



Relationship of Selfie Addiction, Selfie Posting Behavior and Instagram Addiction among University Students

Fatima Khurram Bukhari, Assistant Professor, Department of Applied Psychology, The Islamia University of Bahawalpur. Email: fatima.khurram@iub.edu.pk

Samar Fahd, Assistant Professor, Department of Applied Psychology, The Islamia University of Bahawalpur. Email: samar.fahd@iub.edu.pk

Umbreen Khizer, Assistant Professor/HOD, Department of Psychology, Institute of Southern Punjab, Main Campus, Bosan Road, Multan. Email: hodpsychology@isp.edu.pk

Sabiha Iqbal, Assistant Professor, Department of Education, The Islamia University of Bahawalpur. Email: sabiha_26@live.com

Muzammila Akram, Assistant Professor, Department of Educational Training, The Islamia University of Bahawalpur. Email: muzammila.akram@iub.edu.pk

Syeda Fatima Niaz, M.Phil Scholar Department of Educational Training, The Islamia University of Bahawalpur. Email: fatimabukhari701@yahoo.com

Asha Ghaffoor, B.S. Applied Psychology, Department of Applied Psychology, The Islamia University of Bahawalpur. Email: fatima.khurram@iub.edu.pk

Abstract: The present research aims to explore the relationship of selfie addiction and selfie posting behavior on Instagram among university students. Data was collected from 200 university students (age range 18-28, $M = 23.07$ & $SD = 2.03$) were recruited with purposive sampling technique from the Islamia University of Bahawalpur, Pakistan. Cross-sectional research design was used in this research. Data was collected on three respective questionnaires: Selfie Addiction Scale, Selfie Posting Behavior Scale and Instagram Addiction Scale. Data was analyzed through SPSS (25 version). The results of bivariate correlation found that selfie addiction was significantly positively correlated with selfie posting behavior and Instagram addiction. While, selfie posting behavior was significantly positively correlated with Instagram addiction. The results of linear regression found that selfie addiction and selfie posting behavior have significant impact on Instagram among university students. The results of independent sample t-test found that the average (mean) score of selfie addiction, selfie posting behavior and Instagram addiction were significantly higher among female respondents as compared to male of respondents.

Keywords: Selfie addiction, Selfie posting, Instagram, University Students.

I. INTRODUCTION AND LITERATURE REVIEW

Selfie Addiction

A selfie is a photograph taken by a human without the assistance of others. As stated in Dictionary of Oxford, a selfie is a self-portraying picture taken with a cell phone and posted on social media. Selfies are a compelling topic for academics and analysts to analyze and study after their use rose by 17,000 percent in 2012 (Bennett, 2014), making massive contributions to visual communication. According to Snooke (2014), the idea of the selfie became such a global sensation in 2013 that Oxford Dictionary named the phrase "selfie" as the word of the year (Alblooshi, 2015).

According to Alblooshi (2015), posting images is the most common way of connecting online. A selfie is the easiest way to represent yourself with the assistance of any camera. According to Malik, Dhir and Nieminen (2016), uploading a selfie online provides immediate visual communication about what we're doing, where we're at, who we're with, and how we're feeling. The internet was mostly used to create, produce, publish, and display different forms of images, such as poetry, comics, pictures, videos, and animations. The practice of posting selfies on social media has only increased in popularity over time, and it is now the most popular

online operation. Deloitte Global estimated in early 2016 that 2.5 trillion images, including selfies, will be shared or saved online that year, up 15% from 2015.

Selfie Posting Behavior

According to the Oxford Dictionary, a selfie is a self-portrait image of an individual (or individual with another person) shot with a camera or a camera phone kept at arm's length or aimed at a mirror and posted through social media (Sorokowska, Oleszkiewicz, Frackowiak, Huk, & Pisanski, 2015). Selfies was defined by Ma, Yang, and Wilson (2017) in terms of self-presentation theory, that is used to attract others. Selfies are arguably not a stand-alone practice and as they are posted on social media, they take on new dimensions. Selfie-takers should show themselves in a controlled manner for certain actions. Selfies have become increasingly popular in recent years, with selfies often going viral online when posted via social media domains. (Frosh 2015; Hess 2015; Roberts & Koliska 2017; Moon, Lee, Lee, Choi, & Sung, 2016).

The study of selfie actions has spanned a wide variety of subjects. Selfies in the sense of gender and race (Albury 2015), use of selfies in a political context (Baishya 2015; Deller & Tilton, 2015), military selfies (Dishy, 2017), luxury selfies (Marwick, 2015), and the correlation of selfies with personal characteristics (Baishya, 2015; Deller & Tilton, 2015) have all been examined by the scholars (Choi et al. 2017; QiuLu, Yang, Qu, & Zhu, 2015).

