Journal of Peace, Development and Communication

Article:	**Instagrammed body craze and its effects on Pakistani young university female students**
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Published:	30th March 2021
Publisher Information:	Journal of Peace, Development and Communication (JPDC)
To Cite this Article:	Butt, Urwa Mahmmod, et al. (2021). "Instagrammed body craze and its effects on Pakistani young university female students." *Journal of Peace, Development and Communication*, vol. Volume 5, no. Issue 1, 2021, pp. 01–15, https://doi.org/10.36968/JPDC-V05-I01-01
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Abstract

The purpose of studying Instagram's influence is to evaluate the concept of a perfectly toned body that does not exist, as it has been promoted on Instagram. The image-based social networking site, i.e., Instagram, has become steadily popular among youth, especially young girls. Young girls use Instagram to spruce up images posted on it. A quantitative survey is used, and questionnaires are filled through an online examination. A convenient sampling method is used for data collection. The study included 204 young girls aged 18-25 from different universities in Islamabad. Social Comparison Theory helped to understand the influence of Instagram on changing body image and its disorder.Confirmatory Factor Analysis (CFA) and Structural Equation Modeling (SEM) is used through Amos. The analysis revealed that the relationship between the use of Instagram and body dissatisfaction is positive and significant. The more the use of Instagram, the higher the body dissatisfaction among young girls. The relationship between Instagram usage and eating disorders had some correlation. It revealed that young girls who use Instagram excessively adopt eating disorders. Moreover, the study analyzed that there are more physical health symptoms identifies when Instagram usage is increased. The relationship between physical health symptoms and the use of Instagram was positive and useful.

Key Words: body dissatisfaction, ideal body image, Instagram, Social media, Pakistani students, Eating disorders

Introduction

Media outlets present unrealistic ideals, especially women's bodies Hawkins, Nicole & Richards P. Scott & Granley, H & Stein, David. , 2004).. Girls are fighting the immense social pressures to look in a particular way.. This thinking about feminine body image has become a challenge for many girls. Girls have been struggling to meet the required, ideal body standard by any means. They even go to the extent of starving themselves Robinson, Lily & Prichard, Ivanka & Nikolaidis, Alyssa & Drummond, Claire & Drummond, Murray & Tiggemann, Marika. 2017).

From the prepubescent period, it is taught to everyone to stay healthy and follow a balanced diet. Large populations, especially young girls, feel pressure to achieve a specific body goal. Researchers suggest that these body image conflicts start even earlier than that (John, 2018 & Miller, 2018). Researchers indicate that media's extended messages play a vital role in causing body dissatisfaction, and they also contribute to set particular standards of appearance(Turel, 2018).

In the era of slenderization, trimming women's bodies to become smaller and smarter is the trend(Mazur, 1896). However, it has provoked young girls to present themselves as attractive in any way possible by sexualizing or using any other possible way(Baumeister, 2017). Furthermore, young girls have greater exposure to societal pressures to attain physical ideals; thus, they face higher body surveillance(Passini, 2017). Mass media is an expert in promoting relevant content, and this influence can sometimes be detrimental to someone.

The unrealistic body image promoted by media indulges beautiful young females into an inferiority complex. They experience disordered in their behaviors, especially in eating habits. These behavioral transformations take place in such a short time that it becomes difficult to understand and deal. When these transformations go too far, they become life-threatening(Vistoria, 2016). The cumulative impact of eating problems persists over time. It takes years to get back to quality life and gain metabolic control(Pereira, 2007).

Literature Review

  Social Comparison Theory

A particular media theory may help to understand the influence of Instagram on changing body image and the disorders that occurred due to it. Social Comparison Theory is often used to discuss media effects, and it was found equally useful for social media effects. Leon Festinger researched social relations and developed Social Comparison Theory in 1954. It stated that people get a sense of cognitive clarity and drive to evaluate themselves and compare their physical abilities with individuals around them. (Suls, J., & Wills, T. A., 1991). The use of Instagram is more about putting a curtain on real-life and presenting the idealized lifestyle. The continuous scrolling on smartphones by girls creates insecurities and compares with others (Tanney, 2018).

