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Study on Subjectivity of Panic Disorder in Nursing Students

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Abstract

The purpose of this study is to identify the subjectivity of the panic disorder perceived by the nursing students, to describe the characteristics by type and to understand the type of panic disorder. Q-methodology was applied. 17 junior and senior students of nursing department of A University who received the practical course were asked to classify 38 sentences of the statement on the panic disorder. The collected data were analyzed using QUANL PC Program. In the results of this study, the perception of the nursing students on the panic disorder was classified into 3 factors. The subjectivity types on the panic disorder are 'Panic disorder patient's social relations concentrated type', 'Symptoms of panic disorder concentrated type and 'Psychological cause of panic disorder concentrated type'. In the results of analyzing the subjectivity on the panic disorder using PC QUANL Program, 3 factors appeared and they explained 49.20% of entire variables: 30.32% for factor 1, 11.28% for factor 2 and 7.59% for factor 3. As the factor 1 has 30.32% of explanation power, the persons who are corresponded to each factor means that they are the group of persons showing similar response to the panic disorder. This study identified the perception of the nurses in the clinical service and provided the basic data for the education.

Keywords: Panic disorder;Nursing student; Subjectivity; Q-Methodology; Nurses.

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Introduction

As a disorder that the patient falls into the panic that the heart is pounding by the sudden severe anxiety without objectively clear reason, feels like going insane right away by suffocating or dead, the panic disorder is the phenomenon that appears continuously under state of long tension. However, even it is not developed to the panic disorder, the population who experiences the symptoms of panic disorder is about 30% and lots of people are suffering from

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the symptoms of panic disorder(Park J. Y., 2013).

The panic disorder is a common anxiety disorders and the life prevalence reaches to 5.1% of general population in USA and 12-month prevalence reaches to 2.1% (Grant B. F.*et al.,* 2006). According to one domestic epidemiological research, as the life prevalence is 0.3% and 12-month prevalence is 0.2%, the lower prevalence was shown compared to the United States or Europe (Cho M. J.*et al.,* 2015) but the patient diagnosed as panic disorder and under treatment in our country is on the increase. According to the data of National Health Insurance Corporation, approximately 120,000 people received the treatment for the panic disorder during one year of 2016 and this is the number increased by 2.4 times compared to 2010 (Health Insurance Review and Assessment Service, 2017). In the meantime, since the panic disorder has significant physical symptoms such as pain in the chest, palpitation, dizziness, etc., the patients visit the general hospital or the primary medical care a lot, for which it is known that the prevalence of the panic disorder in the primary medical care is higher. 3-8% of the primary medical care visitors can be diagnosed as panic disorder, for which the problem accompanied with the increase of medical service use, the decrease of productivity, and the increase of medical cost are the public health and social problem (Katon W., 1986; Zaubler T. S. *et al.,* 1998).

Significant number of panic disorder patients are improved but it is known that there are lot of partial remission and the recurrence is not rear. In the actual clinical environment, the remission rate of the patient treated for the panic disorder within one year is reported as 46% (Marchesi C.*et al.,* 2006). According to epidemiological research that followed the general populations more than 40,000 for 3 years, in case of panic disorder alone or accompanied with agoraphobia, more than 2/3 of patients have been in remission within 3 years but 10% of them was the case that although the symptoms do not satisfied with the diagnosis criteria, the symptoms are remained and the panic disorder recurred in 12% of the patients having panic disorder alone and 21% of the patients having panic disorder accompanied with agoraphobia within 3 years (Nay W.*et al.,* 2013). In the results of another research tracking the period between 15 and 60 months, it reported that most of the patients are getting better but the case of complete remission is few (Roy-Byrne P. P.*et al.,* 1994), and the research on the large community in Netherlands reported that out of the patient tracked, 64% have been inn remission for average 5.7 months but 43% has not been in remission within 1 year and even after remission, the panic disorder was recurred for 21% (Batelaan N. M.*et al.,* 2010). Because of such chronicization and the recurrence risk, the effort to reduce the early dropout of the panic disorder treatment by the medical staff would be required.

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The nurse not only occupies the most parts in the health care field but also is the key manpower having the contact with the patient the most and must provide the safe and high level of nursing to the target within limited time in the rapidly changing health and medical environment (Dyess S.*et al.*, 2010). The subjectivity of the perception when they meet with the subject in the nursing site has great influence on the nursing performed by them. Therefore, the identifying the nurses' and preliminary nurses' perception is important.

