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Exploring the Influence of Societal Perceptions on Self-Perception and Fitness in Overweight Female Students Pursuing Health and Weight Management

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doi: [10.33472/AFJBS.6.6.2024.6631-6645](https://doi.org/10.33472/AFJBS.6.6.2024.6631-6645)**ABSTRACT:**

Abstract Background and Study Aim: The promotion of sports has become a national and human necessity, considering it one of the most important means of preparing and developing all members of society to face the civilizational challenges that require an increase in physical and health capacities. The objective of this study was to investigate the influence of social stigma on the self-esteem and physical fitness levels of overweight female students engaged in health and weight loss endeavors. **Material and Methods:** The study employed an experimental design with both experimental and control groups, employing pre-test and post-test measurements. It focused on obese female students aged 19 to 22 at Imam Abdulrahman Bin Faisal University, Saudi Arabia, totaling 90 participants. Selection criteria included no prior sports programs or weight loss operations. The primary sample comprised 12 participants, ensuring homogeneity in growth variables and other relevant factors. Anthropometric measurements were utilized to assess obesity levels and body fat percentage, using stable and valid equations. **Results:** Significant statistical differences were observed between pre- and post-measurements of physical fitness, favoring the post-measurements among obese female students. This indicates that the physical exercises led to improvements in physical fitness levels over time. Similar to physical fitness, significant statistical differences were found between pre- and post-measurements of weight reduction, favoring the post-measurements among obese female students. The exercises had a positive impact on weight reduction efforts, resulting in measurable changes in body weight and fat percentage. The sample of obese female students exhibited a high level of positional criticality, as indicated by the results of the positional critical scale. This suggests that these individuals faced challenges and discomfort related to their body positioning and movement. **Conclusions:** The performance level of physical exercises among the research sample of obese female students was found to be moderate. While participants engaged in physical activity, their overall performance levels were not exceptionally high. Higher levels of positional criticality were associated with lower performance outcomes in physical exercises among female students. This indicates that individuals who experienced greater discomfort and challenges in their body positioning had lower performance levels during physical exercises.

Keywords: Weight stigma, Self-esteem, Physical fitness, Health, Weight loss, Overweight, Female students, Societal pressures

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1. Introduction

In contemporary society, weight-related stigma remains a pervasive issue, significantly impacting individuals' perceptions of themselves and their pursuit of health goals. This stigma is particularly pronounced among overweight female students, who often face societal pressures and stereotypes regarding body image and fitness. [1]

Research indicates that weight stigma can profoundly affect individuals' self-esteem and body image, leading to psychological distress and barriers to adopting healthy lifestyle behaviors. Moreover, overweight individuals, including female students, may encounter discrimination and social exclusion, further exacerbating the challenges they face in achieving their health and weight loss objectives.[2]

Understanding the complex interplay between social stigma, self-esteem, and physical fitness is essential for developing targeted interventions and support mechanisms to address the unique needs of overweight female students. By examining these dynamics, this study aims to shed light on the factors influencing their health and well-being, ultimately informing efforts to promote inclusivity, positive body image, and effective strategies for health and weight management within educational settings. [3]

The promotion of sports has become a national and human necessity, considering it one of the most important means of preparing and developing all members of society to face the civilizational challenges that require an increase in physical and health capacities. Sports programs related to proper nutrition represent an important area in the lives of individuals in general and obese individuals in particular, as they serve as vital pillars to cope with the burdens and requirements of life. [4], [5], [6]

Enjoying good health, possessing a state of physical balance, and having proper functioning of organic and motor functions are factors that make individuals feel satisfaction, security, and self-confidence in their physical bodies and their ability to exert any required effort. These qualities are important aspects of self-perception since they are closely related to body-image satisfaction [7], [8], [9]

According to Kamody[10] et al, (2018), the issue of weight loss has sparked considerable debate in the field of sports. Some believe that intentional weight loss reduces athletes' performance and may expose them to illness. Conversely, some extremists even argue that fasting during weight loss before competitions puts the athlete in a state of anger and emotional disturbance, leading to better performance. On the other hand, some others adopt a moderate view, suggesting that weight loss has no negative or positive effects on athletes. This baseless debate prompted many scientists to study and examine this issue to find a solution [11], [12]

