

# Types of Subjectivity for Images of Nurses in Small and Medium-Sized Hospitals

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## ABSTRACT

**Background/Objectives:** The purpose of this study was to provide basic data for improving the desirable nursing image by identifying subjectivity of the nursing image of Korean small and medium-sized hospitals.

**Method:** Final 57 Q-sample constructed of 267 Q-populations. P-sample collected by convenience sampling of 36 nurse in Korean hospitals. P-sample collection was from August 25, to 2017 September 15. Data analysis of the principal component factor analysis method based on PC-QUANL use

**Findings:** Results of this study among the small-medium sized hospital's nurses, three types of attitudes toward nursing images were identified: Type 1 (Caring provider with a mission); Type 2 (Professional health manager); and Type 3 (Responsible medical profession).

**Improvements/Applications:** The results of this study can be helpful in understanding the nursing image and this can be used as basic data for the establishment of desirable nursing image.

**Keywords:** *Q-methodological, Nursing-image, small and medium-sized hospital, Subjectivity, Type*

## Introduction

In Korea, starting from 2018, the demand for medical care is expected to surge due to the introduction of an elderly society. and the demand of nurses is increasing in health care area<sup>[1]</sup>.

According to health care environment, the ratio of nurses which play a key role in patient care, accounts for more than 30-40%. In 2015, the government introduced a comprehensive nursing service system in order to solve the social problems caused by family care for private employment<sup>[2]</sup>.

The 21st century is to nurture competent nurses, provide to high quality nursing care. It is important for nurse practitioners to the image of a medical institution, the nurse's own image are perceived to have an ambiguity<sup>[3]</sup>.

The image of nursing is divided into social, traditional, professional, and personal images <sup>[4]</sup>. In the meantime, if it has responded to many social roles required by traditionally devoted person image <sup>[5]</sup>, who are intelligent, logical, progressive, and sophisticated in their understanding of the other's feelings <sup>[6]</sup>.

According to the Gallup Survey of the United States in 2010, nursing jobs ranked first among the most honest and ethical professionals in the profession, excluding 2001, during the period from 1999 to 2010. According to the survey results of the nurses perceived by the public conducted by the Korean Nursing Association, 9 out of 10 (91.1%) were 'socially recognized professions', 84% said 'nurses have expert knowledge the patient's problem is solved. Furthermore, 8 out of 10 people thought "a warm and kind person who can trust and believe in a nurse"'.<sup>[7]</sup>

it deviates from the image which is in charge of the Today, however, nurses find it difficult to improve the image of themselves by the outside rather than the inner factor of nursing itself <sup>[7]</sup>.

According to the Hospital Nursing Association Report in 2012, the turnover rate of nurses is more than

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three times higher the small and medium size hospital than that of large general hospitals. The turnover rate of large general hospitals is 9.8%, while the turnover rate in small and medium size general hospitals in 200-399 hospitals is 23.2%.

Although small and medium hospitals are in an important position to meet the medical needs of the local residents by linking the large general hospitals and the primary medical institutions in the medical delivery system in Korea.

Thus, the purpose of this study is to provide basic data for establishing the image of nurses in small and medium hospitals by analyzing the types of nurses.

### Research Method

**Study Design:** This is an exploratory study by Q-methodology to identify the subjectivity of the image of the nursing in small and medium Korean hospitals.

#### Study Method

**Composition of Q-sample:** Concourse extraction conducted to overall through literature review and in-depth interviews. 12 nurses from were asked to participate in in-depth interviews and consented, and then the interviews were conducted. The in-depth interviews were conducted in seminar rooms of for the data collection. We explained for research purposes only use. The interview was then conducted for 1 ~ 1.5 hour after obtaining consent. In this process, a total of 767 Q populations were extracted.

Among 767 Q populations extracted 62 statements were adopted by two nursing professors with experience in studying of Q methodology. The 62 statements adopted were drawn up to cards for each statement, followed by a preliminary survey of six subjects in order to identify the balance of positive, negative, and neutral statement. Then the statements verified the final 57 statements.

**Selection of P-sample:** The Q-methodology is a qualitative study that emphasizes the subjectivity of individuals by focusing on differences in meaning or importance within individuals, not the differences among individuals. And as a result of the small sample doctrine that when the P sample is enlarged, the characteristics of the P sample are not clearly apparent because several people are biased against one factor, so about 50 people are common <sup>[10]</sup>.

