

THE SOCIAL MEDIA PARADOX: FACEBOOK INTENSITY AND ITS INTERPLAY WITH LONELINESS AND SELF-ESTEEM AMONG UNDERGRADUATES

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Abstract

The research study surrounds the predetermined notion that Social Networking Sites (SNS) particularly Facebook is perhaps the most addictive site among the all of SNS. Excessive accessibility of Facebook making the individual addicted may leave considerably negative impacts on loneliness and self-esteem specifically among youngsters. It was hypothesized to measure the relationship between Facebook intensity and Self-esteem, Facebook intensity and loneliness, loneliness and self-esteem, gender differences with regards to Facebook's intense usage. For this purpose, 317 participants were approached at the University of Karachi, and the final sample consisted of 286 students post consent. The study was carried out through Facebook Intensity Scale by Ellison, Steinfield and Lampe (2007), Loneliness was assessed through Loneliness Scale by Russel, Peplau and Ferguson (1978) and Self-esteem was measured through self-esteem scale by Rosenberg (1965). The obtained data was statistically analyzed by applying Pearson's Product Moment Correlation to assess the relationship between variables and t-test was further applied to investigate the gender differences. Weak negative correlation was found between Facebook intensity and self-esteem, and Loneliness and self-esteem among students. However, no gender differences were established on the basis of trends in Facebook intensity.

INTRODUCTION

Looking at this era, life seems to be entangled within the networking components more. Where people are more in connection with different other people around the world, have wide range of knowledge accessibility options, answer to many questions in one click, and the list goes never ending. Social media networking is another form of interaction among people which gives them innumerable options for creating, sharing, exchanging information, ideas, pictures, videos in virtual communities and network, despite the fact

might people in connection are known or unknown (Poerio, Mark, J, and Laura E. Bain, 2008). Kaplan and Haenlein, 2010, define social networking as a group of internet based applications that build on the ideological and technological foundations of web, that further allows the creation and exchange of user generated content. When researches about internet use rates in different countries have been examined, it shows that addiction rates vary between 4-14% (Chien Chou, Ming-Chun Hsiao, 2000; Chou and Hsiao, 2000; Greenfield, 1999; Kraut et al, 1998, Morahan, Martin and Schumacher, 2000; Petrie

and Gunn, 1998; Young and Rogers 1998; Young, 1996, 1998). The internet has been a wonderful thing, enabling information sharing and a host of other activities to effortlessly take place. However, like all good things, the internet has a downside – one that can ruin lives and destroy families. It's called Internet Addiction. The Center for Internet Addiction reports that internet addiction is now recognized as a serious disorder and is being considered for inclusion in the upcoming revision of the DSM-V (Haisha, L. 2010). There has been an increasing number of research studies that have investigated into the relationships between internet addiction and various aspects of psychological well-being (Kelley & Gruber, 2013; Kuss, Grif-fiths, Karila & Billieux, 2014). Over 500 million people interact daily with Facebook (Kross, E. 2013). However, since the term internet addiction is an umbrella term to many other aspects related to internet addiction, some psychologists have identified and classified sub categories of addiction to internet, one of which is Facebook Addiction. A research study by Neilson (2011) shows that an average American spends around 20 or more hours per week. Facebook's intense usage, being another way of communication, was found to be associated with increased depression and loneliness (Kraut et al., 2009). The same cohort was followed up for the similar research study and strong evidences were found for the effects of self-esteem and decreased overall psychological well-being (Kraut et al., 2009). Another study shows the findings that Facebook users (who had high scores on intensified usage) perceived supportiveness, motivation for using Facebook, gender, loneliness, self-esteem, or depression (Diener, E. 2011). A research study by Kim, J. (2009), showed that individuals developed strong compulsive Facebook usage who were lonely and resulted in negative life outcomes (e.g., harming other significant activities such as work, school, or significant relationships) instead of relieving their original problems. Davis, R. A. (2010) proposed that lonely and depressed individuals turn out to have higher preference for online Facebook interaction for elongated hours span. In relation to loneliness and low self-esteem, psychological

