MOBILE PHONE AND ITS IMPACT ON ACADEMIC WORK ENGAGEMENT

Swati Sharma
Associate Professor
Department of Humanities and Social Science
Jaypee Institute of Information Technology
Noida, India
ORCHID ID:0000-0002-3260-8841
sharma.a.swati@gmail.com

ABSTRACT
Education is the key to socio-economic development. The advancement of mobile technology has contributed to universal access to education and COVID -19 has further triggered the penetration of these devices in the college education. Young students now see mobiles phones as an extension of themselves and are increasingly becoming dependent. This research paper aims to explore the dependence (addiction) of millennial students on their mobile phones and to study the relationship between mobile addiction and academic work engagement. It also aims to investigate the gender difference in mobile addiction and student academic work engagement. The responses were collected from 211 postgraduate students. Results reveal that the mobile addiction is significantly related to student academic work engagement. Significant gender difference was found so far as the dimensions of mobile addiction and academic work engagement are concerned. The paper identifies negative influence of mobile addiction on student academic engagement. Extant literature review shows that, although mobile addiction has been studied in the past, but not much published work is available in the context of academic work engagement especially in the Indian context. The study plugs in this gap.
Keywords: Web 2.0, Mobile Addiction, Mobile Learning, Academic Work Engagement, Mobile Stress, Engagement, Dedication, Gender, Millennial.

INTRODUCTION

Recent advances in information technology have unlocked new domains of education research. Education is a key determinant of income, and spending on quality education is seen as an investment for a better future (Qazi, Raza, & Jawaid, 2014; Davies 1998). Education is a route to better social and economical development (Katz, R.,2001; Pritchard &Jones, 1996). The teeming young people opting for higher education and technical skills lead to capacity and resource constraints especially in developing societies. This gap could be bridled through effective usage of information and communication technologies (Volery& Lord, 2000). New technology and ideologies have changed the face of education. Technology has enabled access to information at an extremely low cost and has diluted all barriers leading to movements like free software movement or open source software. Massachusetts institute of technology furthered this ideology and announced its open course ware (http://ocw.mit.edu). Other online educational initiative, like Coursera, EdX (http://www.edxonline.org)and MOOC (massive open online courses), SWAYAM (https://swayam.gov.in) have all brought classroom courses at the students' doorstep and have empowered and enabled the students to make pragmatic choices about their education. These reduce the digital divide among the students and have brought students from less developed countries into the main stream of knowledge economy. Technology today opens new vistas for millennial students by enabling learning experience even during the COVID lockdown. The millennial are individuals who are born from 1982 to 2002 (Wilson &Gerber, 2008). The millennial students are born in the age flourishing with technological gadgets like personal computers and mobile phones are often referred as digital natives (Prensky, 2001). Their access to information, technology, and usage of digital media is greater than that of any prior generation. Technology, rather handheld devices (mobiles) are increasingly finding place in learning environments, as they empower the educators and learners by providing multi communication interaction and control over place and time (Medzini, Meishar-Tal, & Sneh, 2015). Usage of mobile technologies in campuses is further triggered by COVID lockdown the Wi-Fi campuses internet has undoubtedly enhanced the access to information and added to convenience of the learners. Millennial students today cannot see their existence without their mobile phones (Moeller et al, 2010; Belk, 1998).

This inseparable gadget (mobile phones) which entered in the class rooms to assist learning has opened a Pandora's Box. The millennials are hooked to these devices for long hours and indulge in surfing through various apps. Research in the western context has reported, that surge in usage of mobile communication is like addiction which leads to academic distress (Brady 1996, Murphy 1996). Therefore, it is imperative to explore the relationship between mobile usage and academic work engagement among the Indian millennial, who are the world's second largest consumer of mobile phones and mobile internet. The research paper aims to explore the dependence (addiction) of millennial students on their mobile phones and to study the relationship between mobile addiction and academic work engagement. It also aims to investigate the gender difference in mobile addiction and student academic work engagement.

LITERATURE REVIEW

Web 2.0 and New Learning Technologies

Reilly (2005) explains web 2.0 as services that get better as more people use it. It harnesses collective intelligence creating network effects through an 'architecture of participation', delivering software as a continually updated service that gets better as more and more people use it, and going beyond the page metaphor of Web 1.0 to deliver rich user experience. Web 2.0 technology includes blogs social networking sites (Komiko 2007), instant interactivity through platforms such as YouTube, Viber, Facebook and Twitter. Thus web 2.0 has played a role of catalyst to make internet more sociable, user friendly, interactive by diminishing the physical barriers, adaptable and above all cost effective.

