Original Article

Psychometric study of Facebook addiction among university students in Islamabad, Pakistan

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Objective: To investigate the level of compulsive Facebook usage among young adults and it's potential as an addictive disorder.

Methodology: This cross sectional survey was conducted in four universities of Islamabad; International Islamic University, Quaid-I-Azam University, National University of Modern Languages, and Bahria University. A total of 713 students were selected on non-random basis. Students who were available and were having Facebook account for more than one year were included in the study. The intensity of Facebook usage was measured through six-item attitudinal scale developed by Ellison and colleagues (2007). Facebook addiction was assessed through Bergen Facebook Addiction Scale (BFAS). This scale comprised of six core features of addiction; salience, mood modification, tolerance, withdrawal, conflict, and relapse (Griffiths 2005).

Results: On the intensity of Facebook usage, significant mean differences were found in salience [t (2,711) =10.00, p<0.001, MD=2.10], tolerance [t (2,711) =12.49, p<0.001, MD=2.59], mode modification [t (2,711) =7.76, p<0.001, MD=1.73], relapse [t (2,711) =10.48, p<0.001, MD=2.25], withdrawal [t (2,711) =8.01, p<0.001, MD=1.75], conflict [t (2,711) =10.32, p<0.001, MD=2.51] .

Conclusion: This study concluded that the study participants who had high scores on intense usage of Facebook were more addicted to Facebook as compared to those who had low scores on Facebook usage. (Rawal Med J 202;45:906-909).

Keywords: Facebook addiction, intensive usage, early adulthood.

INTRODUCTION

Social media addiction is increasingly being studied as a problem of university students for its multifaceted effects on individual's health and social life in postmodern society. Social media serves as a platform for self-presentation, leisure, information sharing and connecting with people across the globe.[1] Facebook addiction is found to be significantly associated with low physical activity and sleep disturbance among adults. A huge body of research revealed that frequent use of Facebook can result in problematic addiction among youth.[2] Other most common health issues are eye irritation, headache, and back pain.[3] It adversely affects the university grades and the interaction with family members living in same household.[4] Females are more addictive of Facebook in contrast to their male counterpart.[5]

There is no clear definition of Facebook addiction however, scholars have distinguished the conscience and controlled Facebook use in contrast to the excessive use with lack of control as an addictive Facebook usage.[6] World Health organization has declared the addiction of internet gaming and taking and posting selfies online as a disorder.[7] Still, there is lack of consensus among the scholars about the phenomenon to be conceptualized as mental disorder or syndrome.[8] Scholars have been studying Facebook addiction in association with psychological problems,[9] experience of loneliness,[6] low life satisfaction,[10] narcissism[11,12] interpersonal and mental health problems[3] and sexual dysfunctions.[13] Loneliness is also a contributing factor as well as an outcome of Facebook addiction.

Researchers examining Facebook addiction have

developed and validated tools to measure the extent of phenomenon. Bergen Facebook Addiction Scale (BFAS) initially developed by Andreassen et al has been used by international researchers in diverse cultural contexts.[14,15] Mamun and Griffiths have used this scale in a context like the present study among the students of University of Dhaka, Bangladesh.[16] Scholars have shown that self-centered individuals can be specifically at more risk to develop Facebook addiction problem and self-photography.[12]

According to the international statistics on the most popular social media websites in Asian countries, Facebook is the most popular social networking site in Pakistan with 8 million users.[17] The observable popular activity of Pakistani youth is of taking self-photograph with smartphone cameras, which are then shared on Facebook. In the light of self-presentation theory, this can be categorized as an act of controlled self-presentation to impress the friends and social circle.[13] This behavior pattern has been analyzed as an attempt of attention seeking and self-obsession. It does not come alone, rather youth, especially women, are becoming preoccupied about the quality and quantity of clothes.[18,19] The increased expenditure on branded clothes and accessories is also an outcome of this phenomenon as an attempt to uplift social status among the peer group. Despite the importance of the Facebook addiction, there is absence of authentic studies conducted among university students in Pakistan.[20] Consequently, this research aimed to measure the extent of Facebook addiction and its relationship with intense use of Facebook among young adults.

METHODOLOGY

This cross-sectional descriptive study was conducted among 713 students (young adults), enrolled in four major public and private sector universities of Islamabad: International Islamic University, Quaid-I-Azam University, National University of Modern Languages, and Bahria University. The survey was conducted from October to December 2018. The respondents were selected on non-random basis. The students, who were available, had Facebook account for more than one year, and showed consent to participate in the study were surveyed.

The intensity of Facebook use was measured through six-item attitudinal scale developed by Ellison and colleagues (2007). Facebook addiction was assessed through Bergen Facebook Addiction Scale (BFAS). This scale comprised of six core features of addiction: salience, mood modification, tolerance, withdrawal, conflict, and relapse (Griffiths 2005).