researches have studied that these two variables play an important role in the development of Facebook addiction (Douglas et al. 2008). It was found that loneliness was one of the main antecedents of IA alongside feelings of isolation, low self-confidence, and low self-esteem (Caplan, 2002). In fact, some authors found loneliness to be one of the best predictors of Facebook addiction (Bozoglan, Demirer & Sahin, 2013). Loneliness may be described as an unpleasant experience, Fromm Riechman (1959) defines loneliness as painful and frightening. It is further defined as a subsequent emotion to anxiety (Moustakas, 1961), feelings of dissatisfaction (Rubenstein, et al., 1979) and interpersonal hostility (Zilboorg, 1938). Since internet addiction has been becoming more of an important issue in the domain of research, all social networking sites specifically Facebook and twitter contain such structure that affect individual's social and professional life negatively, leaving them with a post state of feeling alone (Young, 2007). Chou and Hsiao (2000) indicate that internet snatches away individual from social life and limits real social relations, therefore people are lonelier. It has been established after Kraut et al., (2011) conducted a research study on children and adolescents measuring the Facebook access's frequency among them and concluded that children and youngsters using Facebook much are becoming lonelier and experience difficulties in making contact face-to-face (Kraut et al, 2011). No one joins Facebook to be sad and lonely (Kross, 2013), but this is how it makes us feel, Ethan Kross further argues. He carried out a study at the University of Michigan, Kross (2013) and his colleagues sent text messages to eighty-two Ann Arbor residents five times per day. The researchers wanted to measure how their subjects felt overall, how worried and lonely they were, how much they had used Facebook, and how often they had had direct interaction with others since the previous text message. It was established that the more people used Facebook in the time between the two texts, the less happy they felt—and the more their overall satisfaction declined from the beginning of the study until its end. The data, he argues, shows that Facebook was making them feel lonely. A research study at Carnegie Mellon

University, concludes that the more youngsters used Facebook, the lonelier and more depressed they felt, after people went online for the first time, their sense of happiness and social connectedness dropped, over one to two years, as a function of how often they used the Internet (Kraut, 2013). It has also been found in a research study by Nathan Heller (2010), that Facebook's too much usage made the users feel more alienated and withdrawn from human interaction as compared to the non-users. . A 2010 analysis of forty studies also confirmed the trend: Facebook's intense use had a , significant detrimental effect on overall well-being. When literature has been examined, it is subsequently found that Facebook addiction affects individual's family, social, professional life negatively and leaves adverse influence on the person's exhibiting symptoms such as loneliness, depression and lower self-esteem (Kaplan, 2011). Much is being researched in the field of social media networking and literature shows many positive and negative impacts of social media, with specific reference to Facebook's intense usage and its addiction. With reference to the negative aspects, Facebook's unlimited usage focuses on the possible relationships with negative psychological states and behavior such as anxiety, low self-esteem and narcissism (Williams, 2014). A study done by the University of Gothenburg in Sweden, surveyed 335 men and 676 women (average age 32) to help determine the link between self-esteem and Facebook usage. A significant negative relationship between the two was uncovered (as Facebook interaction increased, self-esteem decreased), though the main difference was between genders. Women who used Facebook were apt to feel less happy and content with their lives (Charles, 2013). The study, published in the journal *Computers in Human Behavior* (2014), suggests that most people who log on to Facebook every day may have an urge to boost their self-esteem in the process. According to Shotton (2011), Facebook addiction tendency of individuals with lower self-esteem is higher. Greenberg, Lewis and Dodd, (2010), Murali and George (2011), Young, (2011) have also established that lower self-esteem triggers excessive

Facebook usage in youngsters. It has also been studied that Facebook's excessive usage are likely to cause loneliness, depression and low self-esteem, following deterioration from family and social ties (Kim, et al., 2012). An article "How Facebook can amplify, low self-esteem , narcissism, and anxiety", Forrest and Wood have written post conducting a research at the University of Waterloo, that people with low self-esteem are found to remain uncomfortable while conversing face-to-face, but Facebook makes it possible to share remotely (Forest & Wood, 2014). They further write that individuals with low self-esteem were more likely to believe that Facebook favored an opportunity for them to be able to communicate and connect with other people and they perceive it as a safer platform that reduces the risk of occurrence of awkward social situations (Forest & Wood, 2014). In a 2011 study of about 300 college students in *Cyber psychology, Behavior and Social Networking*, Cornell University researchers Amy Gonzales, PhD, and Jeffrey Hancock, PhD, found that students who were asked to look at their own Facebook page for just three minutes showed a boost in self-esteem compared with control groups who either looked in a mirror or simply sat in a room for three minutes (Hancock & Gonzales, 2011). However, a drastic rise in self-esteem was found in the group that spent more time on Facebook; those who also edited their profiles had the highest self-esteem in the entire study (Nilsson, 2012). A Survey report by Chenda Ngak (2013) indicates that users, who are excessive users of Facebook, have comparatively lower self-esteem with those who access Facebook at moderate level. A study carried out at the University of Salford in the Uk, on social media's effects on self-esteem, share their findings that about 50% of their 298 research participants reported that intense usage of social networks like Facebook and Twitter made their lives worse (Shotton, 2012).

