

SUBJECTIVITY OF NURSING STUDENTS' PERCEPTION OF DIET: Q-MEHTODOLOGY

 **Sunyoung Jang**

Associate Professor, Department of Nursing, Hanseo University, South Korea

*Corresponding author. Email: sjang@hanseo.ac.kr

Abstract

This study is intended to find out the subjectivity of nursing students regarding diet, describe the characteristics for each type of subjectivity, and categorize the types of subjectivity. We applied the Q-methodology for this study. 18 students in junior and senior years in the nursing school at a certain university who have been on OJT have been asked to categorize 49 statements on diet. The collected data have been analyzed by using QUANL PC Program. As result of this study, the types of recognition of the nursing students were categorized into 3 types and the subjective types are 'the diet type compelled by circumstances', 'the diet type for health', and 'the diet type for additional benefits'. This study has been served as the basic material for figuring out views and education of nursing students regarding diet.

Keywords: Diet, Nursing Student, Subjectivity, Q-Methodology, Nurses

1. Introduction

1.1. Background

The word of diet stems from the Greek diaita, and the ancient Greek used to do diet for the purpose of health. However, as the Industrial Revolution of the 19th century brought economic wealth, the pursuit of beauty backed up by the economic wealth has opened the beginning of diet for the purpose of beauty and losing weight [1]. That kind of tendency has continued into modern days and even so many people with normal weights are seriously on diets regardless of the genders and ages under the circumstances of the society favoring beauty and sleek appearances.

Obesity is the disease requiring cure but is not easy to cure because it is not easy to keep weight under control even if weight is reduced temporarily. As of 2014, 10.8% and 4.9% of male and female middle school students belong to the criteria of obesity and 3.7% and 8.3% of them respectively belong to the criteria of overweight [2].

In this modern society, there are the social environments causing obesity, and, on the flip side, there is also the pressure of media praising slim appearances. Consequently, there are many people who go on diets even though they have normal weights or are even below normal weights [3]. It is very prone to return to the previous weight even if any obese person lose weight once. That is why curing obesity is difficult. On the other hand, regaining weight following diet increases the risk of cardiovascular disease and causes additional burden on the public health system. Meanwhile, the cases of health risk coming from regaining weight following diets are found more frequently in people with normal weights than obese or overweight people [4].

In recent years, more male adults are interested in diet as muscular body is gaining popularity. However, diet has been preferred more by females and lots of females are still interested in diet. This preference has close relationship with the social circumstances where thin and slim body is favorably expected of woman

in modern society. According to the research conducted for 18,512 undergraduate students of 22 countries regarding the subject of weight control, 77% of Korean students surveyed was trying to lose weights and it was the highest percentage among the 22 countries surveyed [5]. In case of undergraduate female students, the need for the diet to control weight before embarking on their life-long career can be great [6].

The unnecessary side effect of diet for excessively thin body of female is rampant, but the public health policy is falling short of overcoming the excessive thirst for thin and slim body [7]. In the research conducted for undergraduate female students of all over the country, the sum of the students with normal weights and less than normal weights was 77.5% of the students who had the diet experiences and it shows that most of the students were not in need of diet [8]. Also, in the research conducted for high school female students, 26.5% of the respondents wished to reach extremely low weights that correspond to less than 3 percentile scores and 35.6% wished to reach low weights corresponding to 3~10 percentile scores. This result also shows that the females of this ages adhere to overly thin body [9].

Nurses take the largest portion in the field of the public health and are the core human resources who contact patients most frequently. They should provide high level of nursing services to patients within the limited time frame under the circumstances of the rapidly changing public health sector [10]. The subjectivity of nurses' perception in the field of public health greatly influences their nursing services. Therefore, it is important to find out the perceptions of the nurses and the nursing students.

Studies regarding nurses' perception on diet are not easy to find. Q-methodology is based on the perspectives of the behaving persons rather than researchers and makes it possible to structurally understand the characteristics of individual types of subjectivity [11]. Since the perception of diet is subjective and unique experiences, it is appropriate to use the Q-methodology to find out the types of nurses' perceptions of diet.

Therefore, this study is intended to find out the subjectivity structure of nurses' perception of diet 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 diet.