Research supports and highlights the usage of web 2.0 tools such as blogs, web communities and wikis in collaborative learning (Thompson & Absalom, 2011; Tal-Elhasid & Meishar-Tal, 2007). Educators and facilitators are increasingly using these new tools in educational context for finding, sharing and communicating knowledge and for engaging students. Web 2.0 tools in training and learning and have stimulated the usage of technological devise like personal computers which now are replaced by the hand-held devices or mobile phones giving way to a new era of mobile age.

Adoption of Mobile and Mobile Internet

In the last decade, mobile phones have metamorphosed from a communicating device to a multimedia device. It has substantially evolved from only voice call and text message, to now be used as a compact personal hand-held computer. This decade has witnessed continuous improvement in the speed of mobile internet, thus converting phones into pocket computers. Millennial have adopted mobile phone technology with an extraordinary fervour (McCoy, 2016). Mobile phones today are not just a gadget but a smart device, penetrating across the society including developing countries like India. The report by TRAI (2017) reveals that India is a growing mobile market as the surge in mobile usage is predicted. India has 1187 million subscribers. It constitutes of 680 million urban and 506 million rural subscribers, with 1248 MB of average data usage per subscriber per month. This 2017 data has undoubtedly seen a surge in 2018. According to a report "The changing mobile broadband landscape" compiled by Ericsson (2015), sixty seven percent of the mobile users are within the age bracket of 20-40 out of which 38% are millennial i.e. (20-30 yrs. of age), thus making it a significant segment to study.

Role of Mobiles in Learning

Mobiles have become an integral part of the training and learning ecosystem. The millennial learners manage an array of personal learning projects, consequently having frequent and extended periods of engagement with technology (Vavoula & Sharples 2002). They are on the move. The millennial learners today are not bound by physical distance, fixed class timings and have access to learning options at any place and at any time at their convenience. Thus, learning with mobile may even happen in transit (Sharples, Taylor, & Vavoula, 2005). Mobile phones enable learner-centric learning by empowering millennial learners to tailor the access to information and thus meet their academic and educational objectives (Sharples et al., 2007). Learners take active role in learning and take greater responsibility in the learning process and develop the ability to search, identify, manipulate, and critique existing information. Besides easy and customized access, web technologies and mobiles have broken the cost barrier (Visser &West, 2005). In developing countries and remote areas with less infrastructure facilities these devices empower the learners with access to information and knowledge in cost effective manner. The ubiquitous mobile phones and internet have given access to learners of different economic strata and has brought about inclusiveness of the have-nots into the knowledge ecosystem (VanWeert, 2005). But all is not rosy in this new mobile era. Research exhibits that mobiles which came as a boon to encourage student engagement and immersion in learning also has a flip side. Excessive dependence on technology, often leads to physical and psychological ailments and disorder and academic distractions.

The Flip Side

The mobile phones with internet assists research and provide access to information. They are also used for interpersonal communication, and for business transactions. However, they can be used to access pornography (Owens et al., 2012), excessive gaming(Moore, 2012) or for chatting for long hours, and even gambling(Griffiths, 2007).Millennial who have grown in a restrained environment (as mobile phones and mobiles internet became affordable in India only in 2014) when suddenly exposed to easy access of information (internet) through the world of mobile devices and mobile internet, tend to spend long hours (Young, 1999) using these devices. Young millennials besides using these devices for learning also indulge in seeking entertainment. Excessive usage has lead to inevitable consequences such as impulsiveness, addiction, and physical ailments among the millennial (Dlodlo & Mahlangu, 2013). The ubiquitous and pervasive use of mobile has led youth to become addict (Roberts, Yaya & Manolis, 2015; Salehan & Negahban, 2013; Shambare et al., 2012; Young, 1999). A longitudinal study conducted by Jun (2016) on Korean adolescents revealed that the mobile addiction increases with time and affected

depressive symptoms. Mobile phones have emerged as a source of potentially addictive behaviour (Lane &Manner, 2011). The mobile phones paired with mobile data offers content and applications that are highly engaging may lead to problematic use (Tosell et al., 2015) or addictive behaviour (Krishnamurthy & Chetlapalli, 2015).

