

## BODY IMAGE AND ITS RELATIONSHIP TO SOME PSYCHOLOGICAL VARIABLES AMONG STUDENTS IN THE SECONDARY STAGE OF EDUCATION IN SAUDI ARABIA

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**Abstract.** *Introduction.* Body image perceptions among adolescents are intrinsically linked to psychological factors such as self-esteem and social comparison. The secondary stage proves to be a critical period for exploring identity, with body image playing a vital role in shaping mental well-being and interpersonal relationships.

*Aim.* The current research aims to examine the differences and to identify the relationship between adolescents in body image and some psychological variables (life satisfaction – psychological adaptation) according to the gender variable (males – females).

*Methodology and research methods.* The sample of the current research consisted of 433 adolescents, with 220 male students and 213 female students; their ages ranged between 16–19 years. To achieve the research objectives, the author adopted the descriptive correlative approach to conduct this study, in addition to using the scale of body image, life satisfaction, and scale of psychological adaptation. After verifying the stability and validity of the tools, they were applied to the study sample.

*Results.* The results revealed differences between male and female adolescents in body image in favour of adolescents, meaning that adolescents are more satisfied with their body image than female adolescents. In addition, there are differences between male and female adolescents in the degree of psychological adjustment in favour of adolescents. However, there are no differences between male and female adolescents in the degree of life satisfaction and there is a positive, statistically significant correlation between life satisfaction and psychological adjustment. Furthermore, there is a positive, statistically significant relationship between the body image scale and the psychological adjustment scale.

*Scientific novelty.* The scientific novelty of this study lies in its comprehensive investigation into the complex interplay between body image and various psychological variables among adolescents in the secondary stage. This study adds to scientific knowledge in several ways. First, it provides insights into the complex relationship between body image and psychological variables among adolescents in the secondary stage, which can inform future research in this area. Second, the study's findings on gender differences in body image and psychological adjustment can contribute to our understanding of how gender affects mental health outcomes in adolescence. Third, the study highlights the importance of addressing body image issues among adolescents and emphasises the need for targeted interventions and support systems. Overall, this study contributes to the growing body of literature on adolescent mental health and provides important insights for researchers, educators, and mental health professionals working with adolescents.

*Practical significance.* The practical significance of this study lies in its potential to inform educators, parents, and mental health professionals about the importance of addressing body image issues among adolescents. By highlighting the differences in body image satisfaction between genders and the link between body image and psychological factors such as life satisfaction and psychological adjustment, the study emphasises the need for targeted interventions and support systems.

**Keywords:** body image, life satisfaction, psychological adjustment, adolescents.

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## ОБРАЗ ТЕЛА И ЕГО СВЯЗЬ С НЕКОТОРЫМИ ПСИХОЛОГИЧЕСКИМИ ПАРАМЕТРАМИ У СТУДЕНТОВ, ОБУЧАЮЩИХСЯ НА СРЕДНЕЙ СТУПЕНИ ОБРАЗОВАНИЯ В САУДОВСКОЙ АРАВИИ

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**Аннотация.** Введение. Восприятие образа тела подростками неразрывно связано с психологическими факторами, такими как самооценка и социальное сравнение. Вторичная стадия оканчивается критическим периодом для изучения идентичности, когда образ тела играет жизненно важную роль в формировании психического благополучия и межличностных отношений.

**Цель.** Настоящее исследование направлено на изучение у подростков различий и выявление связи образа тела с некоторыми психологическими переменными (удовлетворенность жизнью – психологическая адаптация) на основании гендерного показателя (мужчины – женщины).

**Методология и методы исследования.** Выборка текущего исследования состояла из 433 подростков, из них 220 студентов и 213 студенток; их возраст колебался в пределах 16–19 лет. Для достижения целей исследования автор применил описательный корреляционный подход, помимо использования шкалы образа тела, удовлетворенности жизнью и шкалы психологической адаптации. После проверки стабильности и валидности инструментов они были применены к исследуемой выборке.

**Результаты** выявили различия между подростками мужского и женского пола в образе тела в пользу юношей, а это означает, что юноши более удовлетворены образом своего тела, чем девушки. Кроме того, существуют различия между подростками мужского и женского пола по степени психологической адаптации в пользу юношей. Однако между подростками мужского и женского пола отсутствуют различия в степени удовлетворенности жизнью и обнаружена положительная, статистически значимая корреляция между удовлетворенностью жизнью и психологической приспособленностью. Кроме того, существует положительная, статистически значимая связь между шкалой образа тела и шкалой психологической адаптации.

