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Pandemi Sürecinin Bariyatrik Cerrahi Yapılmış Hastaları Etkileme Düzeyleri. Tek Merkez Anket Çalışması

Affecting Levels of the Pandemic Process on Patients Who Had Bariatric Surgery. Single Center Survey Study

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ÖZ

Giriş: COVID-19'a bağlı artan stres seviyeleri, bariatrik cerrahi öncesi ve sonrasında duygusal yeme ve aşırı yeme semptomlarını artırabilen duygusal düzensizliğe yol açabilir. Çalışmamızda bariatrik hastaların pandemi periyodu süresince; pandemiden ruhsal etkilenme süreçleri, yeme düzeni ve miktarı değişiklikleri ve fiziksel aktivite düzeyleri araştırılmıştır. Bununla beraber, bu değişikliklerin çalışma programları ve sosyal yaşantıları ile olan etkileşim düzeyleri değerlendirilmiştir.

Yöntem: 2018 Temmuz-2020 Mart ayları arasında opere edilen 75 hastaya düzenlenen online anket ile ulaşıldı. Anketler Sosyodemografik özelliklerin yanında, Koronavirüs Anksiyete Ölçeği (KAÖ), Uluslararası Fiziksel Aktivite Anketi (Kısa)(UFAA), Moorehead-Ardelt Yaşam Kalitesi Ölçeği II (MA II) ni içeren toplam 30 soru üzerinden değerlendirildi.

Bulgular: Hastaların %58,6 sı kadındı (n=44). Sadece üç hastanın KAÖ düzeyleri "yüksek dereceli anksiyete" yi işaret ederken. UFAA da en sık yapılan fiziksel aktivite yürüyüş olarak belirlendi. MA II testine göre beş hastanın kötü kalitede yaşamları olduğu belirlenmiştir.

Sonuç: Postoperatif bariyatrik cerrahi hastaların pandemi döneminde ve sokağa çıkma kısıtlamalarının uygulandığı bu gibi periyotlardan etkilenme düzeylerini belirlemek ve onlara online ve uzaktan verilecek destek stratejilerinin belirlenmesi için önemlidir.

Anahtar Kelimeler: pandemi, bariyatrik cerrahi, anket, COVID-19

ABSTRACT

Objective: Increased stress levels associated with COVID-19 can lead to irregularities which can increase emotional eating or overeating symptoms before and after bariatric surgery. The aim of this study was to investigate the mental health effects of the COVID-19 pandemic on changes in amounts and eating plans, and levels of physical activity in bariatric surgery patients. Evaluations were also made of the interaction of these changes with work programs and social experiences.

Method: Data were collected from an online questionnaire delivered to 75 patients who underwent surgery because of obesity between July 2018 and March 2020. Evaluation was made of sociodemographic characteristics, and a 30-item questionnaire which included the Coronavirus Anxiety Scale (CAS), the International Physical Activity Scale – Short Form (IPAS-SF) and the Moorehead-Ardelt Quality of Life Scale II (MA-II).

Results: The patients comprised 44 (58.6%) females. The CAS levels indicated a high level of anxiety in only 3 patients. The most common physical activity was reported to be walking. According to the MA II test, 5 (6.7%) patients reported poor quality of life.

Conclusion: It is important to determine the levels at which postoperative bariatric surgery patients are affected by pandemic measures such as curfews and quarantine to be able to establish support strategies that can be delivered remotely online.

Keywords: pandemic, bariatric surgery, survey study, COVİD-19

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INTRODUCTION

The SARS-CoV-2 virus was first reported as the agent of COVID-19 infection in December 2019, and the etiology has not been fully defined (1). Although it is assumed that this new coronavirus is similar to SARS, the results of genetic analyses have shown great differences from SARS-CoV (2). This global pandemic has been reported to have triggered factors such as anxiety, deprression and stress, and increased psychological problems because of curfews, social isolation, and fear of death (3). In addition, people have experienced financial difficulties through loss of work and difficulties related to quarantine such as limited access to food and other household items and the feeling of isolation (4).

Obesity plays a significant role in the development of a severe course of COVID-19 infection and is accepted as a strong risk factor alone for death (5). Despite having undergone bariatric surgery, many patients in the early postoperative period still have a body mass index (BMI) within the obesity range, and it can be a matter of great concern that if infected with COVID-19, the treatment processes could deteriorate.

