

# Dietary Behavior, Nutrition Knowledge and Health Status by meals intake or skipping in University Students

Tae Kyung Kim<sup>1</sup>, Hye Jin Kim<sup>2</sup>

<sup>1</sup>, Professor, Department of Nursing, DongEui Institute of Technology, Pusan 614-715, Korea

<sup>2</sup>Professor, Department of Nursing, Kyungbok University, Pocheon 487-717, Korea

\*Corresponding Author: Tae Kyung Kim 54, Yanggi-ro, Busanjin-gu, Busan 614-715, Korea. E-mailphoebetk@hanmail.net

## Abstract

The purpose of this study was to obtain information regarding to the dietary behavior, nutrition knowledge and health status by meal intake or skipping in university students. 227 students were surveyed about their dietary behavior and nutrition knowledge using the questionnaire. Data was analyzed using the SPSS 17.0 program. The rate of skipping breakfast was 39.2%, 5.3% lunch and 4.4% dinner. Especially, women(30.8%) are more skipped the breakfast than male(8.4%). The rate of skipping breakfast was higher that the mother has a job( $p=0.018$ ) and moderate or not healthy subjective health status( $p=0.001$ ). According to three meals intake rate, dietary behavior was a significant difference between the breakfast taking with family group( $p=0.000$ ), eating out intake frequency( $p=0.004$ ). In the case of skipped meal, the dietary recognition rate, dietary guide practice rate, the experience of nutritional education or counseling are lower than regular meal intake group. The major problems of this study are irregular meal intake and low nutritional knowledge. In this regard, the university students should recognize the importance of right dietary behavior and increase of nutrition knowledge. This study may provide basic information necessary for effective nutrition education in establishing right dietary behavior in university students.

**Keywords:** meal intake & skipping, dietary behavior, nutrition knowledge, health status, university student

## 1. Introduction

Changes in economic conditions and living environment was leading to sustained changes in diet patterns of Koreans with a surge in chronic diseases, 60% of deaths in 2000 worldwide, according to the announcement of the WHO is associated with chronic disease, mortality and the seven of the 10 were reported to be risk factors associated with diet and physical activity-related factors [1]. Economic growth and the times change is affecting the change in eating habits in the food service industry and the development of simplified and westernized diet taste, convenience, and the pursuit of consumer culture [2]. Issues such as changes in the overall diet or irregular meals, snacks and improper eating habits due to changes in the environment are affected in this way, health promotion as well as disease-causing. Thus, the nutrient intake of good quality, balanced lifestyle through proper diet is important in an individual's health and disease prevention[3]. Eating behavior is a cultural, social, and

psychological effects as well housewife mother's occupation and the mass media, professional, and economic levels, nutrition knowledge is formed by a number of factors [4]. Food type which is formed by these various factors is one of the human habits are formed over a long period of time, the right of dietary patterns may be naturally held by the master is not intended to be so much effort. Therefore, on the basis of proper nutritional knowledge it needed positive and sustainable nutrition education helps to form the correct dietary behavior. Students are correct dietary behavior is correct nutritional knowledge and dietary practices as an indispensable requirement for maintaining a good nutritional status of the population in this age group typically is very important. However, college is a lot if you prepare a meal with his choice directly to the food, unlike regular was in high school days use of frequent snacks, with excessive drinking and the right not nutrition knowledge select foods there is such a diet is fairly unstable period [5, 6, 7].

Students in the transition to adulthood transitions in the life cycle, so as to manage their lives independently in the state did not receive a proper education on diet will cause a lot of problems even if the contents of the meal [8]. So after checking the knowledge about nutrition and eating behaviors of students identified health condition and this is necessary to provide a dietary and nutrition education to improve health promotion on the basis of it. However, research been done to target college students so far dietary related research university of dietary and nutritional knowledge and relevance analysis study, most were [6, 9], the day current in accordance with meals by Meals eating behavior and determine the level of nutritional knowledge and research confirming the health status accordingly is insufficient. Therefore, after this study, confirming the dietary form of nutritional knowledge level according to whether the meal by meal a day job local university, so by reviewing the current state of health, according to nutrition and health that recognizes the importance of further preferred diet induced and nutrition. It was attempting to present a basis for promotion programs.