1.2. Purpose

This study will find out the types of the undergraduate students' subjective perceptions of diet and the characteristics of the types so that it can be used as the underlying material when preparing strategy for provision of education to nursing students learning about diet. To reiterate the purpose of this study, they are:

To categorize the types of nursing students' perception of diet

To analyze and describe the types of nursing students' perception of diet

2. Materials and Methods

2.1. Study Design

In order to achieve the purpose of this study, we reviewed literatures, media materials and the existing studies and conducted survey to find out the types of subjective recognition of diet.

2.2. Q-Population and Q-Sampling Selection

Q population was drawn through review of domestic and international literatures, open questionnaires, individual in-depth interviews etc. to get comprehensive statements regarding the effects of diet from the

nursing students in undergraduate years in our country. Through this process, we have drawn about 200 Q populations in 3 areas and have drawn about 100 Q populations by integrating collected literatures. We have selected the final 49 samples which have high level of differentiation through review and correction of Q samples drawn from this study.

2.3. P-Sample Selection Method

Q-methodology is the qualitative research method which emphasizes personal tendency by focusing on personal implication or significance rather than personal differences. It is based on the small sample doctrine that says if P-sample gets large, too many people get concentrated in one factor, thereby making it hard to find out the characteristics among themselves [12]. We have fully explained the purpose of this study to the students of the nursing department in a certain university and selected 18 students from them who agreed to participate in this study.

2.4. Q-Classification and Data Analysis Methods

Q-classification is the process in which the participants who belong to P-sample make voluntary definition of diet by classifying the statements of Q-sample into forced normal distribution[12]. This process was conducted for the 18 students of the nursing department in a certain university by using Q-card. Most of the students consumed 30-45 minutes to complete the Q-classification. The distribution of Q-sample is classified into from strongly agree to strongly disagree depending upon the opinions of the participants on the statements selected for Q-sample. The statements on diet were classified on 12 points scale. Subsequent interviews were conducted regarding the statements classified at both extreme ends. Principle Component Factor Analysis (varimax) was used for Q-factor analysis. Classification of types were determined by considering results, which are calculated by entering various numbers of factors with more than Eigen value 1.0, and the total explanation variants. For collected materials, conversion scores of 1~12 are assigned for scoring based on the card which have forced distribution on Q-sample distribution table. The converted scores assigned were encoded in the sequence of Q-sample numbers and were processed by Principle Component Factor Analysis of QUANL PC Program. Analysis of the materials were processed by using QUANL PC Program [13-15].

2.5. Ethical Consideration for Research Subjects

We obtained voluntary consents of the participants for our research and explained that any of them may discontinue to participate at any time during the research. All the information collected from this research were processed without identification of participants and were coded for Q-sorting to guarantee confidentiality of personal information.

3. Results

3.1. Structure of Q Type

In order to divide the nursing students' perceptions of diet by type, the answers to Q-samples. The distribution of 18 participants was 7 for the first type, 7 for the second type and 4 for the third type. As a result of dividing the group by similar responses to diet, it was divided into three types.

Participants in this research conveniently were extracted from 18 nursing college students who were found to have experienced more than one clinical practice in the nursing department in H University. The general characteristics of the research subjects are as shown in [Table 1]. The total number of people surveyed total 18 with the average age being 21.89 ± 1.23 , and 22.2 percent for boys and 77.8 percent for girls. Among them, 50.0 percent did not have a religion and 50.0 percent had a religion.

Table 1. General Characteristics

Type	No	Age	Gender	Grade	Religion	FWS*
Type 1	1	21	F	4	No	1.5843
	3	22	F	4	Christian	.7130
	5	21	F	4	No	1.5430
	6	21	F	4	Catholic	.6980
	10	21	F	4	Christian	.6476
	11	21	F	4	No	.4627
	12	23	F	4	Christian	1.7589
Type 2	4	22	F	4	No	1.2258
	9	21	F	4	Christian	.5061
	13	21	F	4	No	.7976
	14	23	M	4	Christian	.6743
	15	22	F	4	No	.6653
	16	24	M	4	Catholic	.9402
	17	21	F	4	No	1.1274
Type 3	2	21	F	4	No	.5558
	7	23	M	4	No	.3599
	8	25	M	4	Christian	.7246
	18	21	F	4	Christian	1.1523

*FWS: factor weight score

3.2. Subjectivity and Type-Specific Characteristics of Diet

This study describes the characteristics of types of diet based on the statements that belong to individual types to analyze the nursing students' subjectivity of diet by types. Q-responses of P-sample (participating respondents) were classified into higher questions and lower questions and 3 factors were drawn. Among the participants, the participant with higher factor weight is the representative or ideal person who represents the concerned types.