The P sample of this study was collected from a convenience sample of 36 nurses working in small and medium hospitals in Korea. For the ethical protection of participants, the data collection was carried out with consent, participants were told that this study would be solely used for research purposes, that anonymity and the privacy would be guaranteed, and that their participation could be withdrawn during the course of the interview or questionnaire preparation by the participants, if desired.

**Q-sorting:** Q-sorting is a process of modeling the opinions or feelings of a subject on a subject and this study used the principle of Q methodology. Extracted Q sample was Sby forced distribution. The 57 samples, 2 cards that are most similar to your opinion in strongly Agree (+4), 5 in +3, 7 in +2, 9 in +1, and 11 in neutral (0), and then 22 cards that are furthest from your opinion in strongly Disagree (-4), 5 in -3, 7 in -2, 9 in -1 were distributed forcedly in the same way and the converted scores were assigned in order of 9 points. After the distribution of the Q sample, the reason why each of two cards were placed at +4 and -4 on each end of the Q distribution table was required to be recorded on the questionnaire. It applied later analysis of as a powerful and robust expression of the subject <sup>[10]</sup>.

In this study, the follow-up statements were quoted directly in the type analysis, and the statements were not presented because they are not statistical data.

### Data Analysis

The Principal Component Factor Analysis (PCA) method was used by the PC-QUANL program, which was produced by Norman Van Tubergen and coded in numerical order.

In order to determine the ideal number of factors and to increase the explanatory power, the number of factors was input based on Eigen value 1.0 or higher, among the calculated results, and the type that was judged to be ideal was finally selected.

### Results

**Composition of Q-factors:** In this study, leading to three types factors to be found. In the first type, there were 17, the second type was 16, and the third type was 3.

The explanation power of each factor, the first factor was 26.1%, the second factor was 6.5%, and the third factor was 5.1%. The correlations among the three types and explanatory power of each type are shown in table 1.

**Table 1: Correlation between Eigen Values and Factors by Type**

	Type 1 (N = 17)	Type 2 (N = 16)	Type 3 (N = 3)
Eigen value	14.5353	1.9942	1.6585
Variance	.7992	.1096	.0912
Cumulative	.7992	.9088	1.000
Type 1	1.000		
Type 2	.733	1.000	
Type 3	.450	.489	1.000

In addition, the demographic characteristics and factor weights are show in Table.

**Analysis of Characteristics by Each Type**

**Type 1: Caring Provider with a Mission:** As shown in table 2, there were 17 subjects classified as type 1, with an average age of 37.6 years and the average clinical experience was 15.5 years, with 16 female and 1 male.

**Table 2: Demographic Characteristics and Factor Weights of Each Type**

Type	P No.	Factor weight	Age	Gender	Clinical experience (year)
Type I (n = 17)	17	2.0393	27	F	5
	11	1.7020	35	F	13
	36	1.6413	45	F	23
	27	1.4539	41	F	19
	32	1.3923	31	F	9
	31	1.3582	40	F	18
	28	1.2474	33	F	11
	29	1.1999	41	F	19
	5	1.1970	27	F	5
	18	1.1774	23	F	1
	33	1.1254	38	F	16
	26	1.0312	34	F	12
	24	0.9824	48	F	26
	15	0.8444	40	F	18
	2	0.8427	52	F	30
	22	0.7974	43	M	18
	19	0.5721	42	F	20
	23	1.3843	48	F	27
	30	1.2577	42	F	21
	16	1.2171	25	F	4

Conted...

Type II (n=16)	3	1.1809	52	F	31
	13	1.1179	50	F	29
	34	1.1044	34	F	13
	10	1.0862	30	F	9
	4	0.9886	38	F	17
	1	0.9605	40	F	19
	6	0.6900	44	F	23
	12	0.6613	38	F	17
	14	0.6171	45	F	24
	20	0.5318	47	F	26
	21	0.4704	35	F	14
	25	0.4653	41	F	20
	8	0.4322	30	F	9
Type III (n=3)	9	0.6600	26	F	5
	7	0.4296	44	F	23
	35	0.2381	25	F	4

As show table 3, the strongest positive items is a job with a mission (Z = 1.19)', 'Nurse takes health as a top priority (Z = 1.08)', 'Nurse are the mental proponents of patient' (Z = 1.06) ', 'Nurse are people who act as intermediaries for doctors and patients (Z = 1.05)', 'Nurse are the closest person to patients (Z = 1.03)', 'Nurse give patients faith (Z=1.01), whereas items with strong negative, 'Nursing is just a job in the hospital (Z = -1.47)', 'Nurses are assistants to doctors (Z=-1.46)', 'Nurses are the people who care for a patient (Z = -1.44)', and 'Nurses are people who perform the work according to the doctor's prescription (Z = -1.33)'.