## 2. Method

### 2.1. Data Collection Method and Ethical Consideration

The purpose of this study was to target college students attending universities in one area from December 2012 to January 2013. Participants were distributed questionnaires to 243 people for self - study purposes and have agreed to discussed the purpose and anonymity of researchers to

directly study to students who enroll in nutrition-related subjects. Total 227 people except for the response from the dual questionnaire incomplete, 16 (93.4% response rate) were selected for the study end.

## 2.2 Research tools

### 1) General Characteristics

General characteristics examined gender, age, family income, wealth occupation, mock occupation, against obesity. Among Obesity is a body mass index (Body Mass Index:  $\text{kg} / \text{m}^2$ ) using height and weight person who is writing under a BMI of less than 18.5 weight group according to the classification of obesity Society for after calculating, less than the normal 18.5 to 23.0 weight group, 23.0 were classified as overweight than abnormal.

### 2) Meals a day

Nutrition Survey of Nutrition Examination Survey during the day meals verify whether dining in question, whether or not two days before breakfast, "" whether or not two days before lunch, " 2 days before dinner whether or not "and" whether one day before breakfast, "" lunch will investigate whether one day 'and' the day before asking if dinner '6 questions. Among meal skipping ration is {(one day before breakfast (lunch and dinner) Meals respondents) + (2 days before the morning (lunch and dinner) Meals respondents)} {(one day before breakfast (lunch and dinner for) meals person who can answer 'No' whether) + (2 days before the morning (lunch and dinner) person who can answer 'No' to eat or not)} refers to the ratio.

### 3) Eating meal types

Eating three meals a day, meal skipping ration in the form of breakfast, lunch and dinner meals and meal skipping ration families meal ratio, it was confirmed by snacking and eating out frequently consumed frequently. Family's meal ratio, snacking and eating out intake frequency of meals to the items listed in the 2007 National Health and Nutrition Examination Survey Families meal ratio will have you eating whole family (one or more of the family) for 'last year? "The meals as Yes / No investigated by. Snack intake 'did average snacks How often during the last year? "And catering intake, on average, eat out during the last year (implant, work, meals, school meals), how often did you?" To the "Day 2 times or more ', once a day ', 1-6 times a week, "" once in two days 'and' not getting little (less than 3 times a week), were examined by.

### 4) Nutrition Knowledge

Nutrition knowledge is confirmed through experience whether received Dietary Guidelines dietary guidelines and awareness action ratio, purchasing and processed food is selected, check the nutrition label nutrition education and counseling. Dietary guidelines recognition ratio was investigated by questions about whether one is aware of the dietary guidelines. Dietary Guidelines action ratio is 'Practice (3 points), itemized practice, whether as seven questions to determine the "Dietary Guidelines for Koreans,' 'try to practice (2 points),' do not practice / do (1 point) the higher the score was irradiated by dividing the "means dietary guidelines action ratio is high. Books about the foods purchased and selected nutrition

labeling on whether reads 'read', 'do not read', was identified as "nutrition labeling do not know what." "Recently, within one year whether this nutrition education and counseling ever received? Yes to the question about the" / No experience or absence of nutrition education and counseling in response to the first question it confirmed that.

### 5) Health status

Health subjective health status and current disease presence or absence to determine the state in 2007, the National Health as items used in nutrition research, subjective health condition is very poor current health state feels the subject (1), poor (2), Normal (3), good (4), the higher the score is very good (5) it means that the person feels good subjective physical condition. Current disease presence was in response to a yes / no for sure is that current health problems.

## 2.5. Data Analysis

Statistical analysis was performed using SPSS / WIN 17.0. General characteristics of the subjects a day, meals meal, whether dietary form, nutritional knowledge and health information on the status of narrative statistics, general characteristics and day meals differences in dietary form according to whether the meal, nutrition knowledge and health status of chi-square test was verified, the statistical significance was set at  $P < 0.05$  (\*).

## 3. Result

### 3.1. General characteristics

Women of all participants is 227 people, 83.3% (189 patients), men appeared in 16.7% (38). The mean age of subjects was 20.82 Vertical most common 18-20 years old and 65.2% (148 patients). It was the most common family monthly income of 101-200 million won and won 301-400, respectively 28.2% (64 patients), if the occupation of the father with parental occupation is 88.1% (200 patients), if the mother has a job is found to be 78.4% (178 patients). Body mass index (BMI) of 18 to 23.0 is 74.0% less than the normal weight group (168 patients) the most frequent, less than 18 under-weight group was 15.9% (36 patients), 6.6% of 23 to 24.9 is overweight (15) 25 or higher as obese were 3.5% (6) <Table 1>.