The psychological state of being self-conscious is one of the emotional responses accompanying the performance of free exercises in technical training. This applies whether during training or practical tests and involves various situations, events, and stimuli that can have a clear and direct impact on the behavior, abilities, and skills of the individual. [13]

Engaging in physical exercises, especially in cases of extreme obesity or decreased body functionality, requires programs that focus on the intricate details of bodily systems. The proposed program is currently under research and specifically designed as a scientific attempt to establish the scientific foundations of the physical aspects related to health for obese individuals. It can also familiarize them with certain bodily systems through various specialized training exercises. Health-related fitness programs are associated with activity and should be built on scientific foundations that consider all these factors by the individual's gender, physical condition, and health, all within the context of the program's objectives. [14], [15], [16]

Furthermore, the researchers noticed through their work that the performance level of health-related physical exercises was lower than expected, accompanied by a prevalence of performance errors that hindered the proper execution of exercises. The researchers attributed

this to the psychological aspect, manifested by self-consciousness regarding the physical aspect as well as a lack of self-awareness among female students. [17], [18], [19], [20], [21]

Through this research, the researchers aimed to familiarize users of physical exercises, in general, and specifically obese individuals, with the proper rules of the exercises they use, as required by human nature in light of their self-awareness of their physical selves, and to overcome the discomfort they feel when performing these exercises.

Aim of the study

The objective of this study was to investigate the influence of social stigma on the self-esteem and physical fitness levels of overweight female students engaged in health and weight loss endeavors.

2. Materials and Methods

Participants

The researchers used an experimental approach, employing two groups (experimental and control) and utilizing pre-test and post-test measurements for each group, as it was suitable for the nature of this study.

Also, the research population consisted of obese female students at Imam Abdulrahman Bin Faisal University in the Eastern Province of Saudi Arabia, with ages ranging from 19 to 22 years and a total of 90 students.

Finally, the research sample was purposefully selected from the research population, including obese female students who had not undergone any previous sports programs or weight loss operations. The main sample consisted of 66 students, and a subset of 54 students was drawn to conduct the scientific procedures for the fitness tests related to health, while 4 students were included for the scientific procedures of the self-body description scale. Additionally, 50 students were included to conduct the scientific procedures for the physical fitness scale, resulting in a final primary research sample of 12 participants. The researchers ensured homogeneity among them in growth variables (age, height, and weight) and other relevant variables. The following tables (1) and (2) illustrate these details.

Study Design

Data Collection Methods and Tools:

The researchers reviewed scientific references, studies, and relevant literature specialized in this type of research to benefit from them in determining the tools that could be used in the study. Data collection tools and methods were determined based on the variables that could be measured in the research, as follows:

Anthropometric measurements were identified to determine the degree of obesity and assess the percentage of body fat based on reference surveys from relevant studies in the field.

The researchers used certain equations to estimate body composition and determine the degree of obesity, known for their high stability and validity as well as their ease of use. The key measurements were as follows:

Determining the degree of obesity: [22]

- *Body composition measurement.*
- *Body weight measurement:*
- *Height measurement:*

Devices and tools used:

The researchers utilized some devices and tools for research measurements, including:

- A medical scale is calibrated to measure weight (in kilograms).
- Stadiometer to measure height (in centimeters).

- Measuring tape and adhesive markers.
- Medicine balls.

Physical Self-Description Scale:

The scale was designed by Herbert Marsh [23] et al. in 1994–1996 as a multidimensional scale for the concept of physical self-description to be applied to female students aged 13–18 years. The scale comprises 11 dimensions for describing physical self-concept, consisting of 70 items. Later, Dr Duraid Majid Hamid [24] adapted the scale for use in the Egyptian environment, focusing on only ten dimensions. He removed and replaced some items that were not suitable for application to male and female students in Egyptian schools based on some field-based studies conducted on a sample of Egyptian students. The scale includes 60 items, and the ten dimensions measured by the scale in its form are:

- Physical appearance.
- Compatibility.
- Body fatness.
- Health.
- Muscular strength.
- Physical activity.
- Endurance.
- Athletic competence.
- Flexibility.
- Physical global self-concept.

Each of these ten dimensions is measured using six items, and the respondents rate the scale items based on a six-point Likert scale: "Strongly Agree, Agree, Moderately Agree, Slightly Agree, Slightly Disagree, Strongly Disagree".