However, after the aforementioned literature review, we further hypothesize that

- There will be a relationship between Facebook access intensity and loneliness.
- There will be a relationship between Facebook access intensity and self-esteem.

- There will be some relationship between loneliness and self-esteem.
- Females will be more prone to Facebook's intense usage as compared to males.

METHODOLOGY

Research Design

The research study aimed at finding relation between the variables and is co-relational in design, in context to the first three (primary) hypotheses.

Sample

Pertaining to the conductance of the research study, 317 participants had been approached through convenient and snow ball sampling procedure. The final sample consisted of 286 participants, and was further segregated with reference to gender, hence, 177 female and 109 male participants.

For the purpose of sample collection, the undergraduate students studying at the University of Karachi, excluding the department of Psychology, were approached for participation. The research material contained the consent form at first that was obtained from the participants prior to the latter performance of tests.

Measurements of Facebook usage intensity

Facebook Intensity Scale by Ellison, et.al (2007) was used to measure the Facebook's intense usage beyond simple measures of frequency and duration, incorporating emotional connectedness to the site and its deep integration into individuals' daily activities. The Facebook Intensity Scale has been used frequently in recent Facebook related researches, with over 1,500 citations on Google Scholar since 2007.

Scale Psychometrics

Ellison et al's Facebook Intensity Scale (2007) was used to measure the intensity of Facebook usage and also the number of Facebook friends ($M=6.03$, $SD=1.99$). The Facebook Intensity Scale (FIS) measures time spent on Facebook (1=0-14 minutes, 2=15-30 min, 3=31-45 min, 4=45-60 min, 5=60-75 min), number of Facebook friends (1=10 or fewer, 2=11-50, 3=51-100, 4=101-150,

5=151-200, 6=201-250, 7=251-300, 8=301-400, 9=more than 400), and includes six statements that measure participants' attitudes toward Facebook (e.g., "I am proud to tell people I am on Facebook"). These statements were rated on a 5-point scale (1=strongly disagree, 5=strongly agree").

Measurements of feelings of Loneliness

A 20 item scale developed by Russell, D., Peplau, L. A., & Ferguson, M. L. (1978) was used to assess the one's subjective feelings of loneliness as well as feelings of social isolation.

Scale Psychometrics

The measure was highly reliable, both in terms of internal consistency (coefficient α ranging from .89 to .94) and test-retest reliability over a 1-year period ($r = .73$). Convergent validity for the scale was indicated by significant correlations with other measures of loneliness. Construct validity was supported by significant relations with measures of the adequacy of the individual's interpersonal relationships, and by correlations between loneliness and measures of health and well-being. Confirmatory factor analyses indicated that a model incorporating a global bipolar loneliness factor along with two method factors reflecting direction of item wording provided a very good fit to the data across samples.

Measurement of Self-Esteem

A 10 item scale designed by Rosenberg, M. (1965), assesses the global self-worth by measuring both positive and negative feelings about the self. The scale is believed to be uni-dimensional. All items are answered using a 4-point Likert scale format ranging from strongly agree to strongly disagree.

Scale Psychometrics

The Rosenberg Self-Esteem Scale, a widely used self-report instrument for evaluating individual self-esteem, was investigated using item response theory. Factor analysis identified a single common factor, contrary to some previous studies that extracted separate Self-Confidence and Self-Depreciation factors. A unidimensional model for graded item responses was fit to the data. A model

that constrained the 10 items to equal discrimination was contrasted with a model allowing the discriminations to be estimated freely. The test of significance indicated that the unconstrained model better fit the data-that is, the 10 items of the Rosenberg Self-Esteem Scale are not equally discriminating and are differentially related to self-esteem.

Procedure

Pertaining to the collection of data from the predefined sample, a set of predefined questionnaires containing the scales of Facebook intensity, loneliness and self-esteem followed by a

consent form were administered individually.

Analysis

The research study aimed at studying the relationship between variables; hence the quantitative analysis was done. Pearson’s Product Moment Correlation was applied to assess the relationship between variables, t-test was applied to measure the gender differences and percentile was applied to measure the percentage tilt of an open ended question in the demographic section that dealt with the frequency of Facebook log ins.

