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# Psychometric Properties of the Scale for Adolescent Physical Deformities

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**Abstract**

*They aimed to educate current students about the psychometric properties of the adolescent physical deformities scale. The study sample consisted of (293) adolescents. To achieve the study's objectives, the scale of external appearance anxiety was used Park (2007)and an external rejection sensitivity Scale byRoberts et al. (2018). The scale phrases were translated into Arabic to meet the study objectives.The study findings revealed a strong and statistically significant correlation between the sections of appearance anxiety and sensitivity to external appearance scales, which measure physical deformities in adolescents. The correlation coefficients for the fields ranged from 0.481 to 0.746, a function at the level of (** p <.01) and indicating an acceptable degree of correlation. Results from Bartlett's test for statistical significance of the instruments and measures also showed that the external appearance anxiety scale's affirmative honesty was computed. From 0.73 to 0.39, the appearance anxiety scale's assertive honesty coefficients varied. The study outcomes provided further evidence that the domain correlation coefficient was both acceptable and statistically significant. The external appearance anxiety scale's affirmative honesty was determined, and the results of Bartlett's test showed that the tool was statistically significant. The values of affirmative honesty coefficients ranged from 0.775 to 0.38, indicating solid associations between all paragraphs. The study also found that the rejection sensitivity scale reached a coefficient of 0.90, and the external appearance anxiety scale and rejection sensitivity had stability coefficients of 0.86 and 0.91, respectively, according to the McDolland equation.*

**Keywords:** *Psychometric Characteristics, Physical Deformities, Anxiety of External Appearance, Sensitivity Reject Appearance.*

## Introduction

Because of possible effects on a person's physical health, psychological well-being, and social interactions, physical abnormalities in teenagers are a major issue in psychology, medicine, and the social sciences. Experiencing physical defects during adolescence is incredibly challenging because it is a crucial developmental period marked by substantial physical, emotional, and social changes.(Tiggemann & Slater, 2013) reported that disfigurements in teenagers could be either congenital (such as cleft palates and limb deformities) or acquired (like scoliosis and post-traumatic deformities). The unique distortion and demographic factors determine the occurrence of these disorders, and they have substantial implications. As stated by (Murray et al., 2012) physically abnormal teenagers are more likely to struggle with mental health concerns like social anxiety, low self-esteem, and body image disorders. (Tiggemann & Slater, 2013)

Those suffering from body dysmorphic disorder (BDD) obsess over their physical appearance to an unhealthy degree, which can cause great emotional suffering and make it difficult for them to perform their everyday tasks. (Fang et al., 2014)Because of the increasing sensitivity to body image and peer criticism that characterizes adolescence, body dysmorphic disorder is more common in this age group.

In 2011, Cash and Smolak, the Adolescent Body Dysmorphias Scale (ABDS) aimed to measure the frequency and intensity of body dysmorphic symptoms in adolescents. The balance is ABDS. In order to help find teenagers who could have body dysmorphic disorders and intervene early, this tool is necessary. To guarantee the ABDS's validity and reliability in research and clinical settings, understanding its psychometric features is vital. A scale's reliability (how consistently it measures results) and validity (how well it measures what it claims to measure) are examples of its psychometric features. Prior research has demonstrated that the ABDS scale has consistently stable outcomes throughout time, as demonstrated by its high internal consistency and retest reliability (Bosbach et al., 2024)Good constructive validity and

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positive associations with other well-established measures of body image and mental illnesses, such as the Eating Illnesses Screening Questionnaire and the Body Image Disorder Questionnaire, have been demonstrated for the Body Image and Mental Disorders Scale. The EDU-Q: A study conducted by Ayub et al. in 2018 indicated These results indicate that the scale helps detect teenagers who may be struggling with body dysmorphic disorder, which improves the capacity of mental health providers to treat these conditions. When assessing signs of body dysmorphia in teenagers, the Adolescent Body Profile Scale can be helpful. The significance of early identification and intervention for this susceptible group is underscored by its robust psychological features, which lend credence to its application in clinical practice and research(Bluth & Eisenlohr-Moul, 2017)

Adolescents are at increased risk of developing body dysmorphic disorder (BDD), a mental health condition defined by an unhealthy fixation on one's physical and psychological appearance and associated with rapid changes that occur during this period(Braun et al., 2016; Campbell & Fiske, 1959) The Adolescent Body Dysmorphias Scale (ABDS) is a tool for evaluating the intensity of symptoms related to body dysmorphic disorder in teenagers. The validity, adaptability, and reliability of the proposed model have been thoroughly examined. We will also discuss some clinical uses of ABDS. The diagnosis and management of body dysmorphic disorder in teenagers(Fredrickson & Roberts, 1997; Galla, 2016)