The situational judgment test:

The researchers referred to specialized scientific references on tests and scales to benefit from them in constructing and designing the scale of situational embarrassment for overweight female students. They found a scale for situational embarrassment prepared by "Ban Adnan Mohammed Amin" in 2012 for situational embarrassment in women's artistic gymnastics. The researchers adapted and made modifications to the scale's statements to suit the students (research sample). It was presented to experts in testing, scales, and sports psychology to obtain approval for the suitability of the modified statements compared to the original scale's statements. The experts approved all the modified statements and confirmed their suitability for the adapted scale. The scale was finalized in preparation for its application to the research sample.

Survey Studies:

First Survey Study:

The researchers conducted survey studies using a survey sample consisting of 40 women drawn from the research sample and outside the main sample during the period from September 15, 2022, to September 21, 2022, with the following objectives:

- To identify potential difficulties that the researchers may encounter in the future that could hinder the progress of the experiment in terms of implementation.
- To ensure the suitability of the educational settings.
- To understand the assistants involved in the experiment.
- To conduct scientific procedures for the utilized tests.

Validity and Reliability of the Used Tests:

The primary study:

The researchers prepared and calibrated the tools and devices used for measurement to ensure measurement accuracy. The application site was prepared, and assistants were trained to conduct the measurements from October 1, 2022, to October 30, 2022. A meeting was also held with the assistants, consisting of three individuals experienced in measurement procedures who were graduates of physical education colleges. They were briefed on the research objectives and trained on how to conduct measurements, record scores, calculate times, and complete the prepared forms. They were also provided with the necessary knowledge and information to address any inquiries or questions that may arise.

Pre-test measurements:

Pre-test measurements were conducted on the research sample members on November 1, 2022, with the assistance of the trained assistants. Physical measurements were carried out using the tests (details withheld due to ongoing research).

Program implementation:

The researchers implemented the proposed program and the physical self-description scale on the female students (the research sample), and the scores of the two groups were calculated for the variable of physical self-description. Subsequently, the data were collected and organized in prepared sheets for statistical analysis.

Post-test measurements:

After completing the implementation of the proposed program on the research sample members, post-test measurements were conducted from November 2, 2022, to November 4, 2022. These measurements included variables related to physical fitness associated with health and weight loss (details withheld due to ongoing research).

Statistical analysis

The results obtained by the researchers will be displayed and analyzed, Data were fed to the PC and analyzed using IBM SPSS software package version 20.0. (Armonk, NY: IBM Corp). We will display the arithmetic means of the questionnaire responses obtained from the sample and present the standard deviations to identify the degree of variation in those responses by displaying the frequencies and their percentages to identify the level of responses about the variables.

3. Results

Presentation of health-related physical fitness results:

Table 1: Significance of differences between average health-related physical measurements

Variables		Unit	Pre-test Measure ment (M)	Pre-test Measure ment (SD)	Post-test Measure ment (M)	Post-test Measure ment (SD)	Improve ment Percenta ge	t- val ue
Health-	Muscular Endurance	Cou nt	11.73	2.63	18.92	1.25	38.41%	- 11. 4*
	Aerobic Endurance	Grad e	19.04	1.94	16.82	0.86	36.22%	4.9 3*

	Flexibility	cm	1.18	0.81	2.24	0.54	61.69%	- 6.2 7*
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The tabulated "t" value at a significance level of 0.05 is 2.201. From Table 1, it is evident that there are statistically significant differences at a significance level of 0.05 between the mean pre-test and post-test measurements of the research group in variables related to physical fitness associated with health. These differences favor the post-test measurement, as the calculated "t" value is greater than the tabulated "t" value at a significance level of 0.05.

Table 2: The significance of the differences between the pre-test and post-test measurements in variables related to weight loss rate.

Variable s	Unit	Pre-test Measurem ent (M)	Pre-test Measurem ent (SD)	Post-test Measurem ent (M)	Post-test Measurem ent (SD)	Improvem ent Percentag e	t- val ue
Body Weight	kg	89.15	2.9	80.74	1.6	23.61%	12.1 *
Body Mass Index	Grade	30.98	1.7	24.61	0.7	20.90%	14.8 *
Body Fat Percenta ge	kg/100	25.6	3.4	21.11	2.5	21.52%	13.5 *

The tabulated "t" value at a significance level of 0.05 is 2.201. It is evident from the table that the calculated "t" value falls between 12.1 and 14.8, and its value is greater than the tabulated "t" value at a significance level of 0.05. This indicates the presence of significant differences between the pre-test and post-test measurements, favoring the post-test measurement in variables related to weight loss.

