

Subjectivity Study on Anxiety in Clinical Practice of Nursing Students

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Abstract

The purpose of this study is to apply Q methodologies to identify and understand the type of anxiety in clinical practice of nursing students. The study organized the Q population through in-depth interviews to select 30 Q samples that could represent the Q population by coordination with two professors and researchers familiar with the Q methodology, and 29 nursing students were selected as P-samples. The data collection was about three months from August 31 to September 11, 2020 and was analyzed using the PQ Method Program. According to this study, nursing students anxiety in clinical practice was divided into four types: Type 'Anxiety related to lack of knowledge', Type 2 'Anxiety related to self-satisfaction and expectations', Type 3 'Anxiety related to vague expectations', Type 4 'Anxiety related to personal factors'. As a result of this study, it is significant that it provided basic data that could suggest customized current interventions by analyzing the subjective perception patterns of nursing students about clinical practice anxiety. Therefore, it is considered that it is necessary to strengthen the competency of nursing students by applying the intervention plan to the comparative course in the future.

Key Words: Nursing students, Anxiety, Clinical practice, Q method, Subjectivity

Introduction

Clinical practice is essential in nursing education, and it prepares nursing students to apply what they learn in real theories in clinical practice through practice, and helps students develop critical thinking skills for problem solving¹. In Korea, students are required to complete 1,000 hours of individual clinical practice training in order to apply the theories learned in the clinical field, and clinical practice training is provided for more than 1,000 hours at all nursing colleges in Korea². Nursing students experience communication with patient caregivers and other medical staff through clinical practice education, and apply the basic nursing skills and nursing courses practiced in the on-campus practice

room, systematically learning theories and practice, and basic skills as professional nurses³. However, nursing students complain of anxiety when they start clinical practice⁴. Beck and Srivastava⁵ report that nursing students show anxiety in clinical practice due to lack of clinical experience, unfamiliarity, difficult patient, fear of practice, and evaluation of faculty in clinical practice.

The negative experience in the first clinical practice is a factor that decreases motivation and interest in clinical practice⁴, and as a result, it leads to negative results for nursing education and actual clinical practice, resulting in decreased satisfaction with clinical practice. As a result, it is a major factor in the decline in job identity as a nurse⁶.

Accordingly, sufficient preparation is required before the practice so that students can practice clinical practice with confidence in nursing without fear of practice. Currently, nursing education has a simple clinical practice orientation to help students prepare for practice, but there is a lack of systematic programs for clinical practice considering the cause of anxiety or

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fear⁷. In addition, student anxiety can be an important variable for nursing students' career vocation, sense of accomplishment, clinical performance, and reduction of nurse turnover after graduation, so an in-depth study is needed⁷⁻⁹.

In previous studies, studies related to clinical practice anxiety in nursing college students included state anxiety and self-efficacy before clinical practice¹⁰⁻¹¹, and stress. And anxiety¹²⁻¹³, etc., and most of the studies confirming the influential factors or effects. Research has not been conducted.

Therefore, in this study, the subjective worries or fears that nursing students feel before they begin clinical practice, and what level and form they are doing, will be investigated in detail. Through this, it is expected to be possible to understand the practical anxiety of nursing students. Human subjectivity, which means an individual's beliefs and attitudes about a specific object or situation, is limited in grasping the human's inherent psychological state with data based on objective measurements, so the Q methodology for research on human behavior We intend to derive scientific, deep and insightful results through the application of¹⁴.

For this reason, many studies, such as a study on the classification of nurse images of actual nursing students¹⁵⁻¹⁶, have applied the Q methodology to confirm individual subjective attitudes and types of experiences. Therefore, in this study, by applying the Q methodology to confirm the subjectivity of each nursing student and the characteristics of each type according to it, it lays the foundation for nursing students to form a more positive view of anxiety about anxiety before practice, and furthermore the expertise of nursing education It is intended to provide basic data that can contribute to strengthening.

Research Purpose

This study aims to provide basic data for nursing intervention strategies by applying the Q methodology to explore the types of subjective perception of nursing students' clinical practice anxiety, and by analyzing the structure of each type of subjective perception of nursing students' clinical practice anxiety.

The specific purpose of this study is as follows.