**Научная новизна** этого исследования заключается в его всестороннем изучении сложного взаимодействия между образом тела и различными психологическими переменными у подростков средней школы. Настоящее исследование вносит вклад в научные знания несколькими способами. Во-первых, оно дает представление о сложной взаимосвязи между образом тела и психологическими переменными среди подростков средней школы, что может помочь в будущих исследованиях в этой области. Во-вторых, полученные результаты могут способствовать нашему пониманию того, как пол влияет на результаты психического здоровья в подростковом возрасте. В-третьих, оно подчеркивает важность решения проблем образа тела среди подростков и необходимость целевых вмешательств и систем поддержки. В целом это исследование способствует росту объема литературы о психическом здоровье подростков и предоставляет важную информацию для исследователей, педагогов и специалистов по психическому здоровью, работающих с подростками.

**Практическая значимость** этого исследования заключается в его способности информировать педагогов, родителей и специалистов в области психического здоровья о важности решения

проблем образа тела среди подростков. Подчеркивая различия в удовлетворенности образом тела между полами и связь между образом тела и психологическими факторами, такими как удовлетворенность жизнью и психологическая адаптация, исследование демонстрирует необходимость целенаправленных вмешательств и систем поддержки.

**Ключевые слова:** образ тела, удовлетворенность жизнью, психологическая адаптация, подростки.

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## LA IMAGEN CORPORAL Y SU RELACIÓN CON ALGUNOS PARÁMETROS PSICOLÓGICOS EN ESTUDIANTES DE EDUCACIÓN MEDIA EN ARABIA SAUDITA

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**Abstracto. Introducción.** La percepción de la imagen corporal de los adolescentes está indisolublemente ligada a factores psicológicos como la autoestima y la comparación social. La etapa secundaria resulta ser un período crítico para el estudio de la identidad, cuando la imagen corporal juega un papel vital en la configuración del bienestar mental y las relaciones interpersonales.

**Objetivo.** La presente investigación tiene como objetivo estudiar las diferencias en los adolescentes y revelar la relación de la imagen corporal con algunas variables psicológicas (satisfacción con la vida y la adaptación psicológica) a partir de un indicador de género (hombres y mujeres).

**Metodología, métodos y procesos de investigación.** La muestra del presente estudio estuvo conformada por 433 adolescentes, de los cuales 220 eran estudiantes masculinos y 213 estudiantes femeninos; edad de los alumnos, entre los 16 y los 19 años. Para lograr los objetivos del estudio, el autor aplicó un enfoque de correlación descriptivo, además de utilizar la escala de imagen corporal, la escala de satisfacción con la vida y la escala de adaptación psicológica. Después de comprobar la estabilidad y validez de los instrumentos, se aplicaron a la muestra de estudio.

**Resultados.** Los resultados revelaron diferencias entre adolescentes masculinos y femeninos en la imagen corporal a favor de los chicos, es decir, los chicos están más satisfechos con su imagen corporal que las chicas. Además, existen diferencias entre adolescentes hombres y mujeres en cuanto al grado de adaptación psicológica a favor de los chicos jóvenes. Sin embargo, no existen diferencias entre adolescentes hombres y mujeres en el grado de satisfacción con la vida y se encontró una correlación positiva y estadísticamente significativa entre la satisfacción con la vida y la aptitud psicológica. Además, existe una relación positiva y estadísticamente significativa entre la escala de imagen corporal y la escala de adaptación psicológica.

**Novedad científica.** La novedad científica de este estudio radica en su examen exhaustivo de la compleja interacción entre la imagen corporal y diversas variables psicológicas en adolescentes de secundaria. El presente estudio contribuye al conocimiento científico de varias maneras. En primer lugar, proporciona información sobre la compleja relación entre la imagen corporal y las variables psicológicas entre los adolescentes de secundaria, lo que puede ayudar a futuras investigaciones en esta esfera. En segundo

lugar, los hallazgos pueden contribuir a nuestra comprensión de cómo el género influye en los resultados de salud mental en la adolescencia. En tercer lugar, destaca la importancia de abordar los problemas de imagen corporal entre los adolescentes y la necesidad de intervenciones específicas y sistemas de apoyo. En general, este estudio contribuye a haya un creciente fomento de información literaria sobre la salud mental de los adolescentes y brinda información importante para investigadores, educadores y profesionales de la salud mental que trabajan con adolescentes.

*Significado práctico.* La relevancia práctica de este estudio radica en su capacidad para informar a los educadores, padres y profesionales de la salud mental sobre la importancia de abordar los problemas de imagen corporal entre los adolescentes. Al destacar las diferencias en la satisfacción con la imagen corporal entre los sexos y la relación entre la imagen corporal y los factores psicológicos como la satisfacción con la vida y la adaptación psicológica, el estudio demuestra la necesidad de intervenciones específicas y sistemas de apoyo.