Selfies are utilized in both private and public contexts and people prefer to engage in both environments (Hess, 2015). Additionally, selfie-taking entails more than merely taking a picture; it can also entail color and contrast improvements, background changes, and other effects prior to posting the snapshot to a social media platform.

Instagram

Instagram has a number of common features like video and picture sharing, as well as following and commenting on other people's posts. Instagram also introduced the ability for users to create live stories and share these stories with their followers.

While no study has been conducted to date about how various Instagram features are linked to problematic usage, it has been found that regular use of Likes and Wall posts on Facebook is linked to bonding social capital (Moon, et al. 2016), and that different Facebook features (e.g., likes, shares, tweets, and status updates) have numerous psychophysiological impact on indulging (Alhabash, Mundel, & Hussain, 2017).

Furthermore, Chen and Kim (2013) discovered that more frequent posting, retweeting, and replying to others' tweets is favorably correlated with the fulfilment of the desire to communicate with others on Twitter. These findings suggest that using various functions of social networking platforms is related to feelings of social connectedness and social gratification (Chen & Kim, 2013). Other studies have also shown that the reasons and gratifications for finding friendship and sustaining relationships are related to more active social media usage and social media addiction (Chen & Kim, 2013; Huang, Yung, & Yang, 2011).

II. METHOD

Sample

200 university students both male and female with having Android or IOS mobiles were recruited from the Islamia University of Bahawalpur, Pakistan.

Research Design & Sampling Technique

Cross-sectional research design was used in this research using purposive sampling technique for data collection.

Instruments

Demographic Sheet

Ademographic sheet was acquired from respondents with demographic details including their name, gender, age, education, and home residence.

Selfie Addiction Scale (SAS)

Selfie addiction was measured using Selfie Addiction Scale developed by Beshpalova and Volkodav (2018). The scale consists of 10 multiple-choice questions.

Selfitis Behavior Scale (SBS)

Selfie posting behavior was measured by Selfitis Behavior Scale developed by Balakrishnan and Griffiths (2018). The scale comprised of A 20-item scale with a 5-point Likert scoring.

Instagram Addiction Scale (IAS)

Instagram addiction was measured by IAS. IAS was initially developed by Young, 1998. The scale was modified by simply substituting the construct "Internet" with "Instagram." (Kircaburun& Griffiths, 2018).

Data Analysis

Descriptive analysis and psychometric properties of the study measures (Table 1 & 2), bivariate correlation (Table 3), linear regression (Table 4 & 5) and independent sample t-test (Table 6) were computed to analyze the data using SPSS 25 version.

III. RESULTS

Results were calculated on the basis of following objectives and hypotheses.

Objectives

- To measure the relationship between selfie addiction and selfie posting behavior among University Students.
- To check the impact of selfie addiction on Instagram addiction among University Students.
- To check the impact of selfie posting behavior on Instagram addiction among University Students.
- To measure male and female differences regarding selfie addiction, selfie posting behavior, and Instagram addiction.

Hypotheses

- There would be a positive relationship between selfie addiction, and selfie posting behavior among University Students.
- There would be a significant positive impact of selfie addiction on Instagram addiction among University Students.
- There would be a significant positive impact of selfie posting behavior on Instagram addiction among University Students.
- Female university students would be high on selfie addiction, selfie posting behavior, and Instagram addiction as compared to male university students.

Table 1

Frequency Distribution of Demographic Variables (N=200)

Respondent's Characteristics		<i>f (%)</i>
Gender	Male	100 (50.0)
	Female	100 (50.0)
Education	BS/MSc	139 (69.5)
	M. Phil	61 (30.5)
Residence	Urban	102 (51.0)
	Rural	98 (49.0)

The results of this table showed the frequency distribution of demographic questionnaire. In gender male and female students were equally selected for research, 100(50%) were males and 100(50%) were females. In education, 136(69.5%) students were from BS and MSc level of education and 61(30.5%) students were from M. Phil level of education. Whereas, in residences of students, 102(51%) students were urban residence and 98(49%) students were rural residence.

Table 2

Descriptive Statistics and Psychometric Properties of Study Variables (N=200)

Variables	M	SD	α	Range		
				Potential	Actual	Skew
Age	23.07	2.03		18-29	18-28	.04
Selfie Addiction	26.50	4.44	.87	10-30	12-30	-1.58
Selfie Positing Behavior	55.44	14.88	.85	20-100	21-90	-.49
Instagram Addiction	31.50	11.84	.71	0-75	2-70	.27

The results of table confirmed that all scales used in this study have shown fairly good to acceptable ranges of Cronbach's alpha (.71 to .87) for reliability analysis. While the values of skewness for all variables also showed acceptable ranges.