RESULTS

Table 1

Descriptive statistics showing gender segregation of the participants

	Frequency	Percentage
Male	109	38.1
Female	177	61.9
Total	286	100

Table 2

Descriptive statistics for most common gadget used for Facebook access

Gadget	Frequency	Percentage
Mobile phone	118	41.3
Tablet	11	3.8
Ipad	34	11.9
Laptop/desktop	80	28.0
All of them	43	15.0
Total	286	100.0

The Highlighted column depicts the highest percentage of common gadget used

Table 3

Descriptive statistics for the most common activity on Facebook

Activity	Frequency	Percentage
Socializing/chatting	76	26.6
Personal status/picture upload	14	4.9
Meeting new people	24	8.4
Seeking information	148	51.7
Just for fun/games	24	8.4
Total	286	100

The highlighted column depicts the highest percentage of most common activity participants’ login to Facebook for.

Table 4
Depicts the correlations between Facebook intensity and Self-esteem

Variables	N	Correlation Value (r)	Significance(2-tailed)
Facebook Intensity & Self-esteem	286	-0.136*	0.021

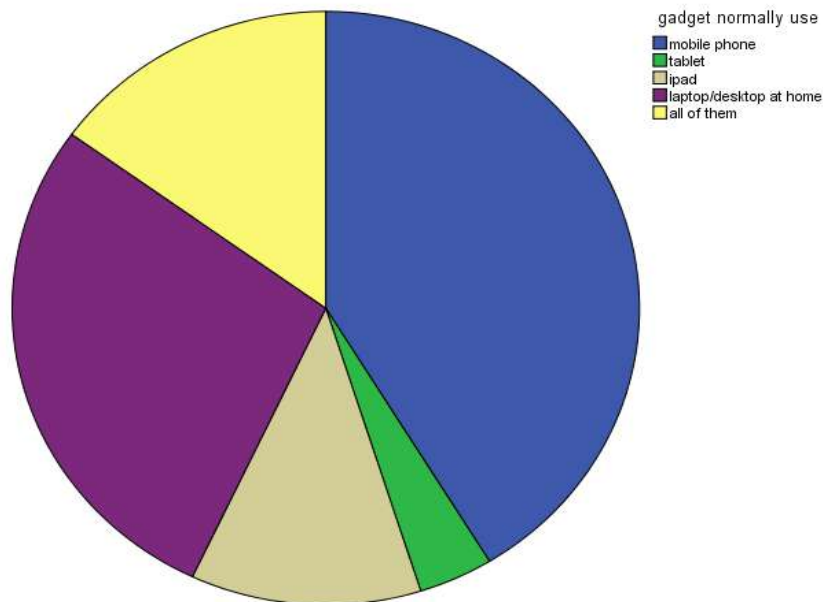
*The correlation has been found to be significant at the 0.05 level, hence $p < 0.05$.

Table 5
Demonstrates the correlation between loneliness and self-esteem

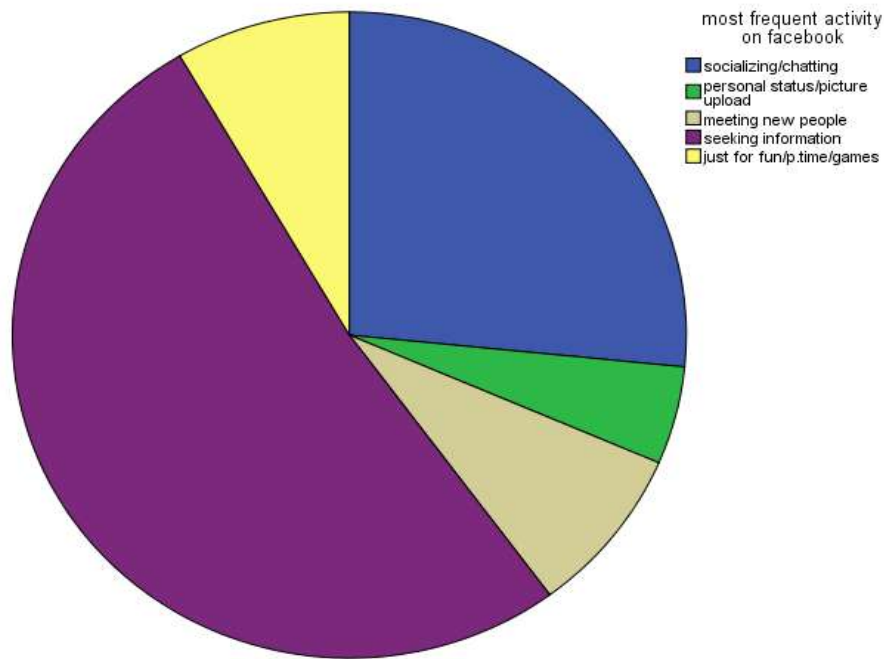
Variables	N	Correlation Value (r)	Significance (2tailed)
Loneliness & Self-esteem	286	-0.158**	0.007