Addiction can be described as high dependence on a particular thing (Park, 2005). Mobile addiction can be explained as a situation where an individual intensely indulges in the usage of mobile thereby sacrificing other commitments. Griffiths (1996) believes that technological addiction is a subset of behavioural addiction. Researchers suggest that mobile addiction among youth is triggered by the excessive use of social networking sites such as Facebook, Instagram etc (Salehan & Negahban, 2013). Individual's psychological characteristics such as social extraversion and anxiety (Hong, Chiu, &Huang 2012), their self-esteem, self-efficacy and self-control (Khang, Kim, Kim, 2013) and personality (Roberts, Pullig, &Manolis, 2015), makes some individuals more susceptible to mobile addiction. Relationship between addiction and stress level (Chiu, 2014), health (Leena, Tomi, and Arja, 2005) and depression (Yen et al., 2009) have been established by the researchers. Impact of mobile addiction on the social life of the students was studied by Ozkan et al. (2015), however very scanty published literature is available on mobile addiction and its relationship with academic work engagement of the students (Yeap, et al., 2016; Samaha&Hawi,2016) particularly in the Indian context.

Researchers have described "engagement" as a key control in attitudes, behaviour, and performance of individuals (Richman, 2006; Harter, Schmidt, & Hayes, 2002).

Research on engagement has been done in the context of corporate, but very little research has been published on the academic engagement of students in educational institution. The academic engagement is associated with psychological well-being, enjoyment and absorption in college activities (DeakinCrick & Goldspink, 2014). Engagement research is important as an engaged student will be productive and creative (Harter et al., 2002, Schaufeli et al., 2002). Student engagement can positively affect the learning and development of the student (Carini Kuh & Klein, 2006). Schaufeli et al. (2002) defines engagement as a phenomenon comprising of three facets i.e. vigour, dedication and absorption. An engaged student will exhibit "resilience" "enthusiasm" and "full concentration" in his studies. Students who find emotional solace while on their mobiles (emotional lift) and are immersed in the virtual world forgetting the surroundings (compulsive usage) and spend long hours on mobile are mobile addicts. This addiction causes stress and exhausts them of the alertness and energy required to be happily engaged in their studies (Kirschner & Karpinski.2010; Seppala, et.al. 2009). Thus we can hypothesize that mobile addiction will be negatively correlated with student academic engagement.

Hypothesis One: Mobile addiction is negatively related with the dimensions of student academic work engagement.

Literature on gender and technology use suggests that the gender differences exists in the usage of mobile phones (Aparicio-Martínez et al., 2020; Hakoama, &Hakoyama, 2011; Haverila, 2011) and that gender influences mobile addiction (Salehan & Negahban, 2013). Geser (2006), promulgated that unlike men, women utilize mobile phone as a social tool. Women students prefer indirect communication and therefore rely more on technology. The different motive of usage generates unique use patterns across different technologies (e.g., the Internet). A study by Chen et al (2017) revealed that men are addicted due to usage of game apps and women spend more hours on phone using multimedia applications and social networking services. Studies support that that female college students sent more texts and talked longer on their cell-phones that their male counterparts (Junco et al., 2010), and possess a higher level of dependence on their mobile phones than compared to men (Geser2006; Hakoama & Hakoyama, 2011). Thus, the pattern of abuse is greatest among females (De-Sola Gutiérrez et al., 2016). Jenero et al. (2007) in their research revealed that excessive dependence on mobile phone is associated with anxiety and insomnia, particularly in females. However few researches have also cited insignificant role of gender in mobile addiction (Perry & Lee, 2007). Based on the existing research we can promulgate hypothesize two - *Hypothesis Two: Gender influences mobile addiction and academic work engagement*

METHOD

To empirically test the excessive dependence (addiction) of young students a survey design was used to obtain the required information. The population of the study comprised of undergraduate students of different colleges and universities of Delhi. Delhi is a microcosm for India as (Sengupta, 2007) people coming from all corners of India are settled here. Universities and undergraduate colleges which have wi-fi enabled campus and promote web usage by giving free access to internet to their students were randomly selected. Data for this single cross-sectional study were collected from 400 undergraduate students of different colleges and universities in national capital region of India using pen and pencil questionnaire. Out of 400 filled questionnaires, only 211were completely filled and used for the study. The total sample of 211 comprised of 128 male respondents and 83 female respondents. The

mean age of the sample was 23.9 with a standard deviation of two. All the respondents were undergraduate students pursuing courses in design, engineering commerce and humanities. Young undergraduate students were studied majorly because they represent 50% of the total Indian population and they also represent a segment which constitutes 75% of total smart phone users of India.

