Self-Esteem, Academic performance, and Mobile Phone Addiction among College Students

Vinayak R. Pathak* R. S. Mhaske**

Abstract

This study was aimed at analysing the relationship between self-esteem, academic performance, and mobile phone addiction among college students in the age group of 18 years to 21 years. The study also wanted to examine whether self-esteem can predict mobile phone addiction and can mobile phone addiction predict academic performance. The sample of 441 college students using smart phone was collected from various colleges in the city of Pune using incidental sampling method. The Pearson correlation, t-test, and regression analysis was used for analysing the data on SPSS 20. The study revealed that self-esteem and academic performance both were found negatively associated with mobile phone addiction. Self-esteem could predict the mobile phone addiction, and mobile phone addiction could predict the academic performance.

Key words: *self-esteem, academic performance, mobile phone addiction, smart phone.*

About Authors:
*Ph.D. Researcher, Department of Psychology, Savitribai Phule Pune University, Pune, Maharashtra State, India.
**Guide & Head of Department of Psychology, Savitribai Phule Pune University, Pune.

Introduction

Mobile phone has become an inseparable part of everyday life of the people. Nowadays, each and everybody, young or old, is using mobile phone. In many cases, mobile phone is being used even from the age of 12 or 13 year. Most of the people use smart phones. As on 31st May 2018, mobile phone density in India has reached 86.89% (https://en.wikipedia.org /telecommunication statistics). Mobile phones are used for calling, texting, internet, emails, camera, video, games, social networking, and so many other features like shopping, etc. Such phones are called smart phones. However, the excessive, and problematic use of mobile phones has resulted in negative consequences like poor academic performance (Jumoke, Oloruntoba, & Blessing, 2015), accidents (Brace, Young, & Regan, 2007), adverse effect on interpersonal relationships (Lin, 2012), and health risks (Bhatia, 2008). The personality plays a very important role in mobile phone addiction as revealed in earlier researches (Bian & Leung, 2014; Bianchi & Phillips, 2005).

The objective of this study was to examine the relationship of self-esteem and academic performance with mobile phone addiction. The study was also aimed at finding out whether self-esteem can predict mobile phone addiction and in the same way, whether mobile phone addiction can predict academic performance.

Self-Esteem

James (1890) identified self-esteem as a psychological construct. It is one of the oldest concepts in psychology. He stated that self-esteem is "the satisfaction or dissatisfaction with oneself." James regarded self-esteem as a ratio of successes to failures in the important areas of life of a person (as cited in Hosogi, Okada, Fujii, Noguchi, & Watanabe, 2012). The term "self-esteem" is used to convey three meanings (Brown & Marshall, 2006). They are 1) Global Self-Esteem: This term is used to refer to a

personality variable that captures the way people generally feel about themselves. It is also referred to as trait self-esteem. High self-esteem is characterized by general fondness for oneself. Low self-esteem is characterised by mildly positive feeling toward oneself. In extreme low self-esteem cases, people hate themselves but this is seen only in clinical population. 2) Self-Evaluation: The term "self-esteem" is also used to refer to the way people evaluate their various abilities and attributes. For example, a person not doing well in school may be said to have low academic self-esteem. A person popular in a society may be said to have high social self-esteem. 3) Feeling of Self-Worth: The term "self-esteem" is also used to refer to momentary emotional states arising from positive or negative outcome. This is connected with the people's experiences that either elevate or threaten their self-esteem. For example, a person may feel he has high self-esteem when he receives promotion. Deci & Ryan (1995) differentiated self-esteem as "contingent self-esteem" and "true" self-esteem. Contingent self-esteem is a feeling of self-worth based on achieving externally set standards or expectations. It is fragile. True self-esteem is based on behaviour regulated by personal choice and control. It is stable and indicates positive mental health. It reflects sense of genuine self-worth, self-respect, and self-acceptance. Self-esteem can be implicit or explicit. As per Greenwald & Banaji (1995), implicit self-esteem is an automatic, overlearned, and non-conscious evaluation that guides spontaneous behaviour in self-relevant situations (as cited in Egloff & Schmukle, 2002). Explicit self-esteem is the concrete positive or negative evaluations people make of themselves. Implicit self-esteem refers to the less conscious evaluations they make of themselves. High self-esteem is either secure high self-esteem or defensive high self-esteem. A person can have secure high

