



Research Paper

An Examination of The Relationship Among Obesity, Quality of Life And Job Performance in Health Personnel

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ABSTRACT: *The relationship among obesity, life quality and job performance levels of health personnel was examined in this research. 200 health personnel (105 (52.5%) women and 95 (47.5%) men) participated in the research. No significant difference was found between life quality levels of female and male health personnel. It was revealed that the health personnel with normal weights had higher life quality and job performance levels than the obese health personnel. It was determined that there is a positive and significant relationship among the life quality subdimensions and between them and job performance. Job performance levels increase with higher life quality of health personnel.*

Keywords: *Health personnel, job performance, obesity, relationship among life quality, quality of life.*

I. INTRODUCTION

Obesity comes across as a problem which has increasingly become common in Turkey as well as in developed countries (Sevinçer, Coşkun, Konuk and Bozkurt, 2014). According to World Health Organization's (WHO) 2015 data, 2.3 billion adults are overweight and about 700 of them are obese around the world. In Turkey, research conducted by Turkish Association of Obesity Research states that 29.5% of the society is obese, and the rate goes up to 69.1% together with overweight people (Akyolcu and Usta, 2014). Obesity, which is derived from the Latin word *obesum* meaning "because of eating," is defined by WHO as the "extreme or abnormal accumulation of body fat to deteriorate health" (ÇırayGündüzoğlu, 2008; Deveci, 2013; Kazma, 2013; Usta and Akyolcu, 2014; Usta and Çavdar, 2013). Obesity is also defined as the chronic energy metabolism disorder which affects quality of life and lifespan negatively with its physiological, psychological, hormonal, metabolic, organic, systemic, esthetic, and social factors (Şimşek et al., 2005; Tounian, 2011).

Obesity directly affects quality of life because of its decrease in daily life activities, and social and psychological impacts (Mannucci et al., 2010). It has been found in previous research that obesity causes a distinct deterioration in quality of life and stops individual from mingling with the society (Fairburn and Harrison, 2003; Kushner and Foster, 2000; Pınar, 2002). Işıklar (2012) stated that obesity has been an important factor that decreases individuals' quality of life in recent years. It has also been argued that obesity causes negative situations about individuals' moods as well as mitigating the quality of life in children and adolescents (Çetin, 2012; Gloria, Reeves and Postolache, 2008; Işıklar, 2012; Kocaman, 2014; Turkish Ministry of Health, 2009; Schwimmer, Burwinkle and Varni, 2003). Quality of life is defined as how individuals define their own life within the culture and system of values they live in and satisfaction and happiness with their lives (Bentham 2008; Burchardt and Anderson, 2003; WHO, 1995). Quality of life is an individual's state of apparent physical and mental fitness. Several factors may contribute to quality of life. They include a good life, individual's happiness, and how he/she enjoy life by doing things independently of others. It has been revealed in some of the research evaluating the quality of life that losing weight positively affects physical health (Jensen, Roy, Buchanan and Berg, 2004), mental health (Foster et al., 2004), and both types of health in other research studies; quality of life increases as one loses weight (Kaukua, Pekkarinen, Sane and Mustajoki, 2002, Malone, Alger-Mayer and Anderson, 2005) and positive and significant changes are achieved in the subdimensions of physical function and role restriction by losing weight (Kaukua, Pekkarinen, Sane and Mustajoki, 2002).