**Palabras claves:** imagen corporal, satisfacción con la vida, adaptación psicológica, adolescentes.

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## Introduction

The changes that the teenager is going through and the changes that happen to him from the physical point of view will affect one way or the adolescent's psyche, behaviour, and relationships with others. Therefore, teenagers often contemplate and observe the changes that occur to them. It is not surprising that adolescents often look in the mirror and compare themselves with others regarding height, face shape, and physical dimensions. In one of the funny studies, one of the researchers chose three groups: children, adolescents, and adults, and took pictures of their organs, such as the nose, hands, feet, back of the head, etc. It was not clear that each photo identifies which person, and the photos were numbered in such a way that the researcher could identify their owner. Then the combined pictures were shown, and each person was asked to identify their pictures. The result, unexpectedly, was that the adolescent group got higher scores than the children and adult groups, indicating that they meditated on these organs a lot, which enabled them to identify them easily. Because of the teenager's increasing interest in his/her body and comparing it with others, he/she may sometimes feel that he/she is abnormal or abnormal for two reasons. The first reason is the difference in lineage from what he/she was accustomed to in childhood, and the second – as a result of what we have mentioned about some of the members having preceded each other, he/she will feel what appears to be inconsistent, especially concerning the nose and ears and their relationship to the face, which returns to balance in late adolescence and early youth.

The problem increases for some adolescents, especially girls, as they compare themselves to models they might see on magazine covers or on TV, models that are not reflective of reality, both because of the nature of their selection and the fact that they are artificially produced to appear more convincing than they actually are.

Hence there is the importance of forming a positive body image because of its impact on psychological and social compatibility. On the other hand, a negative body image may lead to behavioural disorders that reflect imbalance and compatibility with others [1].

## Literature Review

Many studies have shown the effect of body image on psychological and emotional social aspects. Cabras and Mondo [2] assessed the differences between genders and ages in coping strategies and optimism and to explore the impact of coping strategies and optimism on students' satisfaction with their lives, statistical analysis showed a strong impact of optimism and coping strategies on life satisfaction, students' coping strategies, optimism, and life satisfaction are influenced by many factors, including but not limited to their gender, age, study conditions, and living situation. Moreover, the study by Guo & Chen [3] indicates that perceived social support is associated with a lower level of loneliness, leading to higher life satisfaction levels. Barakat's study [4] aimed to find out the relationship between body image and some psychological variables (depression – social anxiety – life satisfaction – self-esteem): comparative – predictive study. The results indicated that there are negative correlations and significant statistically between body image and both of depression and social anxiety. Also, the results showed positive correlations and statistically significant differences between body image and both of life satisfaction and self-esteem. The multiple regression analysis indicated that the depression (independent variable) is more predictive for body image. Furthermore, the factor analysis explored three factors from the first order. In the study of Bardone et al. [5], the researchers measured body satisfaction among young people in a psychobiological and social context; the study sample consisted of 111 males and 236 females studying in secondary schools. The research results showed that the perception of media stress was consistently associated with body image satisfaction in males. Psychosocial and biological factors were valuable in determining body satisfaction in females. The study of Goldbeck et al. [6] aimed to identify the effect of age and gender on life satisfaction among adolescents. The results showed a correlation between health and life satisfaction for girls compared to boys. The results showed that the degrees of life satisfaction (among adolescents) with their friends are higher than those of life satisfaction with their families. At the same time, there were no differences in satisfaction due to the adolescent gender. Kim & Kim [7] aimed to reveal whether body mass and awareness of the problem of body weight are related to the level of self-esteem and depression among Korean adolescents. The study sample consisted of 203 female adolescents attending secondary schools in South Korea. The study results showed that 18.2% of adolescent girls had a body mass less than the normal weight, 79.2% were in the normal weight range, while the percentage of those with an excess of 2.6% was above the average. The results also showed that the problem of weight perception was significantly associated with low self-esteem and a higher rate of depression, and there was a direct relationship between body mass

and awareness of the weight problem. The study by Benjet & Hernandez [8] aimed to identify the differences between males and females in psychological happiness. The sample comprised 1102 Mexican individuals, of whom 526 were males and 576 were females.

Body image, psychological and social adjustment, attitude towards others, self-esteem, and depression were some of the factors taken into consideration by the scales used to assess a person's level of psychological happiness. The results showed statistically significant differences between males and females in each body image, attitude toward others, and depression in favour of females. At the same time, their self-esteem and psychological and social adjustment were not different.