Table 3

Inter-Correlation among Selfie Addiction, Selfie Positing Behavior and Instagram Addiction (N=200)

Variables	Selfie Addiction	Selfie Positing Behavior	Instagram Addiction
Selfie Addiction	-	.48**	.30**
Selfie Positing Behavior		-	.56**
Instagram Addiction			-

This table showed that selfie addiction was significantly and positively correlated with selfie posting behavior ($r = .48, p < .01$) and Instagram addiction ($r = .30, p < .01$). While, selfie posting behavior was significantly positively correlated with Instagram addiction ($r = .56, p < .01$).

Table 4

For the effect of Selfie Addiction on Instagram Addiction (N=200)

Predictors	Instagram Addiction	
	B	95% CI
Constant	10.12*	[.55, 19.69]
Selfie Addiction	.81**	[.45, 1.16]
R ²	.09	
F	19.20**	

****p
<.01**

; *p <.05; B for Unstandardized regression coefficient; CI for Confidence interval

This results found in above table depictsthat selfie addiction was confirmed as significant predictor of Instagram addiction and contribute 09% of variance ($R^2 = .09$) in Instagram addiction. Its mean that selfie addiction has significant impact on Instagram addiction.

Table 5

For the effect of Selfie Positing Behavior on Instagram Addiction (N=200)

Predictors	Instagram Addiction	
	B	95% CI
Constant	6.69*	[1.39, 11.99]
Selfie Positing Behavior	.45**	[.36, .54]
R ²	.32	
F	91.42**	

** $p < .01$; * $p < .05$; B for Unstandardized regression coefficient; CI for Confidence interval

The results found in the above table depicts that selfie positing behavior was confirmed as significant predictor of Instagram addiction and contribute 32% of variance ($R^2 = .32$) in Instagram addiction. Its mean that selfie positing behavior has significant impact on Instagram addiction.

Table 6

Comparison between Male and Female students related to Selfie Addiction, Selfie Positing Behavior and Instagram Addiction (N=200)

Variable	Male (n = 100)		Female (n = 100)		T	p	95%CI	
	M	SD	M	SD			LL	UL
Selfie Addiction	25.15	5.29	27.85	2.84	-4.50	.00	-3.88	-1.52
Selfie Positing Behavior	50.24	15.16	60.64	12.65	-5.27	.00	-14.30	-6.51
Instagram Addiction	27.22	11.37	35.77	10.76	-5.46	.00	-11.64	-5.46

The above table of Independent Sample *t*-test shows that significant differences were found in terms of selfie addiction, selfie positing behavior and Instagram addiction between male and female students. The average (mean) score of selfie addiction, selfie positing behavior and Instagram addiction were significantly higher among female respondents as compared to male respondents.

IV. DISCUSSION

This research aims to explore the role of selfie addiction and selfie posting behavior on Instagram addiction among university students. In total 200 university students were recruited in this study from the Islamia University of Bahawalpur, Pakistan. The sample of this research was collected through purposive sampling technique. Cross-sectional research design was used in this research. Three questionnaires were used; Selfie addiction Scale (Bespalova&Volkodav, 2018), Selfitis Behavior Scale (Balakrishnan& Griffiths, 2018) and Instagram Addiction Scale (Kircaburun& Griffiths, 2018).

Findings in terms of H₁ showed that selfie addiction was significantly and positively correlated with selfie posting behavior and Instagram addiction. While, selfie posting behavior was significantly and positively correlated with Instagram addiction. The findings of H₁ is in consonance with existing studies depicting the relation among selfie addiction, selfie posting behavior and Instagram addiction (Champion, 2012; Wagner,

Aguirre & Bryant, 2016; Greenwood, Perrin, & Duggan, 2016; Deeb-Swihart, Polack, Gilbert, & Essa, 2017). The results of H_1 are supported by similar exiting researches, hence, this hypothesis is accepted.