Besides obesity's physiological complications, obese individuals experience social problems such as social labeling, difficulty to find a job, rejection in school and business settings and psychological problems such as low

self-image and decreased self-esteem, and depression. These symptoms redound on the job performance in the form of decreasing levels of attention and concentration and increasing number of related mistakes, deterioration in interpersonal relations, depersonalization, decreasing job productivity, slowdown of working rate, frequent illnesses and increasing frequency of receiving reports for leave. Previous research has found that obese individuals' quality of life, self-esteem and job performance levels are lower than normal-weight individuals (Becker, Margraf, Türkel, Soeder and Neumer, 2001; Carr, 2005; Myers and Rosen, 1999; Pınar, 2002). Performance is defined as doing a job or making an effort (Bingöl, 2010), as the degree of achieving objects expected from the personnel (Can, Akgün and Kavuncubaşı, 2001), as conclusion of a task by an individual effectively (Ertürk, 2011), and as delivery of duties and responsibilities by personnel successfully (Aldemir, Ataol and Budak, 2004). In health sector, as in all other sectors, low job satisfaction, high job stress, low quality of life, low performance and high intentions of quitting job among human resources have a negative impact on quality of patient care and corporate performance (Brooks and Anderson, 2004; Cole et al., 2005; Levis, Brazil, Krueger, Lohfeld and Tjam, 2001; Uğur and Abaan, 2008). The purpose of this research is to examine health personnel's levels of obesity, quality of life and job performance.

In accordance with this aim, answers to the following questions were sought for:

- 1-Is there a significant difference between health personnel's quality of life and job performance levels by their gender?
- 2-Do health personnel's quality of life and job performance levels differ by whether they are obese?
- 3-What is the relationship between health personnel's quality of life and job performance levels?

II. METHOD

This research was performed in accordance with the relational survey model. The research population was composed of health personnel at Gazi Osman Paşa University Research and Practice Hospital in Tokat. The sample was composed of 105 female (52.5%) and 95 male (47.5%) health personnel (200 individuals in total) who were selected with the random sampling method.

Assessment Instruments:

1- Identifying Criterion for Obesity:

The body-mass index (BMI) is a simple and quick method used for obesity diagnosis. The body-mass index (BMI) is calculated with the following formula: $BMI = \text{Weight (kg)} / [\text{Height (m)} \times \text{Height (m)}]$. The values accepted by the World Health Organization (WHO) in the classification of the values calculated with the formula (WHO, 2006). Accordingly, those who have Body Mass Index (BMI) lower than 18.5 are classified as underweight, between 18.5 and 24.9 as normal-weight, between 25 and 29.9 as overweight, and 30 and above as obese. According to WHO, males with Waste-Hip Ratio (WHR) of 1 and above and females with WHR of 0.98 and above are accepted to be central obese (WHO, 2006).

2- The Quality of Life Scale

The Quality of Life Scale is composed of 26 questions in four domains which were selected from WHOQOL-BREF (World Health Organization Quality of Life Brief Module) and WHOQOL-100 (World Health Organization Quality of Life Module). Correlation between the domain scores of WHOQOL-100 and the related domain scores of WHOQOL-BREF was calculated to be .82 for the physical domain, .88 for the psychological domain, .84 for the social relationships domain, .92 for the environmental domain. The questions in the scale are answered in consideration of the last 15 days. It involves 5-point Likert-type answers. WHOQOL-BREF-TR, which was derived upon the addition of a national question during the Turkish validity studies, is composed of 27 questions. Validity and reliability studies of the scale in Turkey were performed by Fidaner et al. (1995). Cronbach's Alpha values calculated for scale's internal consistency were found to be .83 for the physical domain, .66 for the psychological domain, .53 for the social relationships domain, .73 for the environmental domain, and .73 for the national environmental domain. Pearson's coefficients calculated for each question with the test-retest reliability vary between .57 and .81.

3-Job Performance Scale

For assessing personnel's job performance levels, the job performance scale developed by Kirkman and Rosen (1999) had been used, which was followed by the scale developed by Sigler and Pearson (2000). Scale's reliability coefficient is above .70 in both studies. Reliability coefficient of the scale which was applied to

academicians by Çöl (2008) in Turkey was found to be .82. The answers were received with the 5-point Likert type scale (1=Strongly disagree, 5=Strongly agree). According to the confirmatory factor analysis, the scale has a one-factor structure and its factor loads vary between .66 and .81. Cronbach's Alpha reliability coefficient of the scale was found to be .83. Keiser Meyer-Olkin analysis of the scale resulted in .79 and Bartlett's test was determined to be significant (p=.000).