To analyze the characteristics of individual types of diet, the study interpreted each type with statements having z-scores at least ± 1 . Our study had 7 participants with factor weight at least 1.0 in the type 1, 7 participants in the type 2, and 5 participants in the type 3.

As result of the analysis of the subjectivity of diet by using PC QUANL Program, 3 factors were found and took 41.7% of the total variants. The first factor was 26.93%, the second factor was 78.32%, and the third factor was 6.45%. Since the first factor explains the highest 26.93%, it is the biggest factor which explains most about the reason why [Table 1]. Out of the total 18 participants, 7 belonged to the first factor, another 7 belonged to the second factor, and 5 belonged to the third factor. It implied that the persons belonging to the same factor show the similar response.

Table II. Eigen Value, Variance, and Cumulative Percentage

Hospitals	Type I	Type II	Type III
Eigen Value	5.1166	1.5804	1.2260
Variance(%)	.2693	.0832	.0645
Cumulative(%)	.2693	.3525	.4170

The correlation coefficients between the three factors are shown in [Table 3]. This shows the degree of similarity among the three types. The correlation coefficient between type 1 and type 2 is 0.481. type 1 and type 3 is 0.327, and 0.254 in type 2 and type 3. Type 1 and type 2 had a relatively high correlation with

other types. However, the correlation between factors in the Q method is different from the factor analysis method in the quantitative research, and since it focuses on finding the factors without presupposing the complete independence between the factors, there is no controversy over the method of factor extraction based on the high and low correlation.

Table III. Correlations Between Factor Scores

Hospitals	Type I	Type II	Type III
Type I	1.000	.481	.327
Type II	-	1.000	.254
Type III	-	-	1.000

3.3. Analysis of Subjectivity Per Factor

The subjective types of diet which are induced by the method for categorized analysis are explained in the following.

- Type recognizing neighboring circumstances as the major factor: 7 participants belonged to this type. The statements which were strongly agreed by the participants were: "Diet is necessary in Korean society ($z=1.69$)", "Diet is compelled by the stress coming from the way people look at me ($z=1.74$)", and "Unverified methods of diet is on the rise ($z=1.43$)". No. 1 was the respondent who had the highest factor weight in this 1st type (1.5843) and the respondent strongly agreed with the statement 4 and 10. The statements which were strongly disagreed by the participants were: "Diet has nothing to do with individual characteristics ($z=-1.94$)", "Medicine should be used for diet ($z=-1.64$)", and "People with higher education tend to be interested in diet ($z=-1.56$) [Table 4]". No. 11 (0.4627) was the respondent who had the lowest factor weight in this 1st type and the respondent strongly disagreed with the statement 32 and 2.

The characteristics of the 1st type lies in the fact that they are interested in the reason why they do diet. The respondents in the 1st type think that the major reason of diet comes from what the others think about me and consider this tendency is prominent in Korea. They think they do diet because they do care about the way the others look at them and suppose that females tend to do more diet than males. They are opposed to using medicine for diet and suppose that the motives of diet are varied depending upon personal characteristics and level of educations. They responded that the motive of diet is social recognition rather than keeping health.

They responded that human beings are social creatures and social recognition influences their behaviors. Therefore, they said, the desire for diet shall vary depending upon the level of social recognition they feel. Also, they thought diet is the offspring of human society and the criteria of diet is different from society to society. In that regard, they answered that changes in social recognition is more important than personal efforts to prevent excessive diet and establish the practices of desirable diet. From the context of the abovementioned, we name this type as "the type recognizing neighboring circumstances as the major factor".

- Type pursuing health: 7 participants belonged to this 2nd type. The statements which were strongly agreed by these participants were: "Balanced meals are helpful for diet ($z=2.43$)", "I do diet for the purpose of keeping health ($z=1.83$)", and "Aerobic exercise is good for health ($z=1.45$)" [Table 4]. No. 4 was the respondent who had the highest factor weight in this 2nd type (1.2258) and the respondent strongly agreed with the statement 19 and 7. The statements which were strongly disagreed by the participants were: "Medicine should be used for diet ($z=-2.27$)", "Diet has nothing to do with individual characteristics ($z=-2.06$)", and "Diet is necessary regardless of body weight ($z=-1.59$)". [Table 4] No. 9 (0.5061) was the respondent who had the lowest factor weight in this 2nd type and the respondent strongly disagreed with the statement 2 and 32. The characteristics of the 2nd type respondents think that diet should be opted and conducted to keep our health. They responded that diet should be conducted by healthy means such as

balanced meals and aerobic exercise and should not rely on medicines etc. They think diet can be influenced by personal characteristics and educational background but maintains that it should not be influenced by preconceptions of others and prejudices.