self-esteem and hold it confidently where they do not need reassurance from others to maintain their positive self-view. The persons with defensive high self-esteem may require reassurance from others (Jordan, Spencer, Zanna, Hoshino-Browne, & Correll, J. 2003). When people with high self-esteem receive feedback implying that they have been rejected by others, they are more likely than those with low self-esteem to respond by reminding themselves of their positive qualities. On the other hand, the people with low self-esteem may think poorly of themselves, select unrealistic goals or shy away from goals altogether, tend to be pessimistic about the future, and continue in their negative moods. They are more vulnerable to depression when they encounter setbacks or stress (Taylor, Peplau, & Sears, 2009). Ellis & Taylor (1983) conducted a study on college students who were looking for jobs. They found that the students with high self-esteem received more job offers than the students with low self-esteem and high self-esteem was better predictor of search outcome. Shamir (1986) found that psychological well-being of low self-esteem people was more sensitive to employment status than that of high self-esteem people. In another study, people with high self-esteem were found to perceive themselves more intellectual, agreeable, extravert, and higher on morality than those with low self-esteem (Campbell, Rudich, & Sedikides, 2002). Death related thoughts decreased life satisfaction, meaning in life, and vitality in low self-esteem people than people with high self-esteem (Routledge et al., 2010). The high self-esteem does lead to greater happiness whereas low self-esteem is more likely than high self-esteem to lead to depression under some circumstances. High self-esteem mitigates the effect of stress (Baumeister, Campbell, Krueger, & Vohs, 2003).

Mobile phone addiction

As per Alexander & Schweighofer (1988), the word "addiction" has many

meanings. The word is used to refer to the state of being "given over" or intensely involved with any activity. Thus, intense involvement in any activity, may it be mobile phone use, gaming will come under the name "addiction". The term even can be used with positive meaning like addiction to study which will improve the academic performance. The second meaning is used to link addiction to harmful involvements with drugs that produce withdrawal symptoms or tolerance. This is a restrictive meaning (Alexander & Schweighofer, 1988). Initially, the concept of addiction was based on a medical consideration related to dependence on substance, either drugs or alcohol. The research has indicated that the concept of addiction should be extended to cover the wide range of behaviours (Shaffer, 1996). As per Griffiths (1996), mobile phone addiction is a subset of behavioural addiction. He proposed the concept of technological addiction which he operationally defined as human-machine interaction and it is non-chemical in nature. The risk of problematic use and addiction could be potentially higher for mobile phones that provide other features like gaming and social networking as it appears that the people are more attracted to mobile phones because of new applications like games (Griffiths, 2013). Bianchi & Phillips (2005) identified a number of signs appearing in mobile phone addicts. These signs include preoccupation with mobile phones (the users become worried about a missing call when the mobile phone is out of range for some time); continued increase in amount of time for using mobile phone to get desired satisfaction; unsuccessful attempts to cut down or reduce the use of mobile phone; feel lost, restless, moody, depressed, irritable when the use of mobile phone is reduced; stay on mobile phone longer than originally intended; hide from family or friends the extent of the involvement with mobile phone; use of mobile phone to escape from problem or relieve from dysphoric mood (feeling of isolation, anxiety, loneliness, and depression). DSM-5 has included the "Internet Gaming Disorder" in the chapter on "Conditions for Further Study". It is also called "Internet use disorder" or "Internet Addiction" (American Psychiatric Association, 2013). Now, the internet function is available on mobile phones and it is used to a great extent for social networking. As per Bhatia (2008), mobile phone addiction appears to be a recent common disorder that merits inclusion in DSM. He stated that its prevalence in all cultures and societies is rapidly rising. Ahmed, Qazi, & Perji (2011), in their study on mobile phone use, noted that about 42% participants agreed that they ignored their friends present with them for talking over the mobile phone. The mobile phone addiction was mostly related to using the mobile phone for escapism, entertainment, information, and for personal connections (Parasuraman, Sam, Yee, Chuon, & Ren, 2017). It was found that 65.3% of the participants used the mobile phone for social media while driving (Al-Menayes, 2014). Bian & Leung (2014) found that people who are lonely, shy, and having weak social relationships are likely to suffer from mobile phone addiction. The mobile phone addiction appears to be significantly associated with age, extraversion, and low self-esteem but not with neuroticism. Young people show more problematic use of mobile phone than older people (Bianchi & Phillips, 2005). The people with high social anxiety prefer mobile phone for communication in place of face-to-face communication. Similarly, the use of mobile phone for other purposes like games, entertainment is also pleasurable and rewarding. So, mobile phone addiction can be said to occur as a result of operant conditioning (Bolle, 2014). Acharya, Acharya, & Waghrey (2013) conducted a study on common health effects of excessive mobile phone use among college students. Their study

revealed that the common health effects were headache (51.47%), irritability/anger (50.79%), anxiety (38.5%), lack of sleep (35.4%), eye strain (36.51%), body ache (32.19%), difficulty in hearing (19.3%) and digital thumb (painful feeling in fingers) (13.8%). They also found other mental symptoms such as lack of concentration (47.4%), exhaustion (32.7%), and poor academic performance (34.7%).

From the above discussion, it is clear that the problematic use of mobile phone has become a serious issue these days and deserves further research.