III. FINDINGS

Table 1 shows descriptive statistics of mean, standard deviation, N values and t-test on health personnel's scores of quality of life and job performance by their gender.

Table 1. Results of t-test regarding health personnel's levels of quality of life and job performance by their genders

	Gender	N	Arith. Mean	Sd	t	p
Physical domain	Female	105	3.80	0.56		
	Male	95	3.88	0.61	.222	.825
Psychological domain	Female	105	3.89	0.57		
	Male	95	3.92	0.59	.614	.536
Social domain	Female	105	3.77	0.67		
	Male	95	3.71	0.68	.836	.404
Environmental domain	Female	105	3.68	0.71		
	Male	95	3.73	0.68	.670	.503
Job Perform.	Female	105	3.76	0.64		
	Male	95	3.65	0.67	.570	.542

Table 1 shows that score averages of the female and male health personnel were calculated to be 3.80 and 3.88 respectively for the physical domain of the "Quality of Life Scale". According to the t value calculated in order to test significance of the difference between the score averages of the groups (t=.222, p<.05), no significant difference was found. Score averages of the female and male health personnel were calculated to be 3.89 and 3.92 respectively for the psychological domain of the "Quality of Life Scale". According to the t value calculated in order to test significance of the difference between the score averages of the groups (t=.614, p<.05), no significant difference was found. Score averages of the female and male health personnel were calculated to be 3.71 and 3.77 respectively for the social relationships domain of the "Quality of Life Scale". According to the t value calculated in order to test significance of the difference between the score averages of the groups (t=.836, p<.05), no significant difference was found. Score averages of the female and male health personnel were calculated to be 3.68 and 3.73 respectively for the environmental domain of the "Quality of Life Scale". According to the t value calculated in order to test significance of the difference between the score averages of the groups (t=.670, p<.05), no significant difference was found. When considering health personnel's job performance scores, score averages of the female and male health personnel were calculated to be 3.76 and 3.65 respectively. According to the t value calculated in order to test significance of the difference between the score averages of the groups (t=.570, p<.05), no significant difference was found. Based on this finding, no significant difference was found between job performance scores of the health personnel by their gender.

Findings on whether there is a significant difference between health personnel's cores of quality of life and job performance by the obesity variable are presented in Table 2.

Table 2. Results of t-test regarding health personnel's levels of quality of life and job performance by whether they are obese

	Obesity	N	Arith. Mean	Sd	t	p
Physical domain	Normal	121	3.78	1.11		
	Obese	79	3.53	0.82	1,149	.000*
Psychological domain	Normal	121	3.69	0.75		
	Obese	79	3.42	1.00	.554	.001*
Social domain	Normal	121	3.72	0.99		
	Obese	79	3.69	0.87	.776	.005*
Environmental	Normal	121	4.07	1.20		
	Obese	79	3.56	0.97	1,331	.000*

