

## INVESTIGATION OF EATING ATTITUDE AND SELF-ESTEEM PROPERTIES BETWEEN PHYSICAL EDUCATION AND SPORTS SCIENCE COLLAGE AND OTHER DEPARTMENT STUDENTS

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### Abstract

*The purpose of this study is investigating eating attitudes and self-esteem properties of college students with relation of gender and departments. The universe of study occurs with college students and related with Osmaniye Korkut Ata University Vocation School, Faculty of Engineering, Faculty of Science and Literature and Dumlupinar University Physical Education and Sports Science. 300 volunteer students are selected and surveys are applied. Data are collected with self-esteem scale with 10 items and eating attitude scale with 40 items. SPSS 20 package software is used in calculations of data. Frequency ratio analysis is used for determination of social properties. T and Anova tests are used for determination of differences between genders and departments. Male students have a little higher point than female students in self esteem results. There is no statistical meaningful results are achieved between self-esteem and eating attitudes of genders. Physical education and sports department students have fewer points at self-esteem results. No statistically meaningful results occur at self-esteem and eating attitudes of Anova test. Results are discussed in detail.*

**Keywords:** Self-esteem, eating attitudes, t-test

## 1. Introduction

Besides of speaking skills for transferring the individual thoughts and feelings to other people effectively, a variety of aids is used and body language is needed. In professional practice, the use of body language, which evolves over time depending on usage, is constituted a significant requirement for people. Therefore, development of body language is important and development problems must be corrected, if they exist. Self-esteem expresses individual's own body features and the capacity clearly and influences behaviours.

In literature, relation between levels and body perception on college students [23] are investigated in a study, which shows that high scored students on self-esteem exhibit more peaceful to themselves and environment. Self-esteem investigation [14] between students at ages of 12-14 shows that doing sports decreases daily stress levels. Self-esteem [8] is important and its changes causes to eating problem mostly. A study about self-esteem determines a relation between overweighed and obesity and self-esteem in a study of Ministry of Health of Turkish Republic [3] in 2012. A relation [31] between depression and self-esteem is detected in obese individuals.

Self-esteem includes physical characteristics and is affected from some parameters like eating behaviour, daily stress feeling and sleep patterns. Some studies are available about these variable parameters in literature. One study [12] about eating behaviour emphasizes different eating behaviour and its effect. Statistical meaningful results are observed [24] in a study between female and male students in a group of university students. Female students find themselves as fat in percentage and diet. Eating behaviour disorder [6] is found dominant in obesity and is [17] a disease and must be healed. It is emphasized that medicine treatment is found limited and application of different treatment should be applied.

Acting on the eating attitudes in the investigation of other parameters, no statistically meaningful results [28] are achieved between eating behaviour of a group of college students and their family structures. Statistically meaningful results [13] are achieved between eating behaviour of female and male at high school students. Female students [26] gain more eating behaviour disorder points and they exhibit more passive-aggressive responses between eating behaviour and anger. Patients [33] individuals' exhibit more disordered eating attitudes behaviour than healthy individuals in a group of patients. Eating behaviour disorder [16] is investigated for attachment theory and children of eating behaviour disorder patients have more an unsafe context.

In adolescents, [2] a higher percentage of female with eating disorders is detected and a higher proportion of men is observed to binge eating disorders in a two-stage community-based study of eating disorders. Investigation of eating attitudes [9] of 1.435 college students in North African shows that developing society affects eating attitudes negatively. Also similar to other studies, female students have higher scored eating attitudes disordered than male students. Parent-child interaction [15,32] is detected effective on eating attitudes, it is shown that providing motivation of eating improves the self-esteem. As similar [30] to results in the investigation of eating attitudes of high school and college students, behaviour of anger is associated. In the investigation [11] of 757 adolescents at primary school age, "I lose weight by exercise until I'm wearing on me full" substance is found statistically meaningful between male and female. It is detected that female students [29] are more disorder of eating attitudes than male students. Computer-internet addiction [22] causes to eating attitudes disorders among college students. Eating attitudes are important studies that are seen in these various tactics investigations. Due to these conditions [27], research studies on various eating attitudes and validity tests are conducted. These tests are often [20] used in analyzing eating attitudes of different groups. Other effecting parameters are [34] watching television for long times, which negatively affect eating behaviour.

Self-esteem [18] is effective on female students eating behaviour, but it is not affected much in male students. One of the sources of eating disorders is alcohol and its effect on women [1,7] is investigated. In

low cases of self-esteem, [5,19,35] health problems occur with respect to nutrition. As a result [10] of this, restrictive dieting is led from a young age. It can be said that socio-cultural effects [4] are one of another eating disorder. The applied [21] literature review shows that eating behaviour and self-esteem can affect health and social conditions on individuals.