<Table 1> General Characteristics of the Subjects (N=227)

Variables	N	%
<b>Gender</b>		
Female	189	83.3
Male	38	16.7
<b>Age</b>		
18-20	148	65.2
21-25	60	26.4
26-29	19	8.4
<b>Family income (monthly)</b>		
Under 100	14	6.2
101-200	64	28.2
201-300	49	21.6
301-400	64	28.2
401-500	23	10.1
Over 501	13	5.7
<b>Father's employment Status</b>		
Employment	200	88.1
Unemployment	25	11.0
Unknown	2	0.9
<b>Mother's employment status</b>		
Employment	178	78.4
Unemployment	44	19.4
Unknown	5	2.2
<b>BMI</b>		
Under 18.5	36	15.9
18.5-22.9	168	74.0
23-24.9	15	6.6
Over 25	8	3.5

Data are N, %. Descriptive analysis

### 3.2. Subjects of meals per day, eating habits form, nutrition and health knowledge

It was the subject of a morning meal skipping ratio was 39.2% (89 patients) meals a day meal, whether lunch meal skipping ratio was 5.3% (12 patients) and the evening meal skipping ratio was 4.4% (10 patients). Eating meals for families in the form of breakfast meal ratio was 41.6% (94 patients), lunch 27% (61 patients) and dinner 52.2% (118 patients) showed that a meal with the family. Snacking frequently appeared as a once a day is 30.0% (68 patients), almost not getting a single in two days (three times a week or less), respectively 22.5% (51 people), catering intake frequency of 37.0 per day% (84 people), 32.6% had two or more times a day (74 patients). Not dietary guidelines awareness of the topics of nutrition knowledge to know that 52.4% (119 patients) know, appeared in 47.6% (108 patients), dietary guidelines action ratio is practiced 61.7% (140 patients), and try to practice. It appeared in 37.9% (86 patients). Read about how the check nutrition labels when choosing foods to buy and 50.2% (114 patients), was not read by 48.9% (111 patients). Nutrition education and experience, whether receiving counseling has no experience who appeared in 85.0% (193 patients), and 15.0% (n = 34). 45.8% subjective health status in health status (110 people) are normal, 29.1% (66 people) Good, appeared as a poor 14.5% (33 patients), current illness or absence is that there is 81.0% (186 patients), 18.1% (41 patients) showed that a

<Table 2> Three Meal Intake or Skipping, Dietary Behavior, Nutrition Knowledge and Health Status of the Subjects` (N=227)

Variables	N	%
<b>Meal intake or skipping</b>		
Breakfast intake	Skipping	89 39.2
	Intake	138 60.8
Lunch intake	Skipping	12 5.3
	Intake	215 94.7
Dinner intake	Skipping	10 4.4
	Intake	217 95.6
<b>Dietary behavior</b>		
Breakfast taking with family group	Yes	94 41.6
	No	132 58.4
Lunch taking with family group	Yes	61 27
	No	165 73
Dinner taking with family group	Yes	118 52.2
	No	108 47.8
<b>Frequency of snack intake</b>	≥ 2times per day	29 12.8
	Once per day	68 30.0
	1-6times per week	28 12.3
	Once per two day	51 22.5
	Almost none(< 3times per week)	51 22.5
<b>Frequency of eating out intake</b>	≥ 2times per day	74 32.6
	Once per day	84 37.0
	1-6times per week	43 18.9
	Once per two day	18 7.9
	Almost non(< 3times per week)	8 3.5
<b>Nutrition knowledge</b>		
Dietary guideline Recognition	Known	108 47.6
	Unknown	119 52.4
Dietary guideline Practice	Practice	140 61.7
	Make an effort to practice	86 37.9
	Not practice	1 0.4
Confirmation of nutrition indicate	Read	114 50.2
	Don't read	111 48.9
	Unknown about nutrition indicate	2 0.9
Experience of nutritional education or counselling	Yes	34 15.0
	No	193 85.0
<b>Health Status</b>		
Subjective health Status	Very healthy	18 7.9
	Healthy	66 29.1
	Moderate	110 48.5
	Not healthy	33 14.5
	Very bad healthy	0 0.0
Present Illness	Yea	41 18.1
	No	186 81.0

