

The Effect of Social Support on Anxiety Levels in Obesity Patients

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ABSTRACT

Objective: This study aimed to investigate whether social support affects the anxiety levels of obese patients and to develop recommendations by interpreting the results from a social work perspective.

Methods: The research was carried out by electronic based questionnaire method with individuals aged 18 and over who applied to Samsun Liv Hospital General Surgery Polyclinic between June 10, 2021, and September 10, 2021. The research used questions about demographic information, the Multidimensional Scale of Perceived Social Support, and the State-Trait Anxiety Inventory.

Results: As a result of the Pearson correlation analysis, a significant negative relationship was found between state and trait anxiety, total social support score, and friend, family, and special person sub-dimensions. As a result of the multiple linear regression analysis; "Friend" and "Special person" sub-dimensions did not have a significant effect on state anxiety, but the "Family" sub-dimension had a significant effect; at the same time, it was determined that the "Friend" and "Special person" sub-dimensions did not have a significant effect on trait anxiety, but the "Family" sub-dimension had a significant effect.


Conclusion: As a result of the research, the importance of the family's social support to cope with both types of anxiety in obese patients has been revealed. In light of these results, it has been suggested that social workers should carry out programs in order to support and strengthen obese patients in their daily lives, both in health institutions and in their daily lives, on issues such as being compatible with their families, preventing family problems, and providing support for their families during treatment processes.

Keywords: Obesity, social support, anxiety, social work

Introduction

Obesity is one of the most common diseases in today's world, which damages individuals' physical, social, and psychological health and paves the way for many diseases. Obesity is not a behavior or just a health condition. It is a complex disease with a multifaceted etiology, inhibitory capacities, pathophysiologicals, and comorbidities.¹ There are 3 main categories of physical risks associated with obesity: the first is the increased mechanical burden of obesity, the second is the dangers of increased food intake or the "wrong variety" of foods, and the third is the various complications and associations of obesity. In the increased mechanical load, there are disorders in the skeletal structure and cardiovascular system of the person, which are attributed to the stresses of excess weight. The dangers of increased food intake or the "wrong kind" of food are emphasized by the constant desire of obese individuals to eat. As for the various complications and relationships of obesity, diseases such as hypertension, diabetes, gynecological and obstetric diseases, hyperuricemia and gouty arteritis, and fatty liver, which are risk factors for obese individuals, are described.² Obesity also has negative effects on the social and psychological lives of individuals. Examples of social effects include negative attitudes and discriminatory behaviors toward obese individuals, such as prejudices, stigmatization, critical and humiliating comments about the weight of individuals, job discrimination, discrimination in health services, and derogatory media representations. These prejudices may also be related to psychological risks such as obese individuals' social and romantic relationships, self-esteem, competence attitudes, attractiveness, self-hatred, self-worth, anxiety, depression, stress, and anxiety.^{3,4}

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Anxiety can be defined as a type of emotion that includes physiological changes such as in the form of an emotional response to environmental and psychological events, which is generally present in the presence of individuals, and in the narrow sense, in which the source and beginning are not clear, but consciously felt, as well as sweating, yellowing, etc. Anxiety is a state of worry and tension about the future. The expectation of an uncertain and incomprehensible danger arouses uneasiness and tension in individuals in the form of anxiety. Anxiety arises when the integrity of the self is threatened.⁵ Anxiety is a specific emotional state with worry and fear, which may or may not be associated with an easily distinguishable stimulus. Under normal conditions, it is a biological stimulant that prepares people to take action in the face of a possible danger.⁶ Anxiety is an unpleasant, disturbing condition that affects people negatively.⁷ Anxiety occurs in response to various physiological and/or environmental stress factors.⁸ State and trait anxiety, which forms the basis of the 2-factor anxiety theory, which Spielberger et al (1970)⁹ revealed as a result of their work, consists of different characteristics and intensities. State anxiety is anxiety caused by dangerous events and often experienced by all individuals, which is temporary and lives in the moment, depending on the situation. State anxiety occurs when individuals feel they are in danger and will be harmed in the face of any stimulus or situation at a certain time. Trait anxiety, on the other hand, refers to the future-oriented individuals' predisposition to an anxious life. This situation can also be defined as the tendency of individuals to perceive their situations as stressful or interpret them as stress.⁵

Although social support is one of the most widely researched psychosocial concepts, there is no agreed definition yet. In its broadest sense, social support encompasses help and resources other people provide and consists of 2 overarching components. The structural component includes social support networks' size, scope, and interconnectedness. The functional component includes support arising from transactions between individuals. This functional component includes multiple supports, including emotional support (e.g., praise or encouragement), instrumental support (e.g., practical or financial assistance), and informational support (e.g., advice or instruction). More importantly, both components show positive effects on health outcomes.¹⁰ Social support can be conceptualized as perceived social support, which is the definition of the belief that help can be provided to individuals when needed, and finalized social support, which is the actual social resources provided to a person.¹¹

Social support is one of the most effective power sources for obese patients to cope with their anxieties. This study aimed to investigate whether social support affects the anxiety levels of obese patients and to develop recommendations by interpreting the results from a social work perspective.