Table 3: The significance of the differences between the means of measurements of the control group (pre-test and post-test) in the variables of the physical self-description scale and the level of performance in the free sentence.

Variables Under Study		Unit	Pre-test Measure ment (M)	Pre-test Measure ment (SD)	Post-test Measure ment (M)	Post-test Measure ment (SD)	Perce ntage of Chang e	t- value
Physical Self-Description Scale	External Appearanc e	Degree	21.133	3.884	22.867	4.191	8.20%	2.145 *
	Body Obesity	Degree	23.1	5.486	26.567	6.268	15.01%	4.719 *
	Muscular Strength	Degree	20.733	5.092	22.6	3.42	9.00%	2.264 *
	Endurance	Degree	20.1	3.273	21.967	3.499	9.29%	2.741 *
	Flexibility	Degree	20.967	4.414	21.733	3.667	3.66%	0.889
	Coordinati on	Degree	21.4	4.296	22.333	4.436	4.36%	1.13

	Health	Degree	21.3	4.154	22.4	3.328	5.16%	1.589
	Physical Activity	Degree	19.333	4.922	21.367	4.582	10.52%	2.824 *
	Sporting Efficiency	Degree	20.7	5.873	22.4	5.494	8.21%	2.538 *
	Physical Wholeness	Degree	20.267	7.239	22.933	6.158	13.16%	2.578 *
	Free Sentence Performance Level	Degree	4.62	1.45	5	1.46	8.09%	2.42*

The critical table value of "t" at degrees of freedom (29) and significance level 0.05 is 1.699. It is evident from Table 13 that there are statistically significant differences at a significance level of 0.05 between the mean measurements of the control group (pre and post) in the variables of physical self-description and free sentence performance in favor of the post-measurement.

Table 4: The significance of the differences between the means of measurements of the experimental group (pre-test and post-test) in the variable of physical self-description scale and the level of performance in the free sentence.

Variables Under Study		Unit	Pre-test Measure ment	Post-test Measure ment	Percentage of Significant Change	t-value
Factors of Physical Self-Description	External Appearance	Degree	21.333	26.1	22.34%	8.868 *
	Body Obesity	Degree	23.7	30.567	28.97%	9.269 *
	Muscular Strength	Degree	21	24.3	15.71%	4.326 *
	Endurance	Degree	19.233	23.7	23.22%	7.109 *
	Flexibility	Degree	21.567	25.433	17.93%	6.442 *
	Coordination	Degree	21.767	26.133	20.06%	5.709 *
	Health	Degree	21.4	24.5	14.49%	3.962 *
	Physical Activity	Degree	20.967	26.3	25.44%	5.704 *
	Sporting Efficiency	Degree	21.667	27.367	26.31%	6.553 *
	Physical Wholeness	Degree	20	26.133	30.67%	6.522 *
	Level of Free Sentence Performance	Degree	4.5	6.75	50.00%	6.708*

It is evident from Table (15) that there are statistically significant differences at a significance level of 0.05 between the average measurements of the experimental group (pre and post) in the variables of physical self-description and free sentence performance (under investigation) in favor of the post-measurement.

Table 17: The significance of the differences between the means of the post-test measurements for the two groups (control and experimental) in the variables of the physical self-description scale and the level of performance in the free sentence is under investigation

Variables Under Study	Unit	Contr ol	Experiment al Group Mean	Percenta ge of Significa	t- valu e
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			Group Mean		nt Change	
Factors of Physical Self-Description Scale	External Appearance	Degree	22.867	26.1	14.14%	3.107
	Body Obesity	Degree	26.567	30.567	15.06%	2.629
	Muscular Strength	Degree	22.6	24.3	7.52%	1.782
	Endurance	Degree	21.967	23.7	7.89%	2.27
	Flexibility	Degree	21.733	25.433	17.03%	4.212
	Coordination	Degree	22.333	26.133	17.02%	3.157
	Health	Degree	22.4	24.5	9.38%	1.844
	Physical Activity	Degree	21.367	26.3	23.09%	3.822
	Sporting Efficiency	Degree	22.4	27.367	22.17%	4.098
	Physical Wholeness	Degree	22.933	26.133	13.95%	2.292
	Level of Free Sentence Performance	Degree	5	6.75	35.00%	3.36