Data are N, %. Descriptive analysis

### 3.3. Meals a day in accordance with the person's general characteristics

If you are skipping meals breakfast was more common in women than in men 30.8% and 8.4%, in the age 18-20 years old, 24.2%, 12.3%, 21-25 years old, 26-29 years old, it showed a 2.6% monthly income family the 101-200 is the most frequent won 12.3%, the father of the job was not a significant difference to appear or higher than 3.1% is statistically 35.2% in case of the absence. If the mother's occupation is occupation with the morning meal skipping ration than 10.0% to 27.3% of cases without statistically significantly higher ( $p = 0.018$ ). If you have a body mass index (BMI) it was 29.1% in the morning, skipping meals the most common case of normal weight, if no disease is currently found in 31.7%.

Skipping lunch meals is more common in women than in men 4.4% 0.9%. In the age 18-20 years old, 1.3%, 4.0% 21-25 years of age showed there was a statistically significant difference ( $p = 0.000$ ). The most common family monthly income in the 301-400 million won to 1.8 If the occupation of the father, if that is not more than 0.4% to 4.8% were common, occupation of mother were more than 1.3% of the cases when there is no job to 4.0%. BMI is the most common normal weight to 4.0%. Dinner was skipping meals are more common in women than in men 4.0%, 0.4% and 2.6% in the age 18-20 years of age, those in the 21-25 age 1.8%. The most common family monthly income in the 301-400 million won to 2.2%, occupation of the father was a 4.0% if the present occupation of the mother if there was more than 0.9% to 3.5% of cases in this profession. BMI showed normal body weight at the most 3.5% <Table 3>.

<Table 3> Three Meal Intake or Skipping by General Characteristic (N=227)

Variable s	Breakfast meal		$\chi^2(p)$	Lunch meal		$\chi^2(p)$	Dinner meal		$\chi^2(p)$
	Skip	Intake		Skip	Intake		Skip	Intake	
<b>Gender</b>									
Female	70(30.8)	119(52.4)	2.231(0.096)	10(4.4)	179(78.9)	0.000(0.676)	9(4.0)	180(79.3)	0.341(0.478)
Male	19(8.4)	19(8.4)		2(0.9)	36(5.9)		1(0.4)	37(6.3)	
<b>Age</b>									
18-20	55(24.2)	93(41.0)	2.124(0.346)	3(1.3)	145(63.9)	15.508(0.000) <sup>‡</sup>	6(2.6)	142(62.6)	1.648(0.439)
21-25	28(12.3)	32(4.1)		9(4.0)	51(2.5)		4(1.8)	56(4.7)	
26-29	6(2.6)	13(5.7)		0(0.0)	19(8.4)		0(0.0)	19(8.4)	
<b>Family Income (monthly)</b>									
Under 100	5(2.2)	9(4.0)	3.310(0.652)	1(0.4)	13(5.7)	1.095(0.955)	0(0.0)	14(6.2)	5.784(0.328)

101-200	28(12.3)	36(15.9)		3(1.3)	61(26.9)		4(1.8)	60(26.4)	
201-300	19(8.4)	30(13.2)		3(1.3)	46(20.3)		0(0.0)	49(21.6)	
301-400	20(8.8)	44(19.4)		4(1.8)	60(26.4)		5(2.2)	59(26.0)	
401-500	11(4.8)	12(5.3)		1(0.4)	2(9.7)		1(0.4)	22(9.7)	
Over 501	6(2.6)	7(3.1)		0(0.0)	13(5.7)		0(0.0)	13(5.7)	
<b>Father's employment status</b>									
Employment	80(35.2)	120(52.9)	4.471(0.107)	11(4.8)	189(83.3)	0.212(0.899)	9(4.0)	191(84.1)	0.106(0.948)
Unemployment	7(3.1)	18(7.9)		1(0.4)	24(10.6)		1(0.4)	24(10.6)	
Unknown	2(0.9)	0(0.0)		0(0.0)	2(0.9)				
<b>Mother's employment status</b>									
Employment	62(27.3)	116(51.1)	8.072(0.018) <sup>*</sup>	9(4.0)	169(74.4)	0.504(0.777)	8(3.5)	170(74.9)	0.236(0.889)
Unemployment	23(10.0)	21(9.3)		3(1.3)	41(18.1)		2(0.9)	42(18.5)	
Unknown	4(1.8)	1(0.4)		0(0.0)	5(2.2)		0(0.0)	5(2.2)	
<b>BMI</b>									
Under 18.5	16(7.0)	20(8.8)	1.414(0.702)	2(0.9)	34(15.0)	0.510(0.917)	2(0.9)	34(15.0)	1.224(0.747)
18.5-22.9	66(29.1)	102(44.9)		9(4.0)	159(70.0)		8(3.5)	160(70.5)	
23-24.9	4(1.8)	11(4.8)		1(0.4)	14(6.2)		0(0.0)	15(6.6)	
Over 25	3(1.3)	5(2.2)		0(0.0)	8(3.5)		0(0.0)	8(3.5)	