Anxiety refers to over-thinking by an individual that they will not be able to cope with a problem, whereas depression refers to disappointment or less stimulation when faced with a problem (6). Lessons learned from the outbreak of severe acute respiratory syndrome (SARS) a few years ago show that approximately 35% of individuals experienced moderate to severe depression or anxiety symptoms within 1 month of pandemic infection (7). At one year after the pandemic, psychiatric morbidities could be seen in approximately 64% of patients (8). When it is considered that approximately 70% of candidates for bariatric surgery have a history of psychiatric disease at some time in life, it is likely that stress associated with periods of pandemic such as SARS and COVID-19 will worsen the psychiatric symptoms of patients (9). Increased stress levels associated with COVID-19 can also lead to emotional irregularities which can increase emotional eating or overeating symptoms before and after bariatric surgery (10). For the reasons stated above, it can be predicted that patients undergoing bariatric surgery can be affected more by a period of pandemic than other patient groups.

The aim of this study was to investigate the mental health effects of the COVID-19 pandemic on changes in amounts and eating plans, and levels of physical activity in bariatric surgery patients. Evaluations were also made of the interaction of these changes with work programs and social experiences.

MATERIALS AND METHODS

Approval for the study was granted by the Local Ethics Committee. An online questionnaire was sent to patients aged 18-65 years who had undergone bariatric surgery in the 18 months prior to March 2020, when the first COVID-19 case was recorded in Turkey. Before completing the questionnaire, an explanation of the study was given and consent to participate was obtained. The questionnaire was designed as 30 items to include the Coronavirus Anxiety Scale (CAS), the International Physical Activity Scale – Short Form (IPAS-SF) and the Moorehead-Ardelt Quality of Life Scale II (MA-II). Permission was obtained for the use of questionnaires without open access and evaluation methods.

In addition to demographic characteristics, patients were questioned about the frequency and amount of food eaten during the pandemic, whether or not they lived alone, and whether any family members with whom they lived were overweight or obese. The CAS is a short mental health screening tool developed by Lee et al (11) to identify cases of potentially dysfunctional anxiety related to COVID-19. The IPAS is an easily applicable measurement of physical activity which was developed by Craig et al (12) to evaluate levels of physical activity of patients. The 7-item short version used in this study provides information about the time spent on high and moderate intensity activities and on low-intensity physical activity, such as walking. The MA II was designed by Moorehead et al (13) as a scale formed of simple drawings as a test which measures 5 important areas of quality of life.

Statistical Analysis

Data obtained in the study were analyzed statistically using SPSS vn. 15.0 software (Statistical Package for the Social Sciences Inc., Chicago, IL, USA). Demographic data were stated as number (n) and percentage (%). Conformity of the data to normal distribution was assessed with the Shapiro-Wilk and Kolmogorov-Smirnov tests. Comparisons between the variables were evaluated with the Chi-square test. Correlations between variables were examined with correlation matrix, correlations between variables were defined as weak, moderate, or strong. A value of $p<0.05$ was accepted as statistically significant.

RESULTS

The online questionnaire was sent to 81 patients who were operated on because of obesity within the specified dates. The questionnaire was not completed by 2 patients and they could not be contacted to correct this, and 4 patients did not respond. Evaluation was made of the questionnaire responses of 75 patients comprising 44 (58.6%) females and 31 (41.4%) males with a mean age of 41.8±12.0 years (range, 16-65 years) and mean BMI of 44.7±8.6.

Of the total patients, 64% stated that they worked. During the COVID-19 pandemic, 32 (42.6%) patients stated that they had increased the frequency of eating and 24 (32%) had increased the amount of food. The majority of the patients (n:62, 82.6%) lived with a nuclear family and 27 (36%) stated that they lived with others who were overweight or obese.

In the evaluation of the CAS points, a high level of anxiety was determined in only 3 patients, of which only 1 stated a parallel increase in frequency and amount of food. The most common problem reported by the patients when they thought about coronavirus was problems falling asleep (n.30, 40%).

According to the results of the IPAS-SF, 26 (34.6%) patients undertook activities requiring intense physical exertion 2 days a week at the most. Moderate physical activity on a maximum of 3 days a week was reported by 36 (52%) patients, and low-intensity exercise, such as walking was reported by 32 (42.6%) patients.

In the MA II test, 55 (73.3%) patients stated that they felt well at an above average level, 58 (77.3%) reported that they enjoyed exercising, and a large majority (n.61, 81.3%) stated that their social relationships were extremely good.

The feeling that they would soon lose their job was stated by 8 (10.6%) patients, 48 (64%) reported that they were extremely satisfied with their sexual relationships, and 30 (40%) stated that they were extremely happy when eating. According to the MA II results, 5 patients reported a poor quality of life.

When the results were examined with the correlation matrix (Table 1), the CAS values were seen to be directly proportional to age (r=0.349) and the correlation was at a moderate level. An inverse correlation at a low level was determined between the CAS values and the physical activity level (r=-0.238). In the Chi-square test, there was no variable at a level to create statistical significance and no correlation was formed in the correlation matrix.

