

## **Impact of Instagram Usage on Young Women's Body Esteem: Mediating Role of Beauty Perception**

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This study investigated the effect of Instagram usage on body esteem; whereas beauty perception was taken as a mediator between Instagram usage and body esteem in young women. It was hypothesized that Instagram usage, beauty perception and body esteem would be positively related. It was further hypothesized that beauty perception would mediate the relationship between Instagram usage and body esteem. A sample of 210 young women aged 19-24 years was collected through purposive sampling technique from universities and colleges of Lahore. Instagram Intensity Scale (Trifiro, 2018), Broad Conceptualization of Beauty Scale (Tylka & Iannantuono, 2016) and Body Esteem Scale (Mendelson et al., 2001) were administered. All the scales showed satisfactory reliabilities ranging from .74 to .92. The result of Pearson Product Moment showed that beauty perception had significant positive relationship with body mass index. Mediation through analysis of moment structures revealed that beauty perception did not intervene the relationship between Instagram usage and body esteem, implying a direct only non-mediation where Instagram usage had direct influence on body esteem. Additionally, one-sample t-test results revealed that there were differences in young women regarding Instagram usage, beauty perception, self-worth and body esteem. The findings were discussed in the light of existing literature and Pakistani sociocultural context.

*Keywords.* Instagram usage, beauty perception, body esteem, young women

In this era of social media explosion, Instagram has undoubtedly become one of the widely accepted and most frequently used application transforming the lives of many young women today.

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Testing the mental impact on the health of media users requires the portrayal of real conditions, and tracking down comprehensive explanation is truly inconvenient. Instagram usage refers to the extent to which the use occurs, including expressive relatedness to the app and how much it is assimilated into one's app. It is one of the speedily arising means for social media (Anderson & Jiang, 2018).

Instagram use causes substantially more juxtaposition of appearance and lower body fulfillment. These feeds will in general be populated via cautiously curated, presented, sifted and altered photographs of appealing celebs and companions. A repeated measures design was utilized. Results uncovered that Instagram use builds the inclination to consider one's appearance contrasted with taking part in errands with no visual examination targets. It brought about more appearance thought and high usage adversely impacts youngsters' body esteem (Engeln et al., 2020).

Mushfiq (2017) investigated the psychological impact on youth through memes on Instagram, Twitter, and Facebook. Pictures of messages with the photos become entrenched in the brain. Stratified sampling was utilized to collect data from two-hundred respondents. Youth takes an active role in sharing, labeling and creating memes with different users. Majority of the youth acknowledged this reality that memes are influencing them mentally on social sites as they get themselves engaged in such memes that they relate each daily life circumstance with these laidon religious, social, or ethnic memes. So it is affecting our youth adversely.

Beauty perception may reflect the universal adoption of what is deemed beautiful encompassing all the beauty ideals as well as internal and external features. These adoptions are often culture-free. Women by and large will generally see beauty for themselves as well as other people. Consequently, it isn't restricted to seeing beauty in others yet additionally seeing beauty in their own appearance. The internal features incorporate: acceptance of oneself and confidence, on the other hand, external features include weight and body type (Tylka & Iannantuono, 2016).

Defining beauty broadly is seeing numerous looks, appearances, and body types/shapes as beautiful, as well as drawing from internal attributes when shaping a person's attractiveness. It also decreases the significance of accomplishing beauty, and recognizes beauty isn't restricted to actual appearance. It is even a more positive assessment of oneself as well as other people which may not be steady with cultural force and impact. Positive attributes help them in forming their views of others. It is sufficient to see that a wide variety of body

types/appearances can be seen as beautiful in others (Wood-Barcalow, Tylka, & Judge, 2021).

Social media advanced into setting beauty trends and affected individuals' confidence, just as their propensities to despondency and tension in view of negative body image. Actually, Instagram has distorted these trends. The more they invest energy in it, the more they disguised these norms. They liked the slender look impressively when contrasted with others (Bauer, 2020; Yamout, Issa, & Ghaddar, 2019).

Body esteem was characterized as a notion related to body image, through which one optimistically appraises the feelings brought about by one's intuitive approach and assessment of one's body, qualities and warmth towards one's body. It is shaped and alters critically with assorted social and mental impacts. It alludes to positive self-assessments about one's appearance (Mendelson et al., 2001).