- 1) Confirm the subjective perception type of anxiety in clinical practice among nursing students.
- 2) Analyzing and describing the characteristics of nursing college students' subjective perception of anxiety in clinical practice by type.

Research Methods

Research Design

This study is an exploratory study applying the Q methodology, a subjective research method, to explore the perception of anxiety in clinical practice among nursing students in a systematic and scientific way.

Research Subject

The subject of this study is to understand the clinical practice anxiety subjectively perceived by nursing college students. It is a P-sample that can best reveal clinical practice anxiety, and nursing who has experienced clinical practice attending the Department of Nursing in City C. It was targeted at university students. Q To form a recruitment group, a total of 30 subjects, including 5 subjects who participated in the interview, were conveniently sampled, and 30 subjects who were recruited through the recruitment announcement explained the purpose and procedure of the study and received voluntary consent for the study. The study explained that the subject can withdraw from the study at any time they do not want to participate in the study, and there is no disadvantage due to it. A total of 29 P-samples were used in the study, excluding one who responded unfaithfully to the questionnaire.

Research Process

Composition of Q population and Q sample

The selection of Q-sample proceeds in two stages: the composition of the Q population and determining the Q-sample. First, the Q population is the stage before the Q sample, which collects statements until the statement becomes saturated and no more statements can be added¹⁷. In general, a range of 30-50 is suitable for extracting Q samples from the Q population¹⁸. In this study, 130 statements were first collected through prior research and

indepth interviews on clinical practice anxiety among nursing students. In addition, 30 statements were finally selected by re adjusting the questions with overlapping meanings, and as a result of reading and analyzing them several times in relation to clinical practice anxiety, 4 factors (anxiety related to lack of knowledge, anxiety related to self-satisfaction and expectations, current It could be categorized as anxiety related to vague expectations about the situation and anxiety related to personal characteristics). Finally, in order to find out the representativeness and discrimination of each category, one professor of nursing department with experience in performing more than three Q studies and two persons who have completed the doctoral course in nursing and attended the Q methodology workshop in the region once agreed. Thus, the final 30 questions were selected (Table 1).

P sample

The Q methodology is not limited to the number of P samples, as it deals with differences between individual internal meanings, not between individuals, and that the selection of P samples has different views on the subject to be studied rather than according to the probabilistic sampling method. It is better to do what is expected¹⁷. In this study, for nursing students in area C who agreed to participate in the study from August 31 to September 11, 2020, gender, age, and attitude toward nursing students' clinical practice anxiety can be sufficiently revealed. 29 students were selected as the P sample in consideration of grade, religion, and motivation to enter school, as shown in (Table 2). The motivation for entering the department of nursing is based on subjective judgment. For the ethical protection of the research participants, the research subjects were notified of the purpose of the research, confidentiality, and withdrawal of their intention to participate in the research and received written consent.

Q sorting

The time required for Q classification, general characterization, and interview was about 40 minutes, and the Q sample classification period was conducted from August 31 to September 11, 2020.

Is a process in which respondents classify Q samples

and give points to each items. To this end, the statement selected as the Q sample was made into a 5×3 cm card and a serial number was marked on each card. The Q classification was forcibly arranged on the distribution chart from strong positive to strong negative (-4 to 4). As for the classification procedure, the Q card and the Q classification distribution were distributed to the subjects, and after listening to the explanations of the researchers, the two most positive cards were arranged at 4, and the most negative cards were arranged at -4. Immediately after the classification was completed, information related to general characteristics of participants and anxiety in clinical practice was collected through 1:1 in-depth interviews with the P sample and the researcher. Q When sorting cards, first, I chose a card that coincided or disagrees with my thoughts on ' what feelings or thoughts do I have when I think about clinical practice, and what is the most worrisome and fearful?' and put them on the distribution chart. In general, card sorting took about 10-20 minutes, and after sorting, the 1:1 in-depth interview with the researcher took about 25-35 minutes.

Data analysis

This study was analyzed using the principal component analysis of the PQ method program, and the specific analysis method is as follows.