The ABDS and adolescents with dysmorphic disorders. Body dysmorphic disorder (BDD) is a mental health disorder in which individuals obsess over their physical appearance to an unhealthy degree. This specific psychometric tool was developed to evaluate BDD in teenagers. Assessing the psychological features of body dysmorphic disorder is crucial for ensuring the validity and reliability of the scale because this disorder can have a substantial impact on an individual's mental health and functional capacities, particularly during the crucial developmental period of adolescence. In 1959,(Smith & Stamoulis, 2023) Campbell and Fiske stated that the extent to which psychometric evaluation tools are reliable and valid depends on their psychometric properties. Validity describes how well a measure captures the target construct, and reliability explains how consistently a scale performs. The ABDS scale was designed to accurately quantify symptoms of body dysmorphosis in adolescents, owing to these features (Koller et al., 2017)

Noteworthy research (Escolar-Llamazares et al., 2023)In illuminating the difficulties encountered by teenagers with physical malformations and demonstrated that existing instruments must capture the intricate psychological impacts associated with such anomalies. To enhance the efficacy of psychological therapies, the study also suggested creating new assessments that offer more precise and thorough evaluations. According to research (Krebs et al., 2024)and colleagues, there is a shortage of reliable instruments for gauging the effects of physical abnormalities on adolescents' psychological well-being. To address the needs of teenagers and enhance treatment procedures, the study emphasized the need to develop specialized measures to quantify the psychological aspects of physical deformities. Research by (Krebs et al., 2024)demonstrated that the existing methods used to evaluate physical abnormalities in adolescents are frequently insufficient, resulting in incorrect evaluations. Researchers concluded that to make treatment programs more effective, new assessment instruments need to be developed to consider all elements of adolescents' psychological experiences. According to research(Genovese & Butler, 2024), existing methods frequently fail to adequately depict adolescents who suffer from physical abnormalities. The study urged the creation of new measures that better reflect the mental health issues experienced by teenagers and enhance advice and treatment.

It is well-established that physical anomalies can affect an individual's mental health. Research has shown that these conditions can intensify anxiety and depression(Murray et al., 2012). During adolescence, a person's body image and how their peers see them might make them feel even more inadequate or excluded from social groups (Hattie & Anderman, 2013) Social connections and academic performance can be impacted by physical changes, which can have long-term effects on educational and career prospects. Medical care, psychological assistance, and social interventions are necessary to meet the needs of physically impaired teenagers. Adolescents who participate in psychological treatments, such as therapy and support groups, report improvements in their self-esteem and ability to cope(Eibeck et al., 2024) Educational initiatives that seek to increase understanding and decrease stigma is essential to create a welcoming

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atmosphere (Murray et al., 2012) (Schneider et al., 2018)examined how well the measurement holds up between the sexes. Out of 3,057 pupils in secondary schools across Australia, 3,057 (63.2% male, Mage = 14.58 Years SD = 1.37, range = 12-18 years) completed the first test line. Fifteen hundred twelve people (nearly half of the total) filled out the entire scale because they were self-conscious about their appearance. Using a modified BIQ-C, we determined how stable the partial standard measurement was—composed of nine components (BIQ-C-9). According to the BIQ-C-9, females reported higher scores in most areas of Individuality and a more comprehensive range of underlying causes and overall scores(Stice, 2002)

*Problem Statement*

Standard psychological instruments for evaluating symptoms of body dysmorphic disorder (BDD) in young adults and adolescents have been the subject of recent research. Young people were found to have body dysmorphic disorder (BDDSY). Excellent internal consistency and good health in a sample of 12–25-year-olds at the same time (Hanley et al., 2020)as Subjects ranging in age from 12 to 21 demonstrated strong agreement between the DCQ and measures of body dysmorphic disorder, as well as high levels of internal consistency(Davies et al., 2022). The unifactorial structure of apparent scale anxiety about appearance (AAI), together with adequate internal coordination and sufficient convergence viability, was observed in 15- to 16-year-olds with body dysmorphic disorder (Davies et al., 2022)The BDD-D also demonstrated good convergence validity in a community sample, a one-dimensional structure, and internal solid consistency(Macfarlane et al., 2020). The findings indicate that these scales are reliable instruments for evaluating body dysmorphic disorder symptoms in young adults and adolescents.