There is no research on the panic disorder performed with nursing students. Therefore, Q Methodology is the methodology that can understand the characteristics by each type according to the structure of human subjectivity and started not from the hypotheses of the researcher but from the perspective of the doer (Stephenson W., 1982) and since the perception of the nursing student on the panic disorder is the subjective unique experience, Q Methodology, which is the research method considering the subjectivity of the subjects, is the appropriate research method to verify the type of nursing students' perception on the panic disorder.

Therefore, this study was intended to provide the basic data in developing the differentiated education program according to the characteristics by type as a preliminary nurse before advancing to the nursing site where the panic disorder is treated successfully, by identifying the structure of subjectivity on the panic disorder in the perspective of nursing students.

Therefore, this study is intended to find out the subjectivity structure of nursing students' perception of professional and use it as the underlying material for development of education program for nursing students which is differentiated based on the characteristics of each types of perception of professional.

Materials and Methods

Research Design

To achieve the research objectives, discover the subjectivity considering the type of subjective perception on the panic disorder from the nursing students who experienced the panic disorder after examining the literatures, media data and preceding researches on the panic disorder.

Selection of Q Population and Q Sample

To extract the comprehensive statement on the effect for the panic disorder from the students of nursing department, related domestic and overseas literatures were examined, open questionnaire and individual in-depth interview, etc. were performed. Through such process, 200 Q-populations were drawn and total 100 Q-populations were extracted by aggregating the literatures collected through the review of the related domestic and overseas literatures. Final 38

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sample having high discrimination capacity were selected through the review and the correction procedure of Q-sample extracted.

P-Sample Selection Method

Q-methodology is the qualitative research method that emphasizes the inertia among individuals focusing not on the difference among individual but on the meaningfulness within individual or difference in the importance and based on the small sample doctrine that claims that if P-sample becomes bigger, its characteristics is not revealed clearly as various persons are concentrated on one factor (Whang S. M.*et al.*,2006). P-sample of this study was total 17 students of nursing department who were explained the research purpose enough and agreed voluntarily to participate in this study.

Q-sorting and Data Analysis Method

Q-sorting is the process that the research subjects selected as p-sample is making the voluntary definition on the panic disorder by classifying the statements of the Q-sample by the forced normal distribution method (Whang S. M.*et al.*, 2006). The data were collected from the 17 students of nursing department at OO University utilizing Q-card. The time taken by one research subject to complete Q-sorting was mostly 30 ~ 45 minutes. The research subjects sorted the statements selected as Q-sample from absolute positive to absolute negative according to the importance of their own opinion. The statements (Q1) on the panic disorder were sorted as 12-point scale. Then, regarding the statements sorted both ends, the interview was performed with the research subjects. For Q-factor analysis, Principle Component Factor Analysis (varimax) was used. For the categorization, the type was selected considering the outcome produced, total explanatory variable, etc. by putting in diverse number of factors based on Eigen value 1.0 or more. The data collected were scored with conversion scores from 1 to 12 points of the cards distributed forcefully o the Q-sample distribution chart. The conversion score granted were processed with the principal component factor analysis using QUANL PC Program by coding in order of Q-sample number. The data analysis was made using QUANL PC Program.

Ethical Consideration for Research Subjects

Before starting this study, the subjects were explained that they may stop participating in the research at any time during the research after asking voluntary consent. To respect the rights of the subjects and to guarantee the privacy and the secrecy of personal information, all the information collected through this study were performed with Q-sorting after being processed anonymously and codified during entire process of data analysis.

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Results and Discussion

Characteristics by Type of Panic Disorder

To analyze the subjectivity of the nursing students on the panic disorder, the characteristics by type were described based on the statements belonged to each type. 3 factors were extracted by classifying Q-response of P-sample (research participant) into upper level questions and the sub-level questions. In the Q-methodology, among the persons belonged to each type, the person with higher factor weight shows that he/she is the typical or ideal person represented that type.

The statements having the standard score (z-score) of ±1.00 or higher among the questions in the questionnaire classified to analyze the characteristics by each type on the panic disorder were interpreted by granting the meaning.

