

Fear of Missing Out, Mobile Phone Dependency and Entrapment in Undergraduate Students

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Abstract The objective of this study is to observe the relationship between fear of missing out, mobile phone dependency and entrapment in undergraduate students from government and private colleges in Hyderabad, India. Purposive sampling technique was used to select a sample of 300 undergraduate students. The present study used the Fear of Missing Out Scale (Przybylski et al. in *Comput Hum Behav* 29(4):1841–1848, 2013), the Mobile Phone Dependence Questionnaire (Toda et al. in *NipponEiseigakuZasshi (Jpn J Hyg)* 59(4):383–386, 2004) and the Entrapment Scale (Hall and Baym in *New Media Soc* 14(2):316–331, 2012). Correlational analysis showed that there is a significant relationship between fear of missing out, mobile phone dependency and entrapment amongst undergraduate students from government and private colleges. The results of ANOVA found significant differences in fear of missing out, mobile phone dependency and entrapment amongst undergraduate students from government and private colleges. The limitations and implications are discussed.

Keywords Fear of missing out · Mobile phone dependency · Entrapment Undergraduate students

1 Introduction

Fear of missing out is steadily becoming a global phenomenon. Studies have estimated that around 70% of all adults in developed countries suffer from a scary, frenzied and frantic feeling that something is happening and that they are not a part of it (Schreckinger, 2014). According to Herman (2000), fear of missing out is an apprehensive attitude towards the likelihood of failing to expend the present

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opportunities and missing out on the expected pleasure associated with succeeding in doing so. It is a ubiquitous anxiety brought on by our cognitive potentials to recognize potential chances or opportunities. It can be manifested in many ways, varying from a brief pang of envy to a real sense of inferiority which has now taken a form of social anxiety. This is often triggered by posts seen on social media websites. The fear of missing out (FoMO) episode occurs mid-conversation with friends and loved ones, often leading to the individual/s who are involved in the conversation, that are troubled with fear of missing out (FoMO) to experience isolated incidents of intense rage.

This contemporary sentiment is deeply ingrained as an ancient survival instinct, and there is a valid reason as to why the expression begins with “fear”. Gibling in 2014, stated that the stress we experience from seeing other people having more fun, originates from a part of the brain known as the Amygdala (Luna, 2014). Not having enough vital information or getting the impression that one is not a member of the “in” group is enough for many individuals’ amygdala to activate and engage the stress or activation response or the “fight or flight” response (Sanz, 2015). In other words, when we feel left out as though we are not a part of some event or activity, we begin to worry or feel stressed out as though we are missing out (Malespina, 2016).

The psychology behind fear of missing out, in behavioural economics, and decision theory, can be partly explicated by the concept of loss aversion (Zaslave, 2015). From the theoretical perspective of psychological needs, fear of missing out could be ascribed to long term or even situational deficits in the satisfaction of psychological needs (Przybylski, Murayama, DeHaan, & Gladwell, 2013), the prevalence of which promotes an escalating clarity of other’s social life and an increasing quantity of real-time information (Amichai-Hamburger & Ben-Artzi, 2003). As stated by the uses and gratifications theory, people actively and deliberately choose and use social media to achieve their specific needs (Katz, Haas, & Gurevitch, 1973), such as their need for information or staying in touch with others through socializing (Park, Kee, & Valenzuela, 2009). For individuals who struggle with fear of missing out, involvement in social media poses as an attractive opportunity since it serves as an appropriate device to be socially connected at a comparatively lower price (Ellison, Steinfield, & Lampe, 2007; Vaughn, 2012).

Self-determination theory asserts that a person’s psychological satisfaction in their competence, autonomy and relatedness must be fully satisfied for the individuals to sustain their optimal performance and well-being (Deci & Ryan, 1985). Individuals with lower levels of basic psychological satisfaction experienced a greater degree of fear of missing out. In other words, a significant correlation was found between basic psychological satisfaction and fear of missing out (Przybylski et al., 2013). Additionally, nearly four out of ten young people stated that they experience fear of missing out occasionally or frequently (Vaughn, 2012). Fear of missing out was discovered to be negatively correlated with age and men reported fear of missing out more than women (Vaughn, 2012).

The fear of missing out is often activated and triggered by the latest form of communication: social media. It has always been imperative to be “in the know” even when we wandered about in small groups. These systems, which were

developed over a period of time, today exist in the form of television, newspapers, the Internet, and social media platforms. The main purpose of this development was to help the humans consolidate and enhances communication amongst other humans to keep each other informed of important information, including potential sources of danger to our tribes/countries/species. It is also partially due to this reason why individuals are active participants in networking platforms like Facebook or Twitter (Sanz, 2015).