A persistent mental disease known as body dysmorphic disorder (BDD) manifests as an exaggerated fixation on one's physical appearance or use of certain body parts. These illnesses, which stem from significant physical and psychological changes occurring throughout adolescence, disproportionately impact this age group. Adolescent psychiatric disorder syndrome (ABDS) was created to evaluate physical disorder symptoms in teenagers. Significant psychological difficulties such as body dissatisfaction, mental discomfort, and declining quality of life are common among adolescents with physical deformities. Although these problems significantly affect their quality of life, there are no established criteria for evaluating the psychological and physiological impacts of physical abnormalities on children and adolescents—this discrepancy in evaluation. Body dysmorphic disorder (BDD) affects 1%–2.4% of all adolescents, according to studies. However, the percentages can be higher in groups that experience more physical image-related stress, like those who engage in intense exercise or have eating disorders(Mahon & Hevey, 2023; Marsh et al., 2017; Messick, 1995)

According to the data presented above, adolescent girls who are physically impaired are more likely to experience a lousy quality of life, psychological discomfort, and body dissatisfaction. A specialized scale is urgently needed to comprehensively assess these difficulties, as the high percentages indicate. Creating and using such a scale could result in more precise evaluation, individualized treatment, and enhanced support for teenagers with physical abnormalities. Are you presenting the research findings(Gray, 2009; Kilpela et al.)? High levels of body dissatisfaction are experienced by approximately 35% of teenagers with physical abnormalities. This suggests that issues related to body image are common among people of this age. Using the Beck Depression Inventory (BDI) and General Health Questionnaire (GHQ), researchers discovered that 30% of teenagers with physical abnormalities suffer from high levels of psychological suffering (Klein et al., 2017)This illustrates how mental health can be emotionally affected by physical problems. Researchers found that when asked to rate their quality of life on the Quality-of-Life Scale (QLS), 40% of teenagers with physical abnormalities indicated a marked decline (Pinquart, 2013)This term alludes to the far-reaching effects of physical abnormalities on health. Physical dysmorphic disorder (BDD) is closely associated with physical deformities, and (Hayadar, 2018)found that 8.6% of teenagers exhibited clear indications of this disease. This highlights the importance of objective measures for evaluating PDD and its associated symptoms. The emphasis of this research involves verifying the features and Examining the reliability and validity of a psychometric test for adolescent body dysmorphic disorder (ABDS). Studies have demonstrated the need to establish specialized measures for this purpose, which has increased the requirement for precise assessment instruments for measuring physical deformities in adolescents.

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*Hypotheses*

- There are indications of honesty for the scale (External Appearance Anxiety Scale, External Appearance Rejection Sensitivity Scale) in adolescents.

- There are constancy indications of a scale (External Appearance Anxiety Scale, External Appearance Rejection Sensitivity Scale) in adolescents.

*METHODS*

*Participants*

Participants The current study sample of 293 male and female bachelor's students (adolescents) in Riyadh was randomly selected by answering a Google Form and meeting the study's criteria: Their body image issues included acne, multiple skin infections, excessive sweating, and other seasonal infections, depending on the demographic study's males (93 -34%) and females (178 by 66%).

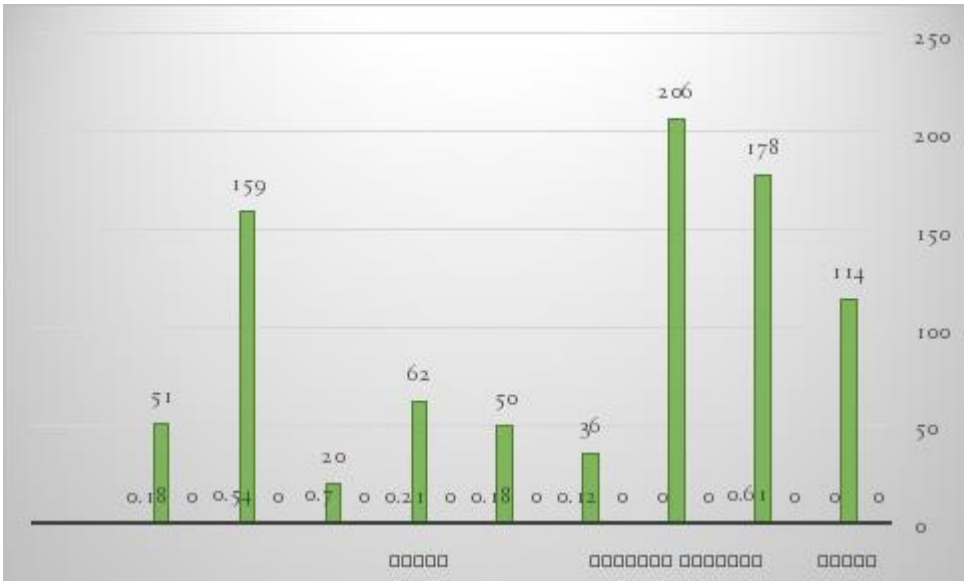


**Figure 1 Depicts the Characteristics of The Members of The Demographic Study Sample.**

The following is a visual representation of the external appearance anxiety scale and rejection sensitivity scale, two instruments used to assess physical abnormalities.

*Instruments*

- Exterior Appearance Anxiety Scale Prepared by Park (2007) Component From (10) paragraph Range Answer options From 1 to 5, In the current study, the Pearson correlation coefficient for the dimensions of the study was verified, where the values of the correlation coefficients ranged from (0.438-0.598). The stability of Cronbach's alpha for the total score was (0.88), which is an appropriate value for the current study.