Body esteem for women seems to have three essential aspects. The first deals with perspectives or elements that appear to be related with good looks. Women's view of allure to others' incorporates assessment of one's own physicality. The second aspect relates to actual appearance comprising parts of body that can be modified through dieting or workout. The third aspect relates to characteristics like endurance, physical strength and dexterity (Franzoi & Shields, 2014).

Qamar et al. (2020) found the foreseeing role of body esteem and narcissism as indicator of social physique anxiety in youngsters. Correlational study was led for this reason. BES was used to quantify the degree of body esteem. Sample was taken from various educational institutes of Sargodha. Results revealed the negative association of body esteem with SPA. Also it appeared to be a negative predictor of narcissism in the sample of young females having low body esteem.

To comprehend the manner in which sociological impacts assume a significant part in body esteem, tripartite influence model (TIM; Keery, Van den Berg, & Thompson, 2004) is applied due to which Instagram can be envisaged as a strong courier with equal ramifications for body esteem. The main sociological factor that impacts a person's degree of body fulfillment is social media. The ubiquitous portrayal of beauty has resulted in the decrement of body satisfaction thereby lowering esteem related to one's body in young women.

Nowadays individuals are so drenched in the virtual world that there is a socially distorted impression of the female body. This facet expedites novel phenomena where young women are unable to articulate

the disparity of seeing is not believing. It is noteworthy that in Pakistan, Instagram usage has amplified speedily with 5.8 million active spasmodic users which covers 56% of the young population and among these majority are the female ones. With regard to our culture, young women with dark complexion go through disapproval and ridicule on account of their friends (AlphaPro, 2018; Ramzan et al., 2019). As evident, there is scarce research speculating Instagram use and its influence on one's body esteem here. Therefore, it would aim to investigate how instagram usage is related with body esteem through beauty perception.

Based on literature, it is hypothesized that:

1. There is likely to be a relationship between instagram usage, beauty perception and body esteem in young women.
2. Beauty perception is likely to be mediating the relationship between instagram usage and body esteem in young women

## **Method**

### **Sample**

The sample was comprised of 210 young women with age range of 19-24 years ( $M_{age} = 20.93$ ,  $SD = 1.62$ ). Purposive sampling was used to recruit the research participants. The data were drawn from two universities and two colleges in Lahore. All of them were students of BS, MSc. and M.Phil. programs. Data were collected both online and in-person due to Covid-19 situation.

### ***Inclusion Criteria***

Participants having an Instagram account were included. Also participants who had been using Instagram since last six months were included in the sample. Those participants were included who use Instagram for 18-45 minutes on average daily as per criteria of Ellison et al. (2007).

### ***Exclusion Criteria***

Male participants were excluded. Those participants were excluded who actively use other social apps such as TikTok and Snapchat. Participants having physical and psychological impairment were also excluded from the study.

Table 1  
*Sociodemographic Characteristics of the Sample (N=210)*

| Variables                                  | <i>M(SD)</i>     | <i>n(%)</i> |
|--|------------------|-------------|
| Age (in years)                             | 20.93(1.62)      |             |
| Time Spent Daily on Instagram (in minutes) |                  |             |
| 0-14 min                                   |                  | 13(6.2)     |
| 15-29 min                                  |                  | 66(31.4)    |
| 30-44 min                                  |                  | 33(15.7)    |
| 45-60 min                                  |                  | 98(46.7)    |
| Time Spent Monthly on Instagram (in hours) |                  |             |
| 20-40 hrs                                  |                  | 52(24.8)    |
| 41-60 hrs                                  |                  | 64(30.5)    |
| 61-80 hrs                                  |                  | 56(26.7)    |
| More than 80 hours                         |                  | 38(18.1)    |
| Level of Education                         |                  |             |
| BS/MSc                                     |                  | 172(81.9)   |
| M. Phil                                    |                  | 38(18.1)    |
| BMI (kg/m <sup>2</sup> )                   | 23.0(4.80)       |             |
| Family System                              |                  |             |
| Nuclear                                    |                  | 147(70)     |
| Joint                                      |                  | 63(30)      |
| Monthly Income (in rupees)                 | 109052.38(11.13) |             |
| Called by Names from Others*               |                  |             |
| Yes  |                  | 82(39.0)    |
| No   |                  | 128(61.0)   |

*Note.* \*Reflects the number and percentage of participants answering to question that have they ever been called by names from others.

### Measures

Following instruments have been used to study variables of present research.