It is mostly due to being motivated by this anxiety and insecurity of missing out on the potential opportunities, all the more accentuated via the medium of social media, that fear of missing out is steadily proving to be a destructive force. The findings of a survey done by National Stress and Wellbeing in Australia Survey (Australian Psychological Society, 2015) reported that most teenagers today suffer from the fear of missing out which is activated when using social media. About 15% or more than half of all the teenagers who participated in the survey admitted that they use social media for 15 min before bed every night; 37% or four in ten of the teen respondents, in the presence of others, use social media, and 24% or one in four teens stated that they join or connect to social media, while eating breakfast and lunch every day. The report stated that the fear of missing out is more commonly seen in people who heavily rely and use social media. One in two Australian teenagers or around 50% of the respondents admitted that they constantly feel the fear of missing out on their friends' inside jokes and activities, and moreover to successfully convey that they are having fun on social media. Young adults also frequently compare themselves to their friends and feel like they have less rewarding experiences than them. For example, a person who is watching TV at home decides to casually check and skim/scroll through Facebook or Instagram. The person then comes across the photos that his/her friends posted photos of them out clubbing and he/she suddenly feel like they are missing out on something very important (Australian Psychological Society, 2015).

In this day and age, we are all the more open, vulnerable and exposed to what others are doing around us, and we are constantly troubled and haunted with a plaguing sense of alarm about whether or not we have made the right choice about what we are doing and where we have to be at all stages of our life. This sensation of fear of missing out is raising rapidly with the real-time and location-based media apps (Vaughn, 2012). Partly because Millennials are the first generation of digital native, they are specifically more exposed and thereby more defenceless against the affect of fear of missing out (FoMO) (Popcorn, 2012).

As per the study conducted by Elhai, Dvorak, Levine, and Hall (2017), it was revealed that overdependence or problematic use of smartphone was most correlated with anxiety, fear of missing out (FoMO) and need for touch (NFT). The study stated that behaviour activation mediated associations between smartphone use and both anxiety and depression, and the results demonstrate the importance of social and tactile need fulfilment variables that explain problematic smartphone use. Also, emotional suppression also mediated the association between problematic smartphone use and anxiety.

Savvy brands are also shaping different marketing techniques, aiming to target and exploit this fear of missing out to influence the Millennials either by provoking or escalating discomfort about missing out. When compared to previous generations, Millennials possess a distinct perspective, in terms of what they are willing to spend their money on by letting FoMO or “fear of missing out” influence or drive their monetary decisions. As per a recent survey conducted by Eventbrite in 2014, it was reported that around 78% of 18–34 year olds were willing to pay for experiences rather than things, with nearly 70% of the people accepting that fear of missing out dictate their financial choices. Fear of missing out is a kind of social anxiety which may have always been present, but currently is going into an overdrive. This can be ascribed to the loss of non-virtual relationships due to emerging smartphones and mobile applications. This can probably explain the current phenomenon which leads to mobile phone dependency that can be witnessed in nearly 75% of young adults who use social media, i.e. through the medium of mobile phone apps (Chaudhry, 2015).

The communication technologies today have changed and revolutionized our lifestyle, allowing the smartphones to become a basic necessity in our daily lives. As per 95% Indian respondents, mobile phones have become an integral part of their lives. According to a survey done by online travel company Expedia in 2014, 75% of the people use a mobile phone app on their cell phone or tablet to book accommodation; around 86% of Indians own and use a smartphone. It has been noted that India has the highest number of smartwatch owners globally, with 18% of them owning and using the device (Mishra, 2014). While cell phones were initially used as a communication device, today, they are a twenty-first-century symbol that performs multiple roles (García-Montes, Caballero-Munoz, & Perez-Alvarez, 2006), mainly socialization. Mobile phones can be regarded as a bank, when using mobile banking (Jayamaha, 2008), a calculator, personal organizer, a camera or a social networking device (Bicen & Cavus, 2010), to stay connected with their friends and family (Aoki & Downes, 2003) and to use the Internet, email and social media such as Twitter and Facebook. Such wide array of features makes mobile phones the ultimate social-interaction gadget.

As indicated previously, this ever-growing trend of fear of missing out is leading to mobile phone dependency amongst its users. Mobile phone dependency can be defined as regular reliance of the users on mobile phones such that the mobile/cell phones become a part of the adopters’ lives to such an extent that the person using the gadget feels lost in its absence (Hooper & Zhou, 2007). Rogers (1995) recognized this as “commitment” to using an innovation. It can be noticed that the increasing tendency of the fear of being without mobile phone is also taking over the general population in today’s world due to increasing mobile phone dependence. It can be predominantly observed amongst the high school and college students. A study done by YouGov in 2010 found that about 53% people using smartphones in UK get disturbed when they either run out of battery, have no network coverage or when they lose their phones (Merz, 2013).