Self-Esteem and mobile phone addiction

Bianchi & Phillips (2005) in their study on psychological predictors of problem mobile phone use found that the problem mobile phone use was the function of age, extraversion and low self-esteem. They noted that those with poor self-esteem or negative self- views have a greater tendency to seek reassurance, and it is not surprising that these are people who are more likely to use their phones inappropriately. In a study by Leung (2008) on leisure boredom, sensation seeking, self-esteem, and mobile phone addiction, it was revealed that the persons who scored high on self-esteem i.e. who perceived themselves as being in control, demonstrated less of a tendency to be addicted. The sensation seeking and self-esteem played a largest role in mobile phone addiction, while gender and leisure boredom appeared to have a lesser but significant influence. Those who were females and had low self-esteem were the most vulnerable (Leung, 2008). The low self-esteem people showed a significant preference towards e-mail communication compared to high self-esteem people (Joinson, 2004). This shows that low self-esteem people tend to avoid face-to-face communication and choose an indirect way to avoid the risk of rejection. The low self-esteem individuals used Instant Messaging (IM) more (Ehrenberg, Juckes, White, & Walsh, 2008).

Academic performance and mobile phone addiction

The students are influenced to a great extent by the social media negatively because their attention is focused on chatting, music, and other features while their academic activities are neglected and left to suffer. There is a significant relationship between the use of mobile phone in the lecture room and academic performance. The use of mobile phone is uncontrollable among students which is the leading cause of their poor academic performance (Jumoke, Oloruntoba, & Blessings, 2015). Hayat, Arshad, & Hussain (2014) in their study found that there is a significant association between excessive use of mobile phone and academic performance of the students. The students use mobile phone mainly for social networking purpose rather than for academic purpose. The mobile phones bring negative results on students' performance academically. A study conducted by Al-Menayes (2014) found that 99.7% students used social media, and social media app. Among the media app, the use of WhatsApp was 49.7% followed by Instagram 27%. The 65.3% students admitted to have used social media while driving. The students who spent more time on using social media had lower Grade Point Average (GPA) than those who used social media less. The students attributed their lower GPA to excessive social media use. Despite being aware of adverse effects, they continued their use of social media. Another study found that excessive use of online social networking sites was significantly positively related to attention deficit producing negative effect on academic performance of the students and academic competence (Ayodele, Mosunmola, Senanu, Gbenga, & Aderonke, 2015).

Research Questions & Hypotheses

Based on the review of literature, this study has formulated the following research questions and hypotheses.

Research Questions

1. Can self-esteem predict the mobile phone addiction among college students?
2. Can mobile phone addiction predict the academic performance?

Hypotheses

1. Self-esteem will be significantly negatively correlated to mobile phone addiction.
2. Academic performance will be significantly negatively correlated to mobile phone addiction.

Method
Sampling

The sample of 441 college students (216 boys & 225 girls) in the age group of 18 to 21 years participated in this study. Out of 441 students, 49% were males and 51% were females. The average age was 19.33 (M=19.33, SD=0.82). Only those college students who used smart mobile phones were considered for the sample. The sample was collected from the various colleges in the city of Pune (India). The incidental method of sampling was adopted for collecting the sample. This study was a correlational study.

Tools

Demographic and mobile phone usage data and consent form

This data form included the personal information about the participant; the information about the college, standard, and the percentage of marks obtained in the previous qualifying examination; the information about the mobile phone usage including calls, messages, social sites used and time spent. The data form also contained provision for consent from the participant.

Coopersmith Self-Esteem Inventory (Ryden, 1978)

The scale was used for measuring the self-esteem in school children. It was modified by Ryden in 1978 to be used for adults. The scale has 58 items which include 8 items for Lie Scale. For each item, the participants answer whether the statement provided is "Like me" or "Not like me". All the high self-esteem items are summed up to get the score. The test-retest reliability over a six week interval is 0.80. The scale was correlated with Marlowe-Crowne Social Desirability Scale. The validity is 0.47 (Ryden, 1978).

Problematic Use of Mobile Phone Scale (Merlo, Stone, & Bibbey, 2013)

The scale (PUMP) was used for measuring mobile phone addiction. It is a self-report questionnaire having 20 items which are rated on a 5-point scale. It has internal consistency reliability of 0.94 and was validated against Cellular Phone Dependency Questionnaire and Cell Phone Use Questionnaire. The validity coefficient is 0.75.

Academic performance

Academic performance was measured on the basis of the percentage of marks obtained by the participants in the previous qualifying examination. The provision was made in the demographic data form to collect this information.

Results

The Pearson correlation and regression was used for data analysis. The data analysis was done by using SPSS 20.