### Personal Information Sheet

Personal information sheet assessed the demographic variables such as age, no. of siblings, level of education, family structure and

hours spent on Instagram. It also inquired about being called by a name from others (e.g. peers or family members) based on body shape and physical features.

### **Instagram Intensity Scale (IIS)**

Instagram usage was measured using the Instagram Intensity Scale adapted by Trifiro (2018), comprising of 8 items like: "Instagram has become part of my daily routine", and "I feel I am a part of the Instagram community". It was a five-point Likert type scale ranging between 1 as *strongly disagree* to 5 as *strongly agree*. The internal consistency reliability of the scale was .83. Lowest score on this scale indicated the low intensity while highest score showed the higher intensity. The alpha reliability of the scale for present study was .80.

### **Broad Conceptualization of Beauty Scale (BCBS)**

Beauty perception was measured using the Broad Conceptualization of Beauty Scale (BCBS; Tylka & Iannantuono, 2016) consisting of 9 items that gauge women's perceptions of female beauty. As beauty is related to specific gender of women, this scale is prohibited to use with men. Its items (e.g., I define a woman's beauty differently than how it is portrayed in the media) are rated on a 7-point scale ranging from 1 as *strongly disagree* to 7 as *strongly agree*. Item 4 is reverse-scored. Internal consistency reliability of BCBS ranged from .85 to .91. The Cronbach's alpha of the scale for present study was .74.

### **Body Esteem Scale (BES)**

Body esteem was measured using the Body Esteem Scale (BES; Mendelson et al., 2001) consisting of 14 items that are rated on a 5-point Likert type scale ranging from 1 as never to 5 as always. Sample items included: "I like what I look like in pictures" and "I am satisfied with my weight". Higher scores indicated positive body image. Negative worded items were reverse-coded. The scale was tested and replicated on a sample of six hundred and thirty-three females enrolled in undergraduate courses with alpha coefficients between .92 and .98 (Franzoi & Shields, 2014). The Cronbach's alpha of the scale for present study was .92.

## Procedure

First of all, synopsis was approved from Departmental Doctoral Program Committee (DDPC). After this, permission to use the scales was taken from the authors. An authority letter was obtained from the Institute of Applied Psychology and was presented to the authorities of Punjab University and Lahore College for Women University. Initially, for the purpose of online data collection, a questionnaire invitation through Google Forms was set to the young women via Whatsapp messages with periodic reminders. Also they were approached on the university Facebook groups. Participants were selected on the basis of inclusion and exclusion criteria. Consent of participants, to be part of the study, was taken and then they were informed about the nature of research. Out of 220 questionnaires, 210 got filled completely which after reviewing were selected as these met the full criteria for homogeneity of the sample. Therefore, the response rate reported to be 96%. Confidentiality of the information regarding the results was assured to participants. They were presented with the series of questionnaires in a booklet form along with personal information sheet. The time required to complete the assessment protocol was approximately 10-15 minutes. After data collection, responses were scrutinized. Then the data was subjected to statistical analyses.

## Results

Descriptive statistics were computed for instagram usage, beauty perception and body esteem.

Table 2

*Descriptive Analysis and Psychometric Properties of the Instagram Intensity Scale, Broad Conceptualization of Beauty Scale and Body Esteem Scale (N = 210)*

| Scale                     | <i>M(SD)</i> | Potential range | Actual range | Median as cut-off | Cronbach's $\alpha$ |
|---------------------------|--------------|-----------------|--------------|-------------------|---------------------|
| Instagram Intensity Scale | 34.43(3.65)  | 8-40            | 28-40        | 34                | .80                 |
| BCBS                      | 48.81(7.78)  | 9-63            | 20-61        | 50                | .74                 |
| Body Esteem Scale         | 46.46(11.58) | 14-70           | 22-68        | 48                | .92                 |

*Note.* BCBS = Broad Conceptualization of Beauty Scale.

All reliability estimates exceed the recommended value of .70. Therefore, these scales showed satisfactory reliabilities ranging from .74 to .92.

Table 3

*Correlation between Instagram Usage, Beauty Perception, and Body Esteem (N = 210)*

| Variables             | 1      | 2      | 3       | 4   | 5   | 6 |
|-----------------------|--------|--------|---------|-----|-----|---|
| 1. Age                | -      |        |         |     |     |   |
| 2. Level of Education | .68*** | -      |         |     |     |   |
| 3. BMI                | .09    | .07    | -       |     |     |   |
| 4. Instagram Usage    | -.13   | -.20** | .08     | -   |     |   |
| 5. Beauty Perception  | .05    | .13    | .23**   | .01 | -   |   |
| 6. Body Esteem        | -.07   | -.09   | -.46*** | .10 | .08 | - |

\*\* $p < 0.01$ . \*\*\* $p < 0.001$ .

