

Body Surveillance and Body Dissatisfaction among Pakistani Young Females: Social Comparison as Moderator

Rabia Jehangir Khan¹, Humaira Bibi², Summaira Naz³, Faria Khan Afsar⁴

¹M.Phil Psychology, Department of Psychology, Hazara University, Mansehra, Pakistan.

²Lecturer, Department of Psychology, Hazara University, Mansehra, Pakistan.

³Assistant Professor, Department of Psychology, Hazara University, Mansehra, Pakistan.

⁴Assistant Professor, Department of Psychology, Govt. Girls Post Graduate College No. 1, Abbottabad, Pakistan.

Correspondence: humairasaqib1981@gmail.com²

ABSTRACT

Aim of the Study: People usually become dissatisfied with their body image when they try to conform to the beauty standards set by the society. The current study was carried out to describe the moderating role of social comparison between body surveillance and body dissatisfaction in young Pakistani females.

Methodology: A total of 400 female respondents aged 16-30 years took part in the research from districts of Hazara division, Pakistan. Previously validated scales: the Physical Appearance Comparison Scale- Revised, Objectified Body Consciousness Scale and Body Satisfaction Scale were used for assessing levels of social comparison, body surveillance and dissatisfaction with body, respectively. Pearson correlation and hierarchical multiple regression analyses were performed to test the relationship between social comparison, body surveillance, and dissatisfaction with body and to find out moderating role of social comparison between body surveillance and body dissatisfaction. Independent t-test and analysis of variance were performed to compare the body mass index (BMI) scores and self-perceived body structure on these variables.

Findings and Conclusion: Social comparison was found to be significantly associated with body surveillance and body dissatisfaction in positive direction. Social comparison was found to act as a significant moderator between body surveillance and body dissatisfaction. Statistically significant differences were found among average weight and over-weight females and levels of self-perceived body structure on the measures of social comparison, body surveillance and dissatisfaction of body.

Study Implications: The findings have implications for parents, teachers and health professionals to support young females in understanding and overcoming the challenges related to their body image, which may also lead to eating disorders.

Keywords: Social Comparison, Body Surveillance, Body Dissatisfaction, Body Mass Index, Self-perceived Body Structure, Pakistani Females.

Article History

Received:
June 25, 2022

Revised:
January 22, 2023

Accepted:
February 3, 2023

Published:
February 15, 2023

Introduction

The world has transformed and times have changed drastically over the recent years, giving way to a culturally modern world. More specifically, the variations in fashion trends seem attractive and are desirable by people around the globe which somehow convince them to change the way they look and alter their image of body. Body image is known as how a person perceives his/her looks based on the judgements of other people (Azhaar et al., 2020). Sarwer et al. (2008) explained body image as the attitude of an individual towards their own appearance that may lead to satisfaction or dissatisfaction, and is often responsible for the self-worth in them. Recently, body image has been a topic of great concern, as dissatisfaction with one's own body image may lead towards obsessive behaviours such as surgeries, strict diets, and use of laxatives. Females tend to experience body dissatisfaction when they are unable to accept their real image of body and strive to achieve their desired body image, set by either the society, culture or media (Lee, 2013). Social comparison is the process in which an person is said to be comparing themselves with other individuals, usually their friends, who are quite relatable to many of their own aspects (Tyszkiewicz et al., 2019). Recent researches have indicated that many body image disturbances are caused by social comparison, as females consider themselves to be over-weight if they compare their bodies with thin beauty ideals set by the society and spread largely by the media (McKayla, 2018). There are many factors in the environment that have a great impact on how individuals feel, think and perceive. Studies have shown that individuals become heavily concerned about their bodies when they compare themselves with others, and in doing so, they might experience body surveillance (Regnier et al., 2019). Previous studies, such as one detailed study by Myers and Crowther (2009) have shown a positive association between upward social comparisons and body checking behaviours among females, which are deeply associated with eating disorders and thin body idealisation to an extent which forms a deeper condition of body surveillance.

Body surveillance is known as a consistent urge to monitor and assess the physical outlook of one's own body. It is usually assumed to cause low self-worth, or a self-perception of being unable to fulfil the societal ideals of beauty (McKinley & Hyde, 1996). Studies suggest that there is a huge impact of negative remarks about an individual's appearance, and a sensitive link lies in body surveillance and body dissatisfaction (Wade, 2016). Body dissatisfaction is the aversive perception a person has about his or her own physical outlook. It usually includes the self-perception of a person about the size, weight and structure of their body, and is found to be associated with the discrimination between their actual and ideal body. It is often known as the less positive judgement of an individual's physical outlook (Stice & Shaw, 2002).