- 1) 21 Q statements were entered with -4 to 4 points assigned to each P sample depending on the level of consent or disagreement.
- 2) In order to determine the most ideal number of factors, the most appropriate one was selected based on an Eigen value of 1.0 or higher.
- 3) The standard score for each type (Z-score) and the average of the standard scores for each type were analyzed.
- 4) Strong consent items (Z-score 1.00 or higher) and strong disagreement items (Z-score -1.00 or higher) by type were extracted and analyzed.
- 5) In order to analyze the reasons for selecting consent items and non-consent items of each type, general characteristics, questionnaire data, and statements of the subject were considered together to comprehensively

analyze the characteristics of the types.

Results

Analysis of results

Of the 29 subjects of this study, 5 (P-2, 17, 20, 23, 27) were not classified as one factor because the difference in factor weights was not significant. The age ranged from 20 to 23 years old (Table 2).

The four types of anxiety perceptions of nursing students in this study were classified according to the characteristics of each type. Type 1 was 5 people, 'Anxiety related to lack of knowledge', Type 2 is 8 people, 'Anxiety related to self-satisfaction and expectations', Type 3 is 4 people, 'Anxiety related to vague expectations', Type 4 is 7 people, classified as 'Anxiety related to personal factors'.

The Eigen Value for each type of this study is shown in <Table 3>, and the explanatory power was 55%. In addition, in the correlation between types showing similarity between types, the correlation coefficient between type 1 and type 4 was the highest at $r=.50$, and the correlation coefficient between type 2 and type 3 was somewhat lower at $r= -.02$ (Table 4)

Q type analysis

Type 1: Anxiety related to lack of knowledge

Type 1 subjects reported that clinical practice anxiety was associated with lack of knowledge (Table 5). They felt anxiety due to the lack of theoretical learning content even though they had to learn nursing skills, critical thinking, and analytical skills by applying the theoretically learned content to the nursing field. Looking at this in detail, the statements of respondents with the first type of representativeness (factor weight 1.0 or more) are as follows. P-11 (factor weight = .76), the epitome of this type, said, "I think I learned something, but when I come to practice, I can't get a sense of what this is and I feel like I'm just looking with my eyes. If you go to practice before the theory starts on schedule at school, you have to read the theory book in your mind, but it doesn't work." Said. Through this, in this study, type 1 with these characteristics was named 'Anxiety related to lack of knowledge'.

Type 2: Anxiety related to self-satisfaction and expectations

Type 2 subjects reported that clinical practice anxiety was related to self-satisfaction and expectations (Table 5). Unlike learning in college, they felt anxious because they had to prepare a variety of things they wanted in clinical practice. Looking at this in detail, the statements of respondents with the second type of representativeness (factor weight 1.0 or more) are as follows. The epitome of this type, P-28 (factor weight = .73), said, "I want to do well, but I think I am only motivated. I want to do one more because it helps me a little when I get a job if I can see it well when I practice, but I am afraid that I will make a mistake, and I am worried that the nurse teachers will not look good." Said. Through this, in this study, type 2 with these characteristics was named 'Anxiety related to self-satisfaction and expectations'.

Type 3: Anxiety associated with vague expectations

Type 3 subjects reported that clinical practice anxiety was related to vague expectations about the nursing field (Table 5). In particular, they have limited practice content, a feeling of atrophy due to an authoritative field atmosphere or rejection from nursing targets, unstable practice environment, and simple work, even though the clinical practice experience is a major requirement to establish a positive image of a nurse or a correct nursing officer. He said he felt anxious due to the repetition of Looking at this in detail, the statements of respondents with the third type of representativeness (factor weight 1.0 or more) are as follows.

P-22 (factor weight = .80), which is the epitome of this type, said, "When I went to practice, it was clinical, so I saw and communicated with patients and thought. However, it is more difficult than I thought and the image of the nurse I thought was broken." Said. Through this, in this study, type 3 with these characteristics was named 'Anxiety related to vague expectations'.

Type 4: Anxiety related to personal factors

Type 4 subjects reported that clinical practice anxiety was related to personal factors (Table 5). In particular, they said they felt anxious about their lack

of understanding and response to patients and their caregivers, and that they would not be able to adapt to changes in the medical environment. Looking at this in detail, the statements of respondents with the third type of representativeness (factor weight 1.0 or more) are as follows. Typical of this type, P-5 (factor weight = .66) says, “I wake up in the morning, go to work,

take over, and I am so sleepy and difficult. I have to do assignments and study for exams, but I am anxious that I can’t happen. After the practice, it is burdensome to play with friends.” Through this, in this study, type 3 with these characteristics was named ‘Anxiety related to personal factors’.