In the results of analyzing the subjectivity on the panic disorder using PC QUANL Program, 3 factors appeared and they explained 49.20% of entire variables: 30.32% for factor 1, 11.28% for factor 2 and 7.59% for factor 3. As the factor 1 has 30.32% of explanation power, the persons who are corresponded to each factor means that they are the group of persons showing similar response to the panic disorder as shown in table 1.

Table 1: Eigen Value, Variance, and Cumulative Percentage

	Type Ⅰ	Type Ⅱ	Type Ⅲ
Eigen Value	5.1550	1.9183	1.2911
Variance(%)	.3032	.1128	.0759
Cumulative	.3032	.4161	.4920

Analysis by Type

The subjectivity type on the panic disorder estimated by such type analysis method are as table 2.

- Panic Disorder Patients' Social Relations Concentration Type: The characteristics of the type 1 is that they have interests in the interpersonal relationship and the social relations of the subject. They said that the panic disorder makes the subject socially isolated, suffer difficulties in communication and maintaining the career, etc. In addition, they said that the management of panic disorder patient is also affected by the surrounding people. They thought that the panic disorder would not be developed inherently and the experience during the childhood and the propensity would not have influence. They said that the persons belonged to this type would

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have difficulties in maintaining the overall social life. Therefore, the type 1 is named as 'Panic disorder patient's social relation concentration type'.

- Panic Disorder Symptom Concentration Type: The characteristics of the type 2 is that they have interests in the symptoms appeared by the panic disorder and the situation that may deteriorate the panic disorder. They said that the panic disorder is belonged to mental disorders and the anxiety is the representative symptom. They thought that the panic disorder would be deteriorated when having severe stress, having severe fear for death. In addition, they said that they did not think that the incident in the children is high or the symptoms of panic disorder is deteriorated during the community life. They thought that people understand the symptoms of panic disorder and must help them continuously. Therefore, the type 2 was named as 'Panic Disorder Symptom Concentration Type'.

- Psychological Cause of Panic Disorder Concentration Type: The type 3 placed the importance on the cause that the panic disorder develops. They said that the case of expressing their emotion well, the case of having great fear for death, etc. may be the cause bring the panic disorder. They thought that the panic disorder patient can be recovered through the treatment by identifying the cause. They said that the panic disorder is not affected greatly by the genetic effect and required the treatment rather than the natural healing. Therefore, the type 3 was named as 'Psychological Cause of Panic Disorder Concentration Type'.

Table 2: Representative Question on Panic Disorder and Z-score(N=17)

Representative items of type				
Factor	No	Representative items	Mean(SD)	Z-score
Factor1 (N=9)	14	Panic disorder leads the social isolation of the subject.	9.33(1.414)	1.71
	24	In the follow-up management of panic disorder, the role of surrounding people is great.	9.11(1,764)	1.46
	13	Panic disorder affect the social communication.	8.22(1.922)	1.36
	21	Panic disorder makes the subject feel difficulties in maintaining career.	8.78(1.394)	1.33
	3	Panic disorder is belonged to mental disorders.	8.33(2.784)	1.31
	16	Panic disorder is affected greatly by the genetic effect.	2.33(1.414)	-2.07
	15	Role of parents during the childhood has important influence.	3.89(2,522)	-1.54
	31	They lack the patience for the desire control.	3.44(2.068)	-1.44
	11	Person who has strong dependency from childhood is likely to occur panic disorder.	3.89(1.616)	-1.31
	5	For the panic disorder, the cognitive behavioral therapy is the most effective.	4.33(1.936)	-1.17
Factor2 (N=5)	2	Anxiety is the representative symptom of the panic disorder.	9.80(1.789)	2.05
	3	Panic disorder is belonged to mental disorders.	9.20(1.789)	1.82
	1	Panic disorder is deteriorates when the patient is in front of public	8.80(2.950)	1.73