Body dissatisfaction is generally more common in females as compared to males. Moreover, females are observed to be more inclined towards having a thin body as their ideal body shape, as compared to their actual body size (Najam & Ashfaq, 2012). Several studies have indicated that people tend to be more dissatisfied with their bodies as their body mass index (BMI) increased and they compared it with others in their surroundings (Faith et al., 2007). The results of a study among young individuals of Karachi, indicated that social comparison and dissatisfaction with body was greater in females than males, as they experience more pressure from their environment and culture to become slimmer (Khan et al., 2011). The unresolved issue with a person's own perception of their body often leads to body surveillance when they become obsessed with comparing their bodies and appearances with those around them (Tiggemann, 2013). Lee (2013) suggested that females with higher BMI tend to be more conscious about their bodies, more commonly in their young age, as they find a huge difference in their ideal bodies and their actual bodies and may fall for body surveillance. But as time passes and they enter middle adulthood, they become less conscious about their outer appearances. One reason for this could be the shift in their ideal body image which is usually expected to be heavier in the later age. Body surveillance is also common among females with bigger body structures, as they experience body surveillance when they perceive themselves misfit in the culturally set thin beauty standard. Moreover, studies have showed that dissatisfaction is more prevalent among people with large body structures (Bucchianeri et al., 2013).

Individuals are prone to body dissatisfaction when they feel the pressure to become thin or slim from the environmental cues they receive. They become less satisfied with their body structure and tend to alter it through several ways (Khan et al., 2011).

Lately, little research work in Pakistan has been conducted on dissatisfaction of body with emphasis on investigating the major risk factors correlated with dissatisfaction of body (Jalees & Run, 2014). Another research conducted in Pakistani University students explored numerous factors that have effects on dissatisfaction of body including issues related to too much weight, body shape imperfections, skin flaws, and others (Tariq & Ijaz, 2015). Females experiencing pressure from peers and family members (as being a part of joint family system) which led to their socially comparing themselves resulting in dissatisfaction with their own bodies. Najam and Ashfaq (2012) conducted a study on males and females in Lahore Pakistan and noted that worries about appearance are greater in females; they perceive themselves as overweight than they really are; their body dissatisfaction is greater; have negative eating patterns and have the desire to lose their body weight, most probably engage in dieting behaviours; and have dissatisfaction with their body shape and weight.

The current study will not only harmonize the scientific literature but will also provide guide to other researchers to comprehend body concerns and psychological factors that may lead to body dissatisfaction among young females. Extensive number of researches have examined that body surveillance is significantly associated with dissatisfaction of body, but to the best of my knowledge, no specific study in Pakistan has been carried out to understand the moderating role of social comparison between surveillance of body and dissatisfaction of body, and their relationship with each other, with reference to demographics such as, body mass index (BMI) and self-perceived body structure. Therefore, the current study is a good initiative towards fulfilling the missing gap in literature by helping to develop an understanding of the role social comparison plays in the relationship between body surveillance and body dissatisfaction, and how it affects young females in Pakistani context. It will also assist in comprehending the impact of body mass index and self-perceived body structure upon body image disturbances. The current study will fulfil missing gap in literature and will be beneficial for young females in Pakistan as well as in other countries that if they decrease their level of social comparison they can lessen their level of body surveillance and will be more satisfied with their bodies. This may increase their satisfaction level and overall wellbeing.

Objectives

The present study has the following objectives:

1. To examine relationship of social comparison with body surveillance, and body dissatisfaction in young Pakistani females.
2. To explore the role of social comparison as moderator between body surveillance and body dissatisfaction.
3. To assess the role of demographic variables (body mass index, self-perceived body structure) on measures of social comparison, body surveillance, and body dissatisfaction among females of Pakistan.

Hypotheses

1. There will be positive association among social comparison, body surveillance, and body dissatisfaction in young Pakistani females.
2. Social comparison will be a moderator in relationship between body surveillance, and body dissatisfaction among females.
3. Females with overweight will have greater level of body surveillance and feel more dissatisfaction with body as compared to average weight females.

