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Development and Validation of the Self-Objectification Scale for Assessing Psychological Well-Being in Educational Context

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ABSTRACT

Presently, the youth suffer from much psychological distress due to overly emphasized outlooks and physical appearances by the media and society. This study aimed at the development and validation of the Self-Objectification Scale (SOS). The first phase involved conceptualizing the scale and generating relevant items. The interviews were conducted, transcribed, and analyzed, leading to the creation of items aligned with McKinley and Hyde's self-objectification theory. In the second phase, the scale items underwent content validity by expert evaluation. The third phase involved a try-out study. In the fourth phase, Exploratory Factor Analysis (EFA) was conducted on a sample of 306 adolescents selected by random sampling, aged between 19 and 25 years. A Confirmatory Factor Analysis (CFA) was conducted on another sample of 256 participants by random sampling. Results for EFA showed KMO yielded a value of .873 and Bartlett's Test of Sphericity was statistically significant. The CFA yielded a Normed Fit Index (NFI) of .95, a Comparative Fit Index (CFI) of .97, a Goodness Fit Index (GFI) of .97, and a Root Mean Square Error of Approximation (RMSEA) of .07. These results suggested that the model fully meets the conventional criteria for the good fit indices. Cronbach's alpha was found to be 0.70. The Pearson correlation for concurrent validity between the SOS and Objectified Body Consciousness Scale is 0.24, a significant positive relationship. Conclusively, to measure the phenomenon of body objectification, a reliable and valid instrument of SOS is developed for the Pakistani youth.

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1. Introduction

Nowadays, there are a lot of determinants impacting the academic achievements of the students such as the learning proficiency tools, divulgation, appropriate directions from parents (Singh, Malik, & Singh, 2016), the previous record of grades, parental support, and utilization of e-learning action (Al Husaini & Shukor, 2022). These factors are widely studied and empirical evidence supports their crucial impact on academic achievements. However, the study of self-objectification, to perceive oneself as an object rather than as a human being with tremendous potential for growth and high-performance production has been underestimated and neglected in educational research (Zhang et al., 2024). The objectification theory implied detrimental performance outcomes by the seizure of cognitive

capacities (Quinn, Chaudoir, & Kallen, 2011). (Dwivedi et al., 2022) found a significant negative association between academic achievements and self-objectification among fourteen to eighteen-year-old school girls in India. The construct of objectifying one's self and one's body is widely explored in psychological research, predominantly in association with investigating its effect on the image related to one's body and psychological well-being. Self-objectification is understood as people notice their material selves as objects, mainly appraising themselves centered on looks and bodily qualities rather than inherent potentials or talents. The Objectification Theory postulates that the socio-cultural context of the individuals highlights the prominence of bodily form, chiefly for women, and instigates individuals to adopt a foreigner's opinion of their bodies. Such internalization gives rise to body surveillance when the persons uninterruptedly observe their looks and experience body shame due to unmet beauty standards prevailing in society. These actions are connected to numerous undesirable mental consequences, comprising amplified nervousness, melancholy, and disorderly consumption of food (Fredrickson & Roberts, 1997).

The prominence of quantifying self-objectification is progressively vibrant, mostly in light of its harmful effects on psychological and emotional health. Adolescents, in particular, are a susceptible group in this respect. Throughout adolescence, persons experience noteworthy physical, emotional, and psychological ups and downs, making this a serious age for the progression of image-related physical aspects of the body. Youths are barraged with social and broadcasting communications that adore definite body styles and looks. They internalize these standards, primarily to the extent of objectification of their self. Given the possible long-term concerns of self-objectification throughout this evolving stage, it is vital to have a consistent and usable instrument to measure this concept in youths. The Objectified Body Consciousness Scale (OBCS) developed by (McKinley & Hyde, 1996) is valuable in thoughtful measurement of self-objectification in adults. It has not fully explained the exclusive experiences of youths. Youths are not only more vulnerable to peripheral effects, such as peer pressure and media contact, but they are also in the middle of evolving their individuality, comprising their body image (McKinley & Hyde, 1996). Consequently, it is perilous to construct an instrument precisely considered to assess self-objectification in youngsters, captivating the developing and circumstantial causes that effect their body image.