These comparisons start from an initial stage of comparison, e.g., someone getting jealous of a colleague's thick hair because she has thin hair. This kind of behavior is likely to remain throughout one's life and can result in relapse(Collin, 1988). Self-evaluation refers to the comparisons done with other social groups and then evaluating ones' Self according to others' attributes. Engaging in either of the two situations can influence the self-evaluation and put self-esteem in danger. (Valkenburg, P.M. and Peter, J., 2009) They are more likely to compare themselves on dimensions of physical attractiveness based on Instagram and equate their Self with the unrealistic bodies of models on Instagram. The moderate association of self-improvement continues, and girls opt for ways that can make them glamorous. (Garcia, S. M., Weaver, K., & Chen, P., 2019). The upward comparison makes young girls feel worse because it leads to big burnout and gives defeat. It suppresses one with jealousy and inferiority and promotes emotions of weakness(Curwen, 2016).

Mass Media and the Body Image

Women's representation on Instagrammed is not new but a daily practice. Moreover, it showed women's consciousness towards beauty(Caldeira, De Ridder, & Van Bauwel, 2020). Media has spread the ideas of desirable self-image in such a way that females believe in having a prevailing attitude towards "thin ideal" (Mills, Jennifer. S., Shannon, Amy & Hogue, Jacqueline., 2017). Young girls want to look flawless and pleasing and to do so. One has to have only a slender body type(Bryant, 2018). Media offers endless products that might fix females' appearance like anti-aging and skin lightening creams and soaps(Warren, 2014). A study that was conducted a decade before showed that the insecurities and doubt of a negative body start at adolescence among girls, and they become prone to have a toned body. However, it starts fluttering the mind of girls from an even early age.(Eglow, 2016). The messages might have a partial influence on the start. However, it could change into a gradual effect after some period. For instance, girls struggle to attain the perfect body form—the risk factors like body dissatisfaction and psychological issues regarding ideal body image increase. (Nwabueze, Chinenye.,& Okonkwo, Ebere., 2018). It has an intuitive component that relates to how people see their body size, shape, physical features, characteristics, weight, development and presentation, and an evaluative part, which refers to how people feel about their traits, and change cognitive behaviors (Jennifer S. Mills, Amy, Shannon., & Jacqueline, Hogue. ,2017)

Motivation for Instagram

Recent neuro research shows that an individual who engages himself or herself on Instagram activates the brain's reward network as food and sex do to one's mind. (Holcomb, J., Gottfried, J., & Mitchell, A.,2013).

One such study proposed that individuals use Instagram for two primary reasons: First is belonging, and second is self-representation and self-enhancement. (Nielsen, Rasmus Kleis & Schrøder, Kim, Christian.,2014). Through research, the most popular reason to use Instagram is to develop relations with peers and family and stay in touch with the new trends (Duggan, M & Brenner, J.,2013). Earlier research showed that young females represent themselves better on Instagram than adolescent boys(Purcell, 2012).

The Instagrammed Body

Instagram is indeed a burgeoning social platform that now has progressed powerfully with top social websites multiplying. A manifesto that inspires the people to show off themselves, Instagram has a profile that displays the pictures you share(Moreau, 2019). It has not only affected the aesthetics of life but has also greatly affected e-commerce(Alang, 2018).

Bloggers on Instagram deliberately post unrealistic pictures and promote fake ideal image standards (Monika, 2017). The highly manipulated photos automatically receive attention, and the people start following such bloggers. The primary technique involved here is retouching the images posted by the celebrities and models, which directly influences the young women that these are "perfect-pictures" (Kaleemans, Mariska & Daalmans, Serena & Carbaat, Ilana & Anschütz, Doeschka.,2016). Recent research shows that 57% of the females use airbrushing tools for editing their pictures before posting them online rather than posting the real images. It seems like celebrities, and the public follows the trend of edited photos to appear perfect and flawless. (Nobel, 2015).