domain						
Job	Normal	121	3.57	1.13		
Perform.	Obese	79	3.38	1.17	.880	.004*

It is seen in Table 2 that score averages of the normal-weight and obese health personnel were calculated to be 3.78 and 3.53 respectively for the physical domain of the “Quality of Life Scale.” A significant difference was found according to the t value calculated in order to test significance of the difference between the score averages of the groups ($t= 1.149, p<.05$). Based on this finding, it was found that the normal-weight health personnel had significantly higher quality of life than the obese personnel in the physical domain. Score averages of the normal-weight and obese health personnel were calculated to be 3.69 and 3.42 respectively for the psychological domain of the “Quality of Life Scale.” A significant difference was found according to the t value calculated in order to test significance of the difference between the score averages of the groups ($t= .554, p<.05$). It was accordingly found that the normal-weight health personnel had significantly higher quality of life than the obese personnel in the psychological domain. Score averages of the normal-weight and obese health personnel were calculated to be 3.72 and 3.69 respectively for the social relationships domain of the “Quality of Life Scale.” A significant difference was found according to the t value calculated in order to test significance of the difference between the score averages of the groups ($t= .776, p<.05$). It was accordingly found that the normal-weight health personnel had significantly higher quality of life than the obese personnel in the social relationships domain. Score averages of the normal-weight and obese health personnel were calculated to be 4.07 and 3.73 respectively for the environmental domain of the “Quality of Life Scale.” A significant difference was found according to the t value calculated in order to test significance of the difference between the score averages of the groups ($t= 1.331, p<.05$). Accordingly, it was found that the normal-weight health personnel had significantly higher quality of life than the obese personnel in the environmental domain. When considering health personnel’s job performance scores, score averages of the normal-weight and obese health personnel were calculated to be 3.57 and 3.38 respectively. A significant difference was found according to the t value calculated in order to test significance of the difference between the score averages of the groups ($t= .880, p<.05$).

Table 3 presents the findings on the correlation between health personnel’s quality of life and job performance.

Table 3. Values of correlation between the health personnel’s levels of quality of life and job performance

	1	2	3	4	5
1. Physical Domain	-				
2. Psychological Domain	.856**	-			
3. Social Domain	.859**	.905**	-		
4. Environmental Domain	.870**	.898**	.936**	-	
5. Job Performance	.845**	.902**	.925**	.913**	-

According to Table 3, positive relationships were found between the physical and psychological domains ($r=.856$) ($p<.01$) physical and social domains ($r=.859$) ($p<.01$), physical and environmental domains ($r=.870$) ($p<.01$), and physical domain and self-esteem ($r=.845$) ($p<.01$) in the Quality of Life Scale. As quality of life in the physical domain increased, health personnel’s levels of quality of life in other domains increased, too. In addition, increased quality of life in the physical domain increased the job performance. Positive relationships were found between the mental and social domains ($r=.905$) ($p<.01$), mental and environmental domains ($r=.898$) ($p<.01$), and mental domain and self-esteem ($r=.902$) ($p<.01$). Health personnel’s quality of life in the psychological domain increased, their levels of quality of life and job performance increased in the social and environmental domains, too. A positive correlation was found between health personnel’s scores of the social and environmental domains ($r=.936$) ($p<.01$) and the social domain and job performance levels ($r=.925$) ($p<.01$). A positive correlation was found between the environmental domain and the job performance levels ($r=.913$) ($p<.01$). As the level of quality of life increased among the health personnel, their job performance levels increased, too.

IV. DISCUSSION AND INTERPRETATION

No significant difference was found between the genders in consideration of health personnel’s scores in the Quality of Life Scale. This finding is in parallel with some of the research in the literature (Avcı and Pala, 2004; Chung, Cho, Chung and Chung, 2013; Coşkun Us, 2014; Lüleci and Mandıracioğlu, 2002). In some other research (Arslantaş, Metintaş, Ünsal and Kalyoncu, 2006; Asada and Ohkusa, 2004; Birtane et al., 2000; Borglin, Jakobsson, Edberg and Hallberg, 2004; Kaya and Piyal, 2004; Musaoğlu, 2008; Saatli, Eser, Pala and Göngür, 2003; Wang,

Matsuda, Ma, and Shinfuku, 2000; WHOQOL, 1998; Yeşil et al., 2010), it was found that men have higher levels of quality of life than women. This finding does not support the result of this research. No significant difference was found between health personnel's job performance levels by their genders. This finding is in parallel with the results of the research conducted by Aydemir and Erdoğan (2013) and Yıldız, Savcı and Kapu (2014). Baysal and Paksoy (1999) found that female personnel had higher job performance levels than male personnel. This finding does not coincide with the findings of this research.