4. Fat females will have greater scores on social comparison, body surveillance and body dissatisfaction than thin and average females.

Method

The present study is based on cross-sectional survey method. Convenient sampling technique was used for selection of sample. Population comprised of young females of different areas of Hazara Division, Khyber PakhtunKhwa (KPK) province, Pakistan. The sample age range of 16-30 years was selected according to The United Nations Population Fund Report's (2017) definition of youth. This sample was additionally divided with reference to body mass index and self-perceived structure of body. According to KP Economic Zone Development & Management Company (2020), female population of cities of Abbottabad, Mansehra and Haripur is 1931809, out of which 29% are young females. Sample size calculation with 95% confidence interval and 5% marginal error, was found to be 384 individuals.

Inclusion Criteria

The current study included young females having age of 16-30 years.

Exclusion Criteria

Females under 16 years of age and over 30 years of age, and all males were excluded.

Research Instruments

The present study has measured three variables by using three scales including: Physical Appearance Comparison Scale- Revised (PACS-R) for measuring social comparison, The Objectified Body Consciousness Scale (OBCS) for assessing body surveillance, and Body Satisfaction Scale (BSS) for assessment of body dissatisfaction. Prior permissions for using PACS- R and OBCS were obtained from the respective developers. BSS was available for use through open access. The PACS-R was developed originally by (Schaefer & Thompson, 2014) and includes 11 items. The scoring of PACS-R is done on a 5 point scale with 0 representing never, 1 shows seldom, 2 represents sometimes, 3 shows often, and score of 4 reflects always. The scale has been previously validated and has a Cronbach's alpha value of .97. For use in the present study, alpha value for PACS-R was found to be .96.

The OBCS was developed by McKinley and Hyde (1996) and contains a sub-scale called The Body Surveillance Scale which was used for the current study. It has 8 items and the scoring criteria includes seven point scale, with the score of 1 represents strongly disagree, the score of 2 represents disagree, 3 shows slightly disagree, the score of 4 indicates neutral, 5 is related to slightly agree, 6 shows agree, and score 7 represents strongly agree. Some items of the scale are reverse coded (for example, items number 1, 2, 3, 7, and 8). The value of alpha for the scale is .89 and for the current study, alpha value for OBCS was calculated to be .71.

The BSS was developed by Slade et al. (2007) and in the recent study, a sub-scale of BSS, known as Body Dissatisfaction Scale is administered. BDS has seven items with the scores ranging from 1 to 7, out of these the 1 score indicates scoring of highly satisfied, the score 2 shows very satisfied, score 3 is related to somewhat satisfied, the score 4 represents satisfied, the score value of 5 indicates unsatisfied, 6 score shows very unsatisfied, and the value 7 indicates highly unsatisfied scoring, representing the degree of satisfaction and dissatisfaction of participants with their lower and upper body parts. A higher score indicates greater dissatisfaction of individuals with their bodies. The reliability of the scale is .80. For the present study, value of alpha for BSS was found to be .89.

Procedure

Ethics approval was obtained from the Hazara University Institutional Ethics Committee and concerned authorities. Participants from different colleges and institutes were approached with the permission of their respective authorities. The nature and objectives of the present study were explained to the participants. They were provided assurance about the confidentiality of their information. Written

informed consent was obtained and questionnaires were handed to the participants. There was no set time limit for completing the questionnaires and they were instructed to seek help from the researcher in case of any confusion regarding the questions.

Results

The recent study used suitable version of SPSS for statistical analysis of the data. t-test, analysis of variance, Pearson correlation analysis and multiple hierarchal regression analysis was run. At first reliability values were checked for all scales, the calculated alpha value were .96, .71 and .89 for PACS-R, OBCS and BSS respectively. Item total correlation has been used to check the construct validity of the scales. The results indicated satisfactory level of construct validity for all of the three scales, as all of the items on the scales have significant positive correlation with the total score on the respective scales.

Table 1: *Correlation Coefficient between Physical Appearance Comparison Scale- Revised (PACS-R), Objectified Body Consciousness Scale (OBCS), and Body Satisfaction Scale (BSS; N = 400)*

S. No	Variable	n	M	SD	I	II	III
I	PACS- R	400	18.99	3.56	-	.29**	.31**
II	OBCS	400	32.14	9.12		-	.42**
III	BSS	400	20.14	4.80		-	-

Note. M = mean; SD = standard deviation.