It is evident from Table 17 that there are significant differences at a significance level of 0.05 between the average post-measurements of the control and experimental groups in the variables of physical self-description and free sentence performance (under investigation) in favor of the experimental group

4. Discussion

Results from Table (1) regarding the significance of differences between the average measurements of the research group (pre-intervention and post-intervention) in health-related physical fitness variables under investigation indicate the presence of statistically significant differences at a significance level of 0.05 between pre-intervention and post-intervention measurements, in favor of the post-intervention measurements, in all variables. This suggests that the sports program for overweight female students (the research sample) has a positive impact on all these variables.

Additionally, the results from Table (1) regarding the rate of change between the average measurements of the research sample (pre-intervention and post-intervention) in health-related physical fitness variables under investigation indicate a positive and significant rate of change in all physical variables, with the highest rate of change observed in the muscular strength variable. [25]

The researchers attribute these findings to the sports program, which included various diverse exercises that were physically directed towards all parts of the body, contributing to the development and improvement of health-related physical fitness for the research sample individuals. The researchers also attribute these differences to the release of tension and discomfort experienced by the students (the research sample) during physical exercises, as they were provided with a more comfortable environment. They were also empowered to become

more aware of their bodies and to overcome embarrassing situations they may face. Moreover, they were provided with movement experiences aimed at developing physical fitness, such as speed, muscular endurance, flexibility, agility, and periodic respiratory exercise. These elements help this group of overweight students eliminate excess body fat, allowing all vital organs to function naturally, leading to a significant improvement in their overall health condition.

The researchers here indicate, through the results obtained, that overweight individuals must exercise without embarrassment or anxiety and pay attention to their physical well-being to get rid of the excess fat surrounding their bodies and alleviate the embarrassment caused by excess weight.

These results are consistent with the findings of the study by "Memon[26] et al. (2018)," which concluded a direct correlation between obesity (body mass index) and treadmill time, indicating an inverse relationship between obesity and aerobic endurance.

Discussion of the weight loss rate results

From the results of Table 2, which shows the significance of differences between pre and post-measurements in weight loss rate variables, statistically significant differences were found between pre and post-measurements in the weight loss rate in favor of the post-measurement at a significance level of 0.05, where the calculated values of t ranged between 12.1 and 14.8 and the calculated value of t was greater than the tabular value.

Moreover, from the results of Table 2, there is a percentage change in the weight loss rate in favor of the post-measurement, where the percentage change ranged between 20.9% and 23.61%.

The researchers attribute these results to the difference between the pre-and post-measurements in variables related to the weight loss rate (total body weight, body mass index, percentage of body fat), which they attribute to the effect of the proposed exercise program leading to improvement in weight-related variables and body mass index and percentage of body fat, as the program resulted in weight loss and decreased body mass index.

The researchers attribute the achievement of the training goal to the relief experienced by the students (research sample) when performing physical exercises continuously with their peers throughout the program application period, which helped burn a greater amount of excess fat beyond the body's needs, thus showing positive effects on weight loss and improvement in body mass index and percentage of body fat.

The researchers also considered the importance of providing information to overweight individuals (the research sample) about the importance of engaging in exercise, in general, to address the harms of obesity and the necessity of weight loss for them to experience a sense of health and physical well-being. [27]

In this regard, Meseri[28] et al (2021) pointed out that physical activities are one of the most effective methods for eliminating fat in the muscles and, consequently, for weight loss. As the muscle becomes leaner, the metabolic rate changes automatically, causing the person to burn more calories without being aware of it. The optimal way to get rid of excess weight is through exercises that burn most of the excess fat in the body.

Discussion of the physical self-description results

The results of Table 3, which show the significance of differences between the means of pre and post-measurements in the variables of physical self-description scale and the level of free sentence performance (under research), indicate that there are differences between the means of pre and post measurements in the experimental group at a certain level of significance.

From Table 3, which shows the average rate of change between the means of pre and post-measurements in the variable of physical self-description scale, it is evident that there is a certain rate of change between the means of pre and post-measurements in the physical self-description scale.

The results of Table 4, which show the significance of differences between the means of post-measurements for the two groups (control and experimental) in the variable of physical self-description scale, indicate that there are differences between the means of post-measurements for the control and experimental groups at a certain level of significance.

