

The Factors Which Affect The Nursing Students' Eating Attitude

Hee-Jeong Kim¹

¹ Professor, Nursing Department, Namseoul University, 91, Daehak-ro Seonghwan-eup Seobuk-gu, Cheonan-si Chungcheongnam-do, 31020, Korea

Abstract

Background/Objectives: This study attempted to identify the stress, depression, self-control and eating attitude of nursing college students and to provide basic data for healthy eating behavior program of nursing college students.

Methods/Statistical analysis: The subjects of this study were 187 nursing college students were investigated. Data collection period was collected from March 1, 2019 to July 30, 2019. Statistical methods used were frequency, mean, standard deviation, t-test and ANOVA. Also Pearson's correlation analysis and regression analysis were used.

Findings: According to the study, there was a statistically significant positive correlation ($r = .668, p < .01$) between stress and with eating attitude and statistically significant positive correlation ($r = .342, p < .001$) between depression and eating attitude. Additionally there was statistically significant negative correlation ($r = -.412, p < .001$) between self-control and eating attitude. Also independent variables that have a significant effect on eating attitude were stress ($\beta = .46, p < .001$), depression ($\beta = -.25, p = .002$), and self-control ($\beta = -.28, p = .003$).

Improvements/Applications: Based on these results, customized education by grade needs to be implemented to develop healthy eating attitudes, and programs should be planned to improve self-control and reduce stress and depression to manage the correct eating attitude.

Keywords: Stress, Depression, self-control, eating disorder, nursing students.

1. INTRODUCTION

Since college students are at a time when social and emotional development is completed with physical maturity, forming correct eating habits, health care, and rational living habits are important for disease prevention and self-health management at this time. However, by the time of college students, it is easier for university students to live a freer life, such as moving away from the control of their parents and schools and living in dormitories and living on their own, resulting in a higher rate of fast eating and skipping meals, increasing the portion of snacks and increasing the risk of dietary imbalances such as frequent eating out and excessive drinking [1]. In particular, female students are easily exposed to inappropriate eating habits and weight control behaviors as they focus on their appearance due to psychological burden, especially when faced with deepening academic background, career path, employment, reason, and various interpersonal relationships [2,

3]. Meanwhile, nursing students need increasingly complex skills to have safe and effective nursing skills, and to do so, theoretical and clinical-based learning is essential [4]. However, while most nursing students recognize that clinical practice is essential to complete nursing education, face-to-face patient contact in a strange hospital environment causes stress, tension, anxiety, etc [5]. Stress reports are caused by various physical symptoms such as headache, stomachache, back pain, neck and shoulder stiffness and increased blood pressure, as well as mental symptoms such as helplessness, frustration, excitement, impatience, etc. [6]. In addition, life stress from everyday life is known to have an effect on the eating attitude, which is reported to increase the amount of food intake as female college students are under higher academic, friend environment, and health-related stress [7]. This supports pre-study results that female college students increase their intake of meals after stress, eat irregular meals, eat high-calorie foods while eating simple fast foods, and increase body fat due to increased intake of sweet foods [8]. In particular, nursing students are challenged because irregular working hours due to clinical practice can lead to unhealthy eating habits, this raises to be the problem. In addition, the nursing major curriculum requires a series of clinical practice courses after learning theoretical subjects in the third and fourth grades of nursing [9]. Since clinical practice credits are a very important subject for majors, it is possible to experience problems such as sleep deprivation and depression compared to other college students, and clinical practice in the form of shift work can cause confusion in the rhythm of the cycle [10], it is possible to predict that these results can cause problems in eating habits attitude.

Meanwhile, the depression of a female college student is known as the most important variable that causes eating disorders such as bulimia behavior, and it makes human beings' presence inhibition lethargic or has a huge impact on the quality of their individual lives [11], so nursing student's eating attitude poses a problem that must be considered for its relevance to mental health problems such as depression.

Self-control means the ability to self-suppress and control undesirable actions or thoughts, and desires and impulses on their own [12]. Meta-analysis of 102 studies that explored the relationship between self-control and various behaviors reported that high self-control is positively related to subjective well-being, academic and professionalism, successful interpersonal relationships, and lack of self-control is related to eating, weight-related issues, alcohol use, and social deviance [13]. Therefore, strengthening self-control for nursing students will be very meaningful in promoting health with a positive job performance and good eating habits as future nurses. For the above reasons, this study attempted to provide basic data for the development of a program that would investigate the stress, depression and self-control of nursing students and study how they relate to and affect their eating habits.

