



RESEARCH ARTICLE

## Investigation of the Effect of Playing Sports on Social Appearance Anxiety

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### Abstract

Social appearance anxiety plays a key role in the field of physical-sports and the mental image people have of themselves. In this respect, this study reflects the objectives of (a) determining the factors affecting social appearance anxiety and (b) testing whether physical activity is a significant determinant of social appearance anxiety. For this purpose, a quantitative study was conducted on a sample of 250 participants; %54 male and %46 female. The tool used is the Turkish version of the "Social Appearance Anxiety Scale". There was a significant difference between social appearance anxiety levels in terms of gender ( $p < 0.05$ ). There was difference between social appearance anxiety levels in terms of doing sport and working status ( $p < 0.05$ ). The results show that those who do sports, women, unemployed, dissatisfied with their height and weight have higher levels of appearance anxiety. In conclusion, body dissatisfaction and attitudes towards appearance are important determinants of appearance anxiety risk among both genders and whether or not they do sports.

### Keywords

Anxiety, Social Cohesion, Body Image

## INTRODUCTION

Social anxiety is a cognitive-emotional state that an individual experiences when he wants to make a certain impression on others but is not sure that he will succeed (Czekierda et al., 2017; Leary and Kowalski, 1995). Low levels of social anxiety may affect the exercise experience due to its negative impact on enjoyment or motivation, while higher levels may prevent people from exercising (Vani et al., 2021). Considering the possible negative effects of social anxiety in practice, it is important to investigate the factors that may affect these cognitive-emotional states. One of the factors shown to be associated with social anxiety is apparent anxiety (Dimmock et al., 2020)

### Physical Activity/Sports

Exercising the importance of physical activity for a healthy, happy and productive life is

undeniable. Physical activity affects physical, cognitive and mental health at every stage of our lives (Rebelo et al., 2018). In addition, one of the most effective methods to promote a healthy society and reduce the prevalence of chronic diseases is movement (Yıldırım et al., 2019). The American Sports Medicine Association and the American Heart Association define exercise as a drug used in the treatment and prevention of chronic diseases. It has been shown that regular physical activity reduces the incidence of many cancers, especially colon and breast cancer, by -50% (Booth, 2002; Newton, 2008). Physical activity in combination with pharmacotherapy has also been found to have many beneficial effects in relieving motor and non-motor symptoms in patients with Parkinson's disease. For example, recent research highlights that post-diagnosis exercise prescriptions can improve

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neurophysiological processes and slow the progression of symptoms (Ramaswamy, 2018). One of the health effects of exercise is that it improves mental health. The impact of physical activity on psychology has been examined by many researchers and exercise increases self-confidence, copes with stress, can express oneself comfortably in a new environment, improves self-confidence and emotional states, and increases vitality (Korkmaz and Uslu, 2020). Regular and moderate exercise neutralizes stress hormones and activates endorphins, known as the happiness hormone, which increases one's sense of happiness and energy. This shows us that sports and various activities relax individuals and provide them both happiness and vitality (Herring et al., 2021). Among all these psychological factors, the perception of social appearance is thought to be directly related to physical activity due to its effect on physical appearance. In the literature, it is stated that physical activity plays an important role in the formation of body image perception (González et al., 2017). Thus, it can be said that the physical and mental benefits obtained from sports activities are important in the formation of this perception and it enables individuals to be more at peace with themselves (Sabiston et al., 2019).

### ***Social Appearance Anxiety***

**Social Appearance Anxiety** The coping strategies that young people apply regarding their body image and social anxiety are among the main factors that directly affect both their identity development and their close relationships (Mooney et al., 2017; Traş et al., 2019). Social anxiety is mainly related to a lack of confidence in one's appearance and a desire to make a positive impression on others (Weinstein et al., 2015). Social appearance anxiety is a type of anxiety defined as the fear of being judged or rejected by others because of one's physical appearance (Claes et al., 2012; Sar, 2018). People with social appearance anxiety generally have a negative perception of their body and appearance (Aslan and Tolan, 2022; Fardouly and Vartanian, 2016) and often try to hide their unpleasant features or body parts (Fardouly and Vartanian, 2016). As well as, they prefer minimal physical contact and instead use online communication, which involves less exposure and also provides an easier way to manipulate their image and promotion (Weinstein et al., 2015). Anxiety about social appearance can lead to a strong desire to be invisible, and fear of

being excluded due to appearance can exacerbate the feeling of loneliness (Park, 2007). People with severe social appearance anxiety seek socially revealing interactions to avoid this anxiety, which leads them to a sedentary lifestyle (Papapanou et al., 2023). As a result, it is seen that individuals' social appearance anxiety is directly related to their physical appearance (Cash and Fleming, 2002). In addition, individuals' beliefs and perceptions about the participation of others are also important in this evaluation (Leary and Kowalski, 1995).