The findings of the current study were showed for H_2 and found that selfie addiction was a significant predictor of Instagram addiction and contribute 09% of variance ($R^2 = .09$) in Instagram addiction. Its mean that selfie addiction has significant impact on Instagram addiction. Instagram's high social importance and prominence make it worthwhile to examine because, unlike other outlets, contact on this outlet happens exclusively through photographs, making the aesthetic aspect of imagery highly significant, since it is a part of an online image that each user closely manages (Deeb-Swihart, Polack, Gilbert, & Essa, 2017). Instagram's success has been attributed to the phenomenon of the selfie, a self-portrait shot with a camera by the owner (Bennett, 2014; Wagner et al., 2016). In recent years, there has been a huge rise in the number of people taking and sharing selfies (Wagner et al., 2016). The results of H_2 are supported by similar exiting researches, hence, this hypothesis is also accepted.

The results of this research were depicted for H_3 and found that selfie addiction was a significant predictor of Instagram addiction and contribute 09% of variance ($R^2 = .09$) in Instagram addiction. Its mean that selfie addiction has significant impact on Instagram addiction. Wickel (2015) published research on how social networking has affected our developmental and behavioral personalities, as well as how social media, especially the act of taking and sharing selfies, is viewed as a significant contributor to the increase of narcissistic attitudes in recent generations. According to the report, 73.5 percent of 93 Elon University respondents search or change their online accounts more than five times a day, 90.2 percent of participants said they upload pictures of themselves on social networking sites primarily to receive "likes" and feedback from their online friends, and (87.8%) said they use social networking sites for the only purpose of achieving "likes" and comments from their online friends. Selfies shared on numerous social networking sites were said to promote narcissism and narcissistic conduct by 55% of participants. The results of H_3 are supported by similar exiting researches, hence, this hypothesis is also accepted.

The results of this study were showed for H_4 female university students have more selfie addiction, selfie posting behavior, and Instagram addiction as compared to male university students showed that the average (mean) score of selfie addiction, selfie positing behavior and Instagram addiction were significantly higher among female respondents as compared to male of respondents. In a research conducted by Sorokowski and colleagues (2015) looked at three styles of selfies: personal selfies, selfies with a romantic partner, and party selfies, when adjusting for non-selfie images. Women took more selfies of all sorts than men, and their selfie-taking behaviors were irrelevant to their narcissism ratings. Instagram is perhaps more common among women because of its artistic existence, as figures indicate that female Internet users are more likely to use Instagram as compared to males i.e. 38 percent vs. 26 percent (Greenwood, Perrin, & Duggan, 2016). The results of H_4 are supported by similar exiting researches, hence, this hypothesis is also accepted.

V. CONCLUSION

It is determined from the above discussion that selfie addiction and selfie posting behavior is positively associated with Instagram addiction among university students and selfie addiction and selfie posting behavior have direct impact on Instagram addiction among university students. While, female university students are more prone towards selfie addiction and selfie posting behavior, and Instagram addiction as compared male university students.

VI. LIMITATION AND RECOMMENDATIONS

The first and foremost limitation of the present research was that the data is based on only one public sector university. Therefore, the generalizability of this study on whole Punjab, Pakistan cannot be claimed. Furthermore, several other demographic variables could have added like socioeconomic status, geographical affiliation, birth order and number of sibling. Moreover, qualitative exploration of the current study variables could also have contributed towards the understanding of internet addiction behaviors.

