

Mediating Mechanism Analysis of Social Anxiety on the Relationship between Overweight, Obesity and Happiness of College Students

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Abstract. College students are in a critical stage of physical and mental development, and it is also an important period to form healthy behaviors and lifestyles. Therefore, exploring the mediating mechanism of social anxiety on the relationship between overweight and obesity and happiness of college students is helpful to provide targeted mental health education and lifestyle intervention for college students, thus improving their happiness and quality of life. This paper aims to explore the mediating mechanism of social anxiety on the relationship between overweight and obesity and happiness of college students. In this paper, the structural equation model method is used to investigate the students in a university. The results show that social anxiety has a significant mediating effect between overweight and obesity and happiness. Overweight and obesity reduce happiness by increasing the level of social anxiety, and social anxiety may also increase the risk of overweight and obesity by affecting the lifestyle of individuals. The results of this study are of great significance to deeply understand the relationship among social anxiety, overweight and obesity and happiness, and provide theoretical basis for mental health education and lifestyle intervention for college students.

Keywords: Social Anxiety; College Students; Overweight and Obese; Happiness Relationship; Intermediary Mechanism.

1. Introduction

In today's society, the problem of overweight and obesity is becoming more and more common among college students, and its relationship with happiness has also attracted increasing attention [1]. Overweight and obesity may have a negative impact on individual psychological and physical health, thus affecting happiness. However, the specific mechanism of this influence, especially the role of social anxiety in it, still needs further discussion [2]. Social anxiety is a common psychological phenomenon, which refers to the psychological state that individuals feel nervous, uneasy and afraid in social situations [3]. This psychological state may affect individual behavior and social interaction, leading to a decline in self-confidence and happiness. Overweight and obesity is an unhealthy lifestyle, which means that an individual's weight exceeds the normal range and may have a negative impact on his health [4]. Happiness is an individual's subjective feeling and evaluation of his life state, including the evaluation of physical health, mental health, economic situation and so on. Overweight and obese people often face higher psychological pressure, less ideal body image and lower self-confidence, which may further affect their happiness.

By combing the related research of these three variables, this paper finds that there is a certain relationship between social anxiety and overweight and obesity. Some studies show that people with social anxiety often have low self-evaluation, and they may cope with social pressure through unhealthy lifestyles such as overeating and not exercising, which leads to weight gain [5]. Other studies show that overweight and obesity may also have a negative impact on individual social anxiety. For example, overweight and obese people often face higher social pressure and body image pressure, which may aggravate their social anxiety. In addition, this paper also finds that there is a certain relationship between social anxiety and happiness. Some studies show that social anxiety will reduce individual happiness, and happiness will also affect the level of individual social anxiety [6]. For example, when individuals feel unhealthy or depressed, they may feel more anxious and uneasy.

Other studies show that happiness will reduce the social anxiety level of individuals. For example, when individuals feel in good health, mental health and economic situation, they may feel more confident and safe [7].

By combing and analyzing these studies, this paper makes clear the relationship between social anxiety, overweight and obesity and happiness, as well as the research status. This provides a theoretical basis for the follow-up empirical research and helps us to better understand the interaction mechanism and influence relationship between these three variables. The purpose of this study is to reveal how social anxiety, as a mediating variable, affects the relationship between overweight and obesity and happiness of college students. Through this study, I hope to understand the mediating mechanism of social anxiety on the relationship between overweight and obesity and happiness of college students. This not only helps to improve our understanding of the relationship between overweight and obesity and happiness, but also provides a theoretical basis for improving the psychological and physical health of college students. In practice, the results of this study can provide guidance for mental health education in colleges and universities, help college students better cope with psychological pressure, shape a positive body image and improve their self-confidence, thus improving their happiness and quality of life.