Data are N, % and  $\chi^2$ : Statistical analysis by chi-square test

<sup>\*</sup> $p < 0.05$ , <sup>†</sup> $p < 0.01$ , <sup>‡</sup> $p < 0.001$ .

### 3.4. Dietary form of the subjects of the day meals

Day meals in accordance with dietary behavior Meals Families meal ratio meals are breakfast, lunch and dinner together if you do not have morning meal skipping ration was higher. Snacking and eating out frequently in the case of intake frequency of breakfast snacks and eating out at least once a day meal skipping ration was higher. Families of the breakfast meal ratio ( $p = 0.000$ ) intake and eat out frequently ( $p = 0.004$ ) were not statistically significantly different from. Lunch meal skipping ration meal skipping ration higher in the case does not come from families with meal ratio meals for

breakfast, lunch and dinner with the family. Snack intake frequency and the consumed more than once a day even if you eat out frequently lunch meal skipping ration intake was higher. There was a statistically significant difference in families meal ratio ( $p = 0.029$ ) for lunch. Dinner meal skipping ration found is high when the frequency of eating out and if you do not consume lunch with family at least once a day, there was no statistically significant difference was <Table 4>.

<Table 4> Dietary Behavior by Three Meals Intake (N=227)

Variables	Breakfast meal			Lunch meal			Dinner meal		
	Skip ping	Intake	$\chi^2(p)$	Skip ping	Intake	$\chi^2(p)$	Skip ping	Intake	$\chi^2(p)$
<b>Meal taking with family group</b>									
Yes	23(10.2)	71(31.4)	14.992(0.000) <sup>†</sup>	2(0.9)	92(40.7)	2.609(0.1093)	5(2.2)	89(39.4)	0.304(0.406)
No	66(29.2)	66(29.2)		9(4.0)	123(54.4)		5(2.2)	127(56.2)	
<b>Breakfast</b>									
Yes	22(9.7)	39(17.3)	0.385(0.5322)	0(0.0)	61(27.0)	4.275(0.029) <sup>*</sup>	4(1.8)	57(25.2)	0.899(0.269)
No	67(29.6)	98(43.4)		11(4.9)	154(68.1)		6(2.7)	159(70.4)	
<b>Lunch</b>									
Yes	49(21.7)	69(30.5)	0.476(0.490)	3(1.3)	115(50.9)	2.288(0.082)	5(2.2)	113(50.0)	0.021(0.569)
No	40(17.7)	68(30.1)		8(3.5)	100(44.2)		5(2.2)	103(45.6)	
<b>Dinner</b>									
Yes	49(21.7)	69(30.5)	0.476(0.490)	3(1.3)	115(50.9)	2.288(0.082)	5(2.2)	113(50.0)	0.021(0.569)
No	40(17.7)	68(30.1)		8(3.5)	100(44.2)		5(2.2)	103(45.6)	
<b>Frequency of snack intake</b>									
≥ 2 times per day	11(4.8)	18(7.9)	8.096(0.0088)	3(1.3)	26(11.5)	7.627(0.0106)	2(0.9)	27(11.9)	2.260(0.688)
Once per day	34(15.0)	34(15.0)		6(2.6)	62(27.3)		2(0.9)	66(29.1)	
1-6 times per week	7(3.1)	21(9.3)		0(0.0)	28(12.3)		2(0.9)	26(11.5)	