2. MATERIALS AND METHODS

2.1. Research design

This study is a descriptive research study to find out about the stress, depression and self-control of nursing students and how they affect eating attitude.

2.2. Test methods

This study selected two universities located in South Chungcheong Province and North Chungcheong Province at random and surveyed 187 nursing college students who understood the purpose and intention of the research and agreed to the research methods to voluntarily participate and to provide written consent. The data collection

was conducted from March 1 to July 30, 2019, and the researchers explained the purpose and questions of the study to the subjects and selected a sample size of 178 using a significant level of .05 and a power of 0.9 medium effect size using the G* power program 3.1.9.2, 190 copies were collected in consideration of the losers and 187 of the districts were used. The collected data were analyzed using SPSS 20.0 (SPSS Inc., Chicago, IL, USA). The general characteristics of nursing college students were analyzed using mean, standard deviation, frequency, and percentage, and differences in general characteristics such as application motivation, interpersonal relationship, health status, and satisfaction of nursing major were analyzed by t-test and ANOVA, followed by Duncan's Were used. Pearson's correlation coefficient was used for the correlation between variables. Regression analysis was used to analyze the factors affecting eating attitude.

2.3. Instruments

2.3.1. Stress scale (GARS: Global Assessment of Recent Stress)

The Global assessment of recent Stress questionnaire used tools reconstructed by Goh and Park [14] developed by Linn et al [15]. There were 8 items with a 10-point. The possible scores ranged from a maximum of 72 points to a minimum of 0 point (higher scores indicated higher levels of stress). Cronbach's α was .87 in the present study.

2.3.2. Depression

The depression questionnaire used Patient Health Questionnaire for Depression (PHQ-9) constructed by Park et al [16]. There were 9 items with a 4-point scale. Depression due to PHQ-9 is normal with a total score of 4 or less, 5 to 9 points is minor, 10 to 14 points is moderate, and 15 to 19 points is severe, 20 or more points are judged to be serious depression. Cronbach's α in this study was 0.82.

2.3.3. Self-control

In this study, the self-control measure was developed by Tangney et al [17] and modified by translating the Youth Self Report (YSR) into the Korean version of the brief self-control scale (BSCS) [18] were used. Originally composed of 13 items, it was translated into 11 except for two in the process of making the Korean version of the scale valid, and the response category was a five-point Likert scale for each question. They are classified as "not entirely" 1 point, "not always" 2 points, "unusually" 3 points, "yes" 4 points and "very yes" 5 points. The scale has a score range of 11 to 55, and the higher the score, the higher the self-control. Cronbach's α in this study was 0.82.

2.3.4. Eating attitude (EAT: Eating Attitude Test)

The eating attitude uses a measure translated by Rhee, Go and Lee of Eating Attitude Test-26, (EAT 26)[19] developed by Garner, Olmsted, Bohr and Garfinkel [20] This measurement tool consists of a total of 26 six-point scales.

'Sometimes yes,' 'nearly not,' and 'not altogether' are zero points, and 'often not' are one point. 'Very often' has two points. "Always Yes" is scored at three points and when the total score of the question is above 20, it means an abnormal eating attitude, such as neurotic appetite syndrome and neurotic bulimia. The confidence Cronbach's Alpha value was .79 at the time of tool development, and the reliability Cronbach's Alpha value in this study

was .85.

