Abstract

Background/Objectives: This study was attempted with the purpose of obtaining the data for positive adaptation to the department, assisting the understanding of adaptation of students in the department of nursing science.

Methods/Statistical Analysis: In order to configure the Q specimen for the study, statements were constructed through a literature review on department satisfaction and in-depth interviews targeting the students of new department of nursing science. Among them, statements that can represent the subject were extracted and 32 Q specimens were determined by obtaining advices from 3 professors in order to ensure the validity of the statements.

Findings: As a result of conducting Q-factor analysis in order to identify the type of department satisfaction of new nursing department students, it was classified into 4 types and the total variance was 57.98%. This study has applied the Q methodology to the type of department satisfaction of 1st students in the new nursing department by classifying it into 4 types; the type 1 “the type that demonstrate leadership”, the type 2 “the type that is satisfied with intimate department atmosphere”, the type 3 “the type that overcomes the lack of facilities and support” and the type 4 “the type that receive internal and external pressure”.

Application/Improvements: It is expected that this study will become an important data for the development consulting program for each type of student and support of the department.

Keywords: College, Department Satisfaction, Nursing Student, Q Methodology, Subjectivity.

1. Introduction

Recently, due to a new creation and expansion of department of nursing science, an admission has increased by 4,453 people as the department of nursing science grew from 115 in 2005 to 183 in 2011. Especially, as the department of nursing science has switched to 4 years since 2011, it created many new nursing departments within the nation.

In the case of students, they must experience stress on unfamiliar environment called the hospital as well as acquiring specialized knowledge on nursing majors with heavy stress that comes from national examination and clinical practice compared to the students of other majors.

To the students of department of nursing science, undergoing national examinations, taking regular educational courses after the admission and obtaining nursing license is recognized as a series of processes, and during such processes, they acquire knowledge and practical training through the relationship with colleagues, seniors and juniors and professors, etc as well as taking regular educational courses of the department and leads to the place of performing the role as nurses after getting a job.

Especially, newly created department of nursing science includes professors, facilities and educational courses needed for nursing education thus it can accumulate a variety of experiences along with a variety of trial and error. Especially, 1st graduating students who have experienced the college life by meeting such situation has a high sense of duty along with negative experiences such as lack of knowledge and information, burden, stress, etc, with a positive experience showing a high empowerment. However, in recent upsurge of new nursing departments, it lacks the details related to the satisfaction of the department by the 1st graduating students who directly experiences all things taking place at the new department as it does with other.

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academic departments when it is first opened in universities such as proposal and operational plans, etc\(^5\).

Kim, Kye Hyun and Ha, Hae Sook\(^6\) has defined the ‘department satisfaction’ as the product of determination process that assess their majors by comparing the standards on profession or individual career chosen by themselves, and also emphasized the fact that satisfactional factors on the majors of college students lies not in the external environmental factors but within individual satisfaction of accepting the external environment. In other words, even though they belong to the same department, a department satisfaction may vary depending on individuals who controls and accepts such environment\(^7\). Therefore, in order to assist a successful college life of students in nursing science major, it is very important to identify and increase the department satisfaction.

By examining the results of previous studies on domestic factors affecting the department satisfaction, although a lot of quantitative studies are in progress such as the relationship between self-esteem and satisfaction on majors of nursing undergraduate students\(^8\), controng effects of self-esteem and self-efficacy in the relationship between professional self-concept and satisfaction on majors\(^9\), and the influencing factors of the degree of conformity of major-interest and the level of job interest on the satisfaction of major and career maturity\(^10\), we could not find a paper that can identify an individual's tendency.

Therefore in this study, it aims to identify the subjective type of department satisfaction of students in the new department of nursing science by using a Q methodology that can identify the concept, attitude and value of individual\(^11\).

1.1 Purpose of Study

This study was attempted with the purpose of obtaining the basic data for establishing a strategy for positive adaptation to the department, assisting the understanding of adaptation of students in the new department of nursing science by identifying the type of characteristics and stereotyping the subjectivity on the type of adaptation to the department and by applying the Q methodology.

2. Method of Study

2.1 Q Specimen

In order to configure the Q specimen for the study, statements were constructed through a literature review on department satisfaction and in-depth interviews targeting the students of new department of nursing science. Among them, statements that can represent the subject were extracted and 32 Q specimens were determined by obtaining advices from 3 professors in order to ensure the validity of the statements.

2.2 P Specimen

This study, based on the theory of a small sample doctrine according to the theory of Q methodology, has performed the survey from September 1st to 24th 2012 by selecting 22 nursing students from 1st newly created nursing department to obtain the P specimens.

2.3 Q Classification

32 Q specimens were forcefully distributed to the distribution chart of 9 Q specimens and the collected data was processed using master-party analysis using PC QUANL program.