**The correlation has been found to be significant at the 0.01 level, hence $p < 0.01$.

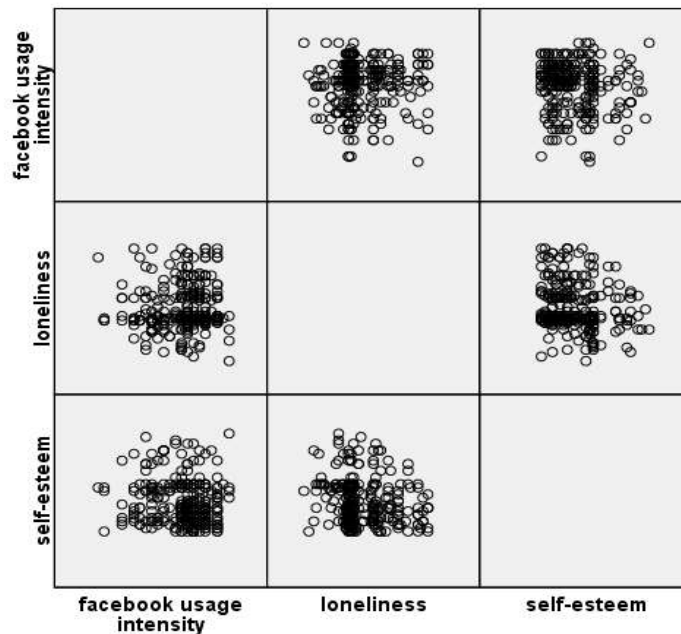
Graphs



The Pie chart's blue portion displays the 41.3% of the sample (highest of the sample) choose the mobile phone as a common Facebook access gadget.



The Pie chart's most colored portion depicts the highest percentage i.e., 51.7% of the sample opted for seeking information as their major mean for accessing Facebook.



The Matrix graph represents the overall corresponded correlational results between the primary variables. Since the weak negative correlation ($r = -0.136$, $p < 0.05$) was found between Facebook Intensity and Self-esteem, it can be depicted in the graph. Similarly, the correlation between Loneliness and self-esteem coincided with the weak negative correlation ($r = -0.158$, $p < 0.01$), hence the graph illustration exhibits the trend.

DISCUSSION

The current research study that aimed to investigate relationship between Facebook intensity, loneliness and self-esteem among undergraduate students, its analyzed results signify the weak negative relationship between Facebook's intense usage and self-esteem. However, participants with intense access of Facebook exhibited low levels of self-esteem ($r = -0.136$). Furthermore, a weak negative relationship has been signified between loneliness and self-esteem among students ($r = -0.158$). That is, participants who reported higher level of loneliness resulted in low levels of self-esteem. Pertaining to another hypothesis, which focused to investigate the relationship between Facebook's intense usage and loneliness; the results showed no significant relationship between the variables. The current study also aimed to measure if any gender differences prevail with reference to Facebook intense usage, that is, whether male and female differ when it comes to Facebook 's intense accessibility or not. The results yielded no significant differences.

A research study conducted by Vogel, Erin A.; Rose, Jason, P.; Roberts, Lindsay R.; Eckles, Katheryn (2014), using a correlational approach to study, the findings show that frequent Facebook access is associated with lower self-esteem. However, this study discusses the similar aspect of the current study that initially hypothesized to measure the relationship between Facebook intensity and self-esteem discusses the same aspect. According to Kalpidou et al.,(2012), frequent use of SNS and specifically Facebook, has been linked with diminished self-esteem and self-image. This finding coincides with the findings of Shotton (1991), Greenberg, Lewis and Dodd (1999), Young (1999) Murali and George (2007) who confirmed the negative low level relation between Facebook addiction and self-esteem.

Since the findings exhibit negative weak correlation between the variables, it may be further discussed that Facebook's intense usage on the contrary, may contribute toward boosting one's self-esteem, since it can have persuasive impact in both negative and positive ways Feinstein et al. (2013).