Statistical Analysis: SPSS 20 was used for data entry and analysis. Cronbach alpha was applied along with inter-item correlations to check the internal consistency for the dimensions of Facebook addiction. Independent sample t-test was performed to see the difference in Facebook addiction based on intensity of Facebook use. $p < 0.05$ was considered significant,

RESULTS

Of 713 students, 396 (55.5%) spent more than an hour on Facebook in a day and 86.9% had only one Facebook account. Regarding intense use of Facebook, respondents had almost equal share (Table 1). BFAS showed good internal consistency as all inter-item correlations are significant and between the range of .40 to .72. The values of Cronbach's alpha for all six constructs of BFAS are above than the accepted threshold ($\acute{\alpha} > .70$) (Table 2).

Table 1. Facebook usage among respondents.

Variables	Number	%
No. of Facebook Accounts		
1	619	86.8
2	94	13.2
Average Time Spent on Facebook in a day		
Less than 1 hour	317	44.5
More than 1 hour	396	55.5
Intensity of Facebook Use		
Low	348	48.8
High	365	51.2
Total	713	100.0

Table 2. Correlation matrix, mean, standard deviation and reliability of Facebook addiction.

Variables	M	SD	(1)	(2)	(3)	(4)	(5)	(6)
(1) Salience	6.62	3.00	(.86)					
(2) Tolerance	7.10	3.01	.725**	(.75)				
(3) Mode	7.38	3.11	.457**	.534**	(.83)			
(4) Relapse	7.23	3.09	.559**	.650**	.515**	(.75)		
(5) Withdrawal	6.87	3.05	.627**	.649**	.460**	.632**	(.79)	
(6) Conflict	7.28	3.49	.510**	.633**	.407**	.647**	.576**	(.82)

**p<.01, ά=()

Table 3. Mean differences in Facebook addiction on the basis of intensity of usage.

Facebook Addiction	Intensity of Use	M	SD	t	df	Mean Difference	95% Confidence Interval	
							Lower	Upper
Salience	High	7.70	2.892	10.002*	711	2.106	1.693	2.520
	Low	5.59	2.732					
Tolerance	High	8.42	2.676	12.494*	711	2.592	2.185	3.000
	Low	5.83	2.855					
Mode	High	8.27	3.009	7.760*	711	1.730	1.293	2.168
	Low	6.54	2.944					
Relapse	High	8.38	2.883	10.482*	711	2.250	1.829	2.672
	Low	6.13	2.849					
Withdrawal	High	7.77	2.944	8.013*	711	1.754	1.324	2.184
	Low	6.02	2.900					
Conflict	High	8.56	3.336	10.327*	711	2.517	2.038	2.995
	Low	6.05	3.171					

*p<.001

Independent sample t-test was conducted to analyze the mean difference in six constructs of BFAS on the basis on intensity of Facebook use. On the basis of intensity of Facebook use, significant mean difference in salience [t (2,711) =10.00, p<0.001, MD=2.10], significant mean difference in tolerance [t (2,711) =12.49, p<0.001, MD=2.59], significant mean difference in mode modification [t (2,711) =7.76, p<0.001, MD=1.73], significant mean difference in relapse [t (2,711) =10.48, p<0.001, MD=2.25], significant mean difference in withdrawal [t (2,711) =8.01, p<0.001, MD=1.75], and significant mean difference in conflict [t (2,711) =10.32, p<0.001, MD=2.51] were found (Table 3).

DISCUSSION
The aim of the present study was to conduct a psychometric analysis of Facebook addiction in a

sample of Pakistani emerging adults. The results revealed that the scales used in the current study fulfilled conceptual and psychometric merit. BFAS showed good internal consistency as all inter-item correlations are significant and between the range of .40 to .72. Furthermore, the values of Cronbach's alpha for all six constructs of BFAS are above than the accepted threshold (ά>.70). The findings implied the need for using BFAS consistently and longitudinally in other settings for youth populations, in epidemiological settings, and in health centers of the country.

Other longitudinal studies can be conducted to confirm the present findings. Despite the fact that social media is an important tool for the growth and prosperity of Pakistani youth,[9,20] there is need to preempt the negatives use of social media amongst Pakistani youth before they manifest on family

solidarity, educational achievement, and social deviance, such as conflict and extremism.

Moreover, there is need for more research for the benchmarking of psychosocial disorders and Facebook addiction in Pakistan, which would propel policy efforts for the development of youth policy, cyber policy, and mental health policy, all of three of which need improvement in the country.

CONCLUSION

The study concluded that those Facebook users who scored high on Facebook usage scale were more addicted to Facebook as compared to those users who score low on Facebook usage scale.

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