### ***Physical Activity and Social Appearance Anxiety: Related Factors***

**Physical activity and social aspect. Anxiety: Related factors** Social appearance anxiety can be evaluated as a result of negative body image of the individual's body and appearance (Claes et al., 2012). According to researchers, social appearance anxiety occurs as a result of social and physical anxiety. Therefore, it manifests itself as a negative image of the person's body and appearance (Hart et al., 2008). Hart et al., (2008) state that the concept of social appearance anxiety has a significant relationship with factors such as skin color and face shape, as well as general physical appearance such as height, weight and muscle structure. In order to achieve a better appearance in society, an ideal "perfect" body is associated with success (Mooney et al., 2017). This preoccupation with physical appearance has led not only to the objectification of the human body, but also to the emergence of various appearance-related disorders. This is also confirmed by the increase in publications on body image and anxiety disorders over the past three decades (Al-Saaraf et al., 2018; Brennan et al., 2013; Buhlmann et al., 2010). This phenomenon has been associated with the idea of exercising to improve body image, rather than being motivated by increased desire for health and wellness. Although this phenomenon is not fully understood, preliminary evidence suggests that obsession with physical appearance may represent a continuum from healthy behaviors to psychopathological symptoms associated with various forms of anxiety (Al-Saaraf et al., 2018; Beucke et al., 2016; Murray et al., 2012; Sandgren and Lavalley, 2018). Although both men and women have similar perceptions of physical attractiveness as a function of appearance anxiety levels, this anxiety is important for women who experience appearance anxiety more frequently than men (Dakanalis et al., 2016). The ideal body

image of people who exercise for appearance should be muscular and “V” shaped for men and thin for women (Hall et al., 2016; Ricciardelli et al., 2010). Social appearance anxiety also plays a crucial role for young people who are typically interested in mentalizing their changing bodies, but particularly interested in online relationships where body image sharing is a priority (Boursier and Manna, 2019; Franchina et al. Lo Coco, 2018; Pelosi et al. , 2014; Stefanone et al., 2011). Social appearance anxiety is a concept that researchers have recently explored regarding sports participation (Dumciene et al., 2015; Eriksson et al., 2008). Studies in exercise psychology clearly show the positive effects of participation in regular physical activity on physical and psychological health (Dishman and Jackson, 2000; Paluska and Schwenk, 2000). Studies focusing especially on the effects of physical exercise on a number of psychological variables such as anxiety, self-esteem, self-efficacy, body image and happiness have shown that participation in regular physical activity can have a direct positive effect on psychological variables (Emeljanovas and Hraski, 2014; Mikkelsen et al., 2010; Ströhle, 2009).

Based on the relationships described above, a model was constructed that could help explain the relationships between athletic status and various variables and social appearance anxiety.

- H1: Participation in sports affects social anxiety.
- H2: Social appearance anxiety differs according to gender.
- H3: Concerns about social appearance vary with height and weight.
- H4: Concern about social appearance varies by job type.

### **Present Study**

The dissatisfaction with the physical appearance of the person stems from the difference between the required weight and the current weight. However, in addition to positive or negative thoughts about a person's physical appearance, his current weight is also an important factor in the emergence of dissatisfaction with his body (Potter et al., 2004). Social appearance anxiety refers to the state of anxiety that a person feels when judged by others (Çınar and Keskin, 2015). They are concerned with self-esteem as well as how others see them. While this importance is natural, social anxiety occurs when they prioritize, organize and worry about their lives. Since it

provides physical change, it can be said that physical activity can effectively reduce the social aspect of people's anxiety. This has also been proven by the above studies. In addition, the same studies revealed that regular physical activity, which has positive effects on health, reduces the risk of anxiety disorders and depression in relation to mental health and social development. The fact that social appearance anxiety has a negative effect on people's health and determining the factors affecting social appearance anxiety is important for our research. Therefore, this study has a unique value in terms of elucidating the factors affecting social appearance anxiety and providing an up-to-date resource to the literature. In addition, a comprehensive determination of social appearance anxiety in a selected sample is important in terms of guiding educators in reducing serious mental and physical health problems. Based on the aforementioned literature, this study evaluated the predictive role of variables in social appearance anxiety and drew attention to possible differences between physical activity and gender. Therefore, this article has two purposes: (1) to determine the factors affecting social appearance anxiety and (2) to test whether physical activity is a significant predictor of social appearance anxiety.