3. RESULTS AND DISCUSSION

As shown in Table 1, 187 subjects were studied, including 145 females (77.5%) and 42 males (22.5%). There were 28 students (15.0%) in the first year, 38 students (20.3%), 57 students (30.5%) in the second and third grade students, and 64 students (34.2%) in the fourth grade students. and the average age was 22.95 ± 2.02 . The reasons for choosing nursing major were as follows: 45 students (24.1%) graduated from the same high school, 38 students (20.3 %) were interested, 74 students (39.6 %) were very good employed well, and 20 students others (10.7 %). The students' interpersonal relationship were as follows: 'very good': 38 students (20.3%); 'good': 65 students (34.8%); and 64 students (34.2%) said 'moderate' 20 students (10.7%) think that their interpersonal relationship was bad. 55 students (29.4%) said they are very healthy, while 67 students (35.8 %) said they are healthy, so there are 55.2 % students think that they are healthy. In response to the question of who do you live with, the students answered as follows: 27 students said they live alone (14.4 %), 58 students (31.0 %) said they live with their parents, 48 students (25.7 %) said they live with relatives, and 33 students (17.6 %) said they live with friends. The 128 students (68.5 %) answered that financial situation is above average. The average score for each tool is as follows. The average stress was 27.8 ± 10.78 , the depression was 5.9 ± 4.5 , and the self-control average was 31.5 ± 4.2 . The dietary attitude was 6.3 ± 9.1 .

Differences in variables (stress, depression, self-control and eating attitude) among students according to general characteristics are shown in Table 1. Stress showed statistically significant differences according to the following factors: year of college ($F = 3.862, p = .007$); inter personal relationship ($F = 4.295, p = .021$); health status ($F = 3.821, p = .023$); satisfaction nursing major ($F = 4.027, p < .001$). Depression showed statistically significant differences according to the following factors: interpersonal relationship ($F = 3.295, p = .021$); health status ($F = 3.613, p = .0096$); satisfaction nursing major ($F = 4.067, p = .004$). Self-control showed statistically significant differences according to the following factors: interpersonal relationship ($F = 3.195, p = .024$); satisfaction nursing major ($F = 3.628, p = .018$). Also eating attitude showed statistically significant differences according to the following factors: interpersonal relationship ($F = 3.370, p = .002$); health status ($F = 4.762, p = .004$); and residential status ($F = 2.894, p = .023$).

<Insert table 1>

As shown table 2, the items that showed a significant relationship with eating attitude are as follows. Stress ($r = .688, p < .01$), depression ($r = .345, p < .05$), self-control ($r = -.573, p < .01$), self-control also showed a significant negative correlation with depression ($r = -.423, p < .01$), depression also showed a significant positively correlated with stress ($r = .345, p < .05$).

<Insert table 2>

As shown in Table 3, independent variables that have a significant effect on eating attitude were stress ($\beta = .46, p < .001$), depression ($\beta = -.25, p = .002$), and self-control ($\beta = -.28, p = .003$). The most influential variable of these variables was stress. In other words, if stress increases, the eating attitude increases by 0.458 times.

<Insert table 3>

This study analyzed the effects of stress, depression and self-control on eating attitude of nursing students in Korea and discussed with major research results. In this study, stress statistically significant differences according to the academic year. In the post-hoc analysis of Duncan, the stress score of the third and fourth graders was

significantly higher than the stress of the first grade. These results put the nursing students under a lot of stress, such as a special curriculum that combines intensive clinical practice and curriculum in a different environment called a hospital in addition to the stress experienced by ordinary university students in their senior year, burden of state examination, career path and employment. This is the same result of a study by Kim, Kang and Seo that showed significant differences in stress during the school year [21]. Stress also showed a statistically significant difference from interpersonal relationships and significantly higher stress in groups with poor interpersonal relationships than those with good interpersonal relationships. Clinical practice is an important curriculum in which you can learn the practical knowledge and experience that you need to have as a nurse, and recognize and learn about your values, attitudes, image formation of nursing, and role as a nurse [4] In addition, the interpersonal relationship of nursing students in such situations is in line with a prior study that showed that it is one of the important factors in carrying out clinical practice for effective communication with patients and care giver without conflict. [22]. Therefore, carefully observe interpersonal skills when they are a nursing student and intervention will be needed to improve interpersonal skills.

In this study, depression differed statistically significantly from nursing major satisfaction, and in the post-hoc analysis of Duncan, a group dissatisfied with nursing major scored statistically significantly higher than the group who responded that they were very satisfied with nursing major.

