 1, we present several of these cases and consider the relationships between the two phenomena. Based on study 1, we examined the relationships between those phenomena in study 2,

empirically.

2. STUDY 1

2.1 Case presentation

All our cases were nurses working in a general hospital in the capital area of Japan.

Case 1.

Ms. A is a 25 year-old nurse. She grew up in the country and she moved to an urban area when she entered nursing college. She has been employed by our hospital since her graduation from the college and worked earnestly in the ward for three years. After she changed her workplace to the operating room she fell down several times during operations. At this point, she consulted a psychiatrist (one of the authors).

When the psychiatrist interviewed her she mentioned; “When I began to study in college I had to make much effort to adopt an urban life style and I intended to change myself. Within a half year I had the feeling that “I am a stranger to myself” and recognized that “I have lost any emotion.” I seemed to be able to become an urbanite, but I lost the actual feeling that “I am living” and I started binge eating. When I was in the second grade of college, I began to vomit in order to lessen the weight and sometime refused food. I knew that I could feel my body and myself only when I engaged in an excessive diet.” She repeated her experiences with anorexia and bulimia and she came to believe that vomiting is also effective in allowing herself to recover from lost sense of body and self. Her binge eating and vomiting became more frequent after she began to work at a hospital and she said. “I had to have actual feeling, because, the work of nurse cannot be accomplished without actual feeling.”

Ms. A was diagnosed as having eating disorder (BN), because she met every category of BN in DSM-IV. Additionally, in the course of the interview, it became clear that she had experienced symptoms of depersonalization before her eating disorder began.

Case2.

Ms. B is a 24 years-old nurse who has been employed by our hospital since her graduation from nursing college. She has worked in the ward for two years. In this place, her head nurse noticed some problems about her eating behaviours and advised her to consult a psychiatrist.

When one of authors (psychiatrist) interviewed her, she mentioned; “When I was a junior high school student, I had a feeling of emptiness. I lost all emotions and body sensations. In my first year of high school I started binge eating and vomiting in order to fill my emptiness. Although vomiting brought me dullness, I was able to feel that I am living in the feeling of that dullness. Moreover I came to know that I can vividly felt my body only in an instant of vomiting. When I decided to be a nurse I could stop binge eating and vomiting. However, when I became a senior year in the university I lost actual feeling about my emotions and body sensations during nursing practice again. Since then I have used vomiting as an attempt to gain actual feelings, because I cannot work as nurse without actual feelings. This attempt succeeded and I got back real feeling. From this experience, I became addicted to binge eating and vomiting.”

Ms. B was diagnosed as having eating disorder (BN) because she met every category of BN in DSM-IV. Additionally, in the course of the interview it became clear that she had experienced symptoms of depersonalization before eating disorder began.

Case 2.

2.2 DISCUSSION

It has been pointed out that eating disorder is related to dissociative disorder. Some researchers have proposed that eating disorder symptoms such as binge eating could be a form of dissociation or a way of inducing dissociative states⁴⁾⁹⁾. Swirsky and Valory²³⁾ reported that a bulimia sufferer may “space

out” or become emotionally numb during and immediately after an eating binge. Self-vomiting or purging or severe food restriction may be used by some patients to end dissociation²²⁾. For example, Heatherton and Baumeister⁴⁾ reported that some bulimic patients describe their purging behavior as a means of getting back to reality after a state of lack of awareness.

However, individuals with eating disorder often grasp their eating behaviours as abnormal and recall their own behaviours during and after it. Additionally, they have negative affects such as guilt and shame for those behaviours. This may indicate that they retain enough ability to recognize the real world and that their dissociation associated with eating disorder is a subjective experience. Therefore we consider that eating disorder may be associated with not other dissociation symptoms but depersonalization symptoms, especially.

In our cases, they had experienced depersonalization symptoms before eating disorder appeared. According to their explanations, they felt that actual feeling was recovered by using abnormal eating behaviour. After this experience, they came to use abnormal eating behaviour as a method to regain reality repeatedly. Therefore, in our cases, it seems that depersonalization symptoms are one of the predictive factors of eating disorder and that eating disorders became more frequent in association with experiences that regained actual feeling.

After being employed their eating disorders became more severe. This may have been affected by the influence of depersonalization symptoms on their work as a nurse. Simon²⁰⁾ has written that as a result of deficits of the symptoms, complaints of occupational impairment are very common and many individuals feel they are working at well below their previous capacity, and some are even unable to work. Particularly in the work place of a hospital, where errors can become critical to patients' lives, depersonalization caused them anxiety regarding the occurrence of errors. Our cases also mentioned that they could not accomplish their work without actual feeling. This may indicate that they use eating disorder to cope with depersonalization in order to work as nurse.