Hooper and Zhou (2007), on the basis of Maslow’s motivation model, posited that human behaviour can be considered as the definite performance of behavioural

intentions which are driven by certain concealed motives. This perspective emerges to be in congruence with the adoption theories like Ajzen's theory of planned behaviour (1991) and Davis's technology acceptance model (1989). Essentially, Taylor and Todd (1995) explained that these models put forth the view which states that the product's attributes (for instance, perceived ease of use, perceived usefulness or relative advantage) impact the behavioural intention, which consequentially triggers behaviour. These motives result in six types of behaviour identified with cell phones usage. These behaviours are voluntary, mandatory, habitual, addictive, compulsive and dependent behaviour (Hanley & Wilhelm, 1992; Hooper & Zhou, 2007; Madrid, 2003; O'Guinn & Faber, 1989). Dependent behaviour, unlike addiction, is generally influenced by the added and attached importance of a social norm (Hooper & Zhou, 2007). Therefore, it is rather the attached importance of communicating with others to a great extent and not the addiction of mobile phone usage.

Profound dependence on mobile phones devices to inform, share, coordinate and spend quality time with friends creates strong obligations and compulsion to be responsive (Baron, 2008). The brief, targeted pattern of continuous communication amongst friends can become a *habitual ritual* which becomes institutional and the call becomes an obligation as well as a duty (Licoppe, 2004). This sense of duty/obligation is the result of an expectation of relational maintenance, wherein the friends and fellow peers expect each other to maintain their friendship and stay in touch via the mobile phones to communicate and include.

Entrapment can be defined as the expectations of others (particularly friends and peers) to inform, share and maintain relationships via text messaging or phone calls which leads to one experiencing the overwhelming feelings of being trapped or imprisoned (Baym, 2010). Since it is a compact and portable device which provides us with convenience, the cell phone encourages the relational companions to be in constant and perpetual contact (Katz & Aakhus, 2002).

The crux and the chief concern of entrapment are to perpetually stay connected. Katz and Aakhus (2002) said, "An age of perpetual contact, at least in terms of potential, is dawning". The increasing accessibility and mobile phone usage in maintaining interpersonal relations develop the perception as well as the expectation for individuals' availability and presence in future. The relationship is negatively impacted in case one fails to meet these demands for contact (Baron, 2011; Hall & Baym, 2012; Licoppe, 2008; Yan, 2015).

Surely, while on one hand perpetual contact is regarded as a positive characteristic of the phone (e.g. its ability to stay globally connected with friends and family), Baron (2011) declared that the idea of freedom–entrapment could be disruptive, resulting in negative outcomes when cell phones are too often used and the expectations become irrational and unrealistic. In the context of texting, Baron found that failing to be quick with one's response may be interpreted as a rude gesture, therefore having a negative impact over the relationship (Baron, 2011). This goes on to show the two-sided effect of communication and technology, especially with the mobile phones using which any person can be tracked at any place or time. Research studies conducted on romantic relationships focus on the

issues of entrapment when studying the dialectical tension of autonomy–connection (Duran, Kelly, & Rotaru, 2011). In escalation to the candidates, voicing their frustration and exasperation over the constant anticipation and pressure over who is going to text or call, which points to the direction of anxiety being caused due to constant contact (Duran et al., 2011), which is the very essence of the entrapment concept (Yan, 2015).

A distinguishing feature of fear of missing out is the desire to stay continually connected with what others are doing (Przybylski et al., 2013) which is often experienced by *Millennials* who are at the threshold of adulthood in early twenty-first century, i.e. students attending universities and colleges today (Jonas-Dwyer & Pospisil, 2004). They are the major users of social media applications and devices in comparison to other sections of the population, and use them quite extensively for communicating with other persons in their age group and their fellow students in their respective disciplines (Ophus & Abbitt, 2009; Subrahmanyam, Reich, Waechter, & Espinoza, 2008). But the flip side of such extensive usage of social media is that it may lead to adverse impact on the psychological well-being of the users (Alabi, 2013; Alavi, Maracy, Jannatifard, & Eslami, 2011). These concerns about the adverse psychological issues due to extensive social media usage amongst university or college students have led to increasing awareness about a relatively new phenomenon, popularly referred to as fear of missing out (Alt, 2015). This is likely to result in addiction of the users to mobile phones to such extent that these devices become an integral and inseparable part of the user and without them one feels lost and helpless (Hooper & Zhou, 2007). Rogers (1995) identifies this as a desire and propensity for using a new device/product in era of ever-evolving technology innovations. The importance attached to the need for remaining in contact and easy accessibility to others itself leads to constant pressure and anxiety in the users resulting in them feeling trapped or imprisoned. Therefore, the combination of these variables, i.e. fear of missing out, mobile phone dependency and entrapment was selected for the current study, which is exponentially and quite frequently encountered by undergraduates or college students.