Health personnel's quality of life and job performance levels were examined by whether they are obese, and significant differences were found in all the subdimensions of the Quality of Life Scale and the job performance scores. Quality of life scores of the health personnel with normal BMI were found to be higher than the obese personnel. When reviewing the literature in regard to this finding, it has been found that obesity in adults and BMI at higher rates decrease quality of life (Gönenç, TuzcularVural and Kayataş, 2014; Schwimmer, Burwinkle and Varni, 2003). In the research conducted by Değirmenci (2006) with 95 obese adults, significant difference was found between the physical domain of the quality of life and obesity. In this research, it was determined that the obese individuals had problems in the physical domain. It has been observed that decrease in physical domain scores of the quality of life changes individual's emotional state and causes anxiety and depressive state of mind (Değirmenci, 2006). Similar results have been reported in the literature (De Zwaan et al., 2002; Dixon, 2003). Again, in the research conducted by Kocaman (2014), a significant relationship was found among age averages, genders, marital status, status of employment, and alcohol use of the groups formed in accordance with body mass index. A significant relationship was found when comparing the subgroup scores in the Healthy Life Style Behavior Scale in accordance with the BMI categories of the participants. As body weight increased, it was revealed that score averages of physical function, general health and physical health components of Health Related Quality of Life decreased. It was also found that weight increase did not affect the psychological domain while having a negative impact on the physical domain of the health related quality of life (Kocaman, 2014). These findings show parallelism with the results of this research.

In this research, when looking at health personnel's job performance scores by whether they are obese, normal-weight personnel's job performance scores were found to be higher than the obese personnel. Related studies are on the same page about how avoiding obesity would have multiple potential benefits including better health and welfare, higher productivity and better performance (Kazanç, 2012). According to Özçelik (2015), obese individuals are subjected to discrimination in their working lives. They even start working in negative emotions; they generally have sleep problems and their performance and working productivity can be much lower. As bearing their body weight and living that way is difficult, an employer may not be able to expect high productivity from an obese. In a study, it was revealed that being branded with obesity is common among obese individuals and they make effort to deal with it, and being more frequently subjected to being branded with obesity is associated with having bigger mental problems (Myres and Rozen, 1999).

As for the relationship between participant health personnel's quality of life and job performance levels showed that there is a positive relationship between the subdimensions of the Quality of Life Scale and job performance. It has been revealed in previous research that job performance increases as quality of life increases (Fynes and Voss, 2001; Judge, Thoresen, Bono and Patton, 2001; Lau and May, 1998). This finding coincides with the results of this research. Personality traits and behaviors of health personnel who are working in a human-focused manner are among factors directly affecting the patient. Health personnel's quality of life may significantly affect the quality of care they provide. Personnel's having a quality life cause their satisfaction and motivation to increase, consequently helping them provide a more quality service. Hence, it is important to identify individual factors and factors associated with the working environment which may affect quality of life negatively and carry out studies on controlling these factors for increasing the quality of life.

BIBLIOGRAPHY

- [1]. C. Aldemir, A. Ataol, G. Budak, Human Resources Management (İzmir: Barış Publications, 2004).
- [2]. N. Akyolcu and E. Usta, Evaluating the Knowledge and Practices of Surgical Nurses on the Care of Overweight/Obese Patient, Journal of Florence Nightingale, 22(1), 2014, 1-7.
- [3]. D. Arslantaş, S. Metintaş, A. Ünsal and C. Kalyoncu, Quality of life among the elderly in Mahmutiye, Eskişehir, Osmangazi Journal of Medicine, 28, 2006, 81-89.
- [4]. Y. Asada and Y. Ohkusa, Analysis of health-related quality of life (HRQL), its distribution by income in Japan, 1989 and 1998, Social Science and Medicine, 59, 2004, 1423-1433.
- [5]. K. Avcı and K. Pala, An Evaluation of the Quality of Life among Research Assistants and Staff Physicians Working at Uludağ University Medical School, Uludağ University Journal of Medical School, 30(2), 2004, 81-85.
- [6]. P. Aydemir and E. Erdoğan, Wage earners' wage satisfaction, job satisfaction and performance perception, Kamu-İş, 13(2), 2013, 127-153.