Measures and Psychometric Properties

The users find mobile usage an extremely pleasant experience, which gives them instant emotional solace and get engrossed with their devices unaware of their surroundings resulting in little sleep, limited physical activity and stress (Young, 1998). Literature on scales to measure mobile addiction has used inconsistent criteria, making it difficult to adopt in different cultural settings (Byun et al., 2009). Therefore, based on the past validated scales, items were generated to measure addiction. The mobile addiction is measured on three dimensions i.e. emotional lift, compulsive usage and mobile stress. Emotional lift measured the feeling of happiness, fun and contentment the user feels after using mobile phones. It had items like "using mobile phones makes me happy", Compulsive usage referred to using mobile phone unconsciously, being immersed in it, so as to lose the touch with the surroundings. An example of the item measuring compulsive usage is "while using the mobile phone, I am not aware of how long I have been there", and mobile stress referred to some subtle statements probing psychosomatic illness with 3 items, such as "I feel like phone is ringing or vibrating, but it isn't". The items of these three dimensions were anchored on a 6-point scale ranging from 1 as strongly disagree to 6 as strongly agree. The reliability coefficient of emotional lift, compulsive usage and mobile stress was 0.832 (6 items), 0.757(4 items), and 0.756 (3 items) respectively.

Academic work engagement was studied using Utrecht Work Engagement Scale (UWES) (Seppälä, et al., 2009) which has been widely cited and used by academic researchers (Loscalzo, & Giannini, 2018; Closson, & Boutilier, 2017; Nerstad, Richardsen, & Martinussen, 2010; Shimazu et al., 2008). It consisted of 17 items measuring three dimensions i.e. vigour, dedication and absorption. To check the reliability of the scale cronbach alpha was calculated for the three dimensions of the scale: vigour (6 items; $\alpha = 0.671$), dedication (4 items; $\alpha = 0.783$), absorption (6 items; $\alpha = 0.833$). Vigour was measured with items statements which had words like "energy", "fun" "feel strong and vigorous". The dimension dedication was measured by items statements like "I find my work that I do full of meaning and purpose" and absorption included items like "It is difficult to detach from my work" or "I get carried away when I am working" etc. The statements were anchored on a 6-point scale ranging from 1as never to 6 as always. Thus, a high score on the scale indicated high academic engagement among the respondents.

RESULT

The data of 211 respondents was statistically analyses using SPSS. The results are presented as follows:

Descriptive Statistics

Mean and standard deviations of the dimensions of mobile addiction and academic work engagement were calculated, as this helps in understanding the young respondents better (table1). Means and standard deviation was calculated separately for each of the three dimensions of mobile addiction and academic work engagement.

Table 1. Mean and Standard Deviation(N=211)

Dimensions of Mobile Addiction	**Mean**	**Standard Deviation**
Emotional Lift	4.62	1.23
Compulsive Usage	4.94	1.34
Mobile Stress	4.41	1.36
Dimensions of Student Work Engagement	**Mean**	**Standard Deviation**
Vigour	3.79	.716
Dedication	4.02	.890
Absorption	4.32	.958

It can be observed from Table 1 that the mean of all dimensions of mobile addiction is above 4 on a six point scale. The mean for the dimension compulsive usage is highest (m=4.94) hovering around five suggesting that the respondents perceive that they as unknowingly and unwillingly engaged with their mobile phones. The means of the dimensions of student academic work engagement hover around four. The students perceive that they are engaged in their academic work.

Hypothesis Testing

H1: Mobile addiction is negatively related with the dimensions of student academic work engagement

To investigate the relationship between mobile addiction and student work engagement, correlations were computed to examine the possible relationship between the three dimensions of mobile addiction and the dimensions of academic work engagement. Pearson correlation coefficient is a measure of the strength and direction of association that exists between two variables. Pearson correlation evaluates whether there is statistical evidence for a linear relationship among the same pairs of variables in the population, represented by a population correlation coefficient. Table 2 clearly shows that dimensions of mobile addiction are negatively related with the dimension of academic work engagement. The correlations were statistically significant at 0.01 levels. The negative correlation explains that mobile stress and compulsive usage of mobile reduces student academic engagement (vigour, absorption and dedication). However, the dimension emotional lift is not significantly related with any of the dimension of academic work engagement i.e. vigour, dedication and absorption. Thus H1 is partially accepted.