The use of Instagram leads to body dissatisfaction, and this notion will be examined in the present study. Young females experience pressures to "look perfect" primarily through Instagram and carefully select and edit their posts to look perfect(Chua, Trudy & Chang, Leanne. ,2016). Physical appearance plays an essential role in many activities(Siibak, 2009).A study by (Pantic et al., 2012)found that time spent on Instagram by high school students was positively correlated with depression.

H₁: Young girls with more Instagram usage are more likely to have body dissatisfaction.

H₂: The greater the use of Instagram, the more chances of eating disorders occurrence in young girls.

H₃: Girls with a greater degree of Instagram exposure likely to have more significant physical body issues.

The present study's two research questions asked about the motivation for young girls to use Instagram and how physical activities are promoted on Instagram.

Physical activities in young females can improve functional capacity and healthy aging. Previous researches have proved that young females are more physically active than males. Individuals are usually uncertain about who they are. However, at the same time, they know very well that how they are distinguished from others. They can determine the similarities and differences between themselves and others(Wheeler, 1996).

R₁: What is the motivation for young girls to use Instagram?

R₂: What are the physical activities of young girls that they have learned from Instagram for body transformation?

Methods

Participants

This study aimed to measure the effects of Instagram photos on changing body image in young girls aged 18-25. The survey method was used to collect the data from the selected sample. The sample included 225 young girls. After cleaning of data sample size, they squeezed to 204.

Variables

Researchers effectively used many variables while experimenting. The definitions of all the variable are given below

Instagram usage

The use of Instagram has been measured by asking questions. How many hours in a day do you use Instagram? The researcher used a Likert scale of 5 points that ranged from 1-2 hours to 5 hours above. The measurement of Instagram usage is in Scale.

Motivation for Instagram

The motivation for Instagram was measured for the reasons why young girls use Instagram frequently. It included interest in photos and online personalities with different body types (Hobbs, R.,2006). It measured that if Instagram usage gave young girls thought of changing their body or not. Multiple questions have been mentioned in a questionnaire that measures the motivation on an ordinal scale.

Body dissatisfaction

Body dissatisfaction is an individuals' evil thoughts regarding their bodies(Grogan, 2008). Body dissatisfaction promotes concern about appearance, body weight, features, untoned body parts, skin color, height, etc. Various questions were asked from respondents regarding body dissatisfaction using the Likert Scale from "strongly disagree" to "strongly agree."

Eating disorders

It includes disturbance in eating or the adoption of irregular eating habits(Petre, 2017). It means skipping the meal and severe restriction of food to achieve the ideal body type. One can overeat and deliberately vomit to avoid weight gain. Respondents asked several questions regarding eating disorders. Likert Scale was used for this purpose from "strongly disagree" to "strongly agree."

Physical symptoms

In this study, physical symptoms mean increased mental medical conditions such as depression, fatigue, anxiety, and other changes that a body experiences during the body dissatisfaction period. It includes the depression caused by bad eating habits. The changes in

hormones affect the menstrual cycle and result in its irregular patternLikert Scale was used for this purpose from "strongly disagree" to "strongly agree."

Physical activities

The activities that happen with the movement of the body are physical. The very initial activity that can be adopted is exercise and gym. Body image consciousness may lead to the in-take of different supplements and detox to lose weight. The variable included different sports and games that young girls opt for. Other than this, to enhance themselves, they might use many other techniques like hair styling, hair dying, removal of body hair, piercing, and use of makeup. (Tiggemann, M., & Zaccardo, M., 2018) .
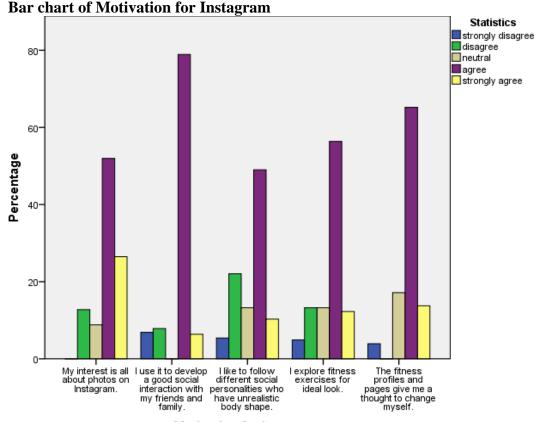
Results

The variables were analyzed by using different techniques. The research questions: 1. What is the motivation for young girls to use Instagram? And 5. What are the physical activities of young girls that have learned from Instagram for body transformation? We were analyzed using SPSS and have been presented graphically through the bar chart.