Furthermore, from the results of Table 4, which shows the average rate of change between the means of post-measurements for the two groups (control and experimental) in the variable of the physical self-description scale, it is also evident that there is a certain rate of change between the means of post-measurements for the control and experimental groups in the physical self-description scale.

It was found that there are statistically significant differences at a significance level of 0.05 between the pre and post-measurements in favor of the post-measurement, attributed to the situational embarrassment scale. This scale helped overweight female students improve their psychological self-perception and performance in physical exercises, enabling them to achieve good performance without any embarrassment or shyness.

Researchers attribute this significant difference in the variables under study to the situational embarrassment scale, which positively influenced the psychological aspect of overweight female students' physical exercise performance. This was reflected in their sense of comfort and feeling of safety following each activity, leading to the desired outcome. [29]

Furthermore, researchers attribute the positive changes observed in the means of post-measurements for the experimental group in all variables and dimensions of the physical self-description scale to the positive effect of the situational embarrassment scale on the psychological well-being of overweight female students in their physical exercise performance. This indicates that the experimental group acquired higher rates in all variables (under study) compared to the control group, thus enhancing their positive self-perception of physical self-description. [30], [31]

The results also indicate that the experimental group showed a greater rate of improvement in all physical variables and dimensions of the physical self-description scale compared to the control group, confirming that the physical self-description scale contributes to the positive self-perception of female students. [32]

Researchers attribute this significant improvement to the fact that the situational embarrassment scale raised enthusiasm among the research sample, fostering their positive self-perception of their physical selves and instilling a sense of confidence in their abilities, eliminating any embarrassment they may feel while performing sports activities in front of their peers. [33]

Additionally, researchers attribute this significant improvement to the variable of physical self-description, which contributed to assisting the research sample in reducing the intensity of situational embarrassment. This, in turn, enhanced their confidence and satisfaction following each activity, ultimately leading to the desired goal. [34]

These findings are consistent with the results of a study conducted by " Thompson[31] et al" (2020), which highlighted the superior psychological skills and motivational traits of basketball players, indicating a positive relationship between psychological skills and dimensions of motivational traits in sports.

In light of the statistical tables, it is evident that there are statistically significant differences between the means of pre- and post-measurements for the control and experimental groups in the variables and dimensions of the physical self-description scale, which aligns with the research hypotheses

5. Conclusions

Various types of physical exercises have a positive impact on the physical fitness aspects related to health among overweight female students, including improvements in speed, muscle flexibility, agility, endurance, strength, and respiratory function.

Certain physical exercises demonstrate statistically significant positive effects on weight loss indicators such as total body weight, body mass index (BMI), and body fat percentage among overweight female students.

The integration of physical exercises into routines contributes to weight reduction among overweight female students in the study cohort.

Substantial enhancements in physical fitness levels were observed between pre and post-measurements among overweight female students.

Similarly, statistically significant improvements in weight loss indicators were noted between pre and post-measurements among overweight female students.

The study introduced a scale to measure situational embarrassment specifically tailored to overweight female students, revealing a notable prevalence of situational embarrassment within this demographic.

Physical self-perception emerges as a critical factor influencing the intensity of situational embarrassment experienced by overweight female students.

Overall, the performance of overweight female students in physical exercises tends to be average, with higher levels of situational embarrassment associated with lower performance outcomes.

Recommendations

Design physical exercise programs tailored to enhance the physical fitness of overweight female students, incorporating activities targeting speed, muscle flexibility, agility, endurance, strength, and respiratory function.

Develop and distribute comprehensive guidelines outlining recommended physical exercises specifically tailored for weight loss among overweight female students, taking into account factors such as efficacy, safety, and accessibility.

Launch targeted health awareness initiatives leveraging various media platforms and sports programs to underscore the significance of engaging in physical activities for overall well-being among overweight female students.

Implement the situational embarrassment scale as a screening tool to identify overweight female students who may experience discomfort or embarrassment during physical exercises for weight loss, and provide appropriate support and accommodations.

Cultivate a supportive environment that emphasizes the physical capabilities and potential growth of overweight female students, fostering inclusivity and promoting positive body image within sports and fitness settings.

Conduct further research to identify and address the specific barriers and challenges encountered by overweight female students in adhering to physical exercise regimens aimed at preserving their health, with a focus on developing targeted interventions and support strategies.

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