In our cases by identifying their depersonalization symptoms we were able to understand why they had to continue abnormal eating behaviours. Therefore we suggest that in order to treat eating disorder it is important to detect depersonalization symptoms.

On the other hand, in our cases, although they had depersonalization symptoms before eating disorder appeared, the main reason that they needed to consult a psychiatrist was related to their abnormal eating and/or problems associated with eating disorder. Additionally, they did not complain about depersonalization symptoms by themselves. They only discussed them after we suspected and asked about those symptoms. So it may be said that depersonalization symptoms are occasionally covered in connection with eating disorder. Therefore, clinicians should ask about depersonalization symptoms whenever patients complain of having eating disorders.

3. STUDY 2

3.1 METHODS

3.1.1 Participants

Participants were 1003 female nurses from two general hospitals in the capital area of Japan. Their mean age was 27.66 years ($SD = 6.32$). The study was approved by the ethical committee of the Juntendo university. Nurses participated in this investigation after informed consent was obtained. The investigation was performed in 2007.

3.1.2 Instruments

We used the following self-report instruments in this study:

1) The Cambridge Depersonalization scale (CDS):

The CDS comprehensive instrument contains 29 items addressing the complaints associated with de-

personalization syndrome based on a comprehensive study of the phenomenology of this condition. Each item is rated on two Likert scales for frequency and duration of experience. The sum of these two scores generates an index of item intensity (range, 0–10). The global score of the scale is the arithmetic sum of all items (range, 0–290). It has a high internal consistency (Cronbach α and split half reliability of 0.89 and 0.92). A cut-off point of 70 was shown to yield a sensitivity of 75.5% and a specificity of 87.2% by distinguishing depersonalization disorder from panic disorder, generalized anxiety disorder and temporal lobe epilepsy¹⁷⁾. In addition, the CDS has four subscales (anomalous body experience, emotional numbing, anomalous subjective recall, alienation from surroundings)¹⁹⁾. The original English scale was translated into Japanese and the Japanese version has also good reliability and validity²¹⁾. Although original study which examined in clinical condition recommended cut-off point of 70, our study showed that a cut-off point of 60 is capable in non-clinical condition in order to distinguish depersonalization disorder from general population. So, we used cut-off point of 60 in this study.

2) Eating Attitude Test–26 (EAT–26):

The EAT–26 is widely used as a self rating screening for abnormal eating attitudes and has proved to be efficient in detecting AN³⁾. A cut-off point of 20 was found to correctly identify 83.6% of cases using anorexia patients and students. In addition, EAT–26 has 3 subscales (diet, bulimia and food preoccupation, oral control) and contains 26 items with six possible answers for each statement ranging from 'never' to 'always'. In Japan, Nakai¹¹⁾ demonstrated the validity of EAT–26 and showed that EAT–26 scores are higher not only in those with AN but also in those with BN, compared with those of the control group.

3) Socio-demographic variables:

We asked participants about socio-demographic variables, age, and length of nursing career.

3.2 RESULTS

Table 1 shows the mean scores of all scales. Prevalence of participants whose EAT–26 score was more than 20 among all participants was 3.6% (N = 132). There were no significant differences between those who scored more or less than 20 points of EAT–26 score in regard to socio-demographic variables (age and length of nursing career). We named the group whose EAT–26 scores were more than 20 "possible eating disorder group" (possible ED group) and those whose EAT–26 scores were less than 20 the "non-eating disorder group (non-ED group)

As shown in Table2, although 1.9% (N = 18/967) of participants in non-ED group had possible depersonalization disorder, 8.3% (N = 3/36) of participants in the possible ED group also had possible depersonalization disorder. These were significant associations ($\chi^2 = 7.09$, $p < 0.05$). Scores of total

Table 1 Mean scores of all scales.

scales	M	SD
total EAT–26	4.42	6.31
dieting	3.17	4.50
bulimia and food preoccupation	0.66	1.73
oral control	0.67	1.35
total CDS	9.27	19.48
anomalous body experience	2.11	5.84
emotional numbing	1.85	4.53
anomalous subjective recall	2.26	4.48
alienation from surroundings	2.29	4.49

Table 2 Relationships between eating disorder and depersonalization of clinical level.