*The concept "Body image".*

A group of scholars received several definitions of body image. These definitions were close in content, as Wade [9] defined it as the individual's vision of his/her body, including the physical, psychological, social, and developmental aspects. An individual can have positive or negative evaluations of his/her body, which family and peers influence. Huber [10] defined body image as how the individual perceives his/her body, and that it is a multi-faceted construct and is affected by feelings and thoughts of satisfaction or dissatisfaction in addition to the aspect of the individual's perception of his/her body. The individual is self-critical or self-confident, and its source can be external, through media images or others' view of the ideal body image of the individual.

Cardosi [11] defines the body image as an entity that is affected by social and cultural aspects through the opinions of others and that the image of the body is formed within the human being through the evaluations that the person carries within him/her and related to himself/herself, whether these evaluations are related to his/her abilities and capabilities, or his/her physical composition. These evaluations work to identify and control the behavioural patterns that the person shows in his/her interactions, as well as reactions and feelings, and the change in the body image of each person is one of these self-evaluations related to the person's feelings and thoughts about himself/herself and his/her awareness of how others perceive him/her, and what they expect from him/her. A person's awareness of his/her outward appearance and physical form controls his/her self-confidence, orientation towards himself/herself and others, and a sense of social acceptance and self-esteem. Davison & McCabe [12] state that body image "is a term associated with perceptions and attitudes about the body, and may include behavioural characteristics such as attempts to lose weight".

Olivardia et al. [13] define body image as consisting of two components. The first is satisfaction with the shape of the body or the attitudes and feelings (experience) that the individual carries through his/her satisfaction with his/her physical appearance. The second element is the individual's use of thoughts to organise and arrange feelings and sensations related to the body and then process them. In the current study, we define body image as an individual's view of his/her body, which

may be positive or negative, formed by others' view of the ideal body image of the individual.

*The concept "Life satisfaction".*

Satisfaction with life or a feeling of quality of life is a commonly used term, which is frequently used in our daily lives. Satisfaction with life is a function of comparing what an individual has achieved, what he/she hopes to achieve, and what others have achieved. Therefore, life satisfaction includes various qualities, including health, pessimism, satisfaction with reality, good material aspects, cognitive independence, intimate relationships with others, optimism, and psychological and academic adaptation; if these qualities are achieved in a person, then he feels more content and happiness than at any other time [14, 15]. Rober [16] defines life satisfaction as an emotional state resulting from achieving a specific goal, an internal state characterised by happiness or lack thereof, and the degree of individual satisfaction with achieving a specific goal. Fredrickson [17] believes that life satisfaction provides an opportunity for the individual to be creative because his/her ideas are flexible, and it is easy for him/her to adapt to all new life situations. Klassen et al. [18] define life satisfaction as the individual's evaluation of the quality of his/her life and the degree of acceptance of himself/herself and his/her achievements in the past and present in the light of his/her standards. Finally, Guo & Chen [3] see life satisfaction as an individual's overall positive assessment of the quality of life he/she lives based on a set of criteria such as family environment, personality traits, self-esteem, and a sense of subjective happiness.

Among the factors contributing to life satisfaction are comfortable conditions, such as a good home, food, abundant income, and a secure future. In addition, physical health includes freedom from stress, anxiety, and other diseases, social relations, communication with relatives, having a life partner, and participating in recreational activities. Therefore, satisfaction with life includes the following levels: the general assessment of life satisfaction, the degree of life satisfaction from all different aspects, such as the economic, spiritual, and psychological aspects, and the last level include focusing on each aspect of each field, such as illness. Harper et al. [19] state that life satisfaction includes the following aspects: social stability, social value, relationships with others, and social balance; whoever feels these things and works to achieve them, and satisfy his/her desire for them, is satisfied with his/her life in a positive way since happiness is a goal for individuals despite the varying awareness of what brings happiness to the individual.

*The concept "Psychological adaptation".*

Psychological adaptation is a continuous dynamic process by which the individual aims to change his/her behaviour to create a more compatible and balanced relationship with the environment, as evidenced by a concept derived mainly from biological science defined by Charles Darwin's theory of evolution (1859). This concept usually indicates that the organism is trying to harmonise itself with the natural world in which it lives, trying to survive. According to this concept, human behaviour can be described as reactions to the many demands and environmental pressures in

which he/she lives, such as climate, other elements of the natural environment, and the variables of the social environment in which he/she lives, whether in the form of individuals or groups. As for psychologists, psychological adaptation is the dynamic method or process by which a person aims to modify his/her behaviour. Taking a closer look at this concept, we can deduce two fundamental elements of the adaptation process, namely: the individual's internal psychological environment, which includes the individual and the motives, experiences, values, tendencies, abilities, and emotions involved in his/her psychological structure, and the external environmental environment, which includes the individual and the environment in which he/she lives. On the other hand, the external environment includes everything that surrounds the individual, from the natural environment (such as water and air), and the social environment (such as the family and school) [20].