1.1 Research Questions

1. Is there an influence of type of college (viz. government and private) and gender of undergraduate students on fear of missing out, mobile phone dependency and entrapment?
2. Is there a relationship between fear of missing out, mobile phone dependency and entrapment in undergraduate students from different types of colleges (viz. government and private)?

1.2 Objectives

1. To observe whether there is an influence of type of college (viz. government and private) and gender of undergraduate students on fear of missing out, mobile phone dependency and entrapment.
2. To observe whether there is a relationship between fear of missing out, mobile phone dependency and entrapment in undergraduate students from different types of colleges (viz. government and private).

1.3 Hypotheses

- H1 There will be a difference between undergraduate students from government and private colleges with respect to (a) fear of missing out, (b) mobile phone dependency and (c) entrapment.
- H2 There will be a difference between undergraduate boys and girls with respect to (a) fear of missing out, (b) mobile phone dependency and (c) entrapment.
- H3 There will be a relationship between fear of missing out and mobile phone dependency in undergraduate boys from government colleges.
- H4 There will be a relationship between mobile phone dependency and entrapment in undergraduate boys from government colleges.
- H5 There will be a relationship between fear of missing out and entrapment in undergraduate boys from government colleges.
- H6 There will be a relationship between fear of missing out and mobile phone dependency in undergraduate girls from government colleges.
- H7 There will be a relationship between mobile phone dependency and entrapment in undergraduate girls from government colleges.
- H8 There will be a relationship between fear of missing out and entrapment in undergraduate girls from government colleges.
- H9 There will be a relationship between fear of missing out and mobile phone dependency in undergraduate boys from private colleges.
- H10 There will be a relationship between mobile phone dependency and entrapment in undergraduate boys from private colleges.
- H11 There will be a relationship between fear of missing out and entrapment in undergraduate boys from private colleges.
- H12 There will be a relationship between fear of missing out and mobile phone dependency in undergraduate girls from private colleges.
- H13 There will be a relationship between mobile phone dependency and entrapment in undergraduate girls from private colleges.
- H14 There will be a relationship between fear of missing out and entrapment in undergraduate girls from private colleges.
- H15 There will be an interaction between gender and type of college between the variables of fear of missing out, mobile phone dependency and entrapment.

2 Method

2.1 Research Design

The present study adopts a between groups design to determine whether there are any gender differences between undergraduate students going to government colleges and those going to private colleges in terms of fear of missing out, mobile phone dependence and entrapment. This study also adopts a correlational design to determine whether there is any relationship between fear of missing out, dependence on mobile phones and entrapment amongst undergraduate boys and girls going to government and private colleges. The study was conducted on students from government and private colleges.

2.2 Sample

A non-probability purposive sampling method was used to select a sample of 300 undergraduate college students aged 17–22 years. Out of the total sample, 150 were studying in government colleges, 75 boys and 75 girls and 150 were studying in private, 75 boys and 75 girls.

- **Inclusion criteria:**

- Participants aged between 17 and 22 years were included
- Participants who were pursuing their graduation from government and private institutions were included
- Participants who own a mobile phone (smartphones) were included.

- **Exclusion criteria:**

- Participants who were not pursuing or have already completed their graduation were excluded.

2.3 Instruments

- **Information Schedule**

Participants were asked to provide their gender, age, education, type of institution and the like in the information schedule.

- **Fear of Missing Out (FoMO)**

The FoMO scale was designed by Przybylski, Murayama, DeHaan and Gladwell in 2013. It is a psychometrically valid ten-item scale that measures individual differences in the experience of the pervasive apprehension that

others are engaged in more rewarding activities or social relationships than the self. Participants answered each item on a scale from 1 (“Not at all true of me”) to 5 (“Extremely true of me”). The scales items showed good consistency ($\alpha = 0.84$).