3. Results

As a result of conducting Q-factor analysis in order to identify the type of department satisfaction of new nursing department students, it was classified into 4 types Table 1 and the total variance was 57.98% Table 2.

A correlation between each type was found to be .310 for type 1 and 2, .327 for type 1 and 3, .307 for type 1 and 4, .433 for type 2 and 3, .114 for type 2 and104 and .357 for type 3 and 4. Type 2 and 3 had higher correlation than other types and the type 2 and 4 have shown lower correlation than other types Table 3.

3.1 Result Analysis by Type

3.1.1 Type that Demonstrate Leadership

The type 1 is the ‘type that demonstrate leadership’ which consists of 8 people(36.3%). They claimed to have acquired ability to determine the department work on their own because they tend to participate in the department with more sense of responsibility since they lack seniors as they are the first to enroll the new nursing department Table 4.

Subject 16 who has shown the highest weighted factor (2.3480) in type 1 has said “I am satisfied with our department as I always try to enjoy and be satisfied with my current situation”, “I believe I must set an example to the juniors since we have no seniors to look up to and know
the difficulties of not having one.” Thus it was shown that satisfaction on the department was achieved by exerting leadership with a sense of responsibility.

Subject 14 (weighted factor 1.8317) has answered “I decided to try harder since we had no seniors and this is the advantage of new department” showing that satisfaction on the department was achieved by exerting their maximum competence in the new nursing department.

### 3.1.2 Type that is Satisfied with Intimate Department Atmosphere

The type 2 is the ‘type that is satisfied with intimate department atmosphere’ which consists of 6 people (27.3%) and claimed that they are learning something valuable at the nursing department because of well made communication between professors and students without intervention and control by the seniors.

The subject 18 who has shown the highest weighted factor (1.8093) among the type 2 has said “since nursing science itself is very closely related to humans, it is very valuable”, “I feel that practical learning over the theory provides a sense of closeness to the department of nursing science and nurses” showing higher satisfaction for the new subjects learned in the new nursing department Table 5.

The subject 1 (weighted factor 1.6426) has said “I think we receive more attention from the professor because of small number of students”, “it is difficult to know each other well in other departments due to a large number of students but our department is different” showing that students were satisfied with intimacy of the new nursing department as they recognized the small number of students as a key advantage.

### Table 1. Styles General Characteristics and weight factor of P-sample

| Type  | ID    | Factor weight | Age | Gender | Religion | Education and information received whether euthanasia |
|-------|-------|---------------|-----|--------|----------|------------------------------------------------------|
| 1(N=16) | 31    | 2.4157        | 25  | Male   | None     | Yes                                                  |
|       | 16    | 4.4672        | 19  | Female | Christian| Yes                                                  |
|       | 19    | 1.2547        | 19  | Female | None     | Yes                                                  |
|       | 13    | 1.0583        | 20  | Female | None     | Yes                                                  |
|       | 24    | 1.0507        | 19  | Female | Christian| No                                                   |
|       | 28    | .9948         | 20  | Female | None     | No                                                   |
|       | 27    | .9864         | 19  | Female | None     | No                                                   |
|       | 9     | .9339         | 21  | Female | None     | Yes                                                  |
|       | 33    | .8755         | 20  | Female | Christian| No                                                   |
|       | 20    | .8400         | 19  | Female | None     | Yes                                                  |
|       | 22    | .7582         | 20  | Female | None     | No                                                   |
|       | 14    | .6927         | 19  | Female | None     | Yes                                                  |
|       | 38    | .6110         | 20  | Female | None     | No                                                   |
|       | 44    | .5486         | 20  | Female | None     | No                                                   |
|       | 32    | .5473         | 19  | Female | None     | No                                                   |
|       | 8     | .5358         | 20  | Female | None     | No                                                   |
|       | 17    | .5574         | 19  | Female | Christian| Yes                                                  |
|       | 4     | .5087         | 19  | Female | None     | No                                                   |
|       | 35    | .5087         | 19  | Female | Christian| No                                                   |
|       | 36    | .4927         | 20  | Female | None     | No                                                   |
|       | 21    | .4876         | 20  | Female | None     | Yes                                                  |

### Table 2. Eigen value and variances, cumulative variance

| Type  | Type 1 | Type 2 | Type 3 | Type 4 |
|-------|--------|--------|--------|--------|
| Eigen value | 6.3299 | 2.5844 | 1.6399 | 1.0419 |
| Variance   | .3165  | .1292  | .0820  | .0521  |
| Cumulative variance | .3165  | .4457  | .5277  | .5788  |