They maintain that the eventual purpose of diet is to have a healthy and happy life. They think the effect of diet can be achieved by changing basic patterns of life and it will vitalize our lives. In this regard, we named this type as the type pursuing health.

- Type pursuing additional benefits: 4 participants belonged to this 3rd type. The statements which were strongly agreed by these participants were: "Cognitive efforts is necessary to restrain the desire to have foods ($z=2.51$)", "females are more likely to go on diets than males ($z=1.99$)", and "Diet is important for mental and physical health ($z=1.97$)" [Table 4]. No. 19 was the respondent who had the highest factor weight in this 3rd type (1.1523) and the respondent strongly agreed with the statement 26 and 1. The statements which were strongly disagreed by the participants were: "Diet must be done regardless of body weight ($z=-2.59$)", "Married person is likely to go on a diet ($z=-1.61$)", and "Diet for purely reducing body weight is on the rise ($z=-1.57$)."

No. 7 (0.3599) was the respondent who had the lowest factor weight in this 3rd type and the respondent strongly disagreed with the statement 11 and 36. The respondents in the 3rd type think diet should be done for mental and physical health and beauty can be achieved through dieting. They think diet can bring confidence in themselves through relief of stress and females are more likely to go on diets than males. They think it is not necessary everybody go on a diet and level of education and status of marriage shall influence on decision of going on a diet.

The respondents are interested in additional benefits of diet. They focus on the changes in life following diet. They supposed that balanced body and psychological confident coming from diet shall bring changes in their lives and improve the quality of their lives. In this regard, we name this type as the type pursuing additional benefits.

Table IV. Q-statements on diet and Z-scores per factor (N=18)

Representative items of type					
Factor	Type	No	Representative items	Mean(SD)	Z-score
Factor1 (N=7)	Type1	4	Diet is necessary in Korean society.	10.57(2.507)	1.96
		10	Diet is compelled by others staring at me with prejudice.	10.71(1.113)	1.74
		27	Unverified method of diet is on the rise.	9.43(1.618)	1.43
		1	Females go on diets more frequently than males.	9.43(2.299)	1.33
		21	Psychological factors such as depression, nervousness and stress negatively influence diet.	9.14(1.574)	1.33
	Type2	32	Diet has nothing to do with personal characteristics.	3.29(1.704)	-1.94
		2	Medicine should be used for diet.	3.57(2.636)	-1.64
		35	Persons of higher education are more interested in diet.	3.86(1.676)	-1.56
		23	Diet is helpful for improvement of immune system.	4.29(2.360)	-1.55
		40	Both medicine and oriental herbs are helpful for diet.	4.43(1.512)	-1.53
Factor2 (N=7)	Type3	19	Balanced meals are helpful for diet.	11.57(1.272)	2.43
		7	Diet is done for the purpose of health.	10.29(1.976)	1.83
		33	Aerobic exercise is good for diet.	9.71(2.289)	1.45
		15	Diet is done for the purpose of beauty.	2.86(1.345)	1.41

	Type4	28	Exercise is necessary to increase basic metabolism for diet.	9.57(2.878)	1.30
		2	Medicine should be taken for diet.	2.57(1.272)	- 2.27
		32	Diet has nothing to do with personal characteristics.	3.00(1.732)	- 2.06
		11	Diet should be done regardless of body weight.	4.00(1.155)	- 1.59
		35	Persons with higher education are more interested in diet.	4.50(1.732)	- 1.43
		40	Both medicine and oriental herbs are helpful for diet.	4.71(2.289)	- 1.24
Factor3 (N=4)	Type5	26	Cognitive efforts to restrain appetite are necessary.	10.00(3.674)	2.51
		1	Females go on diets more frequently than males.	9.00(4.123)	1.99
		3	Diet is important both for mental and psychological health.	9.40(3.578)	1.97
		15	Diet should be done for beauty.	8.80(3.033)	1.72
		12	Diet relieves daily stress and provides confidence in daily life.	9.60(2.302)	1.65
	Type6	11	Diet should be done regardless of body weight.	3.80(4.087)	- 2.59
		36	Married person is more likely to go on a diet.	4.80(2.280)	- 1.61
		14	Cases of diets for merely reducing body weight are on the rise.	4.40(2.966)	- 1.57
		29	Studying is helpful for diet.	4.60(1.517)	- 1.50
		35	Persons with higher education are more interested in diet.	5.80(2.387)	- 1.02