It was the same as the results of this study that a study by Byun and Park, who studied the degree of satisfaction of students in nursing college, there was a statistically significant negative difference between depression and nursing major satisfaction [23]. In this study, self-control also showed a statistically significant difference between interpersonal relationships and major satisfaction. The results are not from the use of the same tool, so there are limitations to comparison, in Kim's study of self-control, resilience, and university life adaptation of nursing college students[24], self-control was statistically significantly different from grade, health condition, and satisfaction with clinical practice. Clinical practice satisfaction is, in the end, similar to nursing major satisfaction, so the results were similar to this study. Meanwhile, Kim's prior study showed significant results in his health condition and self-control [24], but this study was not a significant result. However, the self-control of the students who replied that they were in poor health was lower than the self-control of the students who said they were in very good health. It is generally thought that when they are in good health, they will be able to perform something that they want.

In this study, eating attitudes showed significant differences in interpersonal relationships, health conditions, and residence patterns in differences from general characteristics. In addition, the higher the stress, the higher the depression, and the worse the self-control, the worse the eating attitude. In a study by Jang and Shon, who studied appearance stress, self-elasticity, interpersonal relationship and eating attitude of female college students, interpersonal relationships were identified as related factors in eating attitude and depression was also reported as important variables [24]. In the case of female college students, stress due to appearance is closely related to abnormal eating attitude, and they report that eating restriction and abnormal weight control are prominent due to excessive interest in appearance, and interpersonal relationships are also significantly different from eating attitude, so they support this study. In a study by Jang and Shon, who studied appearance stress, self-elasticity, interpersonal relationship, and eating attitude, interpersonal relationships were identified as related factors in eating attitudes and depression were reported as important variables[24]. In this period, female college students should establish close personal relationships and achieve social advancement and adaptation as important

development tasks [25]. I think she will show an understated attitude to maintain her attractive appearance. On the other hand, the depression until now, no psychological biological mechanisms have been identified between eating attitudes, but Schore and Schore [26] have been identified that it was lack of emotional control in the development process forms the basis of major pathological psychological states and symptom. Therefore, eating attitude is an emotional control disorder that occurs unconsciously to deal with negative emotions of excessive stress or anxiety, and during this process, food becomes a regulator that controls negative emotional experiences that threaten individuals, so this study was supported. It has been proven by many nursing researchers so far that nursing students and nurses are very closely related to stress, depression, etc. because of the breakdown of their living rhythms due to shift work. In the days of clinical practice, when I was on clinical duty, I felt the burden of keeping the exact time to work and I was so busy with the essential nursing practice that my colleagues and I often recall the experience of putting back the meal time or replacing it with the convenient fast food. Judging from the prior studies and their own experiences, it is possible to predict that the dietary attitude of nursing students and nurses could continue to be inappropriate. Therefore, a program to solve these problems will be necessary and many follow-up studies are suggested.

4. CONCLUSION

This study is a descriptive research study to find out about the stress, depression and self-control of nursing students and how they affect eating attitude. As a result of this study, the eating attitude of nursing students was statistically significant to stress, depression, self-control. A proper eating attitude is a factor that must be observed to improve the health of nursing students. Based on this result, we should work hard to develop an active program to develop the correct eating attitude during the nursing education period of the university. Since this study was conducted on nursing students at two universities in Chungcheongnamdo and North Chungcheongbukdo provinces, there are limitations to generalization and suggests iterative studies that expand the scope of areas and targets.

ACKNOWLEDGMENT

This study was supported by the research program funded by Namseoul University.

REFERENCES

- [1] Clark MJ. The epidemiology of nonalcoholic fatty liver disease in adults. *J Clin Gastroenterol.* 2006; 40(3): s5-s10. DOI: <http://dx.doi.org/10.1097/01.mcg.0000108638.84840.ff>
- [2] Melissa CN, Katherine L, Marry S, Ehlinger E. Alcohol use eating pattern and weight behavior in a university population. *Am. J Health Behav.* 2009; 33(3): 227-237.
- [3] Hwang RH. A study on eating disorder, body image and self-esteem of female university students. *KJWHN.* 2009; 15(4): 328-335.
- [4] American Association of College of Nursing. The essential clinical resource for nursing academic missions {Internet}. Washington, DC: American Association of College of Nursing. 2008[cited 2014 March 17. Available from: <http://www.aacn.nche.edu/education-resources/ClinicalEssentials99.pdf>
- [5] Kim JS, Sun JJ, Kim HS. Clinical practice experience of nursing students. *Qual Res.* 2009; 10(1): 63-

23.

