ISSN (Print): 0974-6846 ISSN (Online): 0974-5645

A Subjectivity Study on Eating Habits among Female College Students

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Abstract

Objectives: To analyzing the type of eating habits of nursing students who have to lead health improvement and education as nurses in the future and figure out difference by type.**Methods/Statistical Analysis**: In order to find out type of subjectivity about eating behavior of female nursing students, this study applied Q methodology.**Findings**: The As a result of analysis, the first type "unhealthy weight control type (28.21%), the second type "regular well-being diet type (23.08%), third type "self controlling type (20.51%), the fourth type "stress relieving type (12.82%), and the fifth type snack preferred type (15.38%) were appeared. Variant of each type is appeared: the first type (14.63%), the second type (10.24%), the third type (6.34%), the fourth type (5.19%), and the fifth type (4.90%). **Improvements/Applications**: This According to this difference, to develop separate effective arbitration program with health education by type of eating behavior of female nursing student is required.

Keywords: Female, College Student, Eating Habits, Q methodology, Subjectivity

1. Introduction

Self-direction After middle school and high school period are passed by, students enter to college and their strict and regular life style transforms into liberal life style. As they escape from parent's control, they have more outdoor activity, and they easily get irregular eating habit along with change of life style because irregular class schedule increases in college.

Especially, female students at this period rather hardly recognize importance of nutrition intake, and have never established value about eating habits, so they are appeared to have inappropriate eating habits because of irregular meal, frequent meal skip, overeating, overdrink and smoking, and overmuch interest in their appearance¹.

Especially, college students years is the period to be turned into adult period, and since their eating habits reflect the eating habit attitude that would be customized in next adult period, right eating habits of college student means a lot for prevention of disease that could occur in adult period.

However, as they start college life, their regular life style in middle and high school changes to free life style, and as they escape from parent's control, they get outdoor activity and easily get irregular eating habit because of irregular class schedule and increased free time².

Also since they will become parents in the future and play role and manager of family and eating life, they are group that largely affect to health of people. And since they are at important stage to take responsibility for them, eating habit of this period is very important for health of middle aged and elderly.

However, it is reported that college students at this period rather hardly recognize importance of nutrition intake, and have never established value about eating habits, so they are appeared to have inappropriate eating habits because of irregular meal, frequent meal skip, overeating, overdrink and smoking, and overmuch interest in their appearance³.

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In⁴ said students who have breakfast regularly are few as they become college students from elementary students, which shows eating habits are not going to right direction as they are further from parent's interruption. Thus, nutritional education is also required for recognition of importance of having breakfast.

In domestic and foreign, many surveys were undergone with the subject ranging from kinder garden to elderly. Survey about nutritional knowledge, research about nutrition intake and health, and eating habit was actively undergone, but research about eating classification of habit type.

According to research of ⁵, things that need to improve among eating habit of college students are appeared in order of irregular meal, overeat, unbalanced diet, meal skip, overtaking snacks. As a result of research about regularity of meal, only 30.7% of students responded they are eating meal regularly. Like this, selection of favorite food instead of nutritional food, overdrink and smoking, interest in skinny body type, and inappropriate eating habit for weight control are pointed out as problems.

Thus this study analyze type of eating habits of nursing students who have to lead health improvement and education as nurses in the future and figure out difference by type, and aims to use this for separated nursing intervention and educational material after recognizing importance of forming balanced eating habit, and right nutritional knowledge.

1.1 Research objective

This study applies Q methodology and figures out characteristic about eating habit type of nursing student, and this study aims to offer basic material to revitalize individualized and organized educational program.

2. Research Methods

This study applied Q methodology to figure out eating habit type of nursing student. Q methodology is created by William Stephenson, which is a method to measure objectively subjective area of human such as attitude, trust, and value⁶.

2.1 Organization of Q Population

Q population arranged literature review, interview with 6 nursing students and open-ended questionnaire not to overlap, and organized 72 statements about eating habits.

2.2 Organization of Q sample

Q sample selected 34 statements to explain eating habit type in 72 already collected Q population well, and get consultation from 2 nursing professors who experienced Q methodology in this process.

2.3 Selection of P Sample

Since methodology treats intra-individual differences, but inter-individual differences, it does not limit to number of P sample and selection².