The areas of psychological adjustment overlap and can be divided into the following categories:

- Psychological-emotional adaptation (the individual can accept himself/herself, be satisfied with him/her, trust him/her, feel his/her value, satisfy needs, inner calm, direct behaviour, and confront and solve personal problems);
- Cognitive psychological adaptation (carried out by realising, thinking, and doing cognitive work, leading to integration between structural and functional work);
- Academic compatibility (the university student's ability to be compatible with university life to reach a state of psychological satisfaction with his/her academic performance and a sense of harmony in his/her relations with his/her professors, colleagues, and the university environment) [21];
- Healthy adaptation (the individual's enjoyment of good health free from physical, cognitive, and emotional diseases, with acceptance of his/her outward appearance and satisfaction with him/her, his/her enjoyment of sound senses, and his/her tendency to activity and vitality most of the time, and his/her ability to move and balance, with continuity of activity and work without stress or weakness for his/her mission and activity);
- Family adaptation (the individual's enjoyment of a happy life within the family that he/she appreciates and loves, with his/her feeling of his/her vital role within the family and respect for it, and his/her enjoyment of an active role within it, it helps him/her to achieve the most significant degree of self-confidence and self-understanding, and to improve his/her thinking and acceptance, and helps him/her to establish a relationship of love and affection);
- Personal adaptation (a feeling of happiness with oneself and others, the satisfaction of most of the needs, motives, and desires, and the ability to meet the requirements of life);
- Personal adaptation (mental health, self-realisation, the ability to face the demands of life, satisfying motives, desires, and tendencies, and the ability to confront reality and not despair bravely);



- Social adaptation (the individual can participate effectively in society, his/her sense of social responsibility and his/her compliance with the values of the society in which he/she lives, his/her sense of his/her value and his/her influential role in the development of his/her society, and his/her ability to achieve belonging and loyalty to the group around him/her, and to enter into constructive social competitions with others, the ability to establish good and positive relations with members of the community, ensuring the rights of others in an atmosphere of trust and mutual respect with them, and his/her feeling of happiness and gratitude for belonging to the group and occupying a privileged position through his/her s cooperative social work) [22].

## Methodology

*Study methodology.* The descriptive approach is appropriate for this study. It is used to describe the phenomenon, collect information and data, organise it and express it qualitatively and quantitatively.

*Study sample.* The study sample consisted of 433 secondary school students (220 male and 213 female adolescents), their ages ranged between 16–19 years, and they were chosen randomly. The study was implemented in the 2022 academic year in the Kingdom of Saudi Arabia.

### *Study tools:*

a. Body Image Scale. In this study, the Body Image Scale by Rosen et al. [23] was used; the scale consists of 18 items to measure and know the extent of the importance of body images to the sample, and after presenting it to the specialised experts and calculating its correlative validity and formative construction, its stability has been retested, and the scale is divided into 5 fields between “Always – Often – Sometimes – Rarely – Never” and the test is flagged against the test that matches the personality of the tested person, and the extent of his/her satisfaction or dissatisfaction with the image of his/her body. To verify the stability of the scale in the current study, it was applied to an exploratory sample consisting of 40 high school students from outside the study sample. Then the scale was re-applied to the same sample after a two-week interval, the reliability coefficient was calculated using the internal consistency method using Cronbach’s alpha equation for the scale as a whole and the test-retest method, where the repetition stability value was 0.80, and the internal consistency value was 50.0. It is clear from the above data that the values of the stability coefficient are an indicator of the scale’s stability, allowing it to be used in the current study. Correction of the scale: the examinee was given five marks if his/her choice was “always”; four points if his/her choice was “mostly”; three points if his/her choice was “sometimes”; two degrees if his/her choice was “rare”; and one degree if his/her choice was “never”. Algebraic summation is used to calculate the total score obtained by the subject on the scale; thus, intelligence degrees range between 1–90 degrees. A higher number on the scale, or a consistently negative response, indicates that the respondent has low self-esteem regarding his/her physical appearance.