## **MATERIALS AND METHODS**

### **Research Model**

Study design Quantitative descriptive method was used in the preparation of the research plan. It is research that presents facts and events in an observable, measurable and numerical way by objectifying them. The purpose of quantitative research is to objectively measure the social behaviors of individuals through observation, experiment and test and to explain them with numerical data (Kanatsız and Gökçe, 2020).

The study was approved by the Recep Tayyip Erdogan University Social and Human Sciences Ethics Committee (number: 2023/227, Date: 25/08/2023).

### **Research Group**

Research group The number of samples included in the study was determined by G-Power analysis based on the study of Alemdağ and Öncü (2015), and it was found that minimum 170 participants were reliable. 250 volunteers, 125 women and 125 men, randomly participated in the study. 125 of the participants are active athletes

and 125 of them are non-athletes. Before filling out the questionnaire, all individuals were informed about the purpose and subject of the questionnaire and their consent was obtained.

### Data Collection Tools

#### Personal Information Form

In the data form, questions were asked to obtain information about the individual's gender, employment status, sports status, how many times a week he did sports, and weight-height satisfaction.

#### Social Appearance Anxiety Scale

In the information questionnaire, information such as gender, job, sports, number of exercises, and satisfaction with weight and height were requested. Social Appearance Anxiety Scale (SSI): The Social Appearance Anxiety Scale (SSAS) was used to determine the social appearance anxiety level of individuals. Hart et al. (2008) and Doğan (2011) translated into Turkish, "Social Appearance Anxiety Scale (SSAS)" consists of 16 items and is scored on a 5-point Likert scale. The first item of the scale was reverse coded. As the average score obtained from the scale increases, the level of anxiety also increases. The Cronbach Alpha internal consistency coefficient of the scale, which was calculated based on the data collected within the scope of this study, is 0.85.

### Analysis of Data

The obtained data were analyzed using SPSS 22 package program. As a result of the analysis, firstly percentage (%) and frequency (f) values were calculated. Normality tests of the Social Appearance Anxiety Level scale revealed that the distribution was not normal. For this reason, in the analysis of the scores obtained from the scales, Mann-Whitney U tests were used for demographic questions with two options and Kruskal Wallis tests were used for questions with more than two options. The post-toc test was used to understand the reason for the difference in the findings that showed a significant difference according to the Kruskal Wallis test results, and the averages were indicated by the star method.

## RESULTS

References, tables, figures to be used must be prepared in accordance with APA 6. Articles that do not comply with the rules of writing and APA are eliminated in the first stage by the editor. You should review your references and check their compliance with APA 6. Tables must be cited in the text together with the table number as "Table 1".

**Table 1.** Demographic distribution of the group participating in the study

	Variables	n	%
<b>Gender</b>	Woman	115	46,00
	Male	135	54,00
<b>Working Status</b>	He/She is at work.	116	46,40
	He/She it is not working	134	53,60
<b>Doing Sports Status</b>	Yes I do	125	50,00
	I don't	125	50,00
<b>Frequency of Doing Sports</b>	I don't	125	50,00
	1-3 days	68	27,00
	4-6 days	57	23,00
<b>Body Weight Satisfaction</b>	I am very satisfied	30	12,00
	I am satisfied	97	38,80
	I am undecided	61	24,40
	I am not satisfied	47	18,80
	I am not satisfied at all	15	6,00
<b>Height Satisfaction</b>	I am very satisfied	36	14,40
	I am satisfied	116	46,40
	I am undecided	43	17,20
	I am not satisfied	46	18,40
	I am not satisfied at all	9	3,60



**Table 2.** Social appearance anxiety scores of the participants by gender

Gender	N	Min	Max	M ± SS	Rank M	U	Z	P
Woman	115	16	76	28,00±10,90	138,01	6323.5	-2.529	<b>.011*</b>
Male	135	16	63	25,20±8,60	114,84			