Table 1 indicated significant positive association of social comparison with body surveillance and dissatisfaction with the body. Table also showed that body surveillance also has significant positive association with dissatisfaction with the body.

Table 2: *Hierarchical Multiple Regression Analysis Predicting Body Dissatisfaction from Body Surveillance and Social Comparison (N = 400)*

Variable	B	95% CI LL	for B UL	SE B	β	R ²	ΔR^2
Step 1						.17	.18***
Constant	37.35	35.45	29.25	.96			
BS	8.96	7.06	10.87	.97	.42***		
Step 2						.24	.06***
Constant	37.35	35.52	39.18	.93			
BS	6.32	4.28	8.37	1.03	.29***		
SC	5.96	3.92	8.01	1.03	.28***		
Step 3						.25	.02***
Constant	25.12	17.32	32.87	3.95			
BS	3.73	1.16	6.31	1.31	.17***		
SC	-6.31	-14.14	1.53	3.98	-.29		
BS *SC	.02	.01	.04	.01	.65***		

Note. BS = body surveillance; SC = social comparison; β = standardized beta; ΔR^2 = delta R square.

The findings in table 2 indicated that body dissatisfaction is predicted by body surveillance significantly ($\beta = .42$, $t = 9.2$, $p = .000$), it showed the body surveillance carried out about 18% change in dissatisfaction with body $\{\Delta R^2 = .18, \Delta F(1, 398) = 85.80, p = .000\}$. The next step indicated that social comparison is a significant predictor of body dissatisfaction too ($\beta = .28$, $t = 7.7$, $p = .000$) by causing an additional change of 6% in body dissatisfaction $\{\Delta R^2 = .06, \Delta F(1, 397) = 32.96, p = .001\}$. In the end, the 3rd step, that is the interaction of body surveillance with social comparison also predicted dissatisfaction with body significantly ($\beta = .65$, $t = 5.4$, $p = .000$) by causing an supplementary change of about 2% in body dissatisfaction ($\Delta R^2 = .02, \Delta F(1, 396) = 10.14, p = .000$). On the whole, social

comparison, body surveillance, and their interaction bring about 26% of change in body dissatisfaction that is significant.

Table 3: Mean Differences of Levels of Body Mass Index on Physical Appearance Comparison Scale (PACSR), Objectified Body Consciousness Scale (OBCS) and Body Satisfaction Scale (BSS; N = 400)

Variables	Average (n = 187)		Over weight (n = 213)		t(398)	p	95% CI		Cohen's d
	M	SD	M	SD			LL	UL	
PACSR	9.20	9.71	17.22	14.32	6.61	.001	-10.39	-5.63	.65
OBCS	28.86	9.38	35.02	7.84	7.02	.000	-7.84	-4.43	.70
BSS	18.75	4.03	21.33	5.08	5.65	.000	-3.47	-1.69	.12

Note. M = mean; SD = standard deviation; CI = confidence interval; LL = lower limit; UL = upper limit.

The results of table 3 indicated social comparison, body surveillance and body dissatisfaction are significantly different on average and over-weight levels of body mass index, these results indicated that all of these variables are larger in over-weight females than females with average-weight.

Table 4: Mean Differences of Body Structure Types on Physical Appearance Comparison Scale- Revised (PACSR), Objectified Body Consciousness Scale (OBCS) and Body Satisfaction Scale (BDS; N = 400)

Variable	Thin (n = 130)		Average (n = 139)		Fat (n = 131)		F(397)	p	η^2
	M	SD	M	SD	M	SD			
PACS- R	17.31	2.72	18.91	3.37	20.75	3.7	35.65	.001	.15
OBCS	27.21	6.68	31.96	7.16	37.23	7.98	48.84	.001	.19
BSS	18.34	3.62	19.11	4.32	23.01	5.04	43.03	.001	.17

Note. M = mean; SD = standard deviation.

Table 4 indicated significant differences of body structure on measures of social comparison, body surveillance and dissatisfaction of body, these results showed that fat females have greater scores on all of these three variables in as compared to average and thin females.