- [6] Ahn SA. Effect of self-foot reflex-massage on fatigue and sleep status in women. *J Soc Cosmet Sci Korea*. 2010; 16(3): 828-833.
- [7] Nam HJ, Lee SM, Park HR, An ecological study on dietary behaviors by the degree of stress among female college students in Su Won. *Korean J Health Edu Promot*. 2002; 19(1): 199-122.
- [8] Park MS, Park KA. The differences of dietary and health-related habits, depression, eating disorder and nutrient intake according to the life stress in nursing college students. *J Korea Acad Industr Coop Soc*. 2014; 15(1): 344-355
- [9] DOI: <http://doi.org/10.5762/KAIS.2013.14.6.2749>
- [10] Shin SJ, Yang EB, Hwang EH, Kim KH, Kim YJ, Jung DY, Current status and future direction of nursing education for clinical practice. *Korean Med Educ Rev*. 2017; 19(2): 76-82. DOI: <http://doi.org/10.17496/kmer.2017.19.276>.
- [11] Kim HS, Eom MR, Kim EK. Sleep patterns and circadian types of nursing students during shift schedules. *J Korean Acad Nurs Adm*. 2010; 40(10): 43-51. DOI: <http://dx.doi.org/10.4040/jkan.2010.40.1.43>.
- [12] Chao JH, Liu HY, Wu CY, Jin SF, Chu TL, Huang TS. et al. The effects of group reminiscence therapy on depression, self-esteem, and life satisfaction of elderly nursing home residents. *Nurs Res*. 2006; 14: 36-45.
- [13] Martin J, Peter J. Behavior modification (7th edition). Translated by Lee Im-soon, Lee Eun-young and Lim Sun-ah. Seoul Hakjisa (Original Publishing 2003).
- [14] De Ridder DTD, Lensvelt-Mulders G, Finkenauer C, Stock FM, Baumeister R F. Taking syock of self-control: A meta-analysis of how trait self-control relates to a wide range of behaviors. *Pers .Soc .Psychol Rev*. 2012; 16(1): 76-99.
- [15] Koh KB, Park JK. Validity and reliability of the Korea version of the global assessment of recent stress scale. *Korean J Psychosom Med*. 2000; 8: 201-211.
- [16] Linn MW. A Global Assessment of Recent Stress (GARS) Scale. *Int J Psychiatry Med* 1985-1986; 15:47-59.
- [17] Park SJ, Choi HR, Choi JH. Kim GW, Hong JP. Reliability and validity of the Korean version of the patient health questionnaire-9 (PHQ-9). *Korean Academy of Anxiety Disorders*. 2010; 6(2): 119-124. <http://uci.or.kr/G704-SER000010590.2010.6.2.006>
- [18] Tangney JP, Baumeister RF, Boone A. High self-control predicts good adjustment, less pathology, better grades, and interpersonal success. *J Pers*. 2004; 72(2):271-324. doi: 10.1111/j.0022-3506.2004.00263.x
- [19] Hong HG, Kim HS, Kim JH et al. Validity and reliability validation of the Korean version of the brief self-control scale (BSCS). *Korean Journal of Psychology: General*. 2012; 31(4):1193-1210. <http://uci.or.kr/G704-001037.2012.31.4.010>
- [20] Rhee MK, Go YT, Lee HK et al. A validation of the Korean version of eating attitude test-26. *Korean J Psychosom Med*. 2001; 9(2): 153-163. <http://uci.or.kr/G704-SER000003246>. 2001.9.2.006
- [21] Garner DM. (1982). Eating attitude Test (EAT-26): Scoring and interpretation [Internet]. River
- [22] Centre Clinic. [cited 2015 Apr 28]. Available from: <http://www.eat-26.com/>.
- [23] Kim JA, Kang JS, Seo KS. A convergence comparison of the stress, major satisfaction, career identify, and college adjustment of nursing students according to college admission process and grade. *Journal of*