\*p<0.05, n: Number of people, **Min:** Minimum, **Max:** Maximum, **M:** Mean, **SD:** Standard deviation

**Table 3.** Social appearance anxiety scores of the participants according to the factor of working status

Working Status	N	Min	Max	M ± SS	Rank M	U	Z	P
He/She is at work.	116	16	56	24,60±7,60	112,71	6285.5	-2.606	<b>.009*</b>
He/She it is not working	134	16	76	28,30±11,20	136,54			

\*p<0.05, n: Number of people, **Min:** Minimum, **Max:** Maximum, **M:** Mean, **SD:** Standard deviation

**Table 4.** Social appearance anxiety scores of the participants according to the factor of doing sports

Doing Sports Status	N	Min	Max	M ± SS	Rank M	U	Z	P
Yes I do	125	16	76	28,80±9,30	124,76	7354	-.803	<b>.014*</b>
I don't	125	16	54	26,40±8,20	115,25			

\*p<0.05, n: Number of people, **Min:** Minimum, **Max:** Maximum, **M:** Mean, **SD:** Standard deviation

**Table 5.** Social appearance anxiety scores according to the factor of the number of days the participants did sports

Frequency of Doing Sports	N	Min	Max	M ± SS	Rank M	P	Difference
(1) I don't	125	16	54	26,40±8,20	115,17	<b>.027*</b>	<b>3&gt;1, 3&gt;2, 2&gt;1</b>
(2) 1-3 days	68	16	63	27,80±9,60	120,27		
(3) 4-6 days	57	16	76	29,80±11,01	129,25		

\*p<0.05, n: Number of people, **Min:** Minimum, **Max:** Maximum, **M:** Mean, **SD:** Standard deviation

**Table 6.** Social appearance anxiety scores of participants according to body weight satisfaction factor

Body Weight Satisfaction	N	Min	Max	M ± SS	Rank M	P	Difference
(1) I am very satisfied	30	16	43	22,80±6,70	93,88	<b>.000*</b>	<b>5&gt;1, 5&gt;2, 5&gt;3, 5&gt;4, 4&gt;1, 4&gt;2, 3&gt;1, 3&gt;2</b>
(2) I am satisfied	97	16	56	24,20±7,40	109,18		
(3) I am undecided	61	16	48	26,90±8,80	131,08		
(4) I am not satisfied	47	17	64	28,80±9,00	149,48		
(5) I am not satisfied at all	15	18	76	42,00±17,50	196,43		

\*p<0.05, n: Number of people, **Min:** Minimum, **Max:** Maximum, **M:** Mean, **SD:** Standard deviation

**Table 7.** Social appearance anxiety scores of the participants according to the height satisfaction factor

Height Satisfaction	N	Min	Max	M ± SS	Rank M	P	Difference
(1) I am very satisfied	36	16	76	25,80±11,50	111,85	<b>.019*</b>	<b>5&gt;1, 5&gt;2, 5&gt;3, 5&gt;4, 4&gt;1, 4&gt;2, 3&gt;1, 3&gt;2</b>
(2) I am satisfied	116	16	65	25,10±8,90	115,00		
(3) I am undecided	43	16	51	27,40±8,90	135,99		
(4) I am not satisfied	46	16	47	27,90±8,20	142,85		
(5) I am not satisfied at all	9	19	63	38,30±17,10	176,72		

\*p<0.05, n: Number of people, **Min:** Minimum, **Max:** Maximum, **M:** Mean, **SD:** Standard deviation