One of the important features of self-objectification in teenagers is the role of media and social inspiration. Youths are continuously exposed to images and communications that endorse idealistic good looks standards, frequently equating their bodies to these models (Grabe, Ward, & Hyde, 2008). This appraisal can substitute feelings of insufficiency and lead to amplified body observation and body disgrace. Moreover, the increase in social media has strengthened these stresses, as youths are now not only customers of media but also members of a digital ethos where looks is often highlighted and inspected. The Self-Objectification Scale for youths assesses these changing aspects by counting items that imitate the effect of media and social weights on body image.

Additional significant deliberation in the growth of the constructions of the instruments for youngsters is the connection of self-objectification with other mental constructs, such as self-esteem and body disappointment. Research has shown that self-objectification is strictly linked to lesser self-esteem and greater levels of body displeasure, both of which are predominant issues among youths (Grabe, Ward, & Hyde, 2008). By measuring self-objectification together with these connected concepts, the scale can deliver an in-depth understanding of how self-objectification adds to wider patterns of emotional distress in teenagers. This approach also lets the documentation of possible defensive elements, such as optimistic body image and great self-esteem, which may alleviate the undesirable influences of self-objectification.

The Self-Objectification Scale for youths has significant scientific implications. Counselors dealing with teenagers who fight with body image issues can use the measure to screen the presence of self-objectification and adapt the treatment accordingly. Subsequently, interventions might emphasize reducing body observation and body embarrassment predominantly operative in speaking about the emotional suffering connected with self-objectification. Thus, the counselors might endorse self-compassion and

academic performance (Buljubašić & Bulut, 2022; Egan et al., 2022; Tylka & Wood-Barcalow, 2015). Additionally, the measure can be used to estimate the efficacy of such interventions by assessing variations in self-objectification over a long period of duration.

Also, the construction of self-objectification measures advances the understanding of the role of internalized attractiveness criteria and their influence on individuals' mental health. Additional research discovered the association between self-objectification and positive body image, signifying that the promotion of body gratitude and self-compassion can alleviate the negative effects of self-objectification. The development of scales that not only measure self-objectification but also evaluate body apparel, to provide a more comprehensive understanding of body image (Tiggemann, 2013; Tylka, Bergeron, & Schwartz, 2005; Tylka & Hill, 2004) The addition of positive psychological constructs into self-objectification investigation signifies a substantial progression in the field of the education by incorporation of the impact on pupils' performance.

In Pakistan, the gap high-points a chance for upcoming research to construct tools for use with youth, ensuring its relevance and accessibility to Urdu-speaking young people. The rationale of the present study inferred that the development and validation of Self-Objectification Scale in an education setting for youths signifies a noteworthy improvement in the study of body image and emotional well-being by concentrating on the exceptional experiences and contests confronted by these young people. The scale has to contribute to an improved consideration of self-objectification and its influence on teenage psychological health in the educational context. Its implications advocate counselors and psychologists working in a school, college, and university setting to provide proper guidance to the effected youth and enhance their educational abilities and capacities for better performance and well-being.

2. Methodology

The study was carried out in the following phases. Phase I comprised the development of the SOS according to the framework of Objectified Body Image (McKinley & Hyde, 1996). The phenomenon of self-objectification was conceptualized by the review of literature and the relevant items were generated. For the development of more items, semi-structured interviews with four psychologists and ten university students were conducted. The interviews were transcribed and analyzed, leading to the creation of items that aligned with three key domains identified by McKinley and Hyde's theory: surveillance, body shame, and control beliefs.