Based on small-sample doctrine, characteristic is not clearly exposed if many people are concentrated as P sample increases. If it is similar to number of statement, it is the most ideal. If number of P sample increases, it rather has statistical problem so number is appropriate when it is 40±20 people.

This study selected 39 female nursing students as P sample, had surveyed from 11/26/2012 to 12/14/2012.

2.4 Q sorting

We explained object and method of this study and asked for agreement to research subjects, and we distributed Q sample printed cards that are 34 statements. For things they do not understand we explained more and ask them fill out questionnaire. Subjects may divide Q statements into post agreed, agreed, and the most disagreed statements by their opinion and may do forced distribution on 9 points ranging from -4 to +4. For this, we ask subjects to write explanation why they chose 4 statements that are "most agreed" and "most disagreed".

3. Research Result

This study applied Q methodology to figure out eating habit type of nursing student. Q methodology is created by William Stephenson, which is a method to measure objectively subjective area of human such as attitude, trust, and value⁸.

As a result of this study, types of eating habits of female nursing student are classified into 5 types; overall variants were 41.29%in Table 1.

Correlation by each type shows negative correlations like type 1 and type 2 are -.043, type1 and type 3 are .185, and type1 and type 4 are .317, type1 and type 5 .207, and type 2 and type 3 are -.018, which is negative correlation, type 2 and type 4 are .118, type 2 and type 5 are .046, type3

 Table 1.
 Eigen value and Variances, Cumulative variance

	Type 1	Type 2	Type 3	Type 4	Type 5
Eigen value	5.7047	3.9936	2.4707	2.0258	1.9092
Variance	.1463	.1024	.0634	.0519	.0490
Cumulative Variance	.1463	.2487	.3120	.3640	.4129

and type 4 are .308, type 3 and type 5 are .119, type 4 and type 4 are .139. Type2 and type 3 have higher correlation compared to other types, and type1 and type 4 is appeared to have higher correlation than other types in Table 2.

3.1 Result Analysis by Type

This study aims to find out nursing student's value and attitude about eating habit.Q object is rather discovering relationship variables than increasing explanation power, so it is regarded that 41.29% of variant have explanation power in research object that analyzes attitude and value about eating habit by type.

3.1.1 Type 1

The first type is "unhealthy weight-control type" (11 people, 28.21%), and positively thought statements are appeared like "like meat", "currently doing weight-control", "overeating due to stress and frustration", "skips meal frequently", and "frequently overeating", so this type is doing weight-control through overeating and meal-skip Table 3.

3.1.2 Type 2

The second type is "regular well-being diet type" (9people, 23.08%), and positively thought statements are appeared in order of "eat breakfast regularly everyday", "mainly eats Korean food", "proper quantity of meal", "like vegetable". "Overeating due to stress and frustration", and "meal time is regular". This type eats breakfast regularly everyday with proper intake of Korean food and vegetable, and meal schedule is also regular in Table 4.

3.1.3 Type 3

The third type is "self control type" (8 people, 20.51%), and positively thought statements are appeared in order of "like meat", "chew food enough", "eat dairy product everyday", "eat snack more than once everyday", and "drink caffeine beverage like coffee and black tea". This type not only

Table 2. Correlation between Types

	Type 1	Type 2	Type 3	Type 4	Type 5
Type 1	1.000				
Type 2	043	1.000			
Type 3	.185	018	1.000		
Type 4	.317	.118	.308	1.000	
Type 5	.207	.046	.119	.139	1.000

Table 3. Representative items of Type 1

No.	Q Statement	Z-score
21	like meats	1.93
12	now doing weight control	1.70
19	overeat when stressed out or frustrated	1.45
9	frequently skip meals	1.24
6	frequently overeat	1.05
31	consider 6 nutritions and plan meals	-1.05
28	frequently drink	-1.43
4	eat fruit everyday	-1.48
5	drink dairy products every day	-1.88
1	have breakfast regularly every morning	-1.89
3	think food proportion when have meals	-2.05

Table 4. Representative items of Type 2

No.	Q Statement	Z-score
1	eat breakfast regularly every morning	1.89
10	mainly eat Korean food	1.49
2	always eat proper quantity	1.44
22	like vegetable	1.32
19	overeat when stressed out or frustrated	1.12
15	regular meal schedule	1.02
24	like salty food	-1.16
8	eat at night frequently	-1.18
6	frequently overeat	-1.34
9	frequently skip meals	-1.42
27	imbalanced diet	-1.78
26	eat processed and instant food frequently	-1.87

always has meal in proper quantity but also maintains their eating habit through having milk and meat in Table 5.