## DISCUSSION

This study examines the relationship between sports participation and social appearance anxiety and provides evidence that body dissatisfaction and appearance attitudes are risk factors for men and women. It was determined that the social appearance anxiety levels of the participants differed according to gender, and the social appearance anxiety of women was higher than that of men. Although there are mixed results on this subject in the literature, the general opinion is that women are more obsessed with their appearance than men (Martins et al., 2007). Many studies show that body dissatisfaction symptoms vary according to gender (Beren et al., 1996; Martins et al., 2007) and acknowledge that gender is an important factor in body dissatisfaction in men and women (McCabe and Ricciardelli, 2004). A significant number of these studies (Dakanalis et al., 2016; Fairburn et al., 2003; Jones et al., 2004) argue that women value body image more than men and that women are more dissatisfied with their bodies than men. Therefore, although both men and women have similar perceptions of physical attractiveness as a function of their level of appearance anxiety, this anxiety is an important problem for women who experience appearance anxiety more frequently than men (Dakanalis et al., 2016; Martins et al., 2007). Although the effects of body image satisfaction/dissatisfaction are similar in men and women, there are significant differences between the two genders in terms of body image ideals. For example, it is important for women to have positive feelings about weakness (Ahern et al., 2008; Fairburn et al., 2003; Thompson et al., 2004). For men, muscular strength is the biggest concern regarding body image (Edwards and Laudner, 2000; Mayville et al., 2002). Therefore, when women try to slim their appearance, men tend to increase their fat mass (Harvey and Robinson, 2003).

There are other studies with mixed results suggesting that gender differences are much more complex than previous studies suggest (McCabe and Ricciardelli, 2004; Myers et al., 2012). Although it has been reported that men have less fear and related negative affect, men may have a desire to be heavier and more masculine as well as a desire to be weaker and weaker (Leeper Piquero et al., 2010; Parent et al., 2013; Turel et al., 2018). However, the creation of the ideal muscular and fit

body image for men has also changed the way men think about their bodies. This increased the incidence of male appearance dissatisfaction in studies (Fernandez-Aranda et al., 2009; Gadalla, 2009; O'dea and Abraham, 2002; Woodside et al., 2001). Therefore, we can conclude that although it is more common in women, social appearance anxiety, which is frequently seen in men and women, arises because people compare themselves with other men and women presented as cultural ideals. It was determined that the social appearance anxiety in the study group differed according to the profession, and the social appearance anxiety of the non-working participants was higher. In a study, it was found that the non-working group had lower body esteem and social appearance anxiety than the working group (Cengiz, 2022; Gümüş, 2022). It can be said that this may be due to the fact that people who do not have sufficient financial resources cannot make the desired investment in their external appearance and therefore experience anxiety when they evaluate their bodies negatively (Cengiz, 2022).

It was revealed that the social appearance anxiety of the group participating in the study differed according to the status of the athletes and the frequency of doing sports, and the appearance anxiety was higher in the athletes. This situation has been handled differently in the literature and the appearance anxiety of people who do not do sports has emerged as a phenomenon that needs to be discussed (Özpolat, 2020; Yaşartürk and Pekin, 2023). In fact, it is widely believed that most social people have marked anxiety. This creates a perception of appearance anxiety, as it encourages some people to exercise and transform their appearance into an ideal body image (Alemdağ and Öncü, 2015; Gadalla, 2009; Kalkavan et al., 2021). In our study, results supporting this view were also obtained. However, it has been found that creating an ideal body image increases exercise participation and appearance perception in athletes (Gadalla, 2009; O'dea and Abraham, 2002; Woodside et al., 2001). The perception that women's bodies are not weak and men's belief that their bodies are not sufficiently muscular or weak causes them to experience appearance problems, which causes them to participate more in sports (Olivardia, 2001; Olivardia et al., 2000; Pope et al., 2000). In addition, compensatory behaviors such as exercise are often characterized by distorted self-

image diagnosed in women (Pope et al., 2000; Olivardia, 2001).

It was determined that the social appearance concerns of the participants differed according to their satisfaction with their body weight, and those who were not satisfied with their body weight had high social appearance concerns. It was determined that as the satisfaction level of the study group with their body weight decreased, their social appearance anxiety increased. Accordingly, it has been found in the literature that people who are afraid of weight experience more social appearance anxiety (Cox, 2011). Deteriorated body image, unhealthy weight loss methods, mental health problems such as depression and anxiety are associated with body dissatisfaction (Bundros et al., 2016). And half of these individuals meet the criteria for anxiety disorder (Levinson and Rodebaugh, 2012). People who are dissatisfied with their appearance are more likely to experience social anxiety (Brosof and Levinson, 2017). Weight is seen as an external factor that can be compared with people in the social environment (Kayhan et al., 2021; Titchener and Wong, 2015). For example, it has been reported that women with high BMI are more likely to experience social appearance anxiety (Titchener and Wong, 2015). In addition, studies show that social appearance anxiety is a problem related to all body features (weight, hair, eyes, skin color, body type, etc.) (Amil and Bozgeyikli, 2015; White and Warren, 2014).