Beauty perception was found to be significantly positively related to BMI. Whereas body esteem showed significant negative correlation with BMI.

Structural equation modeling (SEM) using AMOS (Analysis of moment structure) version 21.0 was employed to examine the mediating role of beauty perception between instagram usage and body esteem. Model fit presented in Table 4.

Table 4

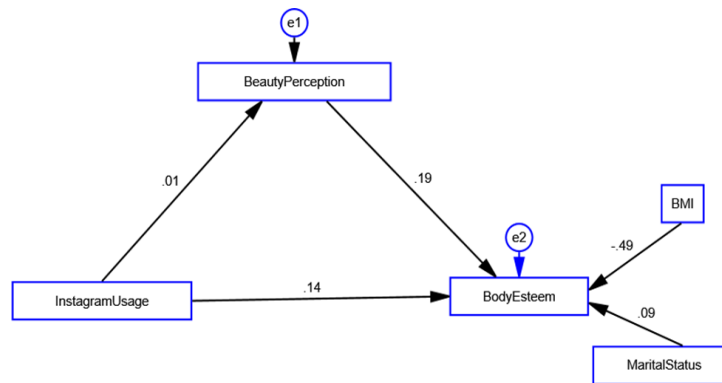
*Fit Indices for Instagram Usage, Beauty Perception, and Body Esteem (N=210)*

| Model | $\chi^2$ | $df$ | $\chi^2/df$ | GFI | AGFI | CFI | NFI | RMSEA<br>(95 % CI) |
|-------|----------|------|-------------|-----|------|-----|-----|--------------------|
| 1     | 18.87    | 5    | 3.77        | .97 | .90  | .82 | .78 | .12                |

Schumacker and Lomax (2010) recommend the criteria of relative indices, where  $\chi^2/df$  should be in between 1 and 4, RMSEA values greater than .08 or equal to .12 represent a close fit. Goodness of fit Index (GFI) values close to .90 or greater than .95 reflect a good fit. AGFI values adjusted for  $df$  with .90 or .95 indicates a good model fit. CFI and NFI values close to .90 or 1 are considered as a perfect fit. So the model was evidenced as satisfactory fit per this criteria of the descriptive measures of fit.



Figure 1. Structural Equation Model of Mediation showing Standardized Regression Coefficients for the link between Instagram Usage and Body Esteem mediated by Beauty Perception (N = 210).



Subsequently, the estimates of direct and indirect effects for instagram usage, beauty perception and body esteem were analyzed with 5000 bootstrapped sample (Hayes, 2013). Instagram usage was found to be significant positive predictor of body esteem ( $b = .14, p < .05$ ). While instagram usage was found to be non-significant predictor of beauty perception ( $b = .01, p = .93$ ). The model revealed a non-significant indirect effect of instagram usage on body esteem through beauty perception ( $b = .001, p = .92$ ).

Table 5  
One Sample t-test Results for Young Women (N=210)

| Variables         | Mean Diff. | t(209) | p   | 95% CI |       | Cohen's d |
|-------------------|------------|--------|-----|--------|-------|-----------|
|                   |            |        |     | LL     | UL    |           |
| Age               | .07        | .59    | .55 | 0.29   | 0.15  | .04       |
| BMI               | 1.97       | 5.97   | .00 | 1.32   | 2.63  | .41       |
| Instagram Usage   | 13.43      | 53.34  | .00 | 12.94  | 13.93 | .54       |
| Beauty Perception | 27.86      | 51.75  | .00 | 26.80  | 28.92 | .67       |
| Body Esteem       | 25.46      | 31.86  | .00 | 23.88  | 27.03 | .61       |

Additional analysis was performed to determine whether there are any significant differences for age, body mass index (BMI), instagram usage, beauty perception and body esteem in young women. Results revealed nonsignificant differences for age, however; significant differences for BMI, instagram usage, beauty perception and body esteem across the sample. Young women differed widely in

their intensity of usage. In addition to that, it is revealed the extent to which they perceive beauty more broadly with a large noticeable difference. Moreover, they differed greatly in their body esteem where high values indicated a positive body image.