Table 2. Correlations between dimensions of mobile addiction and academic work engagement (N=211)

	Emotional Lift	**Compulsive Usage**	**Mobile stress**
Vigour	.085	-.343**	-.390**
Absorption	-.067	-.341**	-.376**
Dedication	.087	-.253**	-.338**

*** Significant at .01 level.*

In order to determine how an independent variable (mobile addiction) impacts the dependent variable (student academic work engagement) stepwise regression analysis was computed. The strength of the independent variables i.e. emotional lift, compulsive usage and mobile stress in predicting the dependent variable i.e. academic work engagement. The three dimensions i.e., vigour, absorption and dedication are the components of academic work engagement. The three were computed into a single dimension using SPSS software. It was assumed that there is a linear relationship between mobile stress, emotional lift and compulsive mobile usage (independent variables) and their probability to predict student's academic work engagement (dependent variable).

Table 3: Regression Table for Student Academic Engagement

Model	**R**	**R Square**	**Adjusted R Square**
1	.482[c]	.232	.221

Predictors: (Constant), Mobile stress, Emotional Lift, Compulsive usage

Coefficients

Model		**Unstandardized Coefficients**		**Standardized Coefficients**	**t**	**Sig.**
		B	Std. Error	Beta		
1	**(Constant)**	55.258	2.750		20.093	.000
	Mobile stress	-2.483	.691	-.288	-3.592	.000
	Emotional lift	.754	.172	.303	4.395	.000
	Compulsive Usage	-2.202	.625	-.300	-3.522	.001

D V: Academic work engagement

The regression output given in Table 3 reveals the value of R square as 0.232. This implies that that 23% of academic work engagement is predicted by the three dimensions of mobile addiction. The regressions model reveals –ve beta values for the two out of three dimensions of mobile addiction i.e. compulsive usage and mobile stress. This shows that these variables are negatively and significantly impact the dependent variable i.e. academic work engagement. Emotional lift with a beta of .303 is a positive determinant of students' academic work engagement.

H2: Gender influences mobile addiction and academic work engagement

To examine the Gender influences mobile addiction and academic work engagement an independent sample t test was computed. The independent-samples t-test compares the means between two unrelated groups (gender) on the same continuous, dependent variable mobile addiction and student work engagement. The results in Table 4 reveal that two out of three dimension of mobile addiction and all three dimensions of academic work engagement shows a significant difference on the basis of gender. Females respondents with a mean of 5.47 find mobile more engaging and indulge in compulsive usage and also feel higher mobile stress (mean=4.27) than their male counterparts. The findings find support in the past works (Salehan & Negahban, 2013). On the dimensions of academic work engagement, the female respondents exhibit significant difference on all the three dimensions i.e. absorb, dedication and vigour. They are significantly less engaged than their male counterparts in their academic work as the mean of vigour (mean=3.49, standard deviation=.874) absorption in academics (mean=3.97, standard deviation=1.08 and dedication (mean=3.34, standard deviation=1.19) is significantly less than that of the male respondents. The above discussion and results enable us to partially accept H2 and accept H3.

Table 4. Comparison of dimensions of mobile addiction and student work engagement

Dimensions of Mobile Addiction	**Male(N= 128) Mean (S.D)**	**Female (N=83) Mean (S.D)**	**t-value**
Emotional Lift	4.70 (.093)	4.59 (1.14)	0.699 (NS)
Compulsive Usage	4.43 (1.19)	5.47 (1.25)	6.067**
Mobile Stress	3.36 (1.14)	4.27 (.835)	6.239**
Dimensions of Academic Work Engagement	**Male(N= 128) Mean (S.D)**	**Female (N=83) Mean (S.D)**	**t-value**
Vigour	4.05 (.538)	3.49 (.874)	6.505**
Absorb	4.48(.905)	3.97(1.08)	3.728**
Dedication	4.38 (.907)	3.34(1.19)	7.190**