In the second phase, the scale items were evaluated for content validity by experts. A committee of six specialists, including three M. Phil holders and two PhD holders, reviewed the items. Based on their feedback, certain items were omitted or revised to enhance the scale's overall relevance after calculating the Content Validity Ratio (CVR) (Ayre & Scally, 2014). The third phase involved a try-out study to refine the scale items based on feedback from participants aged 19 to 25 years by purposive sampling from the University of Gujrat. The scale items were found appropriate for the target population and were clearly understood.

The Phase-IV comprised a pilot study to apply EFA on a sample of university students. The sample size for EFA was calculated by Yamane Formula (Chaokromthong & Sintao, 2021; Yamane, 1973) and nineteen to twenty-five years old 306 adolescents (116 males and 190 females), were selected by random sampling technique. After getting permission from the authors and the departmental heads, the questionnaires were used for research purposes. Written informed consent is also obtained from the participants after explaining to them the nature and purpose of the research. All participants are ensured by the researcher that their information will be kept confidential and used exclusively for research purposes. Then, each of the participants is administered a set of questionnaires. Finally, participants are informed that they are thanked and appreciated for their taking part in the study**.**

For CFA, another fresh sample was taken. The sample size was determined by the Yamane Formula (Chaokromthong & Sintao, 2021; Yamane, 1973). In total, 256 adolescents between nineteen to twenty-five years old (95 males and 161 females) were

selected by random sampling technique. Approval for data collection was obtained from the University of Gujrat.

The reliability and validity analyses were carried out for the SOS. The Cronbach's Alpha was calculated on the sample of 256 adolescents taken for CFA. For concurrent validity analysis, a new sample of 200 adolescents within the same age range was selected by probability sampling. The Urdu version of OBCS was adapted by the procedures of the forward and backward translation method (Brislin, 1970). They were administered SOS and the Urdu version of OBCS (McKinley & Hyde, 1996).

2.1 Ethical Consideration

This cross-sectional research was carried out after seeking approval from the Advanced Studies and Research Board (ASRB), University of Gujrat. The permission from the heads of the departments was taken before data collection. The participants' anonymity was maintained and written informed consent for their willingness was taken.

3. Results

The Statistical Package for the Social Sciences (SPSS-24) is used for EFA, CFA, Reliability, and Validity Analyses. Table 1 shows that the Kaiser-Meyer-Olkin (KMO) is .873 and Bartlett's Test of Sphericity is significant.

Table 1: **Descriptive of EFA for SOS (N=306)**

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.873
Bartlett's Test of Sphericity	**Approx. Chi-Square**	8119.364
	df	1128
	Significance	0.000

Table 2 results are based on the > 0.40 factor loading for SOS with Principal Component Analysis with Varimax rotation and Kaiser Normalization, three components were extracted including body observation, Body disgrace, and rigid beliefs. The Principal Component Analysis (PCA) revealed that the first component explains 27.831% of the variance, with a marked decrease in the variance explained by subsequent components, underscoring its importance.

Table 2: Exploratory Factor Analysis of 44 Items on SOS (N= 306)

		Factors		
Sr. No.	**Item No.**	**BO**	**BD**	**RB**
1	14	.697		
2	13	.658		
3	22	.648		
4	15	.641		
5	21	.641		
6	25	.630		
7	24	.609		
8	31	.603		
9	12	.595		
10	17	.588		
11	16	.566		
12	26	.561		
13	30	.550		
14	34	.543		
15	33	.533		
16	27	.530		
17	11	.514		
18	29	.465		
19	23	.447		

23	32	.430		
24	18	.437		
25	46		.749	
26	45		.703	
27	48		.700	
28	47		.662	
29	44		.658	
30	39		.629	
31	42		.604	
32	37		.578	
33	49		.575	
34	41		.526	
35	38		.509	
36	19		.455	
37	40		.452	
38	5			.681
39	6			.660
40	4			.637
41	3			.629
42	8			.588
43	9			.549
44	7			.400
Eigen Values		13.35	3.65	2.35
Values of Variance		27.83%	7.60%	4.89%