- External appearance rejection sensitivity scale. Report by Roberts et al. (2018)Component From paragraph 10: Answer choices vary. From 1-5, The Pearson correlation coefficient for the study dimensions ranged from 0.229 to 0.435, and the Cronbach's alpha for the total score was 0.79, which was appropriate for the study.

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## Results

Significance of honesty for the physical malformations scale (scale of appearance anxiety and rejection sensitivity) in adolescents

*Exterior Appearance Anxiety Scale scores*

To verify the construction validity indicators, a scale was applied to the sample to extract the correlation coefficients, as shown in Table 1

**Table 1 Presents the Values of The Paragraph Correlation Coefficients with The External Appearance Anxiety Scale.**

| items | External appearance anxiety |
|---|---|
| I check my physical appearance for example (I look in the mirror and touch my face with my fingers several times) | .606(**) |
| I compare my inner aspects and external appearance every once in a while. | .536(**) |
| I avoid friction with others because of my physical appearance. | .717(**) |
| I'm thinking about how to camouflage or change my appearance. | .746(**) |
| I avoid reflective surfaces, photos, and videos related to my appearance. | .568(**) |
| I am trying to camouflage or change the different aspects of my appearance. | .746(**) |
| I accurately think about past events | .481(**) |
| I focus on what I am looking forward to, which is my exact appearance. | .625(**) |
| I discuss how I look when interacting with others | .621(**) |
| I try to prevent people from seeing some areas in my external appearance. | .731(**) |

*Statistically significant at significance level (*p<.05) **Statistically significant at significance level (** p<.01)

Table 1 shows that the correlation coefficient between domains ranged from 0.481 to 0.746, indicating statistical significance (** p <.01). For the external appearance anxiety scale, assertive honesty was computed, and Bartlett's test was used to validate the study data's homogeneity, correlation, and the possibility of using affirmative factor honesty.

**Table 2 Presents Bartlett's Test Results**

| **Bartlett's Test of Sphericity** | | |
|---|---|---|
| **$x^2$** | **df** | **p** |
| **920** | 45 | <.001 |

The Bartlett test shows that the variables are statistically correlated, and the graph of the latent roots that make up the scale (or sugar chart) was used to show the curve that represents the latent root values on the vertical coordinate in descending order according to the latent values of each paragraph (**Figure** 2).

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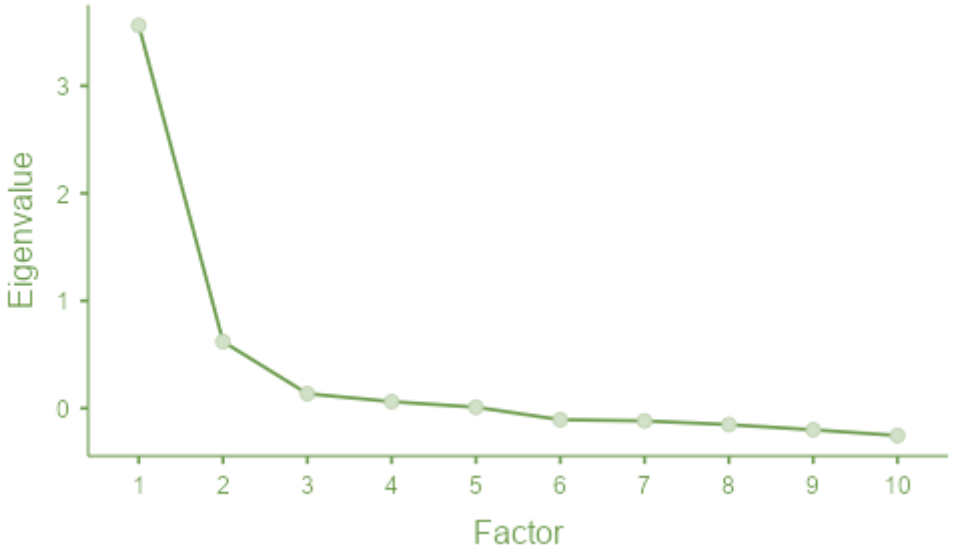


**Figure 2 Shows the Latent Root Values of The Appearance Anxiety Scale**

The graphic shows that the curve line drastically changed the slope between the two places, and the values are near, as shown in Table 3's factor analysis of the paragraphs.

**The Appearance Anxiety Scale's Assertive Honesty Coefficients for Adolescents Are Shown in Table 3**

| n | Factor | Uniqueness |
|---|---|---|
| | 1 | |
| Item 20 | 0.736 | 0.458 |
| Item 18 | 0.735 | 0.460 |
| Item 24 | 0.703 | 0.505 |
| Item 17 | 0.690 | 0.524 |
| Item 22 | 0.554 | 0.694 |
| Item 23 | 0.544 | 0.704 |
| Item 15 | 0.543 | 0.705 |
| Item 19 | 0.514 | 0.736 |
| Item 16 | 0.443 | 0.804 |
| Item 21 | 0.390 | 0.848 |

It is clear from Table 3 that the assertive honesty coefficients of the appearance anxiety scale ranged between (0.73-0.39) for paragraph (21), and Bartlett's value was calculated for the scale.