Table 1: Means and standard deviations for main variables

Variables	N	Minimum	Maximum	Mean	SD
Self-Esteem	441	22.00	47.00	35.38	5.26
Academic performance	441	44	97	69.89	10.38
Mobile phone addiction	441	20.00	82.00	49.56	12.79

Table 2: Pearson correlation between self-esteem, academic performance, and Mobile phone addiction

Mobile phone addiction

Variables	N	Pearson r	Sig
Self-Esteem	441	-0.322 **	0.000
Academic performance	441	-0.093 *	0.050

** Correlation is significant at 0.01 level (2-tailed). *Correlation is significant at 0.05 level (2-tailed).

The descriptive statistics: mean, standard deviation, minimum/ maximum range is presented in Table no.1. Table no. 2 gives the correlation of self-esteem and academic performance with mobile phone addiction. The hypothesis-1 stated that self-esteem will be significantly negatively correlated with mobile phone addiction. As shown in Table no. 2, there was a significant negative correlation between self-esteem and mobile phone addiction (r = -0.322, p < 0.01). As such, the hypothesis is supported by the results. It indicates that self - esteem is negatively correlated with mobile phone addiction. The results show that the lower the self-esteem, higher will be the mobile phone addiction. The hypothesis-2 stated that the academic performance will be significantly negatively correlated with mobile phone addiction. As per Table no. 2, there was a significant negative correlation between academic performance and mobile phone addiction (r = -0.093, p < 0.05). The result supported the hypothesis indicating that the academic performance is negatively correlated with mobile phone addiction. Thus, higher the academic performance, the lower will be the mobile phone addiction.

Table 3: Regression analysis for predicting Mobile phone addiction from Self-esteem and Academic performance

Mobile phone addiction

Variables	R^2	ß	t	Sig
Self-Esteem	10.7	-0.778[**]	-7.089	0.000
Academic performance	1.1	-0.104	-1.750	0.081

**p < 0.01

Table 4: Regression analysis for predicting academic performance from Mobile phone addiction

Academic performance

Variables	R^2	ß	t	Sig
Mobile phone addiction	0.9	-0.076[*]	-1.963	0.05

*p < 0.05

Two regression analyses were performed to find out the prediction. As shown in Table no. 3, the regression analysis revealed that self-esteem (ß = -0.778, p < 0.01) was able to predict the mobile phone addiction. The self-esteem explained the 10.70 % of variance (R2 = 10.70, p < 0.01). This shows that self-esteem could predict mobile phone addiction whereas academic performance ((ß = -0.104, p = 0.081) could not. Table no. 4 shows that mobile phone addiction (ß = -0.076, p = 0.05) could predict the academic performance. This shows that higher the mobile phone addiction, lower will be the academic performance.

Discussion

The findings showed that self-esteem was significantly negatively correlated with mobile phone addiction and it could predict the mobile phone addiction. Thus, it is revealed that high self-esteem people are less likely to suffer from mobile phone addiction. This finding is supported by the results in Bianchi & Phillips (2005) which revealed that low self-esteem predicts the problematic use of mobile phone. Their study also stated that people with low self-esteem or negative self-views have a greater tendency to seek reassurance from others, and for that they are likely to use mobile phone inappropriately. The finding in the present study is also supported by the results in Leung (2007) which revealed that people with high self-esteem demonstrated less of a tendency to be addicted. As regards academic performance, the study revealed that the academic performance was significantly negatively correlated with mobile phone addiction, and mobile phone addiction could predict academic performance.

These findings are in agreement with the findings in Jumoke, Oloruntoba, & Blessings (2015); Hayat, Arshad, & Hussain (2014). It was revealed in these studies that uncontrollable use of mobile phones by students is the leading cause of their poor academic performance. The mobile phone is used mainly for social networking rather than for academic purpose. Therefore, on the basis of the results of this study, it can be said that the academic performance is adversely affected by mobile phone addiction.

The present study examined the relationship of self-esteem and academic performance with mobile phone addiction and whether self-esteem can predict it. It was also studied whether mobile phone addiction can predict academic performance. The study revealed that self-esteem and academic performance both have significant negative association with mobile phone addiction. Self-esteem could predict the mobile phone addiction. In the same way, mobile phone addiction could predict academic performance. As a part of intervention, it is suggested that the college students be tested for the personality traits including self-esteem and those students with likely possibility of suffering from mobile phone addiction should be made aware of its consequences and advised to keep in check the use of mobile phone. Looking to the importance of the adverse effects of mobile phone addiction, further research in this aspect may be conducted in different geographical regions. The awareness programmes can also be arranged in the educational institutions for the benefit of the students.

This study has some limitations. As the self-report questionnaires were used to collect the data, the possibility of socially desirable answers could not be ruled out. The data was collected from one city and the participants in the age group of 18 to 21 were only studied. Further research may be done taking the data from different regions as well as participants of different age group.

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