- [7]. A. Baysal, and M. Paksoy, Meyer-Allen Model in the multidimensional study of organizational commitment, Istanbul University Journal of Business Administration Faculty, 28(1),1999, 7-15.
- [8]. E.S. Becker, J. Margraf, V. Türkel, U. Soeder and S. Neumer, Obesity and mental illness in a representative sample of young women. International Journal of Obesity, 25 (1),2001, 5-9.
- [9]. J. Bentham, An Introduction to the Principles of Morals and Legislation. (A. Doğan, Transl.), AÜHFD 57 (4), 2008, 381-390.
- [10]. D. Bingöl, Human Resources Management (İstanbul: Beta Publications, 2010).
- [11]. M. Birtane, H. Tuna, G. Ekuklu, K. Uzunca, C. Akçi and S. Kokino, An Examination of the Factors Affecting the Quality of Life among the Elderlies at Edirne Nursing Home, Geriatrics Journal, 3(4), 2000, 141-145.
- [12]. G. Borglin, U. Jakobsson, A. Edberg, and I.R. Hallberg, Selfreported health complaints and their prediction of overall and health-related quality of life among elderly people, International Journal of Nursing Studies, 2004, 1-12.
- [13]. B.A. Brooks and M.A. Anderson, Nursing work life in acute care, Nurs Care Quality, 3(19), 2004, 269-275.
- [14]. C.S. Burchardt and K.L. Anderson, The Quality of life scale (qols): Reliability, validity and utilization. Health and Quality of Life Outcomes, 1, 2003, 60.
- [15]. H. Can, A. Akgün and Ş. Kavuncubaşı, Human resource management in public and private sector (Ankara: Siyasal Publisher, 2001).
- [16]. D. Carr, The social stigma od obesity: Does body weight affect the quality of interpersonal relationship American Sociology Association, Annual Meeting, 2005.
- [17]. J.O. Chung, D.H. Cho, D.J. Chung and M.Y. Chung, Assessment of factors associated with the quality of life in Korean type 2 diabetic patients. Inten Med., 52(2), 2013, 179-185.
- [18]. D.C. Cole, L.S. Robson, L. Lemieux-Charles, W. McGuire, C. Sicotte and F. Champagne, Quality of working life indicators in Canadian health care organizations: a tool for healthy, health care workplaces? Occup Med (Lond). 55, 2005, 54-59.
- [19]. N. Coşkun Us, Quality of life and patient satisfaction among individuals who receive healthcare at home, Hacettepe Journal of Health Administration, 17(1), 2014, 59-75.
- [20]. İ. Çetin, Quality of Life and Obesity, December 20, 2015. [http:// www.tavsiyedyorum.com](http://www.tavsiyedyorum.com).
- [21]. N. Çıraygündüzoğlu, Examining the validity and reliability of the Obese-specific quality of life scale, Master's Thesis, Ege University Institute of Health Sciences, 2008.
- [22]. T. Degirmenci, Self-esteem, quality of life, eating attitude, depression and anxiety among obese adults, Dissertation, Pamukkale University Medical School Department of Psychiatry, 2006.
- [23]. E. Deveci, Examining eating characteristics, dissatisfaction with body parts, treatment motivation and psychopathology among obese individuals who are and are not candidates of bariatric surgery, Master's Thesis, İstanbul University Institute of Social Sciences, 2013.
- [24]. M. De Zwaan, J.E. Mitchell, L.M. Howell, N. Monson, L. Swan Kremerier and J.L. Roering, Two measures of Health-Related Quality of life in morbid obesity, Obesity Research, 10, 2002, 1143-1151.