### Table 3. Correlation between types

| Type 1 | Type 2 | Type 3 | Type 4 |
|--------|--------|--------|--------|
| Type 1 | 1.000  | .310   | .327   | .307   |
| Type 2 |        | 1.000  | .433   | .257   |
| Type 3 |        |        | 1.000  |        |
| Type 4 |        |        |        | 1.000  |
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Table 4. Q item showing strong agreement and disagreement for P specimen by type

| No. | Q Statement                                                                 | Z-score |
|-----|-----------------------------------------------------------------------------|---------|
| 7   | I tend to participate in the department work with more sense of responsibility since I have no seniors | 1.56    |
| 3   | I am learning and feeling something valuable from our department.            | 1.50    |
| 12  | I like it because I can use new buildings and new tools for practice.       | 1.29    |
| 8   | Since the department and school events are all new, it takes time and effort to prepare. | 1.26    |
| 1   | I am satisfied with our department.                                         | 1.20    |
| 10  | I wish I had a senior to speak about school life and career.                 | 1.15    |
| 11  | Although our department is new, I believe communication between the professors and students are made smoothly. | 1.13    |
| 9   | I have gained a lot of leadership because I can determine the department work on my own. | 1.01    |
| 26  | I am attending the department because I cannot abandon other's expectations. | -1.99   |
| 28  | I tend to obtain a lot of information on the school and the department through club and small meetings. | -1.82   |
| 31  | It is sad that we can only form a narrow friendship because we have small number of students. | -1.42   |
| 29  | It is really difficult when consulting since I have no seniors.             | -1.17   |
| 30  | Our department can always consult with the professor whenever we want to.   | -1.07   |
| 32  | Although our department has small number of students, we have strong unity and can maintain deep relationship with each other. | -1.03   |

Table 5. Q item showing strong agreement and disagreement for P specimen by type

| No. | Q Statement                                                                 | Z-score |
|-----|-----------------------------------------------------------------------------|---------|
| 19  | I feel that I am taking a step closer to the dream of becoming a nurse through the practices at the nursing department. | 2.05    |
| 32  | Despite a small number of students, we have a strong unity and deep relationship with each other. | 1.68    |
| 3   | I am learning and feeling something valuable at our department.              | 1.63    |
| 6   | My school life is pleasant since I have no intervention and control from seniors. | 1.55    |
| 11  | Although our department is new, I believe communication between professors and students are made smoothly. | 1.29    |
| 30  | Our department can always consult with the professor whenever we want to.   | 1.04    |
| 26  | I am attending the department because I cannot abandon the expectations of others. | -1.98   |
| 29  | It is difficult to have no mentor as we have no seniors.                    | -1.73   |
| 8   | Since the department and school events are new, it takes time and effort for preparation. | -1.36   |
| 20  | I feel difficult because I have to solve the questions about the department and school through assistant teachers or professors. | -1.14   |
| 15  | I envy the students of other departments who have seniors.                  | -1.02   |
| 17  | I feel less confident as I learn studies and practices of nursing department. | -1.02   |
| 5   | I try to find the satisfaction outside the school for the unsatisfactory points of the department. | -1.01   |

3.1.3 Type that Overcomes the Lack of Facilities and Support

The type 3 is the ‘type that overcomes the lack of facilities and support’ which consists of 3 people(13.6%) and claimed that they are satisfied because they wanted to come to the nursing department even if it lacks facilities and support. Although they feel the lack of awareness on the new department and support, lack of amenities of department and supplies but claimed that using new things can be beneficial Table 6.

The subject 4 who has shown the highest weight factor (1.2754) among the type 3 has said “although we lack supplies, I am happy for using new ones,” “it feels like attending high school” showing that they positively recognize using new things although the department lacks facilities and support.

The subject 10 (weighted factor 1.1638) has said “I am very happy because I wanted to come to the nursing department”, “the courses in nursing department is good since it can be used frequently in real life,” showing that
insufficiencies of new nursing department is not a problem because they wanted to come to this department.

### 3.1.4 Type that Receive Internal and External Pressure

The type 4 is the type that receives internal and external pressure which consists of 3 people (13.6%) and claimed that using new buildings and new tools for practice is good without intervention and control from seniors but it takes longer time to prepare for department events Table 7.