Discussion

The aim of current research was to explore how of social comparison moderate the relationship of body surveillance with body dissatisfaction in young females. The demographic variables such as body mass index and self-perceived structure of body were also analysed. In view of the first objective it was found that social comparison, surveillance of body and dissatisfaction with body significantly associated with each other in positive direction (Table 1). This outcome is aligned with the findings of previous studies which indicated that there is a positive relationship between social comparison and body dissatisfaction (Cash, 2005; Chen, 2016). The study by Khan et al. (2011) carried out in Karachi, Pakistan, indicated that women were more likely to be dissatisfied with their bodies as compared to men. Additionally, they reported that tendency to socially compare their body sizes with other women was more prevalent among such women who had a great influence of the cultural and societal beauty standards upon them (Khan et al., 2011). Moreover, Ahmed et al. (2020) noted that street harassment had several psychological and emotional impacts on the young females of Islamabad, Pakistan, which included self-objectification and body surveillance. For the second objective, the findings suggest that social comparison acts as a moderator in the relationship between body surveillance and body dissatisfaction (Table 2). This finding is supported by prior research such as a previous study among graduate students in the United States, the results of which suggest that if individuals compared their bodies to the bodies of standardised thin beauty ideals of the society, they may suffer from body surveillance (Maddox, 2005). Another study conducted on young American females indicates that there is a deep connection between social comparison and body surveillance, where the latter may be moderated by the presence of social comparison. This comparison may include comparing oneself with others in terms of eating and exercising routines (Fitzsimmons-Craft

et al., 2014). Body surveillance was found to be a producer of body dissatisfaction. Relationship with family members and other members of the society may also become the cause of body surveillance (Lee, 2013). The results of a study conducted in Lahore Pakistan among young males and females showed that there was a strong link between social comparison and body dissatisfaction, where age and body weight acted as moderators in their relationship (Saleem, 2017).

With regards to the third objective of assessing the role of demographic variables (body mass index and self-perceived structure of body) on variables of social comparison, body surveillance, and dissatisfaction with body in young females, greater social comparison, surveillance of body and dissatisfaction with body were found in females who are over-weight as compared to females who are with average weight. These similar findings were reported in other studies. Christensen and Jaeger (2018), in their study conducted in the U. S reported that females tend to create a self- perceived weight status for themselves, by comparing their own body mass index with other females around them. It is noted that as the body mass index of females increases, their self- image tends to become negatively affected, which may also lead to body surveillance (Ahadzadeh et al., 2018). The results of another recent study among young adults of Karachi, Pakistan; showed that body dissatisfaction in young individuals tends to increase when the body mass index increases (Shaheen et al., 2016). Knauss and Stutz (2012) argued that females are more prone to body dissatisfaction as compared to males, and higher the body mass index is, the higher are chances of them falling into body dissatisfaction. Additionally, over weight females felt the pressure to become slim whereas, underweight females wanted to gain normal weight. Body surveillance is shown to be greatly influenced by body mass index (Wade, 2016).

In addition, social comparison, body surveillance and body dissatisfaction were found to be greater in females who perceive themselves as heavy as compared to those who perceive their body structure to be average or thin. This finding is supported by past studies such as one by Rancourt (2015), which indicated that the tendency of social comparison among young females is greatly influenced by how they think and feel in a particular social situation. Women may suffer from body dissatisfaction and body surveillance with the type of perception they have of their own bodies. Self- perceived body structure may cause body dissatisfaction among women (Wade, 2016). On the other hand, Schwartz and Bronwell (2014) have argued that body surveillance, perceived negative image of one's own appearance and being bulky are deeply related to one another. Heavy body structure, poor diet, unhealthy eating behaviour are some of the main causes of body surveillance (as cited in Weinberger, 2018). Tariq and Ijaz (2015) carried out a detailed study in Lahore, Pakistan; focusing on the factors involved in occurrence of body dissatisfaction among young individuals and concluded that flaws in body shape, skin imperfections and obesity are some of the main factors that leave a great impact on the respective construct. The results of a recent research in South Korea and Taiwan, revealed that body dissatisfaction is common among individuals who perceive their bodies to be bigger regardless of their actual body mass index (Noh et al., 2018). The results of the present research are also aligned with the extensive research on young females by Hudson et al. (2020), which indicated that women's self- perception of their bodies and body weight is different from their actual body size and weight. They perceive their bodies to be larger than their actual body size and wish to be as thin as their ideal body size. Literature from another study in Italy has indicated that both body surveillance and body dissatisfaction can be the result of continuously focusing on peculiarly slim individuals, which lead towards perception of their own body more unusually oversized than the bodies in vision (Stephen et al., 2018).

