

## Attitudes and Behaviors of Nursing Students towards Obese Individuals

Hacı Ömer Yılmaz<sup>1\*</sup> and Nurcan Yabancı Ayhan<sup>2</sup><sup>1</sup>Nutrition and Dietetics, Gümüşhane University, Turkey<sup>2</sup>Nutrition and Dietetics, Ankara University, Turkey**\*Corresponding Author:** Hacı Ömer Yılmaz, Research Assistant, Nutrition and Dietetics, Gümüşhane University, Turkey.**Received:** July 17, 2018; **Published:** August 03, 2018**Abstract****Background:** The aim of this study was to investigate nursing students' attitudes and behavior towards obese individuals.**Method:** The study, as a descriptive and sectional, was conducted 437 nursing student in Department of Nursing of Ankara University, in October-December 2015. In this study, data were collected with questionnaire. In this survey included that demographic information, Fat Phobia and Attitudes Toward Obese Persons Scales were used to learn attitudes and thoughts of nursing students about obese people.**Results:** Mean age and BMI values of students were  $19.7 \pm 1.3$  year and  $21.6 \pm 3.0$  kg/m<sup>2</sup>. Average Fat Phobia and Attitudes Toward Obese Persons Scales scores were determined  $3.80 \pm 0.51$  and  $59.80 \pm 14.24$ , respectively. Nursing students' against obese individuals attitudes and behaviors were negative.**Conclusion:** Because of increasing prevalence of obesity and obese individuals affected by many conditions, future nurses should be more positive and professional towards obese people. Some of the nursing education should include topics, such as obesity and causes of obesity. Thus, negative attitudes and behaviors against obese individuals of nursing students can be prevented.**Keywords:** Fat Phobia; Bias; Obesity; Attitudes; Nursing Students**Abbreviations**

FPS: Fat Phobia Scale, ATOP: Attitudes Towards Obese Persons Scale

**Introduction**

Obesity, known as one of the most important health problems in the worldwide, is a disease that must be threatened. Psychologically, obesity may lead to stigmatization and result with negative stereotyping, judgments, bullying, low self-esteem, self-underratement, depression, and social isolation [1,2]. Individuals with a higher body weight in addition to their physical ailments, need to cope with psychological and sociological problems originating from the negative attitudes of the society.

Impaired body image and excessive struggle on body weight are important features of obesity [3]. The importance given to values such as youth, beauty and delicacy in the society together with the influence of the media, causes that obese individuals have obsessions to feel that they are unattractive and insufficient [4]. Additionally, due to the fact that obese individuals are exposed to social prejudice and have problems in finding work, make a friend, receive less education, and have low income generating jobs, psychosocial dimension of obesity is gaining importance. Ideal body shape is put on par with being thin and slim. Being thin and slim are associated with success and social acceptance while being overweight is associated with laziness and irresoluteness. This worsens the negative effects on obese individuals who are criticized by their body shape and already have a variety of physical and psychological problems [5,6].

All of these factors may even cause people with high body weight experience depression, moreover may even lead to serious psychological problems such as isolating themselves from society. Considering how national and international studies indicate that the obesity is increasing day by day, it is clear that point of view towards obese individuals will also proceed in a negative direction. Negative attitudes towards overweight and obese individuals are described as fat phobia. Some studies about this matter were carried out [7-9]. Scales such as "Fat Phobia", "Attitudes Towards Obese Persons" and "Beliefs About Obese Persons" were used and included in these studies.

There are many obese individuals who reported that they were subjected to humiliating statements by health workers. It has been determined that dieticians, medical students, doctors too were among those who have a negative attitude towards these individuals [10,11]. This attitude among health professionals may be widespread among professionals in other areas such as exercise and physical activity and among the students receiving education in these areas.