*** Significant at .01 level. NS not significant*

DISCUSSION

Mobile technology was introduced in education system to provide accessibility, spontaneity, portability and exciting learning environment to the students. Little was known that it will open Pandora box and would be the cause of student anxiety, stress and would lower the academic work engagement. Recent advances in information technology-hardware, software have led to the steep rise in the mobile adoption and mobile internet adoption. Empowered by the access to the sea of information on a click of button, the young millennial are vulnerable to harmful addictive agents of this device (Kaltiala, et al., 2004) Young millennial represent half of the total Indian population and seventy five percent of the total smart phone users of India and so, it is essential to explore their mobile usage pattern and its impact on them. This makes it imperative to research the mobile usage and its impact. Extant online literature needs to further explain the usage pattern and mobile addiction of Indian youth and its impact on academic work engagement. Quick at adopting new technology (McCoy, 2016; Czaja, 2006; Young, 1999) mobile phones have become an inevitable part of the youth personality, spending long hours using this technology leading to deleterious effect. In words of Shambare et al. (2012, p. 573) mobile phone use is "possibly the biggest non-drug addiction of the 21stcentury".

This study explores the mobile addiction among millennial. The study of descriptive reveals that the millennials feel an emotional high while using the phones and find mobile phone so engrossing that they tend to use the phone unmindfully and for long hours (compulsive usage). Millennial student perceives mobile stress (mean=4.41) which indicate that the presence of psychosomatic disorders among millennial.

Student engagement is an important ingredient for learning (Berman2014; Carini et al., 2006). The present study explores the relationship between student work engagement and mobile addiction. Statistically significant negative association between the dimensions of mobile addiction and academic engagement reveal that millennial students perceive that they lack vigour and dedication in academic work due to compulsive usage of phone and mobile stress. Millennial students at this stage of life cycle tend to overdo by spending long hours on the mobile visiting communities and blogs or slip to more entertaining social media content (Roberts et al., 2014) leading to mobile addiction and consequent poor academic engagement. Literature supports (Yeap et al., 2016) and contradicts the findings (Berman 2014; Carini et al., 2006).

Mobile addiction is influenced by gender (Lee et al., 2014). The study investigates the role of gender on mobile addiction and academic work engagement. The findings reveal that females perceive significantly higher mobile stress and find themselves indulging the compulsive usage of their mobile phones. This finds support in literature (Van et al., 2015; Roberts et al., 2014; Junco & Cotton, 2012; Hakoama & Hakoyama, 2011; Geser, 2006). No

significant difference was found between males and females for the dimension emotional lift. This explains that mobile is important for both the genders and mobile usage is entertaining for millennial students and its usage gives them a "high". Gender difference also surfaced for academic work engagement. The academic work engagement was measured on the basis of vigour and energy for accomplishing academic goals, absorption in studies and focus and dedication towards their academic course. The findings reveal that female respondents experiences less vigour (mean=3.49, standard deviation=.874), poor absorption in academics (mean=3.97, standard deviation=1.08) and lesser dedication (mean =3.34, standard deviation=1.19) than compared to male respondents.

IMPLICATIONS

This study adds to the large pool of evidence of mobile addiction (Salehan, &Negahban, 2013; Roberts et al., 2014). It also contributes to the research by supporting previous findings (Geser, 2006; Hakoama & Hakoyama, 2011; Kirschner&Karpinski.2010). The results identify a relationship between academic engagement and mobile addiction in Indian context. It provides insights to the academicians and educators about the ill effects of unrestrained mobile usage. It's opportune for educators and web developers and students to understand the mobile ecosystem and strike a balance between mobile learning and at the same time control mobile addiction. Findings of the study assist researchers and marketers to better understand the swelling millennial mobile users. The measurements of the mobile addiction traits will be beneficial in the screening of potentially compulsive mobile users, and aid in intervention when such users are discovered

LIMITATIONS AND DIRECTIONS FOR FUTURE RESEARCH

This article makes theoretical contributions to mobile addiction literature. Limited researches have been published on mobile addiction and academic work engagement and negligible in the Indian context. However, there are few limitations of this study. The self-developed scale to measure the mobile addiction had excellent psychometric properties, needs further evaluation. A single cross-sectional research design was used in the study. There is no control group in this study, thus it is hard to make comparisons between internet addicts and normal people.

Future research may adopt longitudinal or qualitative research on a larger sample size to yield more accurate data about mobile addiction. The respondents self-reported the responses about their perceptions on mobile addiction and academic work engagement. Their responses may not be their self-belief and may not be accurate and may suffer from common method bias. Also, for in depth understanding of mobile addiction and its impact on academic work engagement, it is vital to identify the mobile phone activities that are likely to slip the user to addiction and whether these relationships differed across gender. As students of this age in Indian context are in an impressionable stage, the peer pressure and group culture need to be considered for study in future research.

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