Table 1. Q statement

Statement
1. The new environment is unfamiliar.
2. I don't know when the practice will be stopped because of the covid-19.
3. The school practice environment and clinical practice seem different.
4. The hospital makes me do miscellaneous work.
5. Is after zen practice learn theoretical Course.
6. Is compared to other university students.
7. Compared to the nurses who do not have a break, it is burdensome because I only seem to be relaxed.
8. It's not the medical field I expected.
9. I don't know which patient to meet.
10. I don't know how to communicate with the people I have a relationship with
11. Seems to be ignored by nurses who are actually learning.
12. The patient and his family praise me.
13. The nurse in the practical ward want to take for me a junior.
14. I don't feel burdened to be in a group with friends I'm not close to.
15. Have not good relationship with the professor in charge of practical training
16. It's different from the image of the nurse I thought it would be.
17. I heard stories about the negative nursing culture.
18. I want to do well because it is a hospital of my hope.
19. I don't know if I'm doing nursing or nursing assistnat duty.
20. The ward nurse asks me questions about nursing knowledge.
21. The amount of learning tasks is large.
22. After practicing, I don't know what I learned at school.
23. I received sufficient orientation.
24. There seems to be nothing to learn through practice.
25. I am confused because the knowledge I learned in school is different for each clinical practice.
26. It's hard to get up at dawn.
27. I am very quick to learn something.
28. I'm afraid I'll be harmful to the patient..
29. I am sensitive reaction to small things.
30. I'm full of confidence.

Table 2. General characteristics and factor weights of P samples by type

Type	ID	Factor weights	Age (yrs)	Religion
Type1	P-1	0.72		Protestant
(n=5)	P-8	0.56		None
	P-11	0.76		None
	P-14	0.74		Buddhism
	P-16	0.68		Buddhism
Type2	P-3	-0.59		Catholic
(n=8)	P-7	0.55		Protestant
	P-13	0.63		None
	P-24	0.61		None
	P-25	0.45		Buddhism
	P-26	0.67		None
	P-28	0.78		
	P-29	0.72		
Type3	P-9	0.68		Protestant
(n=4)	P-19	0.72		None
	P-21	0.51		Protestant
	P-22	0.80		Catholic
Type4	P-4	0.60		None
(n=7)	P-5	0.66		None
	P-6	0.50		Buddhism
	P-10	0.59		None
	P-12	0.60		Protestant
	P-15	0.62		
	P-18	0.59		

Table3. Eigen value and Variance by Type

	Type1	Type2	Type3	Type4
Eigen values	7.87	3.53	2.66	2.02
Variance (%)	14	16	11	14
Cumulative (%)	14	30	41	55

Table 4. Correlations among the Types

	Type1	Type2	Type3	Type4
Type1	1.00			
Type2	0.40	1.00		
Type3	0.09	-0.02	1.00	
Type4	0.50	0.34	0.14	1.00

Table 5. Z-score for each type

Statement	Type1	Type2	Type3	Type4
1. The new environment is unfamiliar.		-1.16		
2. I don't know when the practice will be stopped because of the covid-19.			1.70	
3. The school practice environment and clinical practice seem different.	1.11		2.02	
4. The hospital makes me do miscellaneous work.	-1.23	-1.26		
5. Is after zen practice learn theoretical Course.	1.42	-1.30		
6. Is compared to other university students.		-1.63		
7. Compared to the nurses who do not have a break, it is burdensome because I only seem to be relaxed.		-1.28		
8. It's not the medical field I expected.			1.16	
10. I don't know how to communicate with the people I have a relationship			-1.02	
11. Seems to be ignored by nurses who are actually learning.	-2.37	-1.40		-1.31
12. The patient and his family praise me.			1.35	
14. I don't feel burdened to be in a group with friends I'm not close to.	1.11			
15. Have not good relationship with the professor in charge of practical training	-1.16		-1.27	-1.77
17. I heard stories about the negative nursing culture.				1.32
18. I want to do well because it is a hospital of my hope.		1.02		
19. I don't know if I'm doing nursing or nursing assistnat duty.				-1.07
21. The amount of learning tasks is large.		1.51	1.66	2.54
24. There seems to be nothing to learn through practice.				-1.34
26. It's hard to get up at dawn.				1.47
27. I am very quick to learn something.		1.56	-1.10	
28. I'm afraid I'll be harmful to the patient..	2.17		-1.66	1.46
29. I am sensitive reaction to small things.		1.64	-1.22	1.53
30. I'm full of confidence.		1.48		

※ Blank is a statement with no significant standard score.