3.1.4 Type 4

The fourth type is "stress reducing type" (6people, 15.38%), positively thought statements are appeared in

Table 5. Representative items of Type 3

No.	Q Statement	Z-score
21	like meat	2.13
2	always eat proper quantity	1.15
18	chew food enough	1.47
5	have dairy products everyday	1.15
7	eat snack more than once everyday	1.11
14	drink caffeine beverage like coffee and black tea	1.10
29	have experience in use of diet food and medicine	-1.22
12	doing weight control now	-1.55
13	never drink alcohol	-1.74
1	eat breakfast regularly everyday	-2.62

Table 6. Representative items of Type 4

No.	Q Statement	Z-score
	drink caffeine beverage like coffee and black	
14	tea	2.26
19	overeat when stressed out or frustrated	1.38
16	have fast eating speed than others	1.29
21	like meat	1.28
32	eat protein food like meat, fish, egg, and	1.27
20	bean every day	1.08
	eat unless hungry	
17	never go out to eat	-1.01
5	have dairy products everyday	-1.20
7	eat snack more than once a day	-1.29
3	think food proportion to eat	-1.80
4	eat fruit everyday	-1.92
13	never drink at all	-1.97

order of "drink caffeine beverage like coffee and black tea", "overeating due to stress and frustration", "eat faster than others", "like meat", "eat protein products like meat, fish, egg, and bean everyday", and "eat unless hungry". This type overeat food to reduce stress when they have stress or frustration in Table 6.

3.1.5 Type 5

The fifth type is "snack preferred" (6people, 15.38%), positively thought statements are appeared in order of "eat breakfast everyday", "eat faster than others", "like meat", "eat snack more than once everyday", "eat non-Korean food at least once or more", and "like sweet food". This

Table 7. Representative items of Type 5

No.	Q Statement	Z-score
1	eat breakfast regularly everyday	2.46
6	have faster eating speed than others	1.78
21	like meat	1.40
7	eat snack more than once everyday	1.39
11	eat non-Korean food for at least a meal	1.11
23	like sweet food	1.02
14	drink caffeine beverage like coffee or black tea frequently	-1.42
19	overeat when stressed out or frustrated	-1.62
3	think nutritional proportion to eat	-1.71
17	barely go out to eat	-1.75
4	eat fruit everyday	-1.79

type has meal regularly, but they prefer snack more than once a day, and like sweet food in Table 7.

4. Discussion and Conclusion

This study was carried out to distinguish eating habit type of female nursing students with Q methodology and to figure out difference and characteristic by each type. Since eating habit type is reflected each individual's inside, Q method was applied in order to figure out subjectivity of eating habit type.

According to question of research about whether college students have balanced meal or not8, people who answered "always have balanced meal" are 23.3%, and 76.7% for imbalanced eating habit. As a result of this study, the second type, "regular well-being diet type" is 23.08%, which is lower than advanced research.

According to 10, male students who always skip breakfast are 39.5% and 38.8% and female students who always skip breakfast are 38.8%, and at this study, the first type, "unhealthy weight-control type' does not eat regular breakfast everyday and according to this study, 33.33% of male students and 27.27% of female students are not eating breakfast regularly everyday, which is similar ratio to 10. Therefore, both male and female student has problem in eating habit because they do not have regular breakfast.

As society has developed and got complex, there are many cases of skipping breakfast because of change of eating habit, it not only causes low study achievement, nervous and aggressive personality characteristic but also causes inappropriate dietary intake. Since the first type doesn't eat breakfast regularly at this study, they are forming irregular eating habits as it often eats processed food and instant food and read books or watch TV during eating meal, which is similar result.

Through this result, we consider difference by female nursing student's eating habit type, and carry out eating habits related differentiated and systematic education for female students, and it would be very efficient to form health eating habit from college student's year if it applies to health education area.

Through this result, we consider difference by female nursing student's eating habit type, and arbitration plan to form healthy eating habits should be prepared through eating habits related differentiated and systematic education for female students.

5. Acknowledgement

This Work was supported by the research grant of Pai Chai University in 2016.

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