*Rejection Sensitivity Scale Based on Appearance*

To verify the construction validity indicators, a scale was applied to the sample to extract the correlation coefficients, as shown in Table 4.

**Table 4 Presents the Values of The Rejection Sensitivity of The Paragraph Correlation Coefficients Due to The Appearance**

| Items | Sensitivity to rejection due to appearance |
|---|---|

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| | |
|---|---|
| I leave my house to go to my predetermined appointments when I have some facial defects. | .719(**) |
| I noticed an increase in weight recently and tried several types of clothes. | .719(**) |
| I noticed that I was taller than everyone else at the party. | .588(**) |
| I deliberately put my photos on social media pages. | .489(**) |
| On the occasion of my birthday, I received the gift of participating in a gym | .760(**) |
| While eating dinner, I noticed some strange looks in my appearance from those in the restaurant. | .720(**) |
| While I was waiting in line (I allowed) others to enter before me) | .530(**) |
| I met someone and gave him my private number, and he hasn't contacted me in three months. | .634(**) |
| My friends have been thinking for a while about staying away from me. | .717(**) |
| I noticed my friends asking others to play with them daily. | .696(**) |
| I noticed that my friends did not commit to me on most dates. | .643(**) |
| I received different invitations from my friends to share some games with them. | .466(**) |
| My friends always comment on my weight and appearance. | .701(**) |
| I noticed that my hair has become thin and smooth lately. | .475(**) |
| Recently, I noticed an increase in the size of my abdomen. | .659(**) |

Table 4 shows that the domain correlation coefficient was satisfactory and statistically significant. The assertiveness and affirmative honesty of the external appearance anxiety scale were calculated. As shown in the table, Bartlett's test was performed to verify the study data's homogeneity and coherence and the applicability of affirmative factor honesty.

**Table 5 Bartlett's test of sphericity**

| $x^2$ | df | p |
|---|---|---|
| **1803** | 105 | <.001 |

The Bartlett test shows that the variables are statistically correlated, and the sugar chart, or graph of the latent roots that make up the scale, was used. The curve represents the latent root values on the vertical coordinate in descending order according to the latent values for each paragraph.

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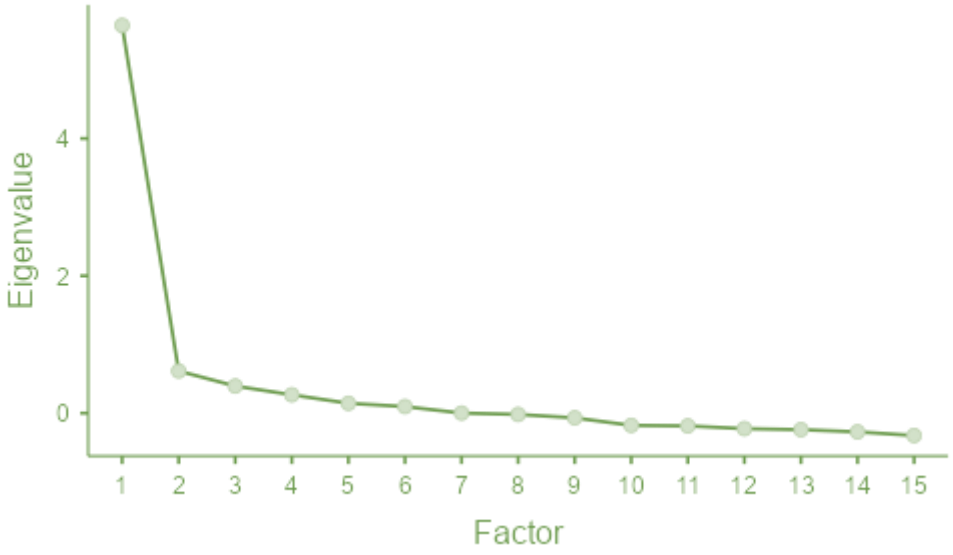


**Figure 3 Shows the Assertive Honesty of The Exterior Allergy Meter**

The graphic shows that the curve line drastically changed the slope between the two places, and the values are near, as shown in Table 6's factor analysis of the paragraphs.