4. Discussion

As result of the research, three types of the nursing students' subjective perception of diet were found, which are: the 1st type recognizing neighboring circumstances as the major factor, the 2nd type pursuing health, and the 3rd type pursuing additional benefits. Let us discuss the characteristics of the types in the following.

The 1st type found in this study was the type recognizing neighboring circumstances as the major factor. They think people begin diet because of the neighboring circumstances. They suppose preconception of others and social atmosphere make them begin their diet. Since every society is unique and various, the level of obesity and the emotional pressure for diet shall be different depending upon which society a person belongs to. Therefore, they suppose that undesirable diet can be prevented by changing prejudice and notion of a society if a society has problematic criteria of beauty or has some sort of discrimination.

Unlike the existing generation, the female students of these days are sensitive to sociocultural influences and tend to regard external value higher than internal value. Due to the bias inclined toward external value, the nursing students had some tendency in which they had some concern about obesity even though their weights were within the normal range and considered skinny body as normal [16, 17]. This undiscerning diet rooted in unbalanced value system not only threatens the integrity of their health but also reflects the health issue of the young generation.

Also, in the study conducted by Kim & Kim (2010) for the high school students at that time, it was found that 66.1% of 380 participants of the study had had or were on diets. According to this study, the group of students who were on diets were strongly influenced by the mass media and had distorted concept on body image. Therefore, the group was focusing on the diet for the purpose of keeping slim body instead of the original purpose of diet which pursues harmonious development of entire body [18].

Particularly, there were fewer rate of obesity in case of female students than the male, but the female students tried diets more than male students due to the physical norm that is discriminatively more enforceable against females [19], and showed less self-esteem and satisfaction of appearances when they are obese [20]. Also, many female students were on diets under the stressful circumstances preparing for the college admission that they were going through difficulties both physically and psychologically.

The advertisement on mass media which instigates unrealistic pursuit of beauty deepens dissatisfaction with their appearances as well as adherence to diets in the minds of both teenagers and undergraduate female students and negatively influences their concept of healthy body. Especially, the female undergraduate students prefer slim body shape to healthy body, and thus frequently go on unreasonable diets even when their body weight is normal or below the normal range [5, 22, 23].

Meanwhile, Choi (2015) conducted the research on what the undergraduate female students of Korea and Japan think of their body appearances and diet method and found most of them were not satisfied with their body appearances. The rate of the students who were not satisfied with their body appearances were higher for the group of the Japanese students. Particularly, it was found that both Korean and Japanese students preferred skinny shapes. The methods of diet were mainly exercises (64.9% of Korean students and 50.8% of Japanese students) and regimen of eating and drinking (18.1% of Korean students and 15.7% of Japanese students) and both group were interested in the prompt effect of diet [24]. Also, Sakaguchi et al. (2016) found that female undergraduate students had significantly higher cases of diet experiences than male counterparts.

The recent body positivity movement of the U.S. is the belief that all human beings should have a positive body image while challenging the ways in which society presents and views the physical body. Especially, regarding obesity, it emphasizes that it is necessary to pursue one's own happy life rather than chasing unreasonable diet plan [25]. This movement is gaining popularity across the U.S. because health of many people is being threatened by unreasonable cosmetic surgery, abuse of medicine, erroneous diet, excessive stress coming from dissatisfaction with body appearances etc. as result of the prevailing supremacy of body appearances. It shall be important to prepare the ways to correct social views and notions for prevention of erroneous diet and the ensuing side effects.

The mass media, which strongly influences the people, should represent correct image of bodily beauty of human beings with social responsibilities. Newspapers, magazines, internet portals and TVs should provide correct information on diet with social responsibilities. Information regarding diet should be continuously monitored and regulatory authority should oversee and restrain excessively commercial and unhealthy advertisements and information pursuant to relevant laws and regulations with enactment whenever necessary. Also, our schools should educate students so that they can discern helpful information by themselves. Lastly, specific strategy for improvement of health should be established by experts to implement diet that can improve our health.