- the Korea Convergence Society, 2017; 8(2): 99-112.
- [24] Kwak HW, Kim HN. Effect of an interpersonal relationship harmony program on nursing students. J Korean Acad Soc Nurs Educ, 2015; 21(3): 330-339. DOI: <http://dx.doi.org/10.5977/jkasne.2015.21.3.330>
- [25] Byun EK, Park SH. Effect of major satisfaction and E\employment stress on depression in college students. Journal of the Korean Academia-Industrial cooperate Society, 2014; 15(1) 323-330.
- [26] Kim SY. The Influence of Self - Control and Resilience on College Life Adjustment in Nursing Students, Journal of KOEN, 2018; 12(1): 253-262.
- [27] Mayer B, Muris P, Meesters C, Zimmermann-van Beuningen R. Brief report: Direct and indirect relations of risk factors with eating behavior problems in late adolescent females. J Adolesc. 2009; 32: 741-745. [Http:// dx. Doi.org/10.1016/j.adolescence. 2008.12.002](http://dx.doi.org/10.1016/j.adolescence.2008.12.002)
- [28] Schore JR, Schore AN. Modern attachment theory: The central role of affect regulation in development and treatment. Clin. Soc. Work J. 2009; 36: 9-20. [http://dx.doi.org/10/ 1007/ s10615-007-0111-7](http://dx.doi.org/10.1007/s10615-007-0111-7)

**Table 1: General characteristics and differences in stress, depression, self-control and eating attitude
(N=187)**

Variable	Category	N (%)	Stress			Depression			Self-control			Eating attitude			
			M (SD)	t/F	p	M (SD)	t/F	p	M (SD)	t/F	p	M (SD)	t/F	p	
Age	22.95 ± 2.02.		Total: 27.8(10.78)			Total: 5.9(4.5)			Total: 31.5(4.2)			Total: 6.3(9.1)			
Sex	Male	42 (22.5)	27.9 (8.35)	1.50	.13	5.8 (5.57)	-		32.5 (3.10)	-.4		5.8(8.65)	1.23	.785	
	Female	145 (77.5)	27.6(10.3 0)	0	5	5.7 (5.69)	8	.113	30.4 (3.51)	33	.665	6.7(9.41)	4		
Academic year	1st	28 (15.0)	24.7 (11.02) ^a			5.8 (5.59) ^a			29.4 (4.56)			6.4 (9.66)			
	2nd	38 (20.3)	25.9 (15.44) ^a	3.86	.007	5.9 (6.43) ^a	1.86	.136	31.4 (3.28)	.87	.453	7.2 (9.86)	2.03	.109	
	3rd	57 (30.5)	29.6 (10.54) ^b	2 [†]	a<b	5.7 (5.54) ^a	2		32.8 (3.50)	7		6.4 (9.36)	8		
	4th	64 (34.2)	30.8 (10.86) ^b			6.2 (3.86) ^b				32.5 (4.75)					5.2 (10.70)
Application motiv	High school	45 (24.1)	25.9 (8.71)	.156	.92	5.3 (5.59) ^a	1.82		.139	28.9 (3.65)		.19	.903		7.2 (9.14)
	Interest	48(25.7)	22.5		6	5.4	8	33.8		0	5.4 (12.75)	5			