**Table 3: Statement of Z-score by Type ≥ |1|**

Type	Q-Statement	Z-score	
1	Q19	Nursing is a job with a mission	1.19
	Q43	Nurses take health as a top priority	1.08
	Q47	Nurses are the mental proponents of patient	1.06
	Q57	Nurses are people who act as intermediaries for doctors and patients	1.05
	Q46	Nurses are the closest people to the patients	1.03
	Q08	Nurses give patients faith	1.01

Conted...

	Q45	Nurses are people who perform the work according to the doctor's prescription	-1.33
	Q42	Nurses are the people who care for a patient	-1.44
	Q25	Nurses are assistants to doctors	-1.46
	Q10	Nursing is just a job in the hospital	-1.47
2	Q24	A nurse is a professional health care provider	1.71
	Q07	Nursing is an accurate and smart profession	1.42
	Q05	A nurse is a person who cares for the patient	1.27
	Q31	A nurse is a health manager	1.27
	Q19	Nursing is a job with a mission	1.15
	Q30	A nurse is a hard worker	1.08
	Q12	Nurses are unfriendly	-1.16
	Q10	Nursing is just a job in the hospital	-1.39
	Q25	A nurse is an assistant to a doctor	-1.45
	Q42	A nurse is a person who attends to a patient	-1.67

Conted...

3	Q09	Nurses are always busy	1.85
	Q57	Nurses are people who act as intermediaries for doctors and patients	1.61
	Q23	Nurses have a strong sense of responsibility	1.56
	Q21	Nurses are people who help	1.37
	Q44	Nurses are sincere and must complete their work without making mistakes	1.17
	Q08	Nurses give patients faith	1.13
	Q37	A nurse is a person who cares for the patient	1.08
	Q56	Nursing is a patient-care job	1.03
	Q46	Nurses are the closest people to patients	-1.07
	Q05	A nurse is a person who cares for the patient	-1.12
	Q51	A nurse is on the side of the patient	-1.36
	Q25	A nurse is an assistant to a doctor	-1.36
	Q31	A nurse is a health manager	-2.24

Score difference between type 1 and the other types were shown' <Table 4>.

As show table 4, items that show a difference in scores in type 1 when compared to other types of items were 'The image of nurses is as a nightingale, a white

**Table 4: Positive and Negative Statements Compared to Other Types**

Type	Q-statement	Z-score	Others' Z-score	Difference	
1	Q02	The image of a nurse is that of nightingale, a white angel	.790	-.437	1.227
	Q49	Nurses should resolve the patient's discomfort	1.083	-.053	1.135
	Q25	A nurse is a doctor's assistant	-.464	-.437	-1.027
	Q41	Nurses are passive	-1.549	-.187	-1.362
	Q01	Nursing is a stressful and hard job	.003	1.563	-1.561
	Q09	Nurses are always busy	-.366	1.391	-1.757
2	Q05	A nurse is a person who cares for the patient	1.274	-.357	1.631
	Q35	Nursing is a stable job	.953	-.450	1.403
	Q38	A nurse is an educator	.919	-.384	1.303
	Q24	A nurse is a professional health care provider	1.712	.469	1.242
	Q48	A nurse is devoted to patients	-.035	1.004	-1.039
	Q50	A nurse is the patient's messenger	-1.852	-.519	-1.333

Conted...

3	Q01	Nursing is a stressful and hard job	2.246	.815	1.431
	Q21	Nurses are people who help	1.368	.007	1.361
	Q48	Nurses are devoted to patients	1.564	.241	1.323
	Q57	Nurses are people who act as intermediaries for doctors and patients	1.612	.392	1.219
	Q50	A nurse is the patient's messenger	.052	-1.154	1.206
	Q09	Nurses are always busy	1.855	.651	1.204
	Q42	A nurse is a person who attends to a patient	-.387	-1.537	1.150
	Q43	Nurses takes health as a top priority	-.287	.797	-1.084
	Q51	Nurses are on the side of the patient	-1.360	.029	-1.389
	Q05	A nurse is a person who cares for the patient	-1.117	.440	-1.557
	Q46	Nurses are the closest person to patients	-1.069	.764	-1.833
	Q31	Nurses are health managers	-2.237	1.144	-3.382

Participants in Type 1 considered the nurse to be a person with a mission that considered the patient's health as a top priority. The first type strongly denied the images that nurses are always busy, stressed, and hard job, and it has been named as a "caring provider with a mission" because it has a mission and a recognition that a nurse should exist to promote patient's health and solve problems.