Nurses, a significant place among the health care workers, have assignments that require quite comprehensive functions. Therefore, judgements and attitudes of nurses play an important role in the society [12]. Prejudiced behavior of nurses towards obese individuals may lead to negative prejudices or thoughts towards obese individuals in society [6]. The first stage of prevention of negative attitudes towards obese individuals is to determine presence of this attitude. In later stages, training for this topic and organizing activities can help to get rid of the issue. There are very few studies that evaluate of opinions of nursing students, who are role models in society and one of the future health workers, about obesity and obese individuals. The aim of this study, is to evaluate attitudes and behaviors of nursing students towards obese persons.

## Materials and Methods

This study, descriptive and sectional, was conducted between October-December 2015 on students of Department of Nursing, Faculty of Health Sciences, Ankara University, Turkey. Required permissions were received from Deanery of Faculty of Health Sciences and Presidentship of Nursing Department at prior to conduction of the research.

The population of this study consisted of first, second, third and fourth grades students of Department of Nursing. The research population of this study consisted of nursing students (n:700) who are receiving education during 2015 - 2016 education year. Similar studies has been examined before starting research. It was determined that at least 413 persons should be taken according to impact size of 0.17, probability of error 0.05 and power of 0.80. A total of 263 students could not be reached because of the fact that they were absent from classes or under internship training. And this study was carried out on 437 volunteer nursing students and 62.4% of the research population was reached.

Data of research were collected by face to face interview method with a questionnaire. The questionnaire form was constructed after studies and other scientific sources related to the subjects were examined. The questionnaire form consisted of 3 sections which were demographic information, Fat Phobia and Attitudes Towards Obese Persons scales, respectively.

Height and weight of the participants were measured by researchers. Body Mass Index (BMI) values were calculated by equation that is  $[\text{Weight (kg)}/\text{Height}^2 (\text{m}^2)]$  and were classified as < 18.5 underweight,  $\geq 18.5 - 24.9$  normal,  $\geq 25$  overweight-obese [13].

## Fat Phobia Scale

It was first used in 1984 to determine the attitudes and behaviors of individuals towards obesity. While the original long form of the scale emphasizes 50 characteristic features of individuals, in short form of the scale 14 characteristic features are emphasized. The short form of the scale was used in this study. The score for each response in the scale differs between 1 - 5 depending of the answers of participants. Scores for each statement are summed to obtain total score. The mean score value for scale is calculated by dividing total score into 14. When the mean score value is 2.5 points, prejudice or attitude towards obese individuals of participants are considered as normal. Attitudes of participants towards obese individuals is considered to be positive if the mean score value is less than 2.5 points, while negative attitudes are considered to be dominant when the mean score value is above 2.5 points. In addition, if the mean score value is 4.4 points or above, it can be considered that there is a high level of fat phobia or a sense of prejudice towards obese individuals. Evaluated the reability coefficient of the scale and found the Cronbach's Alpha value as 0.89 [14].

**Attitudes towards obese persons scale**

It was developed by Allison, *et al.* in 1991. There are twenty judicatory statements about life behaviors of obese individuals in this scale. The participants are required to respond to their statements as “Strongly Disagree”, “Moderately Disagree”, “Slightly Disagree”, “Slightly Agree”, “Moderately Agree”, “Strongly Agree” and for each statement -3, -2, -1, 1, 2, 3 points are given respectively to question whether or not they agree to the statements. Scores for each judicatory statement are summed to obtain total score. The higher the obtained total score is, the more positive the attitudes towards obese individuals of participants. The lowest and highest scores to be obtained are 0 and 120 points, respectively. The lowest and highest scores that can be obtained from the scale are 0 points and 120 points, respectively, while 60 points is considered to have a normal attitude towards obese individuals. The score is above 60 points attitudes is considered positive whereas the score that is below 60 points is considered to be negative [15].

The questionnaire was applied at available course hours of students by meeting their instructors. The students were given necessary information and explanations about the research, the scales

in questionnaire and privacy of students’ responses to scales and questionnaire; and then the scales along with the questionnaire were applied to the voluntary nursing students. The students were read the standard instruction and applications were completed before, during and after the course hours. While planning and conducting this study, ethical rules have been taken into consideration. Students who volunteered to participate in this study were asked to sign a consent form according to the Helsinki Declaration.