			CDS				Total	
			< 60 (non-depe)		≥ 60 (possible depe)			
			N	%	N	%	N	%
EAT-26	< 20	(non-ED)	949	98.1	18	1.9	967	100.0
	≥ 20	(possible ED)	33	91.7	3	8.3	36	100.0
	total		982	97.9	21	2.1	1003	100.0

$\chi^2 = 7.09$ $p < .05$

Table 3 The CDS scores of those with possible eating disorder and without.

	EAT-26				p
	< 20 (non-ED) N = 967		≥ 20 (possible ED) N = 36		
	M	SD	M	SD	
total CDS	8.60	17.02	27.33	50.25	*
anomalous body Experience	1.92	5.14	7.14	14.84	*
emotional numbing	1.68	4.04	6.25	10.72	***
anomalous subjective recall	2.13	3.98	5.92	11.07	*
alienation from surroundings	2.18	4.20	5.28	8.92	*

* $p < .05$ *** $p < .001$

CDS and all its subscales in possible ED group were significantly higher than in non-ED group ($p < .05, .01, .01$ and $.001$, respectively). (Table 3)

3.3 DISCUSSION

3.3.1 Prevalence of possible Eating Disorder

The prevalence of possible eating disorder among nurses in this study was 3.6%. This figure is somewhat less than that obtained by Japanese students (3–10.5%) in previous studies⁸⁾¹⁰⁾¹⁴⁾. However, eating disorder seems to be a serious problem when it appears in nurses, even if the number of cases is small. Moreover, it has been pointed out that precise estimates of prevalence vary widely, perhaps because those who suffer from eating disorder are often reluctant to reveal their disorder¹⁵⁾. So, there is a possibility that the rate of eating disorder is underestimated. Actually, although our cases (study 1) had eating disorder since they were students, they did not express their problems until other problems occurred. The possible prevalence of partial eating disorder is estimated to be at least twice that of those having full-syndrome eating disorder¹⁵⁾. Therefore, it has become a great matter to be concerned about and solved for hospitals and their managers. However, there is not yet enough information about eating disorder in working women. So we should examine eating problems among working women and find out of predicting and preserving factors related to work.

3.3.2 Relationship between depersonalization of clinical level and eating disorder

Our analyses revealed that there was a relationship between possible eating disorder and depersonalization of clinical level.

The CDS cut-off point was established by investigation which distinguished inpatients with deper-

sonalization disorder from inpatients with other psychiatric disorders. So, when individuals get scores of more than the cut-off point, their depersonalization may be considered to be as severe as the clinical level of inpatients who need treatment. This may indicate that some nurses with possible eating disorder also have clinical depersonalization disorder.

However, depersonalization is supposed to be exclusively experienced as a “subjective experience,” and we can not identify it without individuals’ own expression¹²⁾. These “subjective experiences” are very difficult to be expressed in plain language⁵⁾. So these individuals may also have difficulty in identifying their own condition and explaining their condition to others, which may often cause misdiagnosis of depersonalization. In practice, our cases (Study 1) could not express their depersonalization experience voluntarily. With their eating disorder symptoms they come to focus especially on their suffering from abnormal eating style. This indicates that for patients, colleagues and clinicians, depersonalization symptoms accompanied by eating disorder will be much more difficult to be identified. Therefore depersonalization disorder may be a hidden disorder lying behind the eating disorder.

3.3.3 Relationship between eating disorder and symptoms of depersonalization

In study 2, all symptoms of depersonalization in individuals who had possible eating disorder were significantly higher than those in individuals without it. Especially, “emotional numbing” among individuals with possible eating disorder was higher.

Items of “emotional numbing” are composed of lost of feeling about emotion, lost of thought and loss of feeling about body sensations.

In Study 1, our cases complained of emotional numbing (such as “I lost all emotions and body sensations”) before they had eating disorder and they complained about losing a certain sense of their body and emotions. Although at the present time the cause of abnormal eating has not been clearly shown to be derived from emotional numbing, emotional numbing seems to have some relationship with eating disorder.

4. CONCLUSION

In conclusion, we found clinical cases who used abnormal eating practices which met the criteria of eating disorder in order to cope with depersonalization symptoms (Study 1), and empirically, there is a certain relationship between depersonalization symptoms and eating disorder (Study2). However, clinically, depersonalization disorder is a hidden disorder which lies behind the eating disorder. Considering the fact that depersonalization often leads to medical errors, it is important to discover possible concurrent evidence of depersonalization when we treat eating disorder in nurses.

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