**Type 2: Professional Health Manager:** Type 2 classified 16 subjects with an average age of 39.9 years and the average clinical experience was 18.9 years. <Table 2>. Type 2 were 'Nurse is a professional health care provider (Z=1.71)', 'Nurse is a smart in professional (Z = 1.42)', 'Nurse is a person who takes care of a patient (Z = 1.27)', 'Nurse is a health manager (Z = 1.27)' etc., while items showing strong negative were 'Nurse is a person who attends to a patient (Z = -1.67)', 'Nurse is an assistant doctor (Z = -1.45)', 'Nursing is just a job (Z = -1.39)', 'Nurses are unfriendly (Z = -1.16)' <Table 3>. Score difference between type 2 and the other types were shown' <Table 4>.

**Type 3: Responsible Medical Profession:** There were three subjects classified as type 3, with an average age of 31.7 years, an average clinical experience was 10.6 years, and all were of the female gender.

The most positive items of type 3 were 'Nurses are always busy (Z = 1.85)', 'Nurses are people who act as intermediaries for doctors and patients (Z=1.61)', 'Nurses have a strong sense of responsibility (Z=1.56)', 'Nurses are people who help (Z=1.37)', 'Nurses are sincere and must complete their work without making mistakes

(Z=1.17)', 'Nurses give patients faith (Z=1.13)', 'Nurse is a person who cares for the patient (Z=1.08)', 'A nurse is a patient-care job (Z=1.03)', On the other hand, items showing strong negative are 'Nurses are health care workers (Z=-2.24)', 'A nurse is an assistant to a doctor (Z=-1.36)', 'A nurse is on the side of the patient (Z=-1.36)', 'A nurse is a person who cares for the patient (Z=1.12)', 'A nurse is the closest person to patients (Z=-1.07)' <Table 3>. Score difference between 3 type and the other types were shown' <Table 4>.

## Discussion

Nurses share the most time with patients in specialized department in the hospital. As a result, nurses themselves have a negative image of nurses [11]. This study was to investigate of nurse's subjectivity image in small and medium hospitals.

Type 1, "Caring Provider with Mission", responded to 17 of 36 participants, with an average age of 37.6 years and an average clinical career of 15.5 years. This group involved in the middle manager that is expect to have a profession job and a positive thinking in comparison with other types. On the other word, it was worth the image like 'Nightingale' which is the closest to the patient and serves as a healer for the patient without any mistake.

Type 2 was the "professional health manager" type, and 16 of 36 participants responded. The average age was 39.9 years and the average clinical career was 18.9 years. This group responded 16 of 36 participants responded. The average age was 39.9 years and the average clinical career was 18.9 years. The most positive

items in this type were ‘nurses’ (n = 1.71), ‘nurses’ (n = 1.71) ‘and’ nurses’ Attitudes and values are based on the recognition that nurses are more than just physical and mental care of patients as professional occupations.

Type 3 was “Responsible medical practitioner” with 3 out of 36 participants. The average age was 31.7 years and the average clinical career was 10.6. The most positive items were ‘Nurses are always busy (Z = 1.85)’, followed by nurses who answered ‘Nurse is a mediator between doctor and patient (Z = 1.61)’, Attitudes and values. This group focus on the patient rather than on the image of mission or profession, and the nurse is a stressful, busy and difficult occupation rather than had the image of a job to manage.

The results of this study are as follows. First, the study on the nursing work environment of small and medium hospitals shows that job satisfaction is low, delegation and confusion of informal roles among medical personnel, unfair reward system between job and job type, the results of this study were as follows. Second, the nurses of the small hospitals experienced low levels of nursing care for themselves<sup>[13]</sup>. Based on this study, it is necessary to provide policy support, education and counseling to solve problems of supply and demand of insufficient nurses in Korea and to provide high quality nursing care.

### Conclusion

This study on the type of subjectivity for images of nurses in small-medium sized hospital identified three types: (1) caring provider with a mission, (2) professional health manager, and (3) responsible medical profession.

This study has significance that the image of nurse’s in small and medium hospital. But, the subjects of this study were limited Therefore, further research is required to understand the more diverse subjectivity of nurses, it is necessary to have a continuing interest in professional roles as well as nursing images of the nurses.

### Acknowledgment

Funding for this paper was provided by Namseoul University.

**Ethical Clearance:** Not required

**Source of Funding:** Namseoul University

**Conflict of Interest:** Nil

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