Interpersonal relationship	Job	74 (39.6)	(10.25) 31.9 (13.82)			(7.70) ^b 6.3 (3.86) ^{ab}			(3.29) 32.9 (3.63)			6.8 (8.57)		
	Other	20 (10.7)	30.8 (14.73)			6.4 (5.56) ^a			30.4 (2.90)			5.1 (10.60)		
	Very Good	38 (20.3)	21.9 (5.08) ^a			4.1 (5.31) ^a			34.7 (4.67) ^a			5.6 (9.61) ^a		
	Good	65 (34.8)	26.5 (14.32) ^{ab}	4.29	.02 1	5.1 (5.87) ^{ab}	3.29	.021	31.8 (5.07) ^{ab}	3.1	.024	5.7 (8.49) ^a	3.37	.002
	Moderate	64 (34.2)	30.9 (18.24) ^b	5	a< b	6.4 (6.73) ^{ab}	5	a<b	28.5 (3.77) ^b	95	b<a	6.8 (9.12) ^{ab}	0	a<b
	Bad	20 (10.7)	31.8 (14.58) ^b			7.8 (5.56) ^b			27.1 (3.44) ^b			7.1 (10.00) ^b		
	Very healthy	55 (29.4)	22.1 (5.24) ^a			4.2 (5.80) ^a			33.9 (5.51)			4.4 (10.76) ^a		
	Healthy	67 (35.8)	24.8 (4.48) ^a	3.82	.02 3	5.7 (5.23) ^{ab}	3.61	.006	33.4 (5.54)	.85 0	.467	5.8 (9.35) ^a	4.76	.004
	Neutral	45 (24.1)	32.3 (4.59) ^b	1	a< b	6.7 (5.94) ^b	3	a<b	30.8 (4.20)			6.8 (9.67) ^a	2	a<b
	Not healthy	20 (10.7)	31.8 (5.54) ^b			6.8 (7.41) ^b			27.8 (5.28)			8.1 (9.45) ^b		
Satisfaction	Very satisfied	45 (24.1)	22.1 (14.84) ^a			4.1 (3.47) ^a			35.9 (4.41) ^a			4.8 (9.95)		
	Good	67 (35.8)	23.6 (10.75) ^a		<.0	4.3 (5.95) ^a			34.7 (5.56) ^a	3.6 28	.018	5.9 (10.08)		
	Moderate	37 (19.8)	24.8 (8.61) ^a	4.02 7	01 a<	6.3 (4.23) ^{ab}	4.06 7	.004 a<b	30.4 (6.89) ^{ab}		b<a	6.8 (8.26)	.503	.798
	Unsatisfied	24 (12.8)	33.4 (9.38) ^b		b	6.9 (5.33) ^{ab}			27.8 (4.76) ^b			7.5 (9.5)		
Residential status	Very unsatisfied	14 (7.5)	35.1 (6.58) ^b			7.8 (8.56) ^b			28.7 (5.28) ^b			6.3 (9.72)		
	Alone	27 (14.4)	27.8 (11.64)			7.1 (6.13)			31.5 (4.33)			7.32 (9.50) ^a		
	With parents	58 (31.0)	28.3 (10.72)	1.55 4	.21 4	6.8 (5.66)	2.31 1	.058	31.2 (5.44)			5.1 (9.66) ^b	2.89 4	.023 b<a
	Lives with relatives	48 (25.7)	28.1 (9.68)			5.3 (8.41)			32.7 (4.19)	.88 2	.475	6.7 (8.26) ^{ab}		
Lives with	33 (17.6)	26.2			5.2 (5.45)			31.1			6.3			

Financial situation	friends		(8.34)						(5.69)			(9.22ab) ^{ab}		
	Other	21 (11.2)	28.4 (12.96)			5.1 (5.23)			30.8 (3.40)			6.1 (10.13) ^{ab}		
	Very good	10 (5.3)	24.9 (7.46)			4.8 (7.26) ^a			29.4 (4.95)			5.1 (14.31)		
	Good	35 (18.7)	26.4 (9.21)			5.1 (5.77) ^a			30.7 (6.25)			5.8 (9.43)		
	Neutral	83 (44.4)	27.5 (14.72)	1.35 4	.17 7	5.9 (5.59) ^a	2.52 4	.041 a<b	33.7 (5.42)	.57 7	.680	6.2 (9.42)	.674	.610
	Difficult	34 (18.2)	30.2 (14.98)			5.7 (5.40) ^a			32.8 (5.75)			6.4 (10.30)		
	Very difficult	25 (13.4)	29.8 (14.73)			7.9 (6.63) ^b			30.8 (6.91)			7.8 (8.99)		

Table 2 Correlation of stress, depression, self-control and eating attitude.

Variable	stress	depression	Self-control	Eating attitude
stress	1			
depression	.345*	1		
Self-control	-.573**	-.423**	1	
Eating attitude	.668**	.342***	-.412***	1

*p<.05, **p<.01, ***p<.001

Table 3 Multiple regression analysis of stress, depression, self-control and eating attitude (N=187)

Predictors	Eating attitude						
	B	Standard error	β	t	<i>p</i>	tolerance	VIF
Constant	4.671	6.809		11.510	<.001		
stress	0.43	.017	.458	7.244	<.001	.981	1.014
depression	0.29	.074	.253	2.135	.002	.986	1.016
Self-control	-0.34	.078	-.275	-7.123	<.001	.983	1.015