In this study, self-esteem and eating behaviour of students in Osmaniye Korkut Ata University Vocational School (Vcs.), Faculty of Engineering (Eng.), Faculty of Science (Fos.) and Kütahya Dumlupınar University Physical Education and Sports School (Pesd.) are measured and compared. Too low or high self-esteem and eating behaviour disorder are determined and providing knowledge for further correction studies.

## 2. Method

As a set of participants 300 volunteer students are attended from Osmaniye Korkut Ata University Vocational School (Vcs.), Faculty of Engineering (Eng.), Faculty of Science (Fos.) and Kütahya Dumlupınar University Physical Education and Sports School (Pesd.) for investigation. Research is investigated by using multiple-choice questionnaire and measuring of self-esteem and eating attitudes of participants is aimed. The concepts of socio-demographic questions are asked to conditions of volunteers' different age groups, gender, youth and social life. Gender, age, marital status, education level, monthly spending amount, number of siblings and parents' educational level has been questioned. t test is applied for determination differences between the genders. Significance level of 0.05 is taken as p-values.

To measure participants' self-esteem, a scale is used which was developed by Morris Rosenberg in 1963. The applied scale consists of 10 items; 1, 2, 4, 6, 7 substances are questioned for positive self-evaluation and their score changes from 3 to 0. 3, 5, 8, 9 and 10 substances are questioned for negative self-evaluation and their score changes from 0 to 3. The total score range is between 0-30. When the score between 15 and 25 shows that self-esteem is sufficient, low self-esteem is pointed below than 15 score.

The Eating Attitudes Test is used which was developed in 1979 by Garfinkel. Consisting of 40 items and six point scale of multiple choices is determined in test and the cut-off point is selected as 30. Items of 1, 18, 19, 23, 27 and 39 are evaluated with sometimes as 1 point, rarely as 2 points and never as 3 points. Other items are determined as 0 points.

As for the other items of the scale, Always as 3 points, very often as 1 point are evaluated and other options are evaluated as 0 points. Results from each item of the scale scores are collected and the total score is obtained. In this study, above 30 points is accepted cut-off score and it is evaluated as disordered eating behaviour.

## 3. Results

**Table 1.** The distribution of subjects by gender

Gender	Frequency (n)	Percent (%)
Female	91	30.3
Male	209	69.7
Total	300	100.0

As a result of conducted research, Obtained data are arranged and evaluated for gender of students. The number and percentile of participants are given according to genders in Table 1. The research includes 300 participants who consist from 91 (%30.3) female and 209 (%69.7) male students.

**Table 2.** The distribution of subjects according to the level of maternal education

		Gender				Total	
		female	%	male	%	n	%
Maternal Education	not literate	4	4.4	13	6.2	17	5.7
	literate	2	2.2	13	6.2	15	5.0
	primary school	30	33.0	76	36.4	106	35.3
	secondary school	23	25.3	32	15.3	55	18.3
	high school	23	25.3	45	21.5	68	22.7
	university	9	9.9	28	13.4	37	12.3
	graduate	0	0.0	2	1.0	2	0.7
Total		91	100.0	209	100.0	300	100.0

Numerical values of maternal education levels of participants are given in Table 2. A non-homogeneous distribution of maternal education levels of the participants is seen. A large majority of the male and female participants' mothers' education level have revealed primary school graduation rate. A large majority of others have middle school and high school education degree. Despite the low proportion of illiterate participants, college and graduate education ratio was lower.

**Table 3.** The distribution of subjects according to the level of parental education

		Gender				Total	
		female	%	male	%	n	%
Parental Education	not literate	1	1.1	6	2.9	7	2.3
	literate	2	2.2	4	1.9	6	2.0
	primary school	14	15.4	58	27.8	72	24.0
	secondary school	19	20.9	34	16.3	53	17.7
	high school	35	38.5	50	23.9	85	28.3
	university	20	22.0	56	26.8	76	25.3
	graduate	0	0.0	1	0.5	1	0.3
Total		91	100.0	209	100.0	300	100.0

Numerical values of parental education level of the participants are given in Table 3. A non-homogeneous distribution of parental education levels of the participants is seen. A majority of male and female participants of parental education levels of education has elementary, middle school, high school and university degree. Illiterate, literate and post-graduate level of education is a very low ratio.

**Table 4.** T-test results of self-esteem of subjects

	Gender	Number of participants	Arithmetic average	Standard deviation	t	P
<b>Self-esteem scale total score</b>	Female	91	16,65	4,63	-0.705	>0.05
	Male	209	17,09	4,97		

Arithmetic average of the scores of female students is found to be  $16.65 \pm 4.63$  in the self-esteem scale total score. The arithmetic average of the scores of female students is calculated as  $9.17 \pm 4.97$ . No statistically significant results is obtained According to t-test results between male and female ( $p > 0.05$ ).