Once per two day	22(9.7)	29(12.8)		0(0.0)	51(22.5)		1(0.4)	50(22.0)	
Almost none (< 3 times per week)	15(6.6)	36(15.9)		3(1.3)	48(21.1)		3(1.3)	48(21.1)	
<b>Frequency of eating out intake</b>									
≥ 2 times per day	26(11.5)	48(21.1)	15.510(0.004) <sup>†</sup>	4(1.8)	70(30.8)	5.904(0.206)	3(1.3)	71(31.3)	3.156(0.532)
Once per day	39(17.2)	45(19.8)		4(1.8)	80(35.2)		6(2.6)	78(34.4)	
1-6 times per week	12(5.3)	31(13.7)		1(0.4)	42(18.5)		1(0.4)	42(18.5)	
Once per two day	12(5.3)	6(2.6)		3(1.3)	15(6.6)		0(0.0)	18(7.9)	
Almost none (< 3 times per week)	0(0.0)	8(3.5)		0(0.0)	8(3.5)		0(0.0)	8(3.5)	

Data are N, % and  $\chi^2$ : Statistical analysis by chi-square test

\*  $p < 0.05$ ,  $† p < 0.01$ ,  $‡ p < 0.001$ .

### 3.5. Nutrition knowledge of the subjects of the day meals

The day nutritional knowledge of the meals, if you are skipping meals breakfast recognition ratio is significantly lower dietary guidelines, dietary guidelines action ratio will try to practice the most common. If you do not check the nutrition label nutrition education and counseling experience, and if you do not read showed that a lot of skipping meals breakfast, dietary guidelines action ratio ( $p = 0.000$ ) were not statistically significantly different from. Lunch is low in dietary guidelines recognition ratio, if you do not read the nutrition label verification showed that a lot of the skipping meals in the absence of a nutritional education and counseling experience, nutrition labeling confirmed ( $p = 0.010$ ) statistically significant at whether there was a difference. The dietary guidelines recognition ratio is lower in the case of

dinner, and If you do not have experience in nutrition education and counseling showed that a lot skipping meals. There was no statistically significant difference. <Table 5>.

<Table 5> Nutrition Knowledge by Three Meals Intake (N=227)

Variables	Breakfast meal			Lunch meal			Dinner meal		
	Skip ping	Intake	$\chi^2(p)$	Skip ping	Intake	$\chi^2(p)$	Skip ping	Intake	$\chi^2(p)$
<b>Dietary guideline recognition</b>									
Known	42(18.5)	66(29.1)	0.009(0.917)	3(1.3)	105(46.3)	2.589(0.093)	3(1.3)	105(46.3)	1.296(0.209)
Unknown	47(20.7)	72(31.7)		9(4.0)	110(48.5)		7(3.1)	112(49.3)	
<b>Dietary guideline practice</b>									
Practice	37(16.3)	103(45.4)	25.712(0.000) <sup>‡</sup>	7(3.1)	133(58.6)	0.127(0.939)	6(2.6)	134(59.0)	0.063(0.969)
Make an effort to practice	51(22.5)	35(15.4)		5(2.2)	81(35.7)		4(1.8)	82(36.1)	
Not practice	1(0.4)	0(0.0)		0(0.0)	1(0.4)		0(0.0)	1(0.4)	
<b>Confirmation of nutrition indicator</b>									
Read	39(17.2)	75(33.3)	4.071(0.131)	1(0.4)	113(49.8)	9.277(0.010) <sup>*</sup>	6(2.6)	108(47.6)	0.461(0.794)
Don't read	50(22.0)	61(26.9)		11(4.8)	100(44.1)		4(1.8)	107(47.1)	
Unknown about nutrition indicator	0(0.0)	2(0.9)		0(0.0)	2(0.9)		0(0.0)	2(0.9)	

<b>Experience of nutritional education or counseling</b>									
Yes	12(5.3)	22(9.7)	0.257(0.379)	0(0.0)	34(15.0)	2.232(0.135)	0(0.0)	34(15.0)	1.843(0.190)
No	77(33.9)	116(51.1)		12(5.3)	181(79.7)		10(4.4)	183(95.6)	

Data are N, % and  $\chi^2$  : Statistical analysis by chi-square test  
<sup>\*</sup> $p < 0.05$ , <sup>†</sup> $p < 0.01$ , <sup>‡</sup> $p < 0.001$ .