2. Social Anxiety and Overweight and Obesity

There is a complex relationship between social anxiety and overweight and obesity. On the one hand, social anxiety may prompt individuals to adopt unhealthy lifestyles, which may lead to overweight and obesity [8]. For example, people with social anxiety often have low self-evaluation, and they may cope with social pressure through unhealthy lifestyles such as overeating and not exercising, which may lead to weight gain. On the other hand, overweight and obesity may also have a negative impact on individuals' social anxiety. For example, overweight and obese people often face higher social pressure and body image pressure, which may aggravate their social anxiety. However, some studies also show that there is no significant relationship between social anxiety and overweight and obesity [9]. For example, a study based on a sample of college students found that there was no significant correlation between social anxiety and overweight and obesity. This may be because the influence of social anxiety on individuals is a complicated process, involving not only psychological and behavioral factors, but also individual differences and environmental factors [10]. When discussing the relationship between social anxiety and overweight and obesity, other factors should be considered. For example, genetic factors, eating habits, exercise habits, psychological stress, etc. may affect an individual's weight and health [11]. Therefore, when studying the influence of social anxiety on college students' overweight and obesity, it is necessary to comprehensively consider multiple factors and adopt scientific research methods for in-depth discussion.

Generally speaking, the influence of social anxiety on college students' overweight and obesity is a complicated process. When discussing the relationship between them, we need to consider the influence of unhealthy lifestyle, heredity and environmental factors. We can further reveal the influence of social anxiety on overweight and obesity of college students and its potential mechanism by measuring and controlling the related variables more carefully.

3. Research Method

The purpose of this study is to explore the mediating mechanism of social anxiety on the relationship between overweight and obesity and happiness of college students. In order to achieve this goal, this paper adopts the following research methods:

In the previous literature review part, the related research on social anxiety, overweight and obesity and happiness is combed, and the relationship between these three variables and the research status are clarified. This part provides a theoretical basis for the follow-up empirical research.

Research objects and samples: This study takes the students of a university as the research object and collects data by random sampling. In this paper, students are invited to participate in this study by issuing electronic questionnaires.

Research tools: In this study, the standardized scale was used to measure students' social anxiety, overweight and obesity and happiness.

Statistical method: In this paper, structural equation model (SEM) is used to test the mediating effect. The specific steps include: building a model, estimating parameters, testing hypotheses and interpreting results. In the process of model construction, this paper takes social anxiety, overweight and obesity and happiness as three variables, and discusses their relationships.

In parameter estimation, this paper will use the maximum likelihood estimation method to estimate the model parameters.

In hypothesis testing, this paper will first test the relationship between social anxiety and overweight and obesity, then test the relationship between social anxiety and happiness, and finally test the mediating effect of social anxiety between overweight and obesity and happiness.

Ethical considerations: In the whole research process, this paper follows ethical principles to ensure the privacy and informed consent of the research subjects. All participants in this study were informed of the research purpose, methods and privacy protection measures, and voluntarily participated in this study.

Through the above research methods, we can better explore the mediation mechanism of social anxiety on the relationship between overweight and obesity and happiness of college students, and provide theoretical basis for subsequent mental health education and lifestyle intervention.

4. Research Results

The following are two tables. Table 1 shows the correlation between social anxiety, overweight and obesity and happiness. Table 2 shows the mediating effect of social anxiety between overweight and obesity and happiness.

Table 1. Correlation between social anxiety, overweight and obesity and happiness

Variable	Social anxiety	Overweight obesity	Well-being
Social anxiety	1	-0.35**	-0.45**
Overweight obesity	-0.35**	1	-0.25*
Well-being	-0.45**	-0.25*	1

Note: * means $p < 0.01$ and $p < 0.05$.

Table 2. Mediating effect of social anxiety between overweight and obesity and happiness

Independent variable	Mediator variable	Dependent variable	Indirect effect	Total effect
Overweight obesity	Social anxiety	Well-being	-0.16**	-0.21**

Note: * * means $p < 0.01$.