## Discussion

The present study revealed BMI to be a strong negative predictor of body esteem. Young women with high BMI scores tend to have low body esteem scores. This finding is in line with the previous research conducted by Olchowska-Kotala (2018) who studied body esteem in young women and concluded that BMI negatively predicted it. Another study by Pilafova, Angelone, & Bledsoe, (2017) found a negative association between BMI and body esteem for women. It accounted for maximal modification in body esteem by BMI. One can argue that the less they contrasted weight with their tallness, the better they feel about their outward appearance. Also individuals who might be overweight as indicated by their BMI may intellectually believe themselves to be physically fit. On the other hand, individuals who are of normal weight based on their BMI, may intellectually believe themselves to be overweight (Schmalz, 2010). In support of that, Forbes et al. (2004) proved that bodily size has a negative impact on body esteem. That is why BMI was taken as a covariate in this study for the purpose of controlling it. Other studies also identified the negative influence of BMI on body esteem (Ahadzadeh et al., 2018; Duncan, Nakeeb, & Alan, 2013; Mak et al., 2013; Voelkar, Reel, & Greenleaf, 2015). From a social identity perspective, the image of a beautiful woman is one who resembles the sleek ladies. Women with a high BMI are frequently viewed resentfully by others, which lowers their body esteem. Low body esteem reflects these women's proclivity to shape dispositional attributions for the status of their weight.

Another important finding is that instagram usage positively predicted body esteem in young women. The more they use instagram, the higher their body esteem. No previous literature found examining this link between these variables. However, to support our findings the research conducted by Ridgway and Clayton (2016) can be incorporated where the association of increased instagram use is found significant with body satisfaction; a somewhat similar construct to body esteem. It can be clarified that using instagram and engaging to it can substantially change their attitude towards own bodies when exposed to diverse knowledge regarding weight on this social application, thereby enhancing it in a positive way.

Beauty perception did not mediate the relationship between instagram usage and body esteem. The mediation analysis showed direct-only non-mediation where indirect effect is nonsignificant but the direct effect is. It shows that instagram usage has direct influence on body esteem but that influence is not intervened through beauty perception. This result negated the study carried out by (Fardouly, Willburger, & Vartanian, 2018) that found the potential mediating effect of beauty perception. One plausible explanation for it can be considering mediator as an intrinsic variable that is typically measured with error, which understates the influence of beauty perception and overstates the influence of instagram usage. It is noteworthy that as beauty perception did not mediate the relationship between instagram usage and body esteem, this does not imply that beauty perception is not important for body esteem. In fact, it significantly predicted body esteem in every study cited. It also calls for cultural explanation that mediating variable was relevant in the west and in collectivist societies like ours the mediating pathway is considerably different. Physical appearance is especially important in individualistic cultures where the desire for thinness and beauty is stronger. As a result, women's perceptions of beauty differ across cultures. Young women who keep their biological beauty intact are regarded as attractive here. A thin woman would be seen as unhealthy and underweight in our Pakistani culture while in Western societies, thinness is merely viewed as an ideal for beauty. Also the role of how others including significant others perceive it cannot be ruled out.

The results of additional analysis revealed that there were difference in young women regarding instagram usage, beauty perception, self-worth and body esteem. Literature has demonstrated that young women tend to score relatively high on instagram use frequency, show broad perception of beauty, have a greater tendency of expending self-worth in appearance and others' approval, also appraise their bodies more positively (Blue, 2020; Quittkat et al., 2019; Overstreet & Quinn, 2012).

### **Limitations and Suggestions**

The estimated sample size was reduced at data collection level due to current Covid-19 pandemic situation. Sample should also be taken from cities other than Lahore. Data were collected using self-reported measures subject to personal biases; therefore behavioral measures should be taken into account for future validation studies.

## Implications

This research contributed to the literature by highlighting the importance of assessing level of instagram usage, beauty perception and body esteem in young women. Moreover, the findings emphasized on the need for media literacy intervention programs for the young women to garner their positive body esteem and identity because if they want to feel good about themselves and their bodies specifically then above skills must be acquired by them. Young women should also pay attention by their own to boost their body esteem in order to have an improved social life.

## Conclusion

On the basis of obtained findings, it can be concluded that instagram usage positively impact body esteem. Beauty perception did not act as a mediator between instagram usage and body esteem. However, beauty perception emerged as significant positive predictor of body esteem. Young women were also found on higher level in instagram usage, beauty perception, self-worth and body esteem.

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