Note. Factor loading > .40; BO=Body observation, BD=Body disgrace, RB=Rigid beliefs

Table 3 shows the results of CFA for the SOS. CFA was carried out with AMOS-24. After eliminating thirty-seven items, the results showed significant indicators of model fit; the Chi-Square/Degrees of Freedom (CMIN/DF), Goodness of Fit Index (GFI) is 0.97, Comparative Fit Index (CFI) is 0.97, Root Mean Square Error of Approximation (RMSEA) is .07, and Normed Fit Index (NFI) is 0.95. These results suggest that the model exhibits a good fit and fully meets the conventional criteria for a model acceptance via CFA.

Table 3: Confirmatory Factor Analysis of SOS (N= 256)

P Value	CMIN/DF	GFI	CFI	RMSEA	NFI
.008	2.31	.97	.97	.07	.95

Figure 1: CFA Model for SOS

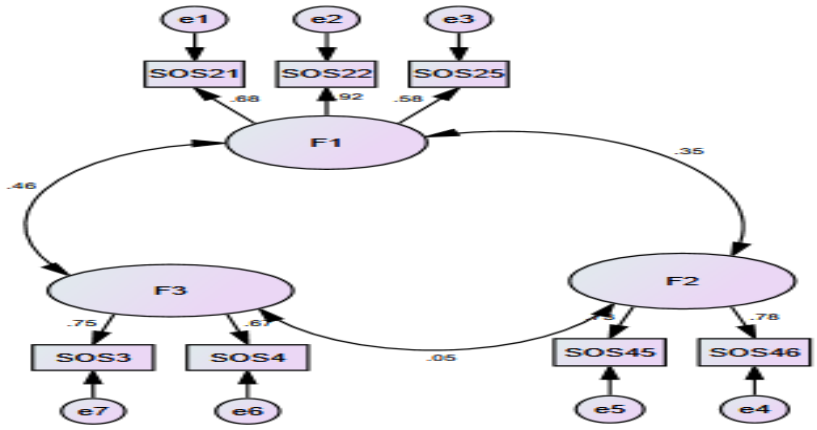

Table 4: Reliability of the SOS (N=256)

	Items	M	SD	α
Self-Objectification	7	14.11	5.00	.70

Table 4 shows the internal consistency of the scale, as measured by Cronbach's alpha, was found to be .70, indicating a good level of reliability (Nunnally & Bernstein, 1994).

Table 5: Concurrent Validity (N=200)

Variables	2
1. Self-Objectification Scale	.24**
2. Objectified Body Consciousness Scale	-

Table 5 shows the Pearson correlation between the SOS and OBCS with a significant positive concurrent validity (r= 0.24, n=200, p<0.01).

4. Discussion

Recognizing that adolescence is a critical period for the development of body image and that young girls are particularly vulnerable to the effects of societal beauty standards, Lindberg and colleagues sought to validate the OBCS for use with younger populations. Their findings highlighted the importance of considering developmental factors when measuring self-objectification in adolescents, as the experiences and pressures faced by this age group may differ significantly from those of adults (Koff, Rierdan, & Stubbs, 1990; Stice, 2003). Body objectification has a negative impact on the cognitive, emotional, behavioral, and physiological well-being of the individuals (Kahalon, Shnabel, & Becker, 2018) thereby yielding low academic performance. Hence, the development and validation of SOS is a need of an hour to identify youth effected by it and to provide counseling intervention for improvement of their well-being.