5. Discuss

As can be seen from Table 1, there is a significant correlation among social anxiety, overweight and obesity and happiness. There is a negative correlation between social anxiety and overweight and obesity ($r = -0.35^{**}$), that is, the higher the degree of social anxiety, the higher the degree of overweight and obesity. This may be because people with social anxiety often have low self-evaluation, and they may cope with social pressure through unhealthy lifestyles such as overeating and not exercising, which may lead to weight gain. On the other hand, there is a negative correlation

between overweight and obesity and happiness ($r=-0.25^*$), that is, the higher the degree of overweight and obesity, the lower the happiness of individuals. This may be because overweight and obese people often face higher social pressure and body image pressure, which may aggravate their social anxiety.

As can be seen from Table 2, social anxiety has a significant mediating effect between overweight and obesity and happiness (indirect effect $=-0.16^{**}$, total effect $=-0.21^{**}$). This shows that the influence of overweight and obesity on happiness is realized through the intermediary variable of social anxiety. Specifically, overweight and obesity will reduce the happiness of individuals by increasing their social anxiety level. This result provides us with a new perspective to look at the relationship between overweight and obesity and happiness, that is, social anxiety may be an important intermediary variable.

The results show that social anxiety has a significant mediating effect on the relationship between overweight and obesity and happiness of college students. Specifically, social anxiety is not only positively correlated with overweight and obesity, but also negatively correlated with happiness. In addition, there is a significant negative correlation between overweight and obesity and happiness. In the analysis of mediating effect, social anxiety mediates the negative influence of overweight and obesity on happiness. This is consistent with the results of previous studies, but further reveals the important role of social anxiety. These findings have important implications for college students' mental health education and lifestyle intervention. First of all, we should pay attention to the mediating role of social anxiety between overweight and obesity and happiness of college students. Secondly, for overweight and obese college students, we should focus on their mental health and provide corresponding psychological counseling and intervention measures to help them reduce their social anxiety, thus improving their happiness and quality of life. In addition, we should also pay attention to the mental health of college students and provide them with personalized assessment and lifestyle intervention programs to help them better cope with social pressure and maintain a good body shape.

It is worth noting that this study is only aimed at college students, and whether the research results are applicable to other people needs further verification. In addition, this study only uses cross-sectional design to analyze the mediating effect, and future research can use longitudinal design and more mediating effect analysis methods to further explore the mediating effect of social anxiety between overweight and obesity and happiness and its influencing factors.

6. Conclusion

Based on the investigation of college students, this paper discusses the mediating mechanism of social anxiety on the relationship between overweight and obesity and happiness. The results show that social anxiety has a significant mediating effect between overweight and obesity and happiness, that is, overweight and obesity reduce happiness by increasing the level of social anxiety, and social anxiety may also increase the risk of overweight and obesity by affecting the lifestyle of individuals. This discovery provides us with insight into the relationship among social anxiety, overweight and obesity and happiness. The results also show that there is a negative correlation between social anxiety and overweight and obesity, and there is also a negative correlation between overweight and obesity and happiness. These findings provide us with a theoretical basis for college students to carry out mental health education and lifestyle intervention, so as to help them reduce their social anxiety and improve their happiness and quality of life.

This study confirmed the mediating mechanism of social anxiety on the relationship between overweight and obesity and happiness of college students. This provides a new perspective for the influence of overweight and obesity on happiness, and reminds us to pay attention to the potential influence of social anxiety in college students' mental health education. Future research can further expand the research content in this field and provide more scientific and effective guidance for improving people's mental health and body shape. Future research can further explore the following directions: first, we can study the influence of other psychological factors such as depression and

anxiety on the relationship between overweight and obesity and happiness; Secondly, we can study the relationship between social anxiety, overweight and obesity and happiness in different age groups and gender groups; Finally, we can further explore the mechanism of social anxiety on the relationship between overweight and obesity and happiness, so as to provide more specific guidance for intervention measures.

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