**Table 6. The Assertive Honesty Coefficients of The External Appearance Sensitivity Scale for Teenagers Are Shown in Table 6.**

| Factor Loadings | | |
|---|---|---|
| | **Factor** | |
| | **1** | **Uniqueness** |
| Item 29 | 0.775 | 0.400 |
| Item 33 | 0.725 | 0.474 |
| Item 25 | 0.721 | 0.480 |
| Item 30 | 0.720 | 0.481 |
| Item 26 | 0.703 | 0.506 |
| Item 37 | 0.681 | 0.536 |
| Item 34 | 0.660 | 0.564 |
| Item 39 | 0.622 | 0.613 |
| Item 35 | 0.610 | 0.628 |
| Item 32 | 0.610 | 0.628 |
| Item 27 | 0.525 | 0.725 |
| Item 31 | 0.454 | 0.794 |
| Item 38 | 0.407 | 0.834 |
| Item 28 | 0.405 | 0.836 |
| Item 36 | 0.383 | 0.854 |

It is clear from Table 6 that the assertive honesty coefficients of the external appearance sensitivity scale ranged between (0.775 and 0.38). All paragraphs were strongly associated with each other. The values of the correlation coefficients were statistically significant at the level of (** p <.01), indicating that the paragraphs of the scale are interrelated.

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*Stability markers of the physical malformations scale (scale of appearance anxiety and rejection sensitivity) in adolescents*

*Stability Of the Appearance Anxiety Scale*

**Table 7 Shows the Stability of The Scale of Appearance Anxiety and Rejection Sensitivity in Adolescents.**

| Scale Reliability Statistics | | |
|---|---|---|
| | **Cronbach's α** | **McDonald's ω** |
| Scale | 0.868 | 0.884 |
| | 0.905 | 0.916 |

Table 7 shows that the tool's stability coefficient was high, as the McDolland equation calculated (0.91) and the Cronbach's alpha stability coefficient (0.89). This indicates the study tools' stability and effectiveness, as indicated above (0.85) for all stability verification methods.

*Correlation Heatmap*

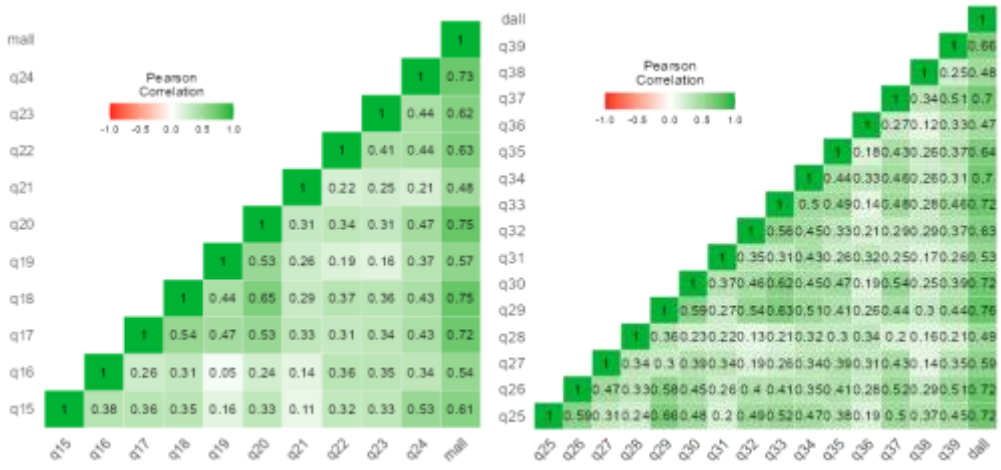


**Figure 4 Shows the Internal Consistency Matrix of The Stability Coefficient of The Appearance Anxiety Scale and The Rejection Sensitivity Meter.**

*Limitations*

The study's limitations are represented by the tools applied to undergraduate students in the city of Riyadh: the scale of external appearance anxiety and the scale of rejection sensitivity from external appearance. Thus, the generalization of the study results is related to the category in which the study was conducted.

## Discussion

The scale was measured correctly and dependably due to its honesty. This can be explained by conducting several psychometric tests to ensure that each scale question properly reflects features of the disorder and factor analysis to guarantee that the items are well correlated and that each piece contributes rationally to the scale. The tool accurately predicted the proper levels of physical anxiety experienced by these adolescents, and every score indicated that those who scored high already had high levels of physical deformity. In contrast, those who scored low scores did not. This remarkable precision in the results confirmed the scale's honesty. (Bluth & Eisenlohr-Moul, 2017; Bluth et al., 2016; Carlson Jones, 2004; Gray, 2009; Hanley et al., 2020; Kilpela et al.; Macfarlane et al., 2020; Marsh et al., 2017; Phillips, 2005; Pullmer et al., 2019; Schultz; Tiggemann & Slater, 2013; Wu & Zhang, 2023)The physical deformity scale measures teenage body dysmorphic disorder accurately and reliably because of its honesty. After testing

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293 teenagers, body dysmorphic disorder was identified. The scale also reliably detects physical deformities and is consistent with other measures, which improves its ability to predict psychological issues related to such deformities. (Cash & Smolak, 2011; Eibeck et al., 2024; Marsh et al., 2017; Stice, 2002; Tieu, 2022; Volkaert et al., 2022; Wasylkiw et al., 2012)The Arabized scale must also consider cultural aspects. If the scale is compatible with Arab societies' customs, traditions, and cultural perceptions of the body, it enhances structural and outward honesty. If the scale is valid, it has been successfully adapted to the local culture and can be used in psychological research and clinical diagnosis. Owing to its high stability and honesty in several psychometric tests and its use on a large and diverse sample, the physical deformities scale has high psychometric efficiency. It can accurately and effectively measure the target phenomenon.