Discussion and Conclusion

This study was attempted to prepare basic data for nursing intervention strategies by applying the Q methodology to explore the types of subjective perception of nursing students' clinical practice anxiety, and by analyzing the structure of each type of subjective perception of nursing students' clinical practice anxiety. Four types of subjective perceptions of anxiety in clinical practice among nursing students were identified as 'lack of knowledge', 'self-satisfaction and expectation', 'vague expectations', and anxiety related to 'individual factors'.

The anxiety of clinical practice among nursing students in Type 1 is 'Anxiety related to lack of knowledge', and it is difficult to read the theoretical textbook before going on to practice, so not only the motivation and interest in clinical practice decrease, but also anxiety from lack of knowledge. I had. Since it may be difficult to achieve the purpose of clinical practice to apply sufficient theoretical knowledge and skills to the field before practice⁴, type 1 nursing students have the opportunity to acquire sufficient prior knowledge before clinical practice. It is necessary to provide specific information to reduce confidence and anxiety in clinical practice by providing the information.

Anxiety in clinical practice among nursing students in the 2nd type is "Anxiety related to self-satisfaction and expectation," and there are many situations that nursing students have to learn while encountering themselves. He was scolded and had anxiety that he would be disadvantaged when he was hired, and despite being physically and mentally difficult, and trying to act consciously in the practice field, he tried not to lose sight of his efforts. Therefore, it is important for the 2nd type of nursing students to look back on their own faults, think once more from the standpoint of others, and overcome anxiety through a self-development program that seeks to change themselves in a positive direction.

The anxiety of clinical practice among nursing students in the 3rd type is 'Anxiety related to vague expectations', and the attitude of non-educational medical personnel to nursing students in a rapid medical environment and unilateral communication raise the

anxiety of nursing students in clinical practice. In addition, it was found to decrease the coping ability, satisfaction with clinical practice, and clinical practice performance related to clinical practice education. It is said that nursing students feel anxious because they are not familiar with the environment and everyone they meet, such as hospitals, patients, and medical staff, and this is consistent with the research results of Song's¹⁹. Therefore, if the 3rd type of nursing college students experience the role of clinical nurses focusing on clinical reasoning and nursing performance through the application of various cases of nursing courses, anxiety about clinical practice can be reduced and performance confidence can be improved.

Anxiety in clinical practice among nursing students in type 4 is 'Anxiety related to personal factors', and due to personal factors, they felt anxiety that they would not be able to adapt to changes in the medical environment and lack of understanding and response to patients and caregivers. In particular, the study of Alzayyat & Al-Gama²⁰ said that the highest stress was the assignment, and because of this, they were anxious that they would not be able to wake up at work. Therefore, it is believed that the 4th type of nursing college students will be able to lower their anxiety about the assignments and to have a leisure life during the practice period if appropriate assignments and detailed evaluation criteria for the assignments are presented.

As a result of this study, it is meaningful to propose a customized intervention plan by analyzing the subjective perception patterns of nursing college students about clinical anxiety. Therefore, it can be used as useful data to improve the knowledge, skills, and attitudes of nursing college students according to the subjective type of clinical anxiety of nursing college students. However, in order to conduct clinical practice efficiently, there is anxiety due to some degree of stress, but it is thought that anxiety that students cannot overcome will lead to negative consequences that students cannot perform clinical practice. Ultimately, it is necessary to develop a program to reduce the anxiety of nursing students or to modify the developed program to suit nursing education and apply it to the curriculum or education.

The results of this study are limited to generalization as a result of interviewing a total of 30 people including those who participated in the interview to form a Q-recruitment group for 3rd and 4th grade nursing students at one university. It is necessary to understand the characteristics of subjectivity type targeting nursing students at universities.

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