The data obtained from the questionnaires were analyzed using the Statistical Package for the Social Sciences (SPSS 22.0) packaged software. Descriptive statistics and continuous variables shown as mean ± standard deviation, categorical variables shown as number of cases and %. Independent t-test was used to assess differences between the groups. As a result of the statistical analysis, confidence interval was 95% and p < 0.05 significance level was determined.

**Results and Discussion**

Average age of nursing students is 19.7 ± 1.3 years. Nursing students’ responses to items in Fat Phobia Scale, frequency and percentage distributions obtained are given in table 1.

	5		4		3		2		1		
	N	%	N	%	N	%	N	%	N	%	
Lazy	116	26,5	144	33,0	145	33,2	19	4,3	13	3,0	Industrious
Has will power	22	5,0	59	13,5	140	32,0	125	28,6	91	20,8	Poor will power
Attractive	20	4,6	22	5,0	97	22,2	141	32,3	157	35,9	Unattractive
Good self-control	21	4,8	28	6,4	75	17,2	136	31,1	177	40,5	Poor self-control
Fast	15	3,4	22	5,0	46	10,5	143	32,7	211	48,3	Slow
Having endurance	32	7,3	43	9,8	111	25,4	122	27,9	129	29,5	Having no endurance
Active	17	3,9	13	3,0	56	12,8	173	39,6	178	40,7	Inactive
Weak	129	29,5	128	29,3	127	29,1	33	7,6	20	4,6	Strong
Self-indulgent	170	38,9	118	27,0	97	22,2	31	7,1	21	4,8	Self-sacrificing
Dislikes food	14	3,2	14	3,2	32	7,3	99	22,7	278	63,6	Likes food
Shapeless (body)	192	43,9	101	23,1	89	20,4	35	8,0	20	4,6	Shapely(body)
Under eats	13	3,0	15	3,4	53	12,1	119	27,2	237	54,2	Overeats
Insecure	98	22,4	114	26,1	161	36,8	35	8,0	29	6,6	Secure
Low self-esteem	104	23,8	108	24,7	158	36,2	42	9,6	25	5,7	High self-esteem

**Table 1:** Answers to Fat Phobia Scale of nursing students.

\*\* In the range 1-5, values close to 5 on the left, values close to 1 describe adjectives on the right.

A majority of nursing students think that obese people are lazy (59.5%), poor will power (49.4%), unattractive (68.2%), poor self-control (71.6%), slow (81.0%), having no endurance (57.4%), inactive (80.3%), self-sacrificing (65.9%), overeats (81.4%), insecure (48.5%) and low self-esteem (48.5%) (Table 1).

While 38.7% of nursing students who strongly agree answered that "Obese workers cannot be as successful as other workers", 41.4% of them said that strongly disagree "Obese people are just as sexually attractive as nonobese people" (Table 2).