### Recommendations

- Develop an abbreviated scale version for rapid use in clinical or community research, without affecting honesty and consistency.
- The scale should be compared with other measures that measure body disorders, such as obsessive-compulsive disorder or eating disorders, to assess the discriminatory validity of the scale.
- The scale is used in clinical settings, such as psychiatric clinics and hospitals, to measure physical deformities in individuals with body-related mental disorders.
- Expanding the scale to include age, gender, and cultural samples can help assess whether the scale is honest and consistent across communities.

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### Conflict of Interest

The authors declare that the research was conducted without commercial or financial relationships that could be considered as potential conflicts of interest**.**

## References

Refereances

Bluth, K., & Eisenlohr-Moul, T. A. (2017). Response to a mindful self-compassion intervention in teens: A within-person association of mindfulness, self-compassion, and emotional well-being outcomes. Journal of adolescence, 57, 108-118.

Bluth, K., Roberson, P. N., Gaylord, S. A., Faurot, K. R., Grewen, K. M., Arzon, S., & Girdler, S. S. (2016). Does self-compassion protect adolescents from stress? Journal of child and family studies, 25, 1098-1109.

Bosbach, K., Martin, A., Stricker, J., & Schoenenberg, K. (2024). Enhancing self-esteem in adults with body dysmorphic symptoms: experimental testing and initial evaluation of a brief internet-based training. Behavioural and Cognitive Psychotherapy, 52(3), 226-242.

Braun, T. D., Park, C. L., & Gorin, A. (2016). Self-compassion, body image, and disordered eating: A review of the literature. Body image, 17, 117-131.

Campbell, D. T., & Fiske, D. W. (1959). Convergent and discriminant validation by the multitrait-multimethod matrix. Psychological bulletin, 56(2), 81.

Carlson Jones, D. (2004). Body image among adolescent girls and boys: a longitudinal study. Developmental psychology, 40(5), 823.

Cash, T. F., & Smolak, L. (2011). Body image: A handbook of science, practice, and prevention. Guilford press.

Davies, K. L., Hanley, S. M., Bhullar, N., & Wootton, B. M. (2022). A psychometric validation of the Dysmorphic Concerns Questionnaire (DCQ) in adolescents and young adults. Australian Psychologist, 57(5), 280-289.

Eibeck, A., Shaocong, Z., Mei Qi, L., & Kraft, M. (2024). Research data supporting" A Simple and Efficient Approach to Unsupervised Instance Matching and its Application to Linked Data of Power Plants".