Secondly, a weak negative correlation was yielded by the calculated results between loneliness and self-esteem. Cardak, M. (2013), measured the relation between Facebook addiction and loneliness through Regression analysis and their findings further elaborate that Facebook addiction has negatively predicted psychological well-being. It further shares that higher levels of pathological Facebook access is associated with lower levels of well-being. Facebook's pathological access has been shown to be negatively related to social interactions, (Smahel et al., 2012), depression (Yen, et al., 2007), loneliness (Morahan-Martin and Schumacher, 2013), and lower self-esteem (Akin and Iskender, 2011; Kraut et al., 2009).

Facebook's intense usage and feelings of loneliness failed to establish any significant relationship. It may be discussed that since the research had been carried out with the students residing in Pakistan, pertaining to the fact that the country's social system and cultural setups are profoundly contributed through collectivism, feelings of loneliness may have the least chances the prevail. It neutralizes the effect by opting for various available options for mingling up in contrast to enculturation. Although the literature identifies the gender tilt toward SNS and particularly Facebook's d addiction, no significant differences could be established through the current study with reference to male and female preferences for Facebook's intense accessibility. Griffiths, D.M. and Kuss, J. D. (2011) infer that according to an online survey with 131 psychology students in US, "no gender difference were suggested when it goes about too much of Facebook usage. Moreover, through additional findings, in Table no.2, it may be contributed that when asked about which technological gadget the participants preferred for Facebook access, about 41.3% of the sample reportedly preferred mobile phone for easy access to Facebook anytime, anywhere; as compared to varying and lesser percentages were found in favor of other different means to accessibility. A comparative study by Lenhart, A. (2010), supports the yielded notion that around 58% of the teenagers (age 13-19years) studying at high school, used their cellular phones for acquainting continuous updates on their Facebook walls.

In response to an open-ended question initially in the demographics section that inquired about the frequency of logins to Facebook, about 73.33% of the sample responded with entailing to 24 hours login. This prevalence of such frequent and on set connectivity to Facebook could be associated with the 41.3% of the sample using their mobile phones for Facebook access. Hence, it could be concluded that for the reason of having a feasibility of in-hand accessing tool that enables quick and easy logins mainly to Facebook and other internet sites as well, keeps the users more updated and psychologically active pertaining to peeking into it as a routine chore.

“Seeking information” comes out to be the most common response by the participants, as about 51.7%, displayed in Table no.4. In other words, 51.7% of the sample reportedly affirmed that their Facebook usage surrounds toward seeking information on various topics. It may be added that this particular option can be regarded as a socially desirable response that is, the desire to be socially acceptable Paul J. Lavrakas (2008), as according to Barker, V.(2009) investigated through a research study at the University of Brooklyn and concluded that 74% of SNS users claimed to login to Facebook, Twitter and My Space mainly to enhance pictorial contact (picture upload, viewing others' pictures, sharing cultural trends) and up gradation of written status (sharing emotions, good and bads of each other's' lives and preserving emotional closure).

Conclusion

The research study verified the hypotheses that there was found to be a relationship between Facebook intensity and self-esteem, and a relationship between loneliness and self-esteem among undergraduate students with weak negative correlational values. Any significant relationship failed to establish between the Facebook intensity and loneliness. Moreover, no gender differences prevailed with regards to any tilt in male and female participants for Facebook's intense usage. The additional findings yielded the weightage of most common technological gadgets such as mobile phone opted as the most common mean for Facebook access that is, 41.3% of the sample

preferred the option. 51.7% of the sample reportedly, intent to access Facebook for the reason to seek information on various topics.

Limitations

The limitation of the study stays the lacking with regards to the English language of the measuring tools for the variables. Since the sample was obtained from the University of Karachi, it was learnt that language remained one of the barriers for comprehension of numerous words. The sample obtained had been a small one. Also, Facebook intensity is a broader concept and incorporates many elements in relation to it such as components of psychological well-being which had been limited to loneliness and self-esteem.

Future Recommendations

Addiction or excessive usage of Facebook can leave persuasive impact on student's academic, social and personal lives. As drawn from the literature, personality traits, excessive Facebook usage also go hand in hand. Taking into account larger sample will work in absolute ways. Studying the academic, social aspects and family influences in relation to Facebook intensity may be recommended. Moreover, identification of certain personality traits and preference for Facebook excessive usage may also be considered for further replication.

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