The 2nd type found in this study was the type pursuing health. They think diet should be done to achieve healthy life and it should be conducted through changes into desirable daily habits including exercises and balanced meals. They also think diet is not necessary for all the people but shall be necessary for a certain type of people for their healthy lives.

A recent study conducted for the undergraduate students of the U.S. suggested that the subjective body image of an individual is more important than the objective dimension of body. When individuals have more positive recognition of their body images, it was found that they were less depressed, had higher self-esteem, and were less likely to go on unhealthy diets [26]. Eating disorders were found more frequently with persons of both males and females who had negative recognition of their body images and put excessive importance on body shape. However, depressions were frequently found in case of persons with negative recognition of their body images regardless of whether they value their body shape or not [27].

It had been already verified in the past that diet and regaining weight increases the risk of cardiovascular disease and the death rate [28]. However, there is some arguments that the health risk coming from diet and regaining weight is higher in case of persons with normal weights than obese persons [29]. That might be because of the fact that person with normal weights shall be harder to lose weights than obese people. About 1/3 of the respondents who had went on diets experienced side effects such as lethargy, constipation, nausea, depression, irregular menstruation, headache etc. However, a study conducted for undergraduate students showed that the duration and frequency of diet influenced improvement of obesity while the intensity of diet did not, proving consistent and continuous diet can maximize the effect of diet [30].

Diet means “a regimen to reduce body weight or control meals for improvement of health” [31]. However, erroneous diets, dissatisfaction with body shapes and weights, and stress of less self-confidence are causing lots of health issues in our society. Therefore, if we can develop and provide desirable and healthy diet for our society, side effect of faulty diet can be greatly reduced.

The 3rd type found in this study was the type pursuing additional benefits. They were interested in the secondary benefits of diet. When diet is successful, they think they can benefit from psychological health and vitality as well as the physical benefit, stress can be reduced, and successful diet shall be beneficial for employment and socializing. They suppose that successful diet shall improve self-esteem and satisfaction.

Kwon et al. (1996) found out that people go on diets to look slim, look better with clothing, to lose fat at certain part of body, to make physically fit, to recover confidence, satisfaction, and self-esteem etc. [30]. In case of female undergraduate students preparing employment after graduation, the necessity for weight control grows before their employment because successful diet significantly influences the results of their employment after graduation [6].

Lee, Kim, Kim & Kim (2000) found that long-term behaviors related with health tend to be the lasting behaviors and cannot be changed easily [32]. Also, the behaviors in early adulthood related with health tend to influence long-term well into the adulthood [33, 34]. Since the responsibilities for one's own health lie with oneself, it shall be more important to have positive recognition of one's own body image and get correct information on health rather than to begin diet for additional benefits.

This study analyzed the subjectivity of nursing students' perception of diet by categorizing them into 3 types. Most of the nursing students thought not all the people need to go on diets and it is selectively necessary for certain cases. They also thought diet should be done in healthy and reasonable ways without the risk of side effects. The 1st type that recognizes neighboring circumstances as the major factor supposes that they do diet because of circumstances, the 2nd type that pursues health goes on a diet for the purpose of health, and the 3rd type that pursues additional benefits goes on a diet because of additional benefits which follow successful diet. This kind of study on the subjectivity of perception of diet can be used as the basic information for the development of diet methods and treatment of obesity. In addition, we anticipate that this can be used also as the basic information for the development of differentiated education program to be provided to nursing students in undergraduate years.

However, this study has limitation in generalization of the results since the research was conducted only one certain university and could not select respondents in consideration of factors influencing the perception of diet. Therefore, it is necessary to subsequently verify the 3 types by drawing Q-sample from various backgrounds [35-37].

5. Conclusion

This study was conducted to provide the underlying information for establishment of correct methods of diet by applying Q-methodology. As result of this study, the subjectivity of nursing students' perception of diet was categorized into 3 types - the 1st type that recognizes neighboring circumstances as the major factor, the 2nd type that pursues health, and the 3rd type that pursues additional benefits.

This study categorized the subjectivity of nursing students' perception of diet and thereby it shall provide the underlying basic information for establishment of policy for public health related with diet. Also, we anticipate that this study can be used also as the base for the development of education programs to be provided to nursing students in consideration of the characteristics of the individual types. In addition, we also suggest subsequent studies to further analyze the 3 types by drawing more samples from varied background and to verify the factors influencing nursing of the patients going through diets [38].

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