The IPAS and MA II values were determined to be directly proportional in the simple correlation matrix and showed a moderate level correlation (r=0.579). In the Chi-square test applied, the MA II and IPAS scores were found to be statistically significant ($p<0.01$). As the IPAS values increased, the CAS values were determined to decrease (r=-0.240). When the MA II values were examined in the correlation matrix, there was determined to be a weak inverse correlation with CAS (r=-0.16).

Table 1. Correlation Matrix

Correlation matrix between variables						
	CAS	***MA II***	***IPAS***	***Age***	***Work***	***Eating***
CAS	1.00					
MA II	-0.16	1.00				
IPAS	-0.24	0.58	1.00			
Age	0.35	-0.01	-0.06	1.00		
Work	0.02	0.15	0.13	-0.24	1.00	
Eating	-0.17	-0.01	0.25	-0.20	0.24	1.00

CAS:Coronavirus Anxiety Scale, MA-II: Moorehead-Ardelt Quality of Life Scale II, IPAS: International Physical Activity Scale,

DISCUSSION

The COVID-19 pandemic has become an additional source of stress for people and social life has been negatively affected with the taking of the necessary precautions throughout the pandemic. In both the visual media and digital social media, the pandemic continues to dominate and throughout the world, the levels of anxiety of individuals have increased (14). The precautions taken in Turkey, as in many other countries, included curfews and isolation, which affected social life and areas of physical activity. These precautions caused people to reduce many physical activities such as daily walks and swimming.

It has been reported that the COVID-19 pandemic has created adverse psychosocial effects on individuals who are clinically severely obese (15). In the early periods, it was evaluated that patients who have undergone bariatric surgery could be affected by the misinformation that there is a greater likelihood of those who are obese contracting COVID-19, even if they have lost weight. Later studies showed that being overweight did not make those individuals more sensitive to the virus, but obesity could contribute to more severe forms of the disease and an increased risk of mortality (16).

The increased frequency of eating determined in this study does not mean that snacks have replaced main meals. These responses were consistent with those of other studies which have reported a decrease in fruit and vegetable consumption and an increase in snacks, frozen, processed, and unhealthy junk food (17). In the current study, 32% of the patients stated that the amount they ate increased as a result of being affected by the restrictions, and this was supported by the findings of other studies. Naran et al (18) reported that there were multi-factorial reasons behind regaining weight during quarantine, and the participants in that study stated that COVID-19 restrictions had a negative effect on eating habits, physical activity levels, and psychological health.

The low CAS values in the current study could be due to 82.6% of the patients living in a nuclear family and thus by increasing social sharing, the anxiety level decreased. The directly proportional relationship of CAS with age can be explained by the fact that the older age group were much more affected by the curfews and the younger age group showed more compatibility with digital life.

Increasing physical activity is necessary for a healthy life as it both accelerates metabolism and makes a positive contribution to other systems (19). Physical activity also contributes to the psychological balance of an individual and has been shown to decrease psychological problems such as anxiety and depression (20). The low physical activity scores in this study could be related to the patients who have undergone bariatric surgery not being able to benefit from gyms and sports centres which were closed within the pandemic restrictions and thus the environments necessary for intensive exercise were not available. When physical activity increases, the increase in hormones such as endorphins with the increase in the rate of metabolism makes the individual feel better (21). The statistically significant increase determined in the quality of living index together with the increase in physical activity supports this finding

According to the MA II results, the patients were observed to have an extremely good level of quality of life during the pandemic. Just as this high quality of life could be due to the social support provided for the patients, it could also be attributed to the fact that generally patients who have undergone obesity surgery are motivated in respect of losing weight (22).

This study presented the perspectives and difficulties of bariatric patients related to COVID-19 and the associated quarantine restirctions. Comparisons were made as the situations were inter-connected with the principle of causality. Limitations of the study could be said to be the relatively low patient population and that it was not possible to make comparisons of patients in this period as the pandemic is still ongoing.

CONCLUSION

This study can be considered of value as the first questionnaire-based study in this field of the postoperative period of baratric surgery patients. By this study it can be concluded that the COVID pandemic had negative effect on eating habits and physical activities of postoperative obese patients but the CAS levels were nor not effected as much as the eating habbits and physical activities specially at the young population. The life qualities of postoperative obese patients were also found to be above avarage during COVID pandemic independant from all the negative conditions which is though to be due to high weigh loosing motivation.

It is important to determine the levels at which postoperative bariatric surgery patients are affected by pandemic measures such as curfews and quarantine to be able to establish support strategies that can be delivered remotely online.

Compliance with Ethical Standards : This study was approved by the national ethical committee and written informed consent was obtained from all participants included in this study.
All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

Ethics Committee Approval: The authors are accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved. The study conformed to the provisions of the Declaration of Helsinki (as revised in 2013). This retrospective study was approved by the Institutional Review Board (SBÜ GEAH Ethic commite: 2020/17, 2020-397) and the informed consents were waived by approval of Institutional Review Board.

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