The results of EFA and CFA signified the SOS along with body observation, body disgrace, and rigid beliefs sub-scales as a valid measure of self-objectification in the youth. The results are in line with the framework of (McKinley & Hyde, 1996) and three sub-scales namely body surveillance, body shame, and control beliefs. EFA yielded three sub-scales with forty-four items having factor loading above 0.40. The sample sufficiency was assessed using KMO and Bartlett's Test of Sphericity (see Table 1). The SOS yielded good results for EFA. The Kaiser-Meyer-Olkin (KMO) is .873 and Bartlett's Test of Sphericity was significant, making the data sample appropriate for the administration of EFA (Field, 2024). Pallant, (2020) stated that a KMO value of 0.6 or higher is sufficient for determining sample adequacy. Furthermore, in the Test of Sphericity, if the significance value is less than 0.05, it indicates that the data lacks an identity matrix. As a result, the data is classified as almost multivariate normal and can be used for further research. CFA confirmed these sub-scales with 0.40 and above factor loading; CMIN/DF 4.2; GFI 0.971; NFI and CFI values above .90; and the RMSEA value below .08 is considered acceptable (Browne & Cudeck, 1992; Byrne, 2013; Hu & Bentler, 1999; Wheaton et al., 1977).

Several researchers (Kim & Kwon, 2025; So & Kwon, 2025) emphasized the importance of youth experiences in self-objectification. The impact of social media on body image cannot be studied without taking into account the sociocultural background of the adolescent (Marsh & Hocevar, 1985; Perloff, 2014). The SOS serves as a culturally relevant tool to gauge the problems of adolescents related to their bodies and physical appearances. Thus, implications stand strong for the counseling professionals in the educational setups to assess, devise, and monitor their counseling according to the severity of the problem in the youth (Allen & Robson, 2020; Cafri et al., 2005; Menzel et al., 2010) thereby improving intervention to enhance their body image and self-compassion (Grabe, Ward, & Hyde, 2008). As body image burdens remain high, the SOS measures the phenomenon for understanding and addressing self-objectification among youths, eventually contributing to better mental health consequences and a more nuanced consideration of body image issues. This in turn would enhance their self-esteem and academic performance in the education setups in Pakistan.

5. Conclusions

The SOS is a valid and reliable measure for assessing self-objectification during adolescence. Its validation and application in understanding the effects of contemporary media influences underscore its implication for both research and clinical practice.

5.1. Practical Implications for Educational Psychology

SOS can be used by school psychologists and counselors to identify and support students at risk of body image issues. Thus, the provision of adequate counseling and guidance would safeguard the students against low self-esteem and low academic performance.

5.2. Limitations and Future Direction

There are several limitations that must be acknowledged. One primary limitation is the sample size taken from a single university and is not representative of the broader adolescent population. This limited the generalization of the findings. The inclusion of more diverse and representative samples is crucial for enhancing the applicability and external validity of psychological measures. Future research should consider recruiting participants from various educational institutions and geographical locations of Pakistan to ensure that the SOS is applicable across different demographic groups.

Another limitation is the cross-sectional design with a single point-in-time data point. The conclusions about the longitudinal effects of self-objectification cannot be drawn. A longitudinal study with transitory changes from school to university would give an in-depth understanding of the concept of body-objectification as it changes with time. Further, the impact of self-objectification on their CGPA should be analyzed in detail.

The current study did not measure the moderators or mediators between self-objectification and psychological outcomes. Integration of these variables could offer a more nuanced understanding of self-objectification and mental health (Perloff, 2014). Future research should focus on further testing the scale's psychometric properties and exploring its applicability in clinical settings as a co-morbid condition with other diseases (Stice et al., 2008). Mixed results have been reported for the cross-cultural implications of body objectification in the youth with some highlighting the differences (Gattino et al., 2018; Wollast et al., 2021) while others negating the presence of the cross-cultural differences (Gattino et al., 2023) in young adults. The present study has not investigated cross-cultural differences and future research conducted in this direction would be fruitful to explore differences in perceived beauty standards and their impact on the well-being of Pakistani and US adolescents and adults.

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