b. Life Satisfaction Scale. After reviewing the educational literature and theories that dealt with the subject of life satisfaction, I built a scale of life satisfaction. The study tool, in its final form, consisted of 33 items; the answer to each statement is graded by choosing one of the alternatives with a five-step scale (Strongly Agree, Agree, Neutral, Disagree, Strongly Disagree), and scores are given (1, 2, 3, 4, 5), high scores (165) indicate that the individual enjoys a high degree of life satisfaction. Conversely, the lowest degree is 33, indicating a low life satisfaction level. The validity of the tool was calculated by the validity of the jury who judged the questionnaire, as it consisted of 42 items in its initial form. After deleting and modifying some of the phrases, it became composed of 33 items. The validity of the internal consistency was also calculated using the Pearson correlation coefficient on an exploratory sample of 35 male and female students. The results indicated the existence of positive, statistically significant correlation coefficients between the degrees of the overall scale, where the correlation coefficient values ranged between 0.71–0.76, all items of the scale were significant at 0.01, which indicates the availability of the internal consistency of the scale. The current study also calculated the reliability coefficient by application and re-application. The reliability was reached by Cronbach's alpha method (0.74), which values are indicative of stability and acceptable for conducting such a study.

c. Psychological Adjustment Scale. The psychological adjustment scale was built after reviewing the educational literature and theories that dealt with the subject of psychological adjustment. In its final form, the study tool consisted of 60 phrases. Each paragraph was followed by five alternatives representing different degrees of using the skill, namely: it applies to me to a very great extent – applies to me to a great extent – applies to me to a moderate degree – applies to me to a low degree – does not apply to me, distributed from 0–4 on the five alternatives in order. The overall score for the scale ranged between 0–240. The validity of the tool was calculated by the honesty of the jury who judged it, as the questionnaire in its initial form consisted of 63 phrases. After deleting and modifying some phrases, it became composed of 60 phrases. The internal consistency validity was also calculated using the Pearson correlation coefficient on a pilot sample of 35 male and female students. The results indicated the existence of positive, statistically significant correlation coefficients between the degrees of the overall scale, where the correlation coefficient values ranged between 0.80–0.86, all items of the scale were significant at 0.01, which indicates the availability of the internal consistency of the scale. The current study also calculated the stability coefficient by application and re-application. The stability was reached by Cronbach's alpha method (0.89), which values are indicative of stability and acceptable for conducting such a study.

## Results

The first question: Are there statistically significant differences between male and female adolescents in body image?

Arithmetic means and standard deviations were calculated on the body image scale to answer the question (Table 1).

Table 1  
Arithmetic means and standard deviations on the Body Image Scale

| Gender           |         | N   | Mean   | STD.    | "T" Value | df  | Sig  |
|------------------|---------|-----|--------|---------|-----------|-----|------|
| Body Image Scale | Females | 213 | 2.2416 | 0.608   | 18.48-    | 431 | 0.00 |
|                  | Males   | 220 | 3.4764 | 0.77546 |           |     |      |

Table 1 shows statistically significant differences between male and female adolescents on the body image scale and in favour of male and female adolescents. That is, adolescents are more satisfied with body image than females.

The second question: Are there statistically significant differences between male and female adolescents in life satisfaction?

Arithmetic means and standard deviations on the life satisfaction scale were calculated to answer the question (Table 2).

Table 2  
Arithmetic means and standard deviations on the Life Satisfaction Scale

| Gender                  |         | N   | Mean   | STD.    | "T" Value | df  | Sig   |
|-------------------------|---------|-----|--------|---------|-----------|-----|-------|
| Life Satisfaction Scale | Males   | 220 | 2.9636 | 0.53989 | 0.76      | 431 | 0.939 |
|                         | Females | 213 | 2.9676 | 0.53471 |           |     |       |

Table 2 shows no statistically significant differences between male and female adolescents on the life satisfaction scale among the study sample. That is, life satisfaction among adolescents and adolescent girls are equal.

The third question: Are there statistically significant differences between male and female adolescents in psychological adjustment?

Arithmetic means and standard deviations were calculated on the Psychological Adaptation Scale to answer the question (Table 3).

Table 3  
Arithmetic means and standard deviations on the Psychological Adjustment Scale (social, psychological, family, health)

| Scale                    | Gender  | N   | Mean   | STD.    | df  | "T" Value | Sig  |
|--------------------------|---------|-----|--------|---------|-----|-----------|------|
| Social adaptation        | Males   | 220 | 3.0879 | 0.64808 | 431 | 18.687    | 0.00 |
|                          | Females | 213 | 2.1086 | 0.41273 |     |           |      |
| Psychological adaptation | Males   | 220 | 2.8955 | 0.59992 | 431 | 19.05     | 0.00 |
|                          | Females | 213 | 1.975  | 0.37673 |     |           |      |