The study has some limitations that warrant mention. This was a cross-sectional study hence data collected was for a single point in time. Over a longer time period, there can be a shift in a person's self-image and extent of body satisfaction through different stages of their life. So, investigation over a longer time span is recommended to gain a deeper understanding of the concept. Data on other socio-demographic variables such as education, marital status, income etc. was not collected as a convenience sample of University attending females was obtained for this study. A varied, random sample with data

collected on other socio-demographic indicators and also inclusion of male gender in the sample will allow for more varied comparisons which are largely generalizable in a similar context.

Conclusion

The primary goal of the recent research was to measure the inter-relationships exist among of body surveillance, social comparison and body dissatisfaction, as well as to find out moderational role of social comparison between body surveillance and body dissatisfaction. The study concluded that social comparison is strongly associated with surveillance and dissatisfaction of body. Females who compare themselves with others have greater levels of body surveillance and are more dissatisfied with their bodies. Social comparison moderated the association between surveillance and dissatisfaction of body, indicated that as scores on social comparison increases the relationship between body surveillance and body dissatisfaction will become stronger. The study also found that females having more weight will be more involved in social comparison, have greater level of body surveillance and are more dissatisfied with their body. Additionally, fat females will be more involved in comparison of themselves with others, have more of body surveillance and are more dissatisfied with their body than thin or average females.

The results of the current study are beneficial for teachers, parents, sociologists and young individuals for gaining a deeper understanding on how social comparison is closely related to body surveillance and body dissatisfaction, that has a great impact on today's youth and can be helpful for them in finding out ways to prevent themselves from falling into body dissatisfaction in this digital era. The present research may be used as a guide to help clinicians and therapists in determining some of the factors associated with eating disorders and body image disturbances, which might assist them in planning prevention and treating strategies for such disorders.

Acknowledgments

None


Conflict of Interest


Authors declared no conflict of interest.


Funding Source

The authors received no funding to conduct this study.

ORCID iDs

Rabia Jehangir Khan ¹  <https://orcid.org/0000-0002-2306-810X>

Humaira Bibi ²  <https://orcid.org/0000-0002-0476-728X>

Summaira Naz ³  <https://orcid.org/0000-0002-2306-2453>

Faria Khan Afsar ⁴  <https://orcid.org/0000-0001-9024-1550>

References

- Ahadzadeh, A. S., Rafik- Galea, S., Alavi, M., Amini, M. (2018). Relationship between body mass index, body image, and fear of negative evaluation: Moderating role of self-esteem. *Health Psychology Open*, 5(1). doi: 10.1177/2055102918774251
- Ahmad, N. M., Ahmad, M. M, Masood, R. (2020). Socio-psychological Implications of Public Harassment for Women in the Capital City of Islamabad. *Indian Journal of Gender Studies*, 27(1), 77- 100. <https://doi.org/10.1177/0971521519891480>