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	10	Person vulnerable to stress has higher probability of developing panic disorder.	8.60(1.949)	1.52
	38	Fear for the death may lead to the panic disorder.	8.00(2.550)	1.12
	37	In case of children, they are highly likely to develop panic disorder.	2.20(1.789)	-2.02
	30	Symptoms of panic disorder are deteriorated during the community life.	3.20(1.789)	-1.55
	29	Panic disorder shows the tendency to obsess the health condition.	3.60(2.608)	-1.47
	33	Panic disorder cannot be cured naturally.	3.20(1.483)	-1.39
	19	For the panic disorder patient, they lack control.	3.40(1.949)	-1.25
Factor3 (N=3)	32	In case of not expressing one's emotion, the panic disorder may be developed.	9.33(2.082)	1.89
	31	They lack the patient for desire control	7.67(2.887)	1.37
	33	Panic disorder cannot be cured naturally.	7.67(2.082)	1.22
	10	Person vulnerable to stress has higher probability of developing panic disorder.	8.67(0.577)	1.21
	38	Fear for the death may lead to the panic disorder.	7.67(2.082)	1.20
	16	Panic disorder is affected greatly by the genetic effect.	2.00(1.000)	-2.13
	4	Panic disorder shows the aggressive characteristics	2.00(1.000)	-2.00
	5	For the panic disorder, the cognitive behavioral therapy is the most effective.	3.00(1.000)	-1.50
	17	Punishment may lead to the panic disorder	4.00(2.646)	-1.36
	26	Panic disorder has negative influence on the body.	4.33(3.055)	-1.35

In the results of this study, for the subjectivity type perceived by the nursing students on the panic disorder, there are 'Panic Disorder Patients' Social Relations Concentration Type', which is the type 1, 'Panic Disorder Symptom Concentration Type', which is type 2, and 'Psychological Cause of Panic Disorder Concentration Type', which is type 3, and the characteristics by type will be discussed.

Type 1 appeared in this study was 'Panic Disorder Patients' Social Relations Concentration Type'. They have conservative tendency like the existing perception on the panic disorder. They thought that as the panic disorder patients have difficulties to take relations socially and it affects the communication with the surrounding people, they would quit daily living after all. They thought that the panic disorder is not inherent or the childhood experience is not the cause but they consider it as a personal problem and the treatment would be hard.

The reason why the treatment rate is low while the subjects experience the panic disorder are a lot is because the Korean society has repulsion on the mental diseases and has wrong perception that the treatment would be impossible(Kang M. K.*et al.*, 1994). Particularly, in Korean society, the mental diseases are marked as a disease hard to be treated or incurable, which provides the relevant person or family with the cause of avoiding the diagnosis (OhP. J., 2013).

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General public still has negative thinking on the mental diseases and the discrimination and prejudice for the patients with metal diseases, which works as an obstacle so that the people having metal diseases cannot get the systematic and effective treatment earlier (KimM. H., 2002). Therefore, it is necessary to establish the implementation strategy that reduces the social repulsion for the patients having mental diseases in the people and allows the patients having mental disease to get proper treatment and return to society.

Type 2 is 'Panic Disorder Symptom Concentration Type'. They would like to identify the situation or surrounding environment that the symptom can be alleviated or deteriorated focusing on the symptoms of the subjects currently suffering the panic disorder. They identify the difficulties that the patients are currently suffering and find the way to help them in the surrounding.

The recovery for the patient with mental diseases can be classified into the case that the symptoms ad function are recovered and the case that living meaningful life in spite of having diseases (Davidson, L.*et al.*,2007). The recovery referred in the latter is not the concept of disease treatment but emphasizes the importance of individual activity and the participation in the given environment. Health is defined not only as the state without having disease or not weak but also as a state under the physical, mental and social well-being (Anthony W. A.,1993). In this perspective, since the patients having panic disorder can return to the society through the self-management and live regulating daily life, we should not judge them with distorted perspective.

The panic disorder is one of the anxiety disorders that the sudden severe fear appears repeatedly without any clear reason (American Psychiatric Association., 2013). In the panic attack, together with the extreme fear, the physical symptoms by the acceleration of sympathetic nervous system such as tachycardia, respiratory difficulty, perspiration, shivering, breast discomfort, nausea, dizziness, chill or dysaesthesia, etc. appear and used to accompany with severe anxiety such as derealization, dispersonalization, fear for losing control, fear for death, etc.(American Psychiatric Association., 2013). The panic disorder commonly concurs with agoraphobia and the symptoms occur as the place or situation that cannot get the help during the panic attack works as triggering factor of panic attack. In the meantime, in some patients, the panic attack appears in resting without big stress or in the state of sleeping. Most of the patients worries about the recurrence of panic attack continuously and fear for the results and show the behavioral change to avoid that (American Psychiatric Association., 2013). In the panic disorder, it is hard to expect when the attack appears and since the extreme fear is experienced during the panic attack, it is known that the patient's desire for treatment is very

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high (Salzman C., 1993).