Similarly, body weight is accepted as the most important risk factor in increasing social appearance anxiety (Andreea-Elena, 2015; Bailey and Ricciardelli, 2010; Mastro et al., 2016; Titchener and Wong, 2015). In this context, weight-related prejudice and discrimination and social pressure to lose weight may explain the relationship with social appearance anxiety, since body weight is a feature that can be observed by others. It was determined that the social appearance anxiety of the study group differed according to their satisfaction with their height, and those who were not satisfied with their height had higher social appearance concerns. It was determined that as the height satisfaction rate of the study group decreased, social appearance concerns increased. Physical appearance is the first thing people notice and has a significant impact on social interactions. Being physically attractive and attached to high personal elements has become a

cultural condition not only in Western culture but throughout the world. In a similar study, it was found that as people's height satisfaction increased, social appearance anxiety decreased (Cristiana, 2016). In this context, Hart et al. (2008) defined social appearance anxiety as focusing on one's appearance and fearing situations where others might negatively evaluate his or her appearance (body and face shape, height and weight). It has also been found that most of the women are not satisfied with their appearance because they have a negative attitude towards their weight and body shape (Rodin et al., 1984; Tantleff-Dunn et al., 2011). Other studies have revealed that men's desire to be tall and muscular leads to body dissatisfaction (Comte et al., 2015; Fernandez-Aranda et al., 2009; Leeper Piquero et al., 2010). Fear of social body image is considered within the framework of fear of social appearance, which is the fear of negative evaluation by others depending on the general appearance of the person (Hart et al., 2008). Social appearance anxiety encompasses a broader concept of physical appearance, ranging from general physical characteristics such as height, weight and muscle structure to personal characteristics such as skin color and face shape (Argon, 2014). Studies confirm that social appearance anxiety is a problem related to all body characteristics (weight, height, etc.) (Amil and Bozgeyikli, 2015; White and Warren, 2014). In this context, since the height of individuals is a comparable feature in the social environment, prejudice and discrimination due to social pressure may explain the relationship with fear of social appearance.

### Limitations

More research is needed to understand the pressure men and women face to achieve their ideal body image to avoid apparent anxiety. Future research will benefit from using factors such as body composition to provide a more comprehensive understanding of body image issues. It may also be helpful to use scales that evaluate aspects of anxiety-provoking situations. Considering the presence of social appearance anxiety in our research group, other psychological factors such as internet addiction, social media, career stress, and job burnout that may affect the level of social anxiety in sedentary and active participants can also be investigated. Similar studies can be conducted with different sample groups (children, young people, etc.) in order to

examine the effects of developmental periods on social appearance anxiety levels.

### Conclusion

This study contributes to a better understanding of the risk of appearance anxiety in sedentary and athletic individuals and its relationship to appearance concerns such as gender, employment status, height and weight. Although both men and women have body dissatisfaction and attitudes about appearance, it was determined that the risk of performance anxiety was higher in women. The comparison between men and women broadens our view that appearance anxiety is not just a female issue, but can also affect a significant number of men. Concerns about social appearance were a risk factor for those who did not work. It can be argued that this situation stems from the effect of economic opportunities on the external image. Our research shows that appearance anxiety is effective in a group of athletes. As athletes are subject to specifically defined standards of physical condition and performance, this population is expected to be concerned about their appearance. In addition, it was determined that dissatisfaction with appearance occurred in groups who were not satisfied with their weight and height. Since these two factors are used to describe and compare individuals in the society, dissatisfaction may arise when people are not at peace with themselves. In summary, body dissatisfaction and perceived attitudes were significant predictors of appearance anxiety and whether or not they were involved in sports in both genders.

### Conflict of Interest

No conflict of interest is declared by the authors. In addition, no financial support was received.

### Ethics Committee

The study was approved by the Recep Tayyip Erdogan University Social and Human Sciences Ethics Committee (number: 2023/227, Date: 25/08/2023).

### Author Contributions

Study Design, ZSSÖ; Data Collection, ZSSÖ, RFK; Statistical Analysis, ZSSÖ, RFK; Data Interpretation, ZSSÖ, RFK; Manuscript Preparation, ZSSÖ; Literature Search, RFK. The published version of the manuscript has been read and approved by all authors.

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