- Alharballeh, S., Dodeen, H. (2021). Prevalence of body image dissatisfaction among youth in the United Arab Emirates: gender, age, and body mass index differences. *Current Psychology, 1*, 1- 10. 10.1007/s12144-021-01551-8
- Azhaar, M., Anwaar, M., Dawood, M., Ali, M., Shoaib, S. (2020). Relationship between Body Dissatisfaction, Depression and Anxiety among Young Adults. *International Journal of Social Sciences, 2*, 21-39. 10.20472/SS.2020.9.2.002
- Bucchianeri, M. M., Arikian, A. J., Hannan, P. J., Eisenberg, M. E., D. N. (2013). Body Dissatisfaction from Adolescence to Young Adulthood: Findings from a 10-Year Longitudinal Study. *Body Image, 10*(1). 10.1016/j.bodyim.2012.09.001
- Callan, M. J., Kim H., Mathews, W. J. (2015). Age differences in social comparison tendency and personal relative deprivation. *Personality and Individual Differences, 87*, 196-199.
- Cash, T. F. (2005). The Influence of Sociocultural Factors on Body Image: Searching for Constructs. *Psychology Faculty Publications, 79*. https://digitalcommons.odu.edu/psychology_fac_pubs/79
- Chen, S. J. (2016). Fluctuations in Body Dissatisfaction across Social Comparison Situations. *MSU Graduate Theses*. <https://bearworks.missouristate.edu/theses/2381>
- Christensen, V. T., Jaeger, M. M. (2018). Weight and social comparison: Does the weight of a stranger affect a person's perception of their own weight? *Health Psychology Open, 5*(2). 10.1177/2055102918819260
- Faith, M. S., Leone, M.A., & Allison, D. B. (2007). The effects of self-generated comparison targets, BMI, and social comparison tendencies on body image appraisal. *Journal of Eating Disorders, the journal of treatment and prevention, 5*(2), 128-140. 10.1080/10640269708249216
- Fitzsimmons-Craft, E. E., Bardone-Cone, A. M., Bulik, C. M., Wonderlich, S. A., Crosby, R. D., & Engel, S. G. (2014). Examining an elaborated sociocultural model of disordered eating among college women: the roles of social comparison and body surveillance. *Body Image, 11*(4), 488–500. <https://doi.org/10.1016/j.bodyim.2014.07.012>
- Hudson, G. M., Lu, Y. Zhang, X., Hahn, J., Zabal, J. E., Latif, F., Philbeck, J. (2020). The Development of a BMI-Guided Shape Morphing Technique and the Effects of an Individualized Figure Rating Scale on Self-Perception of Body Size. *European Journal of Investigating Health Psychology Education, 10*(2), 579–594. 10.3390/ejihpe10020043
- Jalees, T., Run, E. C. (2014). Body Image of Pakistani Consumers. *Journal of Management Sciences, 1*(1), 16-34. 10.20547/jms.2014.1401102
- Khan, A. N., Khalid, S., Khan, H. I., Jabeen, M. (2011). Impact of today's media on university student's body image in Pakistan: A conservative, developing country's perspective. *BMC Public Health, 11*, 379. 10.1186/1471-2458-11-379.
- Khan, N. T., Jameel, J, Khan, M. J., Rehman, S. U. A., Jameel, N. (2017). Body Image and Weight Concern among Pakistani Adolescent Females. *M J Derm. 2*(1), 011.
- Knauss, F., & Stutz, Z. (2012). Gender differences in disordered eating and weight dissatisfaction in Swiss adults: Which factors matter? *Public Health, 12*(809), 1471- 2458.
- KP Economic Zone Development & Management Company (2020). [http://District wise economic profile of kp | KPEZDMC](http://District%20wise%20economic%20profile%20of%20kp%20|%20KPEZDMC)
- Lee, M. S. (2013). Women's body image throughout the adult life span: Latent growth modeling and qualitative approaches. *Graduate Theses and Dissertations. 13212*. <https://lib.dr.iastate.edu/etd/13212>