The three hypotheses have been analyzed using AMOS using Common Factor Analysis (CFA) and Structural Equation Modelling (SEM). The results and the findings from the data of this study supported all three hypotheses. The analysis revealed that the relationship between Instagram and body dissatisfaction is positive and significant, i.e., the more Instagram, the higher the body dissatisfaction among young girls. The relationship between Instagram usage and eating disorders is also correlated and evaluated when those young girls who use Instagram excessively suffer from eating disorders. Moreover, the researchers analyzed more physical health symptoms when Instagram usage is increased among girls. The relationship between physical health symptoms and the use of Instagram was decisive and effective.
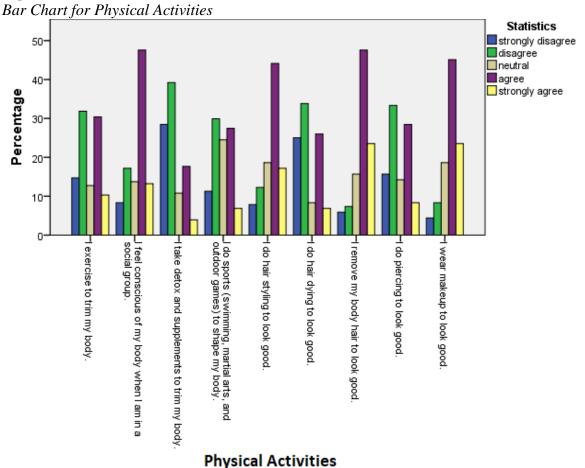
Motivation for Instagram

Figure 1

Bar chart of Motivation for Instagram

Physical Activities by Young Girls

The physical activities mentioned in the questionnaire had quite a fluctuating result. The statistics showed the Scale from strongly disagree to agree strongly.

Figure 2

Bar Chart for Physical Activities

Common Factor Analysis (CFA)

At the first stage of estimation, the researchers estimated the CFA, also called the measurement model, that measures the relationship of indicators with latent variables and then the latent variables' relationship with the measures. The study improved the measurement model into steps. In the first step, few indicators were dropped BD8, BD9, and ED5 because they had a factor loading lower than .7. According to (Barry, J., Babin, Joseph, F. Hair & James S. Boles,2008), indicators with factor loading less than .7 are not acceptable. In the second step of improving the measurement model, the reliability and validity of the constructs were measured. The final representation of the measurement model is shown in figure 3. The measurement model shows the correlation between the latent variables. Moreover, after the successful output of the measurement model, structural equation modeling has been estimated to test the hypothesized relation between Instagram usage, body dissatisfaction, eating disorder, and physical symptoms. The final representation of the SEM model is shown in figure 4.

The present research used regression weights to analyze the factor or indicator loading towards the latent variable. It has used chi-square per degree of freedom ratio (x^2/df), Goodness of Fit Indices (GFI), Adjusted Goodness of Fit Indices (AGFI), Comparative Fit Index (CFI), and Root Mean Square Error of Approximation (RMSEA) to measure the rightness of study's measurement model and Structural Equation Model (SEM). The results

and findings have been reported in table 1. It shows that the constructs of the research are suitable for the data measured by regression, chi-square per degree of freedom ratio (x^2/df), Goodness of Fit Indices (GFI), Adjusted Goodness of Fit Indices (AGFI), Comparative Fit Index (CFI), Root Mean Square Error of Approximation (RMSEA). The study found that all the indicators have factor loading higher, i.e., above .7, the minimum requirement except for BD8, BD9, and ED5. The indices RMSEA above .9 is considered acceptable. Another GFI, CFI, AGFI, TLI, generally with a score of .9, is excellent(Coughlan, 2008). The measurement model showed an excellent fit for data, as shown in table 1.