- [25]. J.B. Dixon, Depression in association with severe obesity. Arch Intern Med, 163, 2003, 2058-2065.
- [26]. M. Ertürk, Main Principles of Business Administration Science (Beta Publisher, 2011).
- [27]. C.G. Fairburn and P.J. Harrison, Eating disorders, Lancet, 361, 2003, 407-16.
- [28]. H. Fidaner, H. Elbi, C. Fidaner, S.Y. Eser, E. Eser and E. Göker, Psychometrics of WHOQOL-100 and WHOQOL-BR, Psikiyatri, Psikoloji, Psikofarmakoloji Journal, 7(2), 1999, 5-13.
- [29]. G.D. Foster, S. Phelan, T.A. Wadden, D. Gill, J. Ermold and E. Didie, Promoting more modest weight losses: A pilot study. Obesity Research 12, 2004, 1271-1277.
- [30]. B. Fynes and C. Voss, A path analytic model of quality practices, quality performance, and business performance, Production and Operations Management, 10(4), 2001, 494-513.
- [31]. M. Gloria, T.T. Reeves and S.S. Postolache, (2008). Childhood obesity and depression: connection between these growing problems in growing children, Int J Child Health Hum Dev., 1, 2008, 103-114.
- [32]. I. Gönenç, Z.E. Tuzcular, Vuraland K. Kayataş, Obesity and Quality of Life, Türkiye Klinikleri J Fam Med-Special Topics, 5(3), 2014, 83-87.
- [33]. A. Işıklar, An examination of quality of life and self-esteem levels among adolescents by the variables of gender and obesity, Firat Univ. J. Soc. Sci. 22(2), 2012, 84-92.
- [34]. G.L. Jensen, M.A. Roy, A.E. Buchanan, M.B. Berg, Weight loss intervention for obese older women: Improvements in performance and function, Obesity Research 12, 2004, 1814-1820.
- [35]. T.A. Judge, C.J. Thoresen, J.E. Bono and G.K. Patton, The job satisfaction-job performance relationship: A qualitative and quantitative review, 2001.
- [36]. J. Kaukua, T. Pekkarinen, T. Sane and P. Mustajoki, Health-related quality of life in WHO class II-III obese men losing weight with very-low-energy diet and behaviour modification: A randomised clinical trial. International Journal of Obesity and Related Metabolic Disorders 26, 2002, 487-495.
- [37]. M. Kaya and B. Piyal, An examination of quality of life among personnel working in 112 emergency services in Ankara in terms of socio-demographics by the domains of quality of life, 1st Symposium of Quality of Life in Health, April 8-10, 2004, İzmir, Book of Schedule and Abstracts, 61.
- [38]. B. Kazanç, Banukazanc.com.tr., 2012.
- [39]. E. Kazma, Prevalence of obesity among university students and identifying its causes, Master's Thesis, İstanbul Aydın University Institute of Natural Sciences, 2013.
- [40]. F. Kocaman, Evaluating the healthy lifestyle behaviors and health-related quality of life among obese individuals, Master's Thesis, İstanbul Bilim University, 2014.
- [41]. R.F. Kushner and G.D. Foster, (2000). Obesity and quality of life, Nutrition, 16(10), 2000, 947-952.
- [42]. R.S. Lau and B.E. May, A win-win paradigm for quality of work life and business performance, Human Resource Development Quarterly, 9(3), 1998, 211-226.
- [43]. D. Lewis, K. Brazil, P. Krueger, L. Lohfeld, E. Tjam, Extrinsic and intrinsic determinants of quality of work life, Leadership in Health Services, 14, 2001, 9-15.
- [44]. E. Lüleci and A. Mandıracıoğlu, Determining Daily-Life Activities and Quality of Life of Elderlies Living at Nursing Homes in Manisa, 7th Days of Public Health, 5, 2002.