### 3.6. Health status of the subjects of the day meals

Subjective health status of the case whether breakfast is usually bad and 19.8% if the statistically significantly higher than very good, good 6.2% to very good 4.4% and bad 8.8% ( $p = 0.001$ ). If subjective health status according to whether lunch is usually found to be disease-free is now 2.2% and 4.0%, if subjective health status according to whether dinner is usually a disease if there is currently 3.1% and was by 4.4% <Table 6>.

<Table 6> Health Status by Three Meals Intake (N=227)

Variables	Breakfast meal		$\chi^2(p)$	Lunch meal		$\chi^2(p)$	Dinner meal		$\chi^2(p)$
	Skip ping	Intake		Skip ping	Intake		Skip ping	Intake	
<b>Subjective health status</b>									
Very healthy	10(4.4)	8(3.5)	17.459(0.001) <sup>‡</sup>	0(0.0)	18(7.9)	4.277(0.233)	0(0.0)	18(7.9)	3.355(0.340)
Healthy	14(6.2)	52(22.9)		3(1.3)	63(27.8)		3(1.3)	63(27.8)	
Moderate	45(19.8)	65(28.6)		5(2.2)	105(46.3)		7(3.1)	103(45.4)	
Not healthy	20(8.8)	65(28.6)		4(1.8)	29(12.8)		0(0.0)	33(14.5)	
Very bad health	0(0.0)	0(0.0)		0(0.0)	0(0.0)		0(0.0)	0(0.0)	
<b>Present illnesses</b>									

Yea	17(7 .5)	24(1 0.6)	0.107(0 .437)	3(1. 3)	38(1 6.7)	0.412(0 0.372)	0(0. 0)	41(1 8.1)	2.306(0 0.130)
No	72(3 1.7)	114(50.2)		9(4. 0)	177(78.0)		10(4 .4)	176(77.5)	

#### 4. Discussions

Dietary and nutritional knowledge and form are closely related to each other, especially regular intake of meals a day eating habits are important for supplying balanced nutrition. [10, 11]. Therefore, it is necessary nutrition knowledge, training and practice to form the correct eating habits. Ultimately, these correct dietary habits and prevention of chronic diseases, proliferation, it is possible to improve the health. In this study, higher meal skipping rate and inadequate meals and Food form the day of the ages, university students look for nutrition, nutrition knowledge about and nutrition for the future of these health promotion and disease prevention confirm the current health status. Morning meal skipping ration of the study subjects was 39.2% three meals a day with meals during the meal skipping ration showed that high. This is higher than the breakfast meal skipping ration is 21.4% of the three meals a day in 2007, the National Health and Nutrition Examination Survey surveyed the entire nation [1]. But in the same age group of 20-29 years old 1998 National Health and Nutrition meal skipping ration lower than the 59.4% of the survey, which targeted research areas the circumference of 38.8% [12], a study of Jeonbuk Regional Studies[13] in 17.0%, showed a high result than the 12.0% in one study[10] in Busan subject, which students of the morning meal skipping ration is relatively high compared to other age groups to support the previous studies. Skipping meals breakfast is a risk of causing irregularities meal times and result in nutritional imbalance is likely to worsen increased health [14]. Also, breakfast is the driving force that can be sent efficiently and healthy day, college students considering the fact that skipping meals breakfast can reduce the frequency of snack intake and eating out is considered as needing improvement. On the other hand, lunch, meal skipping ration and evening meal skipping ration, respectively 5.3%, compared with the morning meal skipping ration to 4.4 percent were lower in 2007, lunch and dinner in the National Health and Nutrition Examination Survey meal skipping ration, respectively 5.3% than 4.1% are showing similar results [15]. Day three meals every meal of meal skipping ration shows that the women compared to men is high, many studies of women meal skipping ration with the higher result than in men [16, 17, 14] this strategy reduces the women to be consistent meal skipping ration is required. If your mother had a job in the occupation of the parents it appeared to have all three meals of the skipping meals is high, especially breakfast meal skipping ration has shown the highest meal skipping ration as is 27.3%. The measures provided for this purpose it is necessary to reflect the reality of being interrupted due to job roles of mother and career woman is in charge of regular family meals and nutrition increase at this contemporary situation. In addition, subjective health status is usually 48.5% of their health status, the subject of this study appeared to consider that a good 29.1%, but they are usually more than good health, was often the case that skipping meals breakfast