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Escolar-Llamazares, M.-C., Martínez-Martín, M.-Á., Medina-Gómez, M.-B., González-Alonso, M.-Y., Mercado-Val, E., & Lara-Ortega, F. (2023). Sociodemographic variables and body mass index associated with the risk of eating disorders in Spanish university students. European Journal of Investigation in Health, Psychology and Education, 13(3), 595-612.
Fang, A., Matheny, N. L., & Wilhelm, S. (2014). Body dysmorphic disorder. Psychiatric Clinics, 37(3), 287-300.
Fredrickson, B. L., & Roberts, T.-A. (1997). Objectification theory: Toward understanding women's lived experiences and mental health risks. Psychology of women quarterly, 21(2), 173-206.
Galla, B. M. (2016). Within-person changes in mindfulness and self-compassion predict enhanced emotional well-being in healthy, but stressed adolescents. Journal of adolescence, 49, 204-217.
Genovese, A. C., & Butler, M. G. (2024). Behavioral and Psychiatric Disorders in Syndromic Autism. Brain Sciences, 14(4), 343.
Gray, S. K. (2009). Overweight Students: Can Education Help Curb This Mounting Problem? Physical & Health Education Journal, 75(2), 6.
Hanley, S. M., Bhullar, N., & Wootton, B. M. (2020). Development and initial validation of the Body Dysmorphic Disorder Scale for Youth. Clinical Psychologist, 24(3), 254-266.
Hattie, J., & Anderman, E. M. (2013). International guide to student achievement (Vol. 711). Routledge New York, NY.
Hayadar, E. (2018). Prediction of life satisfaction Based on Demographic and Personality characteristics and Body Dysmorphic Disorder in cosmetic surgery candidate., 12(2), 73-95.
Kilpela, L., Zerubavel, N., Hobkirk, A., Feliu, M., Doshi, S., O'Garo, K.-G. N., Trambadia, J., Keys, A., Hill, L. K., & Wood, M. BODY IMAGE AND BODY DISSATISFACTION IN ETHNIC MEN. AFRICAN AMERICAN PERSPECTIVES, 103.
Klein, G., Kim, Y., Deng, Y., Senellart, J., & Rush, A. M. (2017). Opennmt: Open-source toolkit for neural machine translation. arXiv preprint arXiv:1701.02810.
Koller, I., Levenson, M. R., & Glück, J. (2017). What do you think you are measuring? A mixed-methods procedure for assessing the content validity of test items and theory-based scaling. Frontiers in psychology, 8, 126.
Krebs, G., Rautio, D., Fernández de la Cruz, L., Hartmann, A. S., Jassi, A., Martin, A., Stringaris, A., & Mataix-Cols, D. (2024). Practitioner Review: Assessment and treatment of body dysmorphic disorder in young people. Journal of Child Psychology and Psychiatry.
Macfarlane, F., Luo, A., Moses, K., Russell, A., Cheyne, J., Bolger, A. D. P., & Wootton, B. M. (2020). Psychometric properties of the body dysmorphic disorder-dimensional scale. Clinical Psychologist, 24(2), 114-122.
Mahon, C., & Hevey, D. (2023). Pilot trial of a self-compassion intervention to address adolescents' social media-related body image concerns. Clinical child psychology and psychiatry, 28(1), 307-322.
Marsh, H. W., Martin, A. J., Yeung, A. S., & Craven, R. G. (2017). Competence self-perceptions. Handbook of competence and motivation: Theory and application, 85-115.
Messick, S. (1995). Validity of psychological assessment: Validation of inferences from persons' responses and performances as scientific inquiry into score meaning. American psychologist, 50(9), 741.
Murray, C. J., Vos, T., Lozano, R., Naghavi, M., Flaxman, A. D., Michaud, C., Ezzati, M., Shibuya, K., Salomon, J. A., & Abdalla, S. (2012). Disability-adjusted life years (DALYs) for 291 diseases and injuries in 21 regions, 1990–2010: a systematic analysis for the Global Burden of Disease Study 2010. The lancet, 380(9859), 2197-2223.
Park, L. E. (2007). Appearance-based rejection sensitivity: Implications for mental and physical health, affect, and motivation. Personality and Social Psychology Bulletin, 33(4), 490-504.
Phillips, K. A. (2005). The broken mirror: understanding and treating body dysmorphic disorder. Oxford University Press, USA.
Pinquart, M. (2013). Body image of children and adolescents with chronic illness: A meta-analytic comparison with healthy peers. Body image, 10(2), 141-148.
Pullmer, R., Coelho, J. S., & Zaitsoff, S. L. (2019). Kindness begins with yourself: The role of self-compassion in adolescent body satisfaction and eating pathology. International Journal of Eating Disorders, 52(7), 809-816.
Roberts, C., Zimmer-Gembeck, M. J., Lavell, C., Miyamoto, T., Gregertsen, E., & Farrell, L. J. (2018). The appearance anxiety inventory: Factor structure and associations with appearance-based rejection sensitivity and social anxiety. Journal of Obsessive-Compulsive and Related Disorders, 19, 124-130.
Schneider, S. C., Baillie, A. J., Mond, J., Turner, C. M., & Hudson, J. L. (2018). Measurement invariance of a body dysmorphic disorder symptom questionnaire across sex: the body image questionnaire–child and adolescent version. Assessment, 25(8), 1026-1035.
Schultz, A. Studien zum Ernährungsverhalten.
Smith, C., & Stamoulis, C. (2023). Effects of multidomain environmental and mental health factors on the development of empathetic behaviors and emotions in adolescence. Plos one, 18(11), e0293473.
Stice, E. (2002). Risk and maintenance factors for eating pathology: a meta-analytic review. Psychological bulletin, 128(5), 825.
Tieu, M. (2022). Self and Identity: An Exploration of the Development, Constitution and Breakdown of Human Selfhood. Routledge.
Tiggemann, M., & Slater, A. (2013). NetGirls: The Internet, Facebook, and body image concern in adolescent girls. International Journal of Eating Disorders, 46(6), 630-633.
Volkaert, B., Verbeken, S., Debeuf, T., Michels, N., & Braet, C. (2022). Training self-compassion: exploring the effects on adolescents' physiological and self-reported stress responses. Mindfulness, 13(4), 897-907.
Wasylkiw, L., MacKinnon, A. L., & MacLellan, A. M. (2012). Exploring the link between self-compassion and body image in university women. Body image, 9(2), 236-245.

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Wu, Z., & Zhang, Y. (2023). Influences on the Development of Self-compassion in Adolescents. International Journal of Education and Humanities, 10(1), 109-112.