The subject 12 who has shown the highest weight factor (1.0835) among the type 4 has said “I lose confidence because I cannot do well in practice and have concerns about the career”, “I believe I have to show good appearance to juniors in our departments and to other students and everyone also says the same” showing that they feel the burden from surrounding people as they adapt closely to the nursing department.

| No. | Q Statement                                                                 | Z-score |
|-----|-----------------------------------------------------------------------------|---------|
| 12  | I am happy for using new buildings and new tools for practice.              | 1.54    |
| 30  | Our department can always consult with the professor whenever we want to.  | 1.53    |
| 11  | Although our department is new, communication between professors and students are made smoothly. | 1.39    |
| 13  | I feel the lack of amenities and supplies since our department is new.     | 1.19    |
| 1   | I am satisfied with our department.                                         | 1.13    |
| 15  | I envy the students of other departments who have seniors.                 | -1.98   |
| 5   | I try to find the satisfaction outside the school for the unsatisfactory points of the department. | -1.75   |
| 26  | I am attending the department because I cannot abandon the expectations of others. | -1.37   |
| 17  | I feel less confident as I learn studies and practices of nursing department. | -1.27   |
| 31  | It is sad that we can only form a narrow friendship because we have small number of students. | -1.21   |
| 16  | I can adapt well to the department but have fear for first clinical practice. | -1.03   |

### 4. Discussion and Conclusion

This study has applied the Q methodology to the type of department satisfaction of 1st students in the new nursing department by classifying it into 4 types; the type 1 “the type that demonstrate leadership”, the type 2 “the type that is satisfied with intimate department atmosphere”, the type 3 “the type that overcomes the lack of facilities and support” and the type 4 “the type that receive internal and external pressure.”

The type 1 is the type that demonstrates leadership who exert leadership while taking initiatives for department work with a sense of responsibility. This result, as shown in the study of Moon, Sook Ja and Hahn, Sang Sook12, coincided with the results of having higher job satisfaction results as the nurses with higher work motivation and work achievements influence the development of organization as well as the development of individuals.

| No. | Q Statement                                                                 | Z-score |
|-----|-----------------------------------------------------------------------------|---------|
| 12  | I am happy for using new buildings and new tools for practice.              | 1.56    |
| 6   | My school life is pleasant since I have no intervention and control from seniors. | 1.48    |
| 8   | Since the department and school events are new, it takes time and effort for preparation. | 1.43    |
| 30  | Our department can always consult with the professor when ever we want to.  | 1.41    |
| 19  | I feel that I am taking a step closer to the dream of becoming a nurse through the practices at the nursing department. | -2.11   |
| 31  | It is sad that we can only form a narrow friendship because we have small number of students. | -1.98   |
| 28  | I tend to obtain a lot of information on the school and the department through club and small meetings. | -1.57   |
| 5   | I try to find the satisfaction outside the school for the unsatisfactory points of the department. | -1.42   |
| 22  | I feel the lack of awareness and support on the new department by the school. | -1.11   |
| 2   | The courses I learn from our department suits me well.                      | -1.08   |
| 9   | I have gained a lot of leadership because I can make decision on my own.    | -1.01   |
Therefore the nursing students of this type are thought
to exert one’s competence not only in newly created nurs-
ing department but as a nurse committed to one’s given
work.

The type 2 is the type that is satisfied with intimate
department atmosphere who is satisfied with the relation-
ship between small number of students with professors in
the newly formed nursing department.

This type having to recognize that the benefits of the
department formed with small number of students are a
close relationship is similar to optimistic and friendly type
as shown in the study results of Kwon, Hyun Mi where it
can be seen as the type having the look of being satisfied
in its self and surrounding situations showing inclusive
attitude on surrounding people and feeling happiness in
the relationship with the others. In addition, stable per-
sonality traits of optimism of thinking that good things
will happen rather than bad things can be seen as strong
psychological factors that predict the subjective well-be-
ing and happiness.

The type 3 is the type that overcomes the lack of facili-
ties and support who positively recognize and overcomes
the insufficiency of the new nursing department. Such
results show that although department facilities and sup-
port is insufficient for the 1st students of the new nursing
department, it seems the satisfaction of using the new
things have led to the department satisfaction.

The type 4 is the type who receives internal and external
pressure where they tend to receive pressure from expecta-
tions of others and burden of their aptitude and career.
This is a similar result from the study of Yu, Eun Young
and Yang, Yu Jung showing that lower the department
satisfaction it brings higher career stress. This means that
higher the department satisfaction it brings lower career
stress, where among the 4 types, the type 4 has the highest
burden on the new nursing department with relatively low
department satisfaction resulting in higher career stress
and feeling the pressure from aptitude and the expecta-
tions of others around them.

Conclusively, for the 1st students of newly formed
nursing department to adapt to a new environment
and organizational culture according to the classified
type of department satisfaction, this study is thought to
minimize the difficulties. In addition, according to the
analyzed results for each type, it is expected that this
study will become an important data for the development
consulting program for each type of student and support
of the department and the school as well as establishing
effective nursing educational method for enhancing the
department satisfaction of nursing department students.
In addition, along with the development of adap-
tive program for the students of newly formed nursing
department, individualized intervention strategy should
be provided differently to provide positive department
satisfaction.

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