**Table 5.** ANOVA test results of self-esteem of subjects

	Group information				Anova values between groups	
	groups	#	averaged values	std. deviation	F	P
<b>Self-esteem scale total score</b>	Eng.	79	17,51	3,18	0.862	>0.05
	Fos.	21	17,14	2,35		
	Pesd.	100	16,37	7,34		
	Vcs.	100	17,07	2,78		

Anova test results are given for determination self-esteem condition between students in different sections in Table 5. Faculty of Engineering (Eng.), A group of students of Faculty of Science (Fos.), Physical Education and Sports School (Pesd.) and Vocational School (Vcs.) is selected and their average values of the scores, standard deviation and which group has statistically meaningful difference than other groups are determined. Self-esteem scale total score is calculated in students of Faculty of Engineering as  $17.51 \pm 3.18$ , Faculty of Science as  $17.14 \pm 2.35$ , Physical Education and Sports School as  $16.37 \pm 7.34$  and Vocational School as  $17.07 \pm 2.78$ . There is no statistically meaningful results are achieved between self-esteem results of groups ( $p > 0.05$ ).

**Table 6.** T-test results of eating attitudes of subjects

	Gender	Number of participants	Arithmetic average	Standard deviation	t	P
<b>Total score of eating attitudes test</b>	Female	91	12,71	10,08	0.344	>0.05
	Male	209	12,20	12,38		

Eating attitudes of male and female are given regarding the arithmetic average of the scores, standard deviation and t-test results in Table 6. Eating Attitudes Test total score is found in female students as  $12.71 \pm 10.08$  and male students as  $12.20 \pm 12.38$ . There is no statistically meaningful results are observed between eating attitudes of female and male students ( $p > 0.05$ ).

**Table 7.** ANOVA test results of eating attitudes of subjects

	Group information				Anova values Between groups	
	Groups	#	Average d values	std. deviatio	F	p
<b>Total score of eating attitudes test</b>	Eng.	79	13,94	14,77	1.390	>0.05
	Fos.	21	10,76	5,76		
	Pesd.	100	13,08	12,49		
	Vcs.	100	10,73	8,60		

Anova test results of eating attitudes between different sections are given in Table 7. Eating Attitude Test total score is found in students of Faculty of Engineering as  $13.94 \pm 14.77$ , Faculty of Science as  $10.76 \pm 5.76$ , Physical Education and Sports School as  $13.08 \pm 12.49$  and Vocational School as  $10.73 \pm 8.60$ . There is no statistically meaningful results are observed between compared groups in eating attitudes ( $p > 0.05$ ).

#### 4. Discussion

In the survey, a total of 300 students, including 91 female and 209 male students' eating behaviours and self-esteem survey are conducted. When the results are evaluated, parents' educational level of the participants in general is found to be primary and high school level in socio-demographic characteristics.

However, parental education level is more than mother at the number of participants with the same level universities in the number of participants. Literate and graduate education levels are low enough to be neglected.

The obtained results from applied tests are evaluated item by item and reviews between compared groups are obtained. When self-esteem test t-test results for female and male students are evaluated, a large difference between male and female is not detected. Male students are more successful than female students in finding themselves valuable, carrying positive features, a self-satisfied feeling to complete tasks like other people. It is observed that female students are in less proud of themselves, think they are not enough useful and respect them less than male students.

When self-esteem attitudes are evaluated for departments, Pesd. students have more negative self-esteem attitudes than other department students. Self-esteem attitudes in other departments are close to each other thoughts. When eating attitudes of male and female students are examined, behaviour of the female students has more fear of fatness than male students. However, female students think eating constantly and they could not stop themselves at more times than male students. As a result, they avoid high-calorie foods and consider much weaker evidently. Male students have higher rate than female students at their stomach fully, check themselves less about food, are less worried about obesity and like to eat with others.

If eating attitudes are observed for sections, Pesd. students likes to eat with others, are concerned about the obesity, constantly think about food, they vomit after eating and excessive guilt, do more exercise and

weighed. In addition, they enjoy eating meat. However, they avoid sugary foods and do diet more. Eng. students are more cautious on calories in their eating the food, consumption of high-calorie foods, in self-control and stress in eating food. Fos. students are considered too weak by others. Vcs. students have less stresses on eating others cook and continuous eating similar meals.

The gained results in this study on self-esteem and eating behaviour include knowledge for further corrections and developments on these behaviours. Thereafter it can be applied that the development work of self-esteem and eating attitudes are eligible. Similar investigations are applied in literature and development procedures [25] on self esteem and eating behaviour are applied.

### Conclusion

In this study, self-esteem and eating attitudes are measured in a group of 300 volunteer students from 4 different departments of 2 different universities. The responses of the participants are examined by using statistical package software of SPSS 20.

The 10-item self-esteem test applied to the subjects of the t-test results between male and female and no statistically significant differences are found. In addition, the inter-departmental self-esteem Anova test results show no statistically significant difference for all items. No statistically meaningful results are observed in results of Anova and t test between female and male in eating behaviour test. As a result of this study, it will be more appropriate to apply development work on students' eating behaviours and self-esteem thoughts in the future.

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