- Maddox, R. E. (2005). Cognitive responses to idealized media images of women: The relationship of social comparison and critical processing to body image disturbance in college women. *Journal of Social and Clinical Psychology, 24*, 8, 1114-1138. <https://doi.org/10.1521/jsocp.2005.24.8.1114>
- McKayla, K. (2018). Preventing Eating Disorders by Promoting Media Literacy and Rejecting Harmful Dieting Based Mentalities. *Intuition: The BYU Undergraduate Journal of Psychology, 13*(1), 6.
- McKinley, N. M., & Hyde, J. S. (1996). The objectified body consciousness scale: development and validation. *Psychology of Women Quarterly, 20*, 181-215.
- Myers, T. A., & Crowther, J. H. (2009). Social comparison as a predictor of body dissatisfaction: A meta-analytic review. *Journal of Abnormal Psychology, 118* (4), 683-698. doi.10.1037/a0016763
- Najam, N., Ashfaq, H. (2012). Gender Differences in Physical Fitness, Body Shape Satisfaction, and Body Figure Preferences. *Pakistan Journal of Psychological Research, 27*(2), 187-200.
- Noh, J. W., Kwon, Y. D., Yang, Y., Cheon, J., Kim, J. (2018). Relationship between body image and weight status in East Asian countries: comparison between South Korea and Taiwan. *BMC Public Health 18*, 814. <https://doi.org/10.1186/s12889-018-5738-5>
- Rancourt, D., Leahey, T. M., LaRose, J. G., Crowther, J. H. (2015). Effects of weight-focused social comparisons on diet and activity outcomes in overweight and obese young women. *Obesity, 23* (1) 85- 89. <https://doi.org/10.1002/oby.20953>
- Regnier, F., Le Bihan, E., Tichit, C., & Baumann, M. (2019). Adolescent Body Dissatisfaction in Contrasting Socioeconomic Milieus, Coming from a French and Luxembourgish Context. *International Journal of Environmental Research and Public Health, 17*(1), 61. <https://doi.org/10.3390/ijerph17010061>
- Saleem, T. (2017). Body Dissatisfaction and Social Comparison among Pakistan University Students. *National Conference of Psychology (NCP 2017): Emerging Social and Mental Health Issues in Society*, 12-13 December: Lahore Garrison University, Lahore.
- Sandhu, T. Sandhu, S. (2021). Body Consciousness and Self-Objectification in Gen Z Adolescent Girls. *Current Research in Psychology, 9*(1), 13. <https://thescipub.com/pdf/crpsp.2021.1.13.pdf>.
- Sarwer, D. B., Infield, A. L., Baker, J. L. Casas, L. A., Glat, P. M., Gold, A. H., Jewell, M. L., LaRossa, D., Nahai, F., Young, V. L. (2008). Two-year results of a prospective, multi-site investigation of patient satisfaction and psychosocial status following cosmetic surgery. *Aesthetic Surgery Journal, 28*(3), 245-250.
- Schaefer, M., Thompson, K. (2014). The development and validation of the Physical Appearance Comparison Scale-Revised (PACS-R). *Eating Behaviors, 15*, 209-217. doi.org/10.1016/j.eatbeh.2014.01.001
- Schwartz, M. B., & Bronwell, K. D. (2004). Obesity and body image. *Body Image, 1*(1), 43-56. 10.1016/S1740-1445(03)00007-X
- Shaheen, H. Kumar, H., Dev, W., Parkash, O., Rai, K. (2016). Gender difference regarding body image: a comparative study. *Advances in Obesity Weight Management and Control, 4*(4), 76-79. 10.15406/aowmc.2016.04.00092
- Slade, P. D., Dewey, M. E., Brodie, D., Newton, J. T., Kiemle, G. (2007). Development of the Body Satisfaction Scale. *Psychology and Health, 4*(3), 213-220. 10.1080/08870449008400391
- Stephen, I. D., Sturman, D., Stevenson, R. J., Mond, J., Brooks, K. R. (2018). Visual attention mediates the relationship between body satisfaction and susceptibility to the body size adaptation effect. *PLoS One, 13*(1). 10.1371/journal.pone.0189855

- Stice, E., & Shaw, H. E. (2002). Role of body dissatisfaction in the onset and maintenance of eating pathology: A synthesis of research findings. *Journal of Psychosomatic Research*, *53*, 985–993.
- Tariq, M., & Ijaz, T. (2015). Development of body dissatisfaction scale for university students. *Pakistan Journal of Psychological Research*, *30* (2), 305-322.
- Tiggemann, M. & McCourt, A. (2013). Body appreciation in adult women: Relationships with age and body satisfaction; Flinders University, Adelaide, Australia. *Body Image*, *10* (4), 624–627. <http://dx.doi.org/10.1016/j.bodyim.2013.07.003>
- Tyszkiewicz, M. F., Chhouk, J., Mccann, L., Urbina, G., Vuo, H., Krug, I., Ricciardelli, L., Linardon, J., Broadbent, J., Heron, K., Richardson, B. A. (2019). Appearance comparison and other appearance-related influences on body dissatisfaction in everyday life. *Body Image*, *28*, 101-109. [10.1016/j.bodyim.2019.01.002](https://doi.org/10.1016/j.bodyim.2019.01.002)
- UNFPA. (2016-17). *UN population fund report*. United Nations. [http:// www.unfpa.org/swop](http://www.unfpa.org/swop)
- Wade, A. (2016). The impacts of exposure to fat talk and fat talk challenging through social media on women. *Texas Woman's University Department of Psychology and Philosophy and College of Arts and Sciences*. Denton, Texas. <https://twu-ir.tdl.org/bitstream/handle/11274/8777/Waded2.pdf>
- Weinberger, N. A., Kersting, A., Riedel-Heller, S. G., Luck-Sikorski, C. (2018). The relationship between weight status and depressive symptoms in a population sample with obesity: The mediating role of appearance evaluation. *Obesity Facts*, *11*, 514–523. <https://doi.org/10.1159/000492000>