Moreover, Instagram usage is an exogenous variable, and body dissatisfaction, eating disorders, and physical symptoms are endogenous variables.
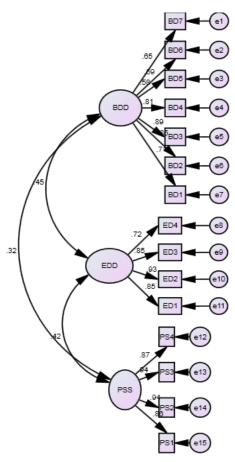
Figure 3
CFA Model

Table 1
Model Fit Summary of CFA

Measures with Threshold values	Model Fit Indices for CFA
CMIN/df < 5 is permissible	2.987
GFI > .95 great; > .90 traditional; > .80 permissible	.845
AGFI> .80	.787
CFI > .90	.924
RMSEA < .05 good; .05-.10 moderate	.099

Reliability, Convergent, and Discriminant Validity

This study has three latent variables named as body dissatisfaction, eating disorders, and physical symptoms. The study needed to address the purpose of the reliability and validity of these constructs. The reliability of the constructs used in this study ensured that the

construct would produce consistent results when it is used. Likewise, validity ensured that the construct is evaluating for what it had been formulating to evaluate. Therefore, Composite Reliability (C.R.), Average Variance Explained (AVE), Maximum Shared Variance (MSV), and correlations have been employed to ensure reliability, convergent, and discriminant validity.

The value of Composite Reliability (C.R.) for all three constructs was above .7 that fortify that constructs were highly well-founded. Similarly, all values of AVE were more significant than .50. All AVE values were higher than MSV for three constructs, which fortify that constructs possess the convergent validity and have discriminant validity(Miller, 1995). Uniformly, the values for co-relation showed convergent validity.

Table   2

Reliability, Convergent, and Discriminant Validity

	CR	AVE	MSV	MaxR (H)	BDD	EDD	PSS
BDD	0.887	0.535	0.203	0.915	**0.732**		
EDD	0.905	0.706	0.203	0.925	0.450	**0.840**	
PSS	0.946	0.814	0.178	0.954	0.320	0.422	**0.902**

Structural Equation Modeling (SEM)

SEM model was estimated, and results were reported in Tables 3 and 4. Results indicated that the use of Instagram had a weak but positive impact on body dissatisfaction, eating disorders, and physical symptoms. The values of the indices from the SEM model ensured that data fits into the model. The indices RMSEA above .9 are considered acceptable. Other GFI, CFI, AGFI, TLI, etc., generally with a score of .9, are excellent. The final representation of the SEM model, as shown in figure 4. The results derived through the SEM model ensured that all three hypotheses were accepted. (Barry J. Babin, Joseph F. Hair & James S. Boles, 2008)
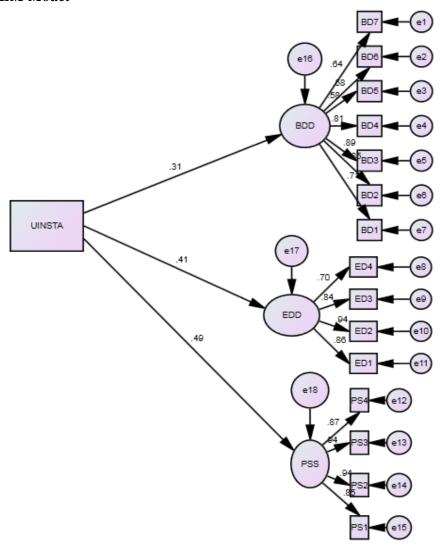
Figure 4
SEM Model

Table 3
Model Fit Indices for SEM

Measures with Threshold values	Model Fit Indices for SEM
CMIN/df < 5 is permissible	3.005
GFI > .95 great; > .90 traditional; > .80 permissible	.838
AGFI> .80	.784
CFI > .90	.912
RMSEA < .05 good; .05-.10 moderate	.099