Methods

Research Model

This study, which investigated whether social support affects the anxiety levels of obese patients, is a quantitative study in which the relational screening model was used.

Scope, Population, and Sample of the Research

The research was conducted with individuals aged 18 and over who were diagnosed with obesity by applying to Samsun Liv Hospital General Surgery Polyclinic between June 10, 2021, and September 10, 2021, by electronic-based questionnaire method (via Google Forms) via email, SMS, and WhatsApp. According to the information received from the hospital, an average of 30 patients per month and 360 patients per year are diagnosed with obesity from the relevant polyclinic. Although the primary goal was to reach the whole population, the study was

carried out with 203 patients because of the patients who refused to participate in the study and could not be reached.

Ethical Issues

In order to conduct this research, first of all, written permission was obtained from Samsun Liv Hospital. Later, the Ethics Committee's permission from the Istanbul Medipol University Scientific Research Ethics Committee with its Decision No. 45 dated June 08, 2021.

Data Collection Tool

The questionnaire prepared in order to collect data in the research consists of 3 parts. The first part consists of questions prepared by the authors to determine the demographic information of the participants. In the second part, the Multidimensional Scale of Perceived Social Support ("Multidimensional Scale of Perceived Social Support") developed by Zimet et al¹² was used. The Turkish translation of the scale and the validity and reliability study of the Turkish version were performed by Eker and Arkar.¹³ In the research, the revised form of the scale was used. The scale consists of 3 sub-dimensions: family (4 expressions), friend (4 expressions), and a special person (4 expressions), with a total of 12 expressions. The expressions in the scales were measured with "Strongly Disagree," "Disagree," "Partially Agree," "Agree," and "Strongly Agree" options with a 5-point Likert-type scale. The "State-Trait Anxiety Inventory" developed by Spielberger et al⁹ was used in the third part. The Turkish adaptation and standards of the inventory were made by Öner and Le Compte.¹⁴ In the State Anxiety Inventory, the person is asked to respond by taking into account their feelings about their situation. The expressions in the scales were measured with the 5-point Likert type scale with the options "None," "Some," "Medium," "Very," and "Completely." On the Trait Anxiety Scale, people are expected to describe how they usually feel. Both scales consist of 20 items each. Expressions in the scales were measured on a 5-point Likert-type scale with the options "Almost Never," "Rarely," "Sometimes," "Very Often," and "Almost Always." The data analysis was made in the IBM Statistical Package for Social Sciences (IBM SPSS Corp., Armonk, NY, USA) 22 software program, and the significance level was determined as $\alpha=0.05$.

Analysis of the Data

Table 1 shows the descriptive statistics of the variables and Cronbach's alpha internal consistency coefficients. The averages of the variables are between 13.88 and 52.01, the skewness coefficients are between -0.95 and -0.10, and the kurtosis coefficients are between -0.88 and 0.88. Since the kurtosis and skewness coefficients are between ± 1 , it can be said that the variables show a normal distribution.¹⁵ For this reason, parametric statistics were used in the analysis of the data. In this context, while Pearson correlation analysis was used to examine the relationship between variables, multiple linear regression analysis was used to examine the effects of the Multidimensional Scale of Perceived Social Support sub-dimensions on state and trait anxiety. The analyses were performed in IBM SPSS 22 (IBM SPSS Corp., Armonk, NY, USA) package program, and the significance level was determined as $\alpha=0.05$.

Results

Results on the Demographic Characteristics of the Participants

According to Table 2 about 66% (N = 134) of the participants are female, 33% (N = 67) are in the age group of 46 and older, 42.9% (N = 189) have primary-secondary-high school education level, 75.4% (N = 153) are married, and 63.5% (N = 129) are working.

Table 3 shows the findings of the Pearson correlation analysis performed to examine the relationships between variables. As a result of the analysis, a significant negative relationship was found between state and trait anxiety, total social support score, and friend, family, and special person sub-dimensions.

Table 1. Descriptive Statistics of Variables and Cronbach's Alpha Internal Consistency Coefficients					
	Average	Standard Deviation	Skewness	Kurtosis	Cronbach's Alpha
Multidimensional Scale of Perceived Social Support					
Total points	43.72	9.4	-0.70	0.78	0.92
Friend	14.12	3.48	-0.67	0.58	0.87
Family	15.72	3.55	-0.95	0.88	0.88
Special person	13.88	4.23	-0.52	-0.31	0.92
State-Trait Anxiety Inventory					
State anxiety	44.04	13.4	0.18	-0.88	0.93
Trait anxiety	52.01	10.66	-0.10	-0.32	0.90