|  |         |     |        |         |     |        |      |
|--|---------|-----|--------|---------|-----|--------|------|
| <b>Family adaptation</b>                 | Males   | 220 | 2.8955 | 0.59992 | 431 | 19.05  | 0.00 |
|  | Females | 213 | 1.975  | 0.37673 |     |        |      |
| <b>Health adaptation</b>                 | Males   | 220 | 2.5039 | 0.51364 | 431 | 18.789 | 0.00 |
|  | Females | 213 | 1.7177 | 0.33579 |     |        |      |
| <b>Holistic psychological adjustment</b> | Males   | 220 | 2.8457 | 0.5895  | 431 | 18.945 | 0.00 |
|  | Females | 213 | 1.9441 | 0.37332 |     |        |      |

It is clear from the previous table that the level of psychological adjustment among male students is high compared to female students; that is, there are statistically significant differences in favour of the students. It is also evident from Table 3 that there are statistically significant differences in the areas of psychological adjustment (social, psychological, family, health adjustment).

Fourth question: Is there a statistically significant correlation between body image, life satisfaction, and psychological adjustment among the study sample?

To answer the fourth question, the Pearson correlation coefficient was used to determine the extent of the relationship between the study measures (Table 4).

Table 4  
Pearson correlation coefficient between study measures (body image, life satisfaction, psychological adjustment)

| Scale                           |                          | Body image | Life satisfaction | Psychological adaptation |
|---------------------------------|--------------------------|------------|-------------------|--------------------------|
| <b>Body image</b>               | Correlation coefficient  | 1          | 0.872**           | 0.847**                  |
|                                 | Statistical significance |            | 0.003             | 0.00                     |
|                                 | N                        | 433        | 433               | 433                      |
| <b>Life satisfaction</b>        | Correlation coefficient  | 0.872**    | 1                 | 0.854**                  |
|                                 | Statistical significance | 0.003      |                   | 0.00                     |
|                                 | N                        | 433        | 433               | 433                      |
| <b>Psychological adaptation</b> | Correlation coefficient  | 0.847**    | 0.854**           | 1                        |
|                                 | Statistical significance | 0.00       | 0.00              |                          |
|                                 | N                        | 433        | 433               | 433                      |

\*\* There is a statistically significant relationship at the significance level (0.5)

It is clear from the previous table that there are positive, statistically significant correlations between the measures of body image and both life satisfaction and psychological adaptation in the study sample, as well as the existence of a positive correlation statistically significant between life satisfaction and psychological adaptation. In addition, there is a positive, statistically significant relationship between the body image scale and the psychological adjustment scale.

## Discussion

The results of the study showed that there were statistically significant differences at the level of statistical significance  $\alpha \geq 0.05$  in the responses of the study sample members on the body image scale in favour of adolescents. Adolescents are more satisfied with their body image than adolescent girls; this was confirmed by the study of Benjet & Hernandez [8]. The results demonstrated that males are less interested in the body than females. These results can be attributed to the fact that cultural and social norms significantly impact the perception of body image. Women, in particular, are more strongly influenced by cultural and social factors regarding ideal body shape and size and are more likely than men to equate the value of body image with self-worth in terms of what they think of themselves and what they look like, as well as how others perceive and believe in them. Physical changes can also be attributed to the rapid growth that adolescents experience during puberty. During the growth of the body, parts of the body may grow more significant than other parts, so the body appears inconsistent at times, and genes play an essential role in these changes; while some girls suffer from obesity during this period, others suffer from rapid surgeries.

The study results showed no statistically significant differences at the statistical significance level  $\alpha \geq 0.05$  in the responses of the study sample members on the life satisfaction scale. I attribute this to the fact that the students receive social support from the school, educational institutions, and their teachers and are more psychologically and socially adapted. In addition, if the student receives social support from others, who are confident in them, such as teachers, he/she becomes more able to overcome frustrations and is more able to adapt and be satisfied with life psychologically.

An individual, who grows up in a close-knit family, where affection and intimacy prevail among its members, or amid a group of friends, who love and support him/her, or studies in an educational institution that provides him/her with academic and other assistance and support, becomes able to take responsibility, has leadership qualities, is more psychologically adaptable, and more satisfied with his/her life. Therefore, I have found that social support increases the individual's ability to psychological, social and academic adaptation and directly affects the individual's happiness and psychological adaptation. Social support contributes to increased life satisfaction and personal growth of the individual. The results of this study agree with the study by Calvete et al. [24], who showed that high social support positively affects the student by overcoming life problems and pressures, which are considered aspects related to psychological adjustment and life satisfaction. The research results are consistent with the study of Guo & Chen [3], who confirmed that perceived social support is associated with a lower level of loneliness, which leads to higher levels of life satisfaction. The research results are also consistent with the study of Barakat [4]. The aim of this research was to find out the relationship between body image and some psychological variables (depression – social anxiety – life satisfaction – self-esteem): comparative – predictive study. The results indicated that there are negative correlations and statistically significant differences between body image and both of depression

and social anxiety. Also, the results showed positive correlations and statistically significant differences between body image and both of life satisfaction and self-esteem. The multiple regression analysis indicated that the depression (independent variable) is more predictive for body image. Furthermore, the factor analysis explored three factors from the first order.