Table 4
Regression Weights

			Estimate	S.E.	C.R.	P	Label
BDD	<---	**UINSTA**	.211	.050	4.182	***	**ACCEPTED**
EDD	<---	**UINSTA**	.277	.050	5.596	***	**ACCEPTED**
PSS	<---	**UINSTA**	.542	.072	7.544	***	**ACCEPTED**

Discussion

Research has been done before on the influence of media on body image, but this research aimed solely on the impacts on body image created by Instagram. During this study's quest, the researchers investigated that Instagram broadcast unrealistic photos by celebrities and models. These images promote a thin body image that an ordinary person cannot achieve by adopting a healthy lifestyle.

Following and commenting on friends and family photos is a high and new social relation source. It was observed that the celebrities and models very much inspired most of the participants. They followed different social personalities due to their fit and toned figures. They got motivation from them to transform their bodies accordingly. It was satisfying for them to watch the perfect and beautiful bodies. Thousands of models share their workout routines on their Instagram profiles, contributing to how these models look, but it is all fake(Obiora, 2018). Young girls also have an urge to search for different fitness profiles that promote the fitspiration concept. There is a dark side of Instagram to promote fitness culture inadequately.

Physical appearance plays an essential role in Instagram activities(Siibak, 2009). The use of Instagram leads to body dissatisfaction, which turned out to be right in the present study. The youth experience pressure to "look perfect" on Instagram, and they carefully select and edit their posts to appear perfect (Chua, Trudy & Chang, Leanne. , 2016). The girls who used Instagram more frequently suffered from body dissatisfaction more and were not happy with their bodies. However, the toned body images have been found in the media for ages through print media. However, Instagram promotes it to a newer level. Recent research by (Fardouly, J., Willburger, B. K., & Vartanian, L. R., 2018) done on self-objectification and Instagram usage also showed a positive correlation between the use of Instagram and self-dissatisfaction. Moreover, it was seen that the dissatisfaction comes when the users see comments on their pictures and compare themselves with the other images present on Instagram.

. It has been evaluated through the SEM model that if there is more use of Instagram, then the young girls might have more physical health symptoms in them. Instagram usage in girls makes them adopt different eating patterns that change into eating habits and develop eating disorders. Due to the bad eating habits or routine, young girls were facing hormonal issues. The irregular pattern of the menstrual cycle finds to be very common among young girls. These problems led the young girls to have weak and low health. They were also facing hair fall and other problems. It finds that when the body does not get complete nutrients and proteins, these significant symptoms become quite visible. The notion explains the best that social ties and health issues have a deep relationship. (Berkman, 1984).

. This research aimed to find out why young girls get eating disorders and answer that they were highly involved in skipping the meals to get slim. The participants indulge in following different activities posted by celebrities and models on Instagram. They developed different diet plans post on their accounts, like a calorie limit diet. These diet plans forced young girls to stay hungry for more extended periods. It observes that the young girls are not interested in feeling good; they were only interested in looking good. (Praderio, 2018).

To learn a little more about themselves and their appearances, young girls adopt different activities to transform their looks. They groom their personality by applying different beauty techniques like hair dying, hair styling, hair removal, makeup, and much more. Instagram has influencers that promote brand loyalty towards various brands. Young girls follow these influencers because they want to know about the latest styling trends. The young girls get satisfaction from these influencers' lifestyle and develop the same techniques in their life. Tsimonis, G. & Dimitriadis, S., 2014), They have agreed on doing exercise for not having a healthy life, but to trim them because they feel conscious of their bodies when they are in a social gathering.

The present research concludes that Instagram has an evil influence on young girls' body image, eating habits, and physical activities. This platform is promoting depression and unhealthy lifestyles among adolescent girls. Instead of presenting healthy living patterns, Instagram has become a platform only to promote physical attractiveness and fakeness. Due to their naïve nature, the young girls do not understand the hazards associated with Instagram's lifestyle and try to adopt it blindly. Education is essential and essential in this regard.

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Conflict of interest :

None