The problem of panic disorder is no longer a problem of specific individual or a problem of family but we can protect them and treat them as long as entire society should cooperate organically together. In addition, we can secure the safety of our society, too (Katon W., 1986). That is, the panic disorder is not the specific disease contracted by specific persons only and the perception on it should be changed as a disease that any of family member can experience including him/herself as we are living (Park J. Y., 2013). Therefore, the national promotion and the education on the panic disorder are deemed to be necessary and the improvement of perception is needed so that the patients with metal diseases can get the treatment with ease (Park J. Y.,2013).

Type 3 is 'Psychological Cause of Panic Disorder Concentration Type'. In case of this type, they said that the patients can recover it through the active treatment that can solve the fundamental cause of panic disorder having interest in the psychological cause of panic disorder.

There is a report that the experience of the negative living event such as indifference in the childhood, physical abuse, emotional abuse, sexual abuse, etc. become the stress factor and affect the prevalence of mental diseases including depression and anxiety disorders in the subsequent adulthood(Beitchman J. H.*et al.*,1992), which implies that the genetic predisposition of individual makes the phenotype vulnerable to the stress combined with the negative experience during the decisive period that physical, emotional and cognitive growth are achieved and cain increase the risk of contracting the mental diseases later (Kim Y. K., 2011).

Neurosis is one of the personality factor referring to the inclination of maintaining the negative emotional state and the person showing higher neurosis is suffering from the emotion such as guilty, anger, anxiety and fear and may have higher risk of the depression and panic disorder (De Young C. G.*et al.,* 2011; Gunthert K. C.*et al.,* 1999). In addition, there is a report that the experience of trauma during early childhood including sexual abuse affects the formation of neurosis makes the person feel discomfort in the social environment, evaluate and respond negatively to the stressdisorder (Gunthert K. C.*et al.,* 1999; Roy A., 2002). Since the panic disorder patient also shows the inclination of avoiding the situation triggering the anxiety using escape-avoidance strategy (Cox B. J.*et al.,* 1992), we can consider the association possibility between them.

This study explored the subjective perception of the nursing students on the panic disorder and analyzed it by classifying it into 3 types. Through this study, it was thought that the improvement of basic perception on the panic disorder would be necessary. It was expected that

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such change would help the active treatment and recovery of the panic disorder and allows the panic disorder patients' return to the society. The characteristics by type were classified into 'Panic Disorder Patient's Social Relations Concentration Type', which considers the panic disorder as one of the mental diseases and sees with the perspective of prejudice and discrimination, 'Panic Disorder Symptom Concentration Type', which concentrate on the symptoms of panic disorder and tries to provide the help, and 'Psychological Cause of Panic Disorder Concentration Type', which concentrates on the cause of panic disorder and considers the active treatment.

The research on such subjectivity would provide the help to improve the perception on the panic disorder prevalent in our society. In addition, this study is expected to be used as a basic data for development of differentiated education program as it presented the subjective structure of the perception and the characteristic of the panic disorder in the nursing students as a preliminary medical staff.

Conclusion

This study was attempted by applying to Q-methodology for the purpose of preparing the basic data required to change the perception on the panic disorder and to present the approach direction of the nurses through the subjective data explored and analyzed the subjective perception of the nursing students on the panic disorder. In the results of this study, it was classified into 3 factors. The type on the panic disorder perceived by the nursing students was appeared as 'Panic Disorder Patient's Social Relations Concentration Type', 'Panic Disorder Symptom Concentration Type', and 'Psychological Cause of Panic Disorder Concentration Type'.

This study provided the basic data to prepare the improvement measures of attitude and perception on the panic disorder in future by categorizing the subjectivity of the nursing students on the panic disorder. As through this study, the type of perception on the panic disorder in the nursing students was analyzed and their characteristics were verified, it is expected that the education program considering the characteristics by each type would be developed. In addition, additional research on the type analysis is suggested by selecting the samples considering diverse factors and the qualitative research is proposed to verify diverse factors having influence on the nursing of panic disorder patients.

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