is bad or normal. We should strive to be maintained even though the current dietary behavior is incorrect because it does not appear immediately even in adverse effects on health is expected to be part of this big obstacle to the future health of the current state of health. Body mass index was normal weight, regardless of age and skipping meals the most common 74.0%, 15.9% underweight, overweight, 6.6% were overweight and 3.5%. Other studies [18, 19, 20]. A similar result was found in obesity, rather than underestimate appear higher weight tend to prefer the sleek look of the young generation nowadays worse the symptoms with this age group in the result, which reaffirms that the bigger problem of this underweight than overweight. In addition, these results are considered as a result of the ages of the ages, subjects that are very interested in appearance, obese or under weigh. Recently, however, as reality has a population of underweight due to the excessive weight of college students under the growing weight in this study, they accounted for 15.9%, still the problem of the under-weight has been confirmed. Also present were many cases disease is not whether or not the disease, is also believed to be related to age of the study subjects.

For families with meal ratio was often do not eat all three meals with the family. If you are dining with your family for breakfast and 41.6%, lunch 27%, we have dinner most common evening 52.2%, which in 2007 National Health and Nutrition Examination Survey 68.1% supper of the results, Breakfast 56.4%, lunch and 21.3% than I am a somewhat different results. If families do not eat together as a family with one meal ratio was shown that breakfast is the most high, it may be said to reflect the modern life simplifies the morning or not. In addition, if the high frequency of snacking and eating out frequently consumed morning meal skipping ration in the irregularities of the meal appears as a snack and eat out at least once a day suggests that lead to inappropriate dietary forms such as a snack or eat out. In the nutritional knowledge of the day meals were lower both of each item's nutritional knowledge if you do not eat Dietary guidelines recognition ratio, dietary guidelines action ratio, without checking the nutrition labeling, there is no nutritional education and counseling experience that appeared. This is similar to the 2007 National Health and Nutrition Examination Survey results, in particular nutritional education and take this experience counseling 7.8% in this study, 15.0% only appeared to be a response to that experience in the future that the need for nutrition education and counseling is strongly suggested the portions. Eating behavior is not confirmed by eating meals at least one day whether nor not appropriate if the results of the study subjects, also showed low nutritional knowledge. On the other hand, it showed that the physical condition is shown to reflect the characteristics of more than average age. In particular, regular meals vary depending on the occupation of the mother, for breakfast, my mother appeared to consume more erratically if you have a job. In addition, subjects with subjective health status is irregular dietary behavior appear to be normal or bad, whether regular meals has been identified as the main factor affecting health. Therefore, dietary forms will have to be made a map of desirable dietary education at school or at home to help fix bad habits, so Mitch can get a significant effect on the maintenance of health.

## 5. Conclusions

In the present study as a study to determine the dietary form of nutritional knowledge and health status of the college's day meals in transition transitions in the life cycle into adulthood, in order to improve the health of college students regular meals as well as proper diet there suggests the need for a form of knowledge, education and nutrition. In particular, were higher this morning, meal skipping ration of the students of the day meals, including snacks and eating out food frequency was found to have a low level of nutritional knowledge and inadequate dietary form. Therefore, current college students consider the low about his health the next generation of parents are home and manage the society's eating habits and therefore to perform the leading role that should improve health as well prevent the primary disease to them as the future of health promotion nutrition for Health management Program will raise is necessary.

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## Authors



Professor **Tae Kyung Kim**, RN, Ph.D. teaches Nursing at the School of Nursing, DongEui Institute of Technology located in Busan of South Korea. She began her career as a faculty of Women's Health Nursing in 2006 after receiving M.S.(1998) in Nursing from Hanyang University, and a Ph.D. in Nursing (2008) at the same university. The main research interests include multicultural women's health and childbirth and *Sanhujori*.



Professor Hye Jin Kim, RN, Ph.D, she teaches Nursing at the School of Nursing, Kyungbok University located in Gyeonggi. She began her career as a faculty of Women's Health Nursing in 2001 after receiving B.A. (1997) from Hanyang University, M.S. (2005) and a Ph.D.(2008) in Nursing from Hanyang University. She is co-author 'My mom health JUMP - Joy Ultra Mom Program' & 'My mom health *Sanhujori*'. She participated in the study 'Development of program for the married immigrant women and family' & 'Development of WISE HF *Sanhujori* Guideline'. The main research interests include multicultural women's health and childbirth and *Sanhujori*, contraception.