	-3*		-2*		-1*		+1*		+2*		+3*	
	N	%	N	%	N	%	N	%	N	%	N	%
Obese people are as happy as nonobese people	68	15,6	55	12,6	44	10,1	74	16,9	137	31,4	59	13,5
Most obese people feel that they are not as good as other people	145	33,2	162	37,1	67	15,3	16	3,7	35	8,0	12	2,7
Most obese people are more self-conscious than other people	25	5,7	58	13,3	74	16,9	97	22,2	90	20,6	93	21,3
Obese workers cannot be as successful as other workers	26	5,9	53	12,1	58	13,3	65	14,9	66	15,1	169	38,7
Most nonobese people would not want to marry anyone who is obese	94	21,5	125	28,6	69	15,8	54	12,4	55	12,6	40	9,2
Severely obese people are usually untidy	91	20,8	112	25,6	72	16,5	57	13,0	55	12,6	50	11,4
Obese people are usually sociable	66	15,1	93	21,3	82	18,8	76	17,4	96	22,0	24	5,5
Most obese people are not dissatisfied with themselves	11	2,5	29	6,6	18	4,1	54	12,4	144	33,0	181	41,4
Obese people are just as self-confident as other people	45	10,3	87	19,9	69	15,8	86	19,7	114	26,1	36	8,2
Most people feel uncomfortable when they associate with obese people	79	18,1	135	30,9	70	16,0	30	6,9	52	11,9	71	16,2
Obese people are often less aggressive than nonobese people	31	7,1	64	14,6	66	15,1	96	22,0	98	22,4	82	18,8
Most obese people have different personalities than nonobese people	54	12,4	96	22,0	95	21,7	69	15,8	63	14,4	60	13,7
Very few obese people are ashamed of their weight	57	13,0	88	20,1	51	11,7	55	12,6	134	30,7	52	11,9
Most obese people resent normal weight people	58	13,3	134	30,7	82	18,8	46	10,5	61	14,0	56	12,8
Obese people are more emotional than non-obese people	87	19,9	131	30,0	94	21,5	53	12,1	35	8,0	37	8,5
Obese people should not expect to lead normal lives	12	2,7	17	3,9	25	5,7	34	7,8	53	12,1	296	67,7
Obese people are just as healthy as nonobese people	180	41,2	107	24,5	58	13,3	51	11,7	23	5,3	18	4,1
Obese people are just as sexually attractive as nonobese people	104	23,8	116	26,5	77	17,6	66	15,1	53	12,1	21	4,8
Obese people tend to have family problems	45	10,3	107	24,5	77	17,6	81	18,5	66	15,1	61	14,0
One of the worst things that could happen to a person would be for him to become obese	35	8,0	60	13,7	78	17,8	64	14,6	53	12,1	147	33,6

**Table 2:** Answers to attitudes toward obese persons scale of nursing students.

\*-3 = I strongly disagree -2 = I moderately disagree -1 = I slightly disagree

+3 = I strongly agree +2 = I moderately agree +1 = I slightly agree

Increasing mean score in Fat Phobia Scale and decreasing mean score in Attitudes Towards Obese Person Scale show that negative impression toward obese individuals. In first grade students than other grades, overweight-obese students than others, male students than female students, nursing students being an obese individual in family than not being are positive attitudes and behaviours toward obese individuals. Mean score of Fat Phobia and Attitudes Towards Obese Persons scores are  $3.70 \pm 0.66$  and  $60.06 \pm 15.27$  for males and  $3.82 \pm 0.47$  and  $59.74 \pm 14.02$  for females, respectively. When these scores were evaluated according to grade, mean Fat Phobia score was  $3.87 \pm 0.54$  in first grade, Attitudes Towards Obese Persons score was  $63.0 \pm 14.43$  in fourth grade ( $p < 0.05$ ) (Table 3).

The aim of this study was determination and evaluation of attitudes and behaviours towards obese persons in nursing students and to reveal whether there is differ among fat phobia levels.

As a result of the study, nursing students were found to have negative attitudes in general. Although negative attitudes of nursing students were not found too high in reference to scoring criteria of the scale, it has been found that students participating in the study had moderate and high level of negative attitudes towards overweight individuals.

	N	%	Mean Fat Phobia Score	Mean Attitudes Towards Obese Persons Score
<b>Gender</b>				
Male	79	18	$3,70 \pm 0,66$	$60,06 \pm 15,27$
Female	358	82	$3,82 \pm 0,47$	$59,74 \pm 14,02$
			$p = 0,049^*$	$p = 0,857$
<b>Grade</b>				
1	150	34,3	$3,87 \pm 0,54$	$55,50 \pm 14,25$
2	126	28,8	$3,77 \pm 0,53$	$61,38 \pm 13,45$
3	93	21,2	$3,70 \pm 0,49$	$62,24 \pm 13,76$
4	68	15,7	$3,83 \pm 0,44$	$63,0 \pm 14,43$
			$p = 0,078$	$p = 0,000^{**}$
<b>BMI</b>				
Underweight	48	11,0	$3,80 \pm 0,47$	$58,1 \pm 15,24$
Normal	336	76,9	$3,82 \pm 0,52$	$59,75 \pm 13,86$
Overweight-obese	53	12,1	$3,65 \pm 0,48$	$61,66 \pm 15,67$
			$p = 0,089$	$p = 0,453$
<b>Being an obese in family</b>				
Yes	232	53,1	$3,78 \pm 0,49$	$60,28 \pm 14,25$
No	205	46,9	$3,82 \pm 0,54$	$59,24 \pm 14,23$
			$p = 0,492$	$p = 0,866$
<b>General Mean Score</b>			$3,80 \pm 0,51$	$59,80 \pm 14,24$