Table 2. Participants			
		f	%
Gender	Male	69	34.0
	Female	134	66.0
Age	18-25 years old	18	8.9
	26-35 years old	56	27.6
	36-45 years old	62	30.5
	46 years and older	67	33.0
Education	Elementary School-Middle School-High School	87	42.9
	Associate degree	33	16.3
	Undergraduate	69	34.0
	Graduate	14	6.9
Marital status	Single	50	24.6
	Married	153	75.4
Job	Working	129	63.5
	Not working	74	36.5
Total		203	100.0

Table 4 shows a multiple linear regression analysis conducted to examine the effect of perceived social support on state anxiety. The model created within the scope of the analysis is significant ($F_{(3,199)}=6.286$, $P < .001$), and the perceived social support explains 9% ($R^2=0.09$) of the observed variability in state anxiety. When the regression coefficients were examined, the friend ($\beta=0.039$, $P > .05$) and special person ($\beta=-0.109$, $P > .05$) sub-dimensions did not have a significant

Table 3. Relationships Between Variables						
	1	2	3	4	5	6
Multidimensional Scale of Perceived Social Support						
1. Total score	—					
2. Friend	0.83**	—				
3. Family	0.81**	0.53**	—			
4. Special person	0.86**	0.58**	0.52**	—		
State-Trait Anxiety Inventory						
5. State anxiety	-0.26**	-0.16*	-0.28**	-0.21**	—	
6. Trait anxiety	-0.27**	-0.18*	-0.29**	-0.20**	0.67**	—

* $P < .05$, ** $P < .01$.

Table 4. The Effect of Perceived Social Support on State Anxiety					
	Non-standardized Coefficients		Standardized Beta	t	P
	B	SH			
Constant	61.310	4.517		13.574	< .01
Friend	0.152	0.341	0.039	0.447	.655
Family	-0.931	0.317	-0.247	-2.936	.004
Special person	-0.344	0.277	-0.109	-1.244	.215

Table 5. The Effect of Perceived Social Support on Trait Anxiety					
	Non-standardized Coefficients		Standardized Beta	t	P
	B	SH			
Constant	66.443	3.593		18.490	< .01
Friend	-0.013	0.271	-0.004	-0.048	.961
Family	-0.749	0.252	-0.249	-2.970	.003
Special person	-0.178	0.220	-0.071	-0.807	.420

effect on state anxiety, while family ($\beta=-0.247$, $P < .01$) sub-dimension had a significant effect.

In Table 5, a multiple linear regression analysis is presented to examine perceived social support's effect on trait anxiety. The model created within the scope of the analysis is significant ($F_{(3,199)}=6.315$, $P < .001$), and perceived social support explains 9% ($R^2=0.09$) of the variability observed in trait anxiety. When the regression coefficients were examined, the sub-dimensions of friend ($\beta=-0.004$, $P > .05$) and special person ($\beta=-0.071$, $P > .05$) did not have a significant effect on trait anxiety. In contrast, family ($\beta=-0.249$, $P < .01$) sub-dimension had a significant effect.

Discussion

This study aimed to investigate whether social support affects the anxiety levels of obese patients and to develop recommendations by interpreting the results from a social work perspective. According to the results of the research conducted for the purposes of the study, it has been revealed that the family has a great beneficial effect as social support on state anxiety and trait anxiety, while friends and special people have no effect. As a result of the national and international literature review, the number of studies investigating whether social support affects the anxiety levels of obese patients is limited, but studies are showing that family support positively affects the weight loss process.¹⁶⁻¹⁸ From this point of view, this study is an original study. Similarly, in the study of Gerald et al¹⁹ on whether parental social support is associated with the risk of child obesity, it was found that having stronger social relationships with parents reduces the risk of childhood obesity. The results of this study also support the research results.

The literature on social support describes the importance of studying various types of social support, including emotional and informational support.²⁰ There are studies that reveal the relationship between informative and emotional social support in the effectiveness of online and offline obesity interventions.²¹ Social support is a very important prerequisite for the treatment of obesity. Therefore, social support should be considered as an important factor in the success of online support groups for obese individuals.²²

In light of the information obtained from the research results, the effect of the social support provided by the family against a disease that causes anxiety, such as obesity, has been revealed. In this context, it is essential that social workers, who are professionals of the social work profession and discipline working to maximize the biopsychosocial health of individuals, carry out studies on behalf of their families to be with them during the treatment processes of obesity patients. It is recommended that studies such as family therapy, strengthening families, prevention of communication problems, correct communication studies with family members and patients, and group therapies with families should be carried out with obese patients. In this context, at the same time, the employment of social workers in all institutions working with obese patients is also gaining importance. Regardless of public and private institutions, organizations, and non-governmental organizations, a social worker should be part of the team in all institutions and organizations fighting obesity.

Ethics Committee Approval: Ethical committee approval was received from the Ethics Committee of İstanbul Medipol University (Date: June 8, 2021 decision no: 45).

Informed Consent: Written informed consent was obtained from all participants who participated in this study.

Peer-review: Externally peer-reviewed.

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