- [45]. M. Malone,S.A. Alger-Mayer and D.A. Anderson, The lifestyle challenge program: A multidisciplinary approach to weight management, *The Annals of Pharmacotherapy* 39,2005, 2015-2019.
- [46]. E. Mannucci,M.L. Petroni,N. Villanova,C.M. Rotella,G. Apolone and G. Marchesini, Clinical and psychological correlates of health-related quality of life in obese patients, *Health and Quality of Life Outcomes*, 8(90),2010, 1- 9.
- [47]. Z. Musaoğlu, Health-related quality of life of Trakya University associates, Dissertation, Trakya University Medical School Department of Family Practice, 2008.
- [48]. A. Myers andJ. Rosen,Obesity stigmatization and coping: Relation to mental health symptoms, body image and selfesteem. *International Journal of Obesity*, 23,1999,221-230.
- [49]. R. Pınar, Depression, self-esteem and body image among obeses: a comparative study,Cumhuriyet University Journal of Nursing College, 6, 2002, 30-41.
- [50]. B. Özçelik, Confidence decreases as people gain weight,December 28, 2015,<http://www.yenibiris.com>.
- [51]. G. Saatli, E. Eser, T. Pala and N. Göngür, Examining the relationship between patient satisfaction and quality of life, 8th Days of Public Health, June 23-25, 2003, 235.
- [52]. Ministry of Health, TSHGM, Basic health bulletin, Ankara, 2009.
- [53]. J.B. Schwimmer, T.M. Burwinkle and J. Varni, Health-related quality of life of severely obese children and adolescents, *American Medical Association*, 289(14),2003, 1813-1819.
- [54]. G.M. Sevinçer,H. Çoşkun,N. Konuk and S. Bozkurt, Psychicaytic and psychosocial aspects of bariatric surgery, *PsikiyatrideGüncelYaklaşımlar*, 6(1), 2014, 32-44.
- [55]. F. Şimşek, B. Ulukol,M. Berberoğlu,S.B. Gülnar, P. Adıyaman and G. Öcal, Obesity prevalence at an elementary and high school in Ankara, *Ankara ÜniversitesiTıpFakültesiMecmuası*. 58,2005, 163-166.
- [56]. P. Tounian, Programming towards childhood obesity, *Annals Nutrition and Metabolism*,58, 2011, 30-41.
- [57]. E. Uğur and S. Abaan, Nurses' Quality of Working Life and their Opinions on its Factors, *TürkiyeKlinikleri J Med Sci.*, 28, 2008, 297-310.
- [58]. E. Usta and N. Akyolcu, Evaluating the Knowledge and Practices of Surgical Nurses on the Care of Overweight/Obese Patient, *Florence Nightingale Nursing Journal*, 22(1), 2014, 1-7.
- [59]. E. Ustaand İ. Çavdar, Nurse care in bariatric surgery,Cumhuriyet Nursing Journal, 2(2), 2013, 71-77.
- [60]. X. Wang,N. Matsuda,H. Ma andN. Shinfuku, Comparative study of quality of life between the Chinese and Japanese adolescent populations, *Psychiatry and Clinical Neurosciences*, 54(2),2000, 147-152.
- [61]. WHOQOL Group, The World Health Organisation quality of life assessment (WHOQOL): Development and psychometric properties,*Social Science & Medicine*, 46(12),1998, 1569–1585.
- [62]. World Health Organisation Quality of Life Group, The World Health Organisation quality of life assessment (WHOQoL): position paper from the WHO, *Soc Sci Med*, 41, 1995, 347–352.
- [63]. World Health Organisation. Obesity and overweight, <http://www.who.int/mediacentre/factsheets/fs311/index.html>, 2006.
- [64]. A. Yeşil,Ü. Ergün, C. Amasyalı,F. Er, N.N. Olgunand T.A. Aker, Turkish adaptation, validity and reliability study of the quality of life scale for employees,*NöropsikiyatriArşivi*, 47, 2010, 111-117.
- [65]. S. Yıldız,G. Savcıand H. Kapu, Effects of motivating factors on workers' job performance and intentions of quitting job, *Celal Bayar University İ.İ.B.F. Yönetim ve Ekonomi*, 21(1), 2014, 233-249.