**Table 3:** According to various factors mean score fat phobia and attitudes towards obese persons scale.

\* $p < 0,05$ ; \*\* $p < 0,001$

In almost every country of the world, negative attitudes and behaviours towards these overweight and obese individuals constitute an important research area [7,16]. In study, which attitudes of nursing students and working nurses towards obese individuals was aimed to be determined, 352 nursing students and 198 work-

ing nurses had participated to the study. Perspectives towards obese individuals have ascertained to be in tendency to negative in both groups. In addition to that, it was concluded that nurses who work in the field had more positive attitudes towards obese individuals compared to the nursing students which are receiving

education [16]. Similar results have obtained from this study too, and it was discerned that the closer the students approach working life, the more positive attitudes towards obese individuals were dominant. In our study, nursing students have described overweight individuals as who loves to eat, who overeats, whose body is shapeless, slow and immobile in this study as well.

Five hundred twenty eight students participated in a study that was conducted to evaluate fat phobia status of medical and psychology students in Mexico. As a result of the study, mean fat phobia score of the students were found to be 3.4 points [17]. In a similar study that was conducted with 305 university students, mean Fat Phobia score found as 3.57 [18]. In another similar study that done with 671 medical student, mean score Fat Phobia of students was found 3.65 [19]. In our study mean Fat Phobia score of the participants was determined to be  $3.80 \pm 0.51$ .

In a conducted study, it was aimed to identify the negative attitudes towards body weight of university students who receive nutrition classes. As a result of the study, it is revealed that students have a negative attitude towards obese individuals in general and negative attitudes were more severe in females compared to males [20]. In a study conducted with dieticians, medical and nursing students, it was determined that the majority of the students had fat phobia and negative attitudes towards obese individuals [21]. In another study found that attitudes towards obese individuals of nursing and psychology students were negative and negative attitudes were higher among females than males [22].

## Conclusion

Results of the study showed that nursing students which are receiving education about nursing, had middle and high level of fat phobia and negative attitudes towards obese individuals. Moreover it was also revealed that there is a statistically significant difference between fat phobia levels of nursing students. It can be considered that this detected middle and high level of fat phobia and thoughts of students towards obese individuals may be an indicator of their negative attitudes towards overweight individuals. Additionally, it is believed that the most important reason of social negativities experienced by overweight individuals is derived from negative attitudes towards obese individuals, which are exhibited by other people.

Individuals that receive education from Department of Nursing take a plenty of courses based on health and healthy living, and find opportunity to improve themselves on these subjects both theoretically and practically. Since obesity is also one of

the important health issues of our age, nursing students who receive education from Faculty of Health Sciences as future health professionals must be conscious about obesity and their attitudes and behaviors towards obese individuals.

Social, physical and emotional problems, which are originated from obesity and common especially in developing and developed countries, confront us as a social problem. The first step in preventing exhibition of these negative attitudes and behaviors of people towards overweight and obese individuals is to reveal whether or not such attitudes and behaviors exist. In the later stages, awareness of people who has negative attitudes and behaviors towards overweight and obese individuals, may be raised to support these individuals; and in order to eliminate the prejudices, other practices such as giving education about nutrition, exercise, obesity or arranging social and physical activities may be done.

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## Conflict of Interest

The authors declare no conflict of interest and financial assistance has not been received for this study.

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