The results of the study showed that there were statistically significant differences at the level of statistical significance  $\alpha \geq 0.05$  in the responses of the study sample members on the psychological adjustment scale in favour of males. This can be attributed to the fact that the individual in this age stage is interested in choosing friends and tends to join them as part of the group. Friends, in turn, provide him/her with social support, thus achieving psychological and social adjustment, reducing psychological disorders, and generating a feeling of satisfaction with his/her life. As a result, at this stage, the individual feels a sense of belonging to the group and its norms. The social interaction with them where important people instills moral values and social norms in the individual's life at this stage, such as friends and teachers.

The results demonstrated a positive correlation between life satisfaction and psychological adjustment. Moreover, a positive, statistically significant relationship exists between the body image scale and the psychological adjustment scale. This can be attributed to the fact that there is a relationship between the variables of the current study. All the variables indicate a statistically significant relationship between body image, life satisfaction, and psychological adjustment. The result is attributed to the fact that psychological support for accepting the body image that an individual receives from others, whether in the family or outside, is an essential factor in his/her psychological health and achieving psychological adjustment and satisfaction with life. Hence, it can be predicted that in the absence or decrease of psychological or social support, the adverse effects of bad events and situations to which the individual is exposed may activate, leading to an imbalance in his/her mental health and, consequently, poor psychological adjustment and life satisfaction, this is what was indicated by Simon et al. [25] that there is a causal relationship between the lack of social support and psychological lack of adaptation, as high social support protects against psychological maladaptation.

The current research results agree with the study of Cabras & Mondo [2], who assessed the existing differences between gender and age in coping strategy and optimism and explored the impact of coping strategies and optimism on optimism students' satisfaction with their lives. The statistical analysis showed a strong impact of optimism and coping strategies on life satisfaction and the vital role that gender, age, study conditions, and housing play in shaping students' coping strategies, optimism, and life satisfaction.

## Conclusion

Since birth, a man has been the subject to continuous change. He/She grows through successive stages. Adolescence is a developmental stage that a person goes through and is characterised by physiological changes in his/her body. In the course

of these changes, the shape of the face changes to a large extent, and its childish features disappear, the length increases rapidly, the shoulders and buttocks circumference expands, the length of the trunk and legs increases, the growth of muscles and strength increases in general, the appearance of pubic hair and underarm hair, and an increase in body odor. In addition to the increase in the size of the breasts, the onset of menstruation in girls, and the development of the testicles in boys, the adolescent begins to suffer now as a result of these sudden changes in his/her body. The adolescent is often dissatisfied with the shape of the body parts, which leads to a negative impact and thus to mental disorders and maladaptation. This present research deals with a critical issue, as all field observations and literature concerned with the image of the body and indicated that the image of the body is of a social, psychological, and physiological nature. Therefore, it is easy to understand that the image of an individual's body may affect his/her state of "social psychology", and that it is linked to many psychological characteristics: satisfaction with life and self-esteem, as well as the association of both body image and low self-esteem with emotional disturbances, and life satisfaction. This is what was indicated by Anwar [26], who conducted the study on a sample of male and female adolescents and found that there is a positive correlation between body image and both life satisfaction, social adjustment, and aggressive behaviour towards others. Abboud [27] confirmed that the individual adopts aggressive behaviour towards others when his/her body image is negative. Therefore, this study focused on revealing the relationship between body image and some psychological variables (life satisfaction – psychological adjustment) among adolescents in the secondary stage.

## Recommendations

Creating a healthy and accepting environment in schools, universities, and homes is crucial for fostering satisfaction and promoting proper adaptation, particularly with regards to developing a positive body image. The present research has shown that the study of body image is closely related to other aspects of positive psychology, such as psychological empowerment and overall psychological well-being. It is important to prioritise educational activities and programmes that promote a sense of life satisfaction among all members of society, with a particular focus on training programmes for university students. Such programmes can be designed to improve and elevate positive body image, and help individuals better understand the positive impact that a healthy self-image can have on their overall psychological state.

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