REFERENCES

1. Albury, K. (2015). Selfies| selfies, sexts and sneaky hats: Young people's understandings of gendered practices of self-representation. *International Journal of Communication*, 9, 12.
2. Alblooshi, A. (2015). *Self-esteem levels & selfies: The relationship between self-esteem levels and the number of selfies people take and post, and the uses and gratifications of taking and posting selfies* (Doctoral dissertation, Middle Tennessee State University).
3. Alhabash, S., Mundel, J., & Hussain, S. A. (2017). Social media advertising. *Digital advertising: Theory and research*, 285.
4. Balakrishnan, J., & Griffiths, M. D. (2018). An exploratory study of "selfitis" and the development of the Selfitis Behavior Scale. *International journal of mental health and addiction*, 16(3), 722-736.
5. Bennett, S. (2014, July 20). A brief history of the #selfie (1839-2014). *Mediabistro*. Retrieved from http://www.mediabistro.com/alltwitter/first-everselfie-history_b58436
6. Bepalova, D. N., & Volkodav, T. V. (2018). Selfie Addiction. *Форум молодых ученых*, (12-1), 11-14.
7. Baishya, A. (2015). Selfies # NaMo: The political work of the selfie in the 2014 Indian general elections. *International Journal of Communication*, 9, 15.
8. Champion, C. (2012). Instagram: Je-suis-là? *Intellect*, 3(1), 83-88.
9. Chen, H. T., & Kim, Y. (2013). Problematic use of social network sites: The interactive relationship between gratifications sought and privacy concerns. *Cyber psychology, Behavior, and Social Networking*, 16(11), 806-812.
10. Choi, T. R., Sung, Y., Lee, J. A., & Choi, S. M. (2017). Get behind my selfies: The Big Five traits and social networking behaviors through selfies. *Personality and Individual Differences*, 109, 98-101.
11. Deeb-Swihart, J., Polack, C., Gilbert, E., & Essa, I. (2017, May). Selfie-presentation in everyday life: A large-scale characterization of selfie contexts on instagram. In *Proceedings of the International AAAI Conference on Web and Social Media* (Vol. 11, No. 1).
12. Deller, R. A., & Tilton, S. (2015). Selfies as charitable meme: Charity and national identity in the #nomakeupselfie and #thumbsupforstephen campaigns. *International Journal of Communication*, 9(5), 1788-1805.
13. Dishy, A. (2017). Selfies, sexts, and squadrons: The digital culture of the Israeli defense forces. *The I Journal: Graduate Student Journal of the Faculty of Information*, 2(2).
14. Ellison, N. B., Steinfield, C., & Lampe, C. (2007). The benefits of Facebook "friends": Social capital and college students' use of online social network sites. *Journal of computer-mediated communication*, 12(4), 1143-1168.
15. Frosh, P. (2015). Selfies| The gestural image: The selfie, photography theory, and kinesthetic sociability. *International journal of communication*, 9, 22.
16. Greenwood, S., Perrin, A., & Duggan, M. (2016). Social media update 2016. *Pew Research Center*, 11(2), 1-18.
17. Hess, A. (2015). Selfies| the selfie assemblage. *International journal of communication*, 9, 18.
18. Huang, L., Yung, C. Y., & Yang, E. (2011). How do travel agencies obtain a competitive advantage? Through a travel blog marketing channel. *Journal of Vacation Marketing*, 17(2), 139-149.
19. Kircaburun, K., & Griffiths, M. D. (2018). Instagram addiction and the Big Five of personality: The mediating role of self-liking. *Journal of behavioral addictions*, 7(1), 158-170.
20. Ma, J. W., Yang, Y., & Wilson, J. A. (2017). A window to the ideal self: a study of UK Twitter and Chinese Sina Weibo selfie-takers and the implications for marketers. *Journal of Business Research*, 74, 139-142.
21. Malik, A., Dhir, A., & Nieminen, M. (2016). Uses and gratifications of digital photo sharing on Facebook. *Telematics and Informatics*, 33(1), 129-138.
22. Moon, J. H., Lee, E., Lee, J. A., Choi, T. R., & Sung, Y. (2016). The role of narcissism in self-promotion on Instagram. *Personality and individual Differences*, 101, 22-25.
23. Qi, G. J., Aggarwal, C., Tian, Q., Ji, H., & Huang, T. (2011). Exploring context and content links in social media: A latent space method. *IEEE Transactions on Pattern Analysis and Machine Intelligence*, 34(5), 850-862.
24. Qiu, L., Lu, J., Yang, S., Qu, W., & Zhu, T. (2015). What does your selfie say about you? *Computers in Human Behavior*, 52, 443-449.
25. Roberts, J., & Koliska, M. (2017). Comparing the use of space in selfies on Chinese Weibo and Twitter. *Global Media and China*, 2(2), 153-168.

26. Silfverberg, S., Liikkanen, L. A., & Lampinen, A. (2011, March). "I'll press play, but I won't listen" profile work in a music-focused social network service. In *Proceedings of the ACM 2011 conference on Computer supported cooperative work* (pp. 207-216).
27. Snook, A. (2014). Did Rembrandt invent the selfie? BBC.
28. Sorokowski, P., Sorokowska, A., Oleszkiewicz, A., Frackowiak, T., Huk, A., & Pisanski, K. (2015). Selfie posting behaviors are associated with narcissism among men. *Personality and Individual Differences*, 85, 123-127.
29. Wagner, C. N., Aguirre Alfaro, E., & Bryant, E. M. (2016). The relationship between Instagram selfies and body image in young adult women. *First Monday*, 21(9).
30. Walker Rettberg, J. (2014). *Seeing ourselves through technology: How we use selfies, blogs and wearable devices to see and shape ourselves*. Springer Nature.
31. Wickel, T. M. (2015). Narcissism and social networking sites: the act of taking selfies. *Elon Journal of Undergraduate Research in Communications*, 6(1).
32. Young, K. S. (1998). Internet addiction: The emergence of a new clinical disorder. *Cyber psychology & behavior*, 1(3), 237-244.