- **Mobile Phone Dependence Questionnaire (MPDQ)**

The Mobile Phone Dependence Questionnaire was developed by Toda, Monden, Kubo and Morimoto in 2004. This scale is a 20 item self-report survey that evaluates the frequency of occurrence of behaviours associated with mobile phone. On a four-point scale ranging from (3) *Always* to *Hardly Ever* (0), participants specify and select the general frequency with which they perform certain mobile phone-related behaviours. Scores range from zero to sixty, with higher scores indicating greater levels of dependence. High internal consistency has been found in adult populations ($\alpha = 0.86$) (Ezoe et al., 2009; Toda et al., 2004).

- **Entrapment**

Entrapment was measured by adapting seven items from the qualitative analysis of Baron (2011) and Ling and Ytri (2002) by Hall and Baym in 2012. Items expressed the degree to which participants felt stressed and pressured as a result of mobile phone usage, dependence and communication with their friends. The seven items were found reliable ($\alpha = 0.86$).

3 Procedure

After selecting the measures, a few arrangements were made for data collection. The questionnaires and the information schedule were prepared and organized. The authorities of the government and private colleges were contacted for permission regarding collection of data in their college. The researcher then visited the colleges on the scheduled dates. Rapport was established with the students and they were made aware that their participation in the study was purely voluntary. They were assured of maintaining confidentiality throughout the study. The students who agreed to participate in the study were requested to sign an “Informed Consent Form”. Next, the written and verbal instructions were given and the information schedule was administered followed by the questionnaires (namely the fear of missing out, mobile phone dependency and entrapment). There was no fixed time limit for any of the questionnaires. However, the participants were expected to complete the questionnaire in 30 min.

4 Statistical Analysis of Data

The obtained data of this study were analysed using two-way analysis of variance and product-moment correlation using the statistical package for social sciences (SPSS) version 21. Means of fear of missing out, mobile phone dependency and

entrapment were calculated for the groups. Two-way analysis of variance (ANOVA) was conducted to determine whether there are any gender differences between undergraduate students from different types of colleges (viz. government and private) in terms of fear of missing out, mobile phone dependency and entrapment. Product-moment correlation was computed to determine whether there was any significant correlation between the fear of missing out, mobile phone dependency and entrapment amongst undergraduate boys and girl from different types of colleges.

The overall mean of the scores obtained by the participants in the present study for FoMO, mobile phone dependency and entrapment were 27.06, 26.89 and 19.41, respectively, while the standard deviation for FoMO, mobile phone dependency and entrapment were 6.73, 7.83 and 5.22, respectively. The mean of the scores obtained by the undergraduate students from government collages for FoMO, mobile phone dependency and entrapment were 27.54, 28.61 and 20.47, respectively, while the mean of the scores obtained by the undergraduate students from private collages for FoMO, mobile phone dependency and entrapment were 26.58, 25.17 and 18.35, respectively. Also, the mean scores obtained by the undergraduate boys from government and private collages for FoMO, mobile phone dependency and entrapment were for FoMO, mobile phone dependency and entrapment were 27.54, 28.61 and 20.47, respectively; whereas the mean scores obtained by the undergraduate girls from government and private collages for FoMO, mobile phone dependency and entrapment were 26.98, 25.85 and 19.32, respectively.

5 Results

Table 1 indicated a significant difference between the undergraduates from government and private colleges with respect to mobile phone dependency ($F = 15.60$, $p < 0.01$). The undergraduate students from government colleges ($M = 28.61$) scored significantly higher than undergraduate students from private colleges ($M = 25.17$) with respect to mobile phone dependency.

There is also a significant difference between the undergraduates from government and private colleges with respect to entrapment ($F = 13.08$, $p < 0.01$). The undergraduate students from government colleges ($M = 20.47$) scored significantly higher than undergraduate students from private colleges ($M = 18.35$) with respect to entrapment. In other words, undergraduate students are more influenced by mobile phone dependency and entrapment than undergraduate students from private colleges.

Table 1 reveals no significant difference ($p < 0.05$) between the undergraduates from government and private colleges with respect to fear of missing out.

Additionally, Table 1 reveals a significant gender difference with respect to the mobile phone dependency ($F = 5.64$, $p < 0.05$). Undergraduate boys ($M = 27.93$) scored significantly higher than undergraduate girls ($M = 25.85$) with respect to

Table 1 Results of two-way ANOVA with gender and type of college as the IVs and fear of missing out (FoMO), mobile phone dependency and entrapment as the DVs ($N = 300$)

Variables	Type of college		F	Gender		F	Gender X Type of college F
	Government (N = 150)	Private (N = 150)		Boys (N = 150)	Girls (N = 150)		
	Mean (SD)	Mean (SD)		Mean (SD)	Mean (SD)		
FoMO	27.54 (7.01)	26.58 (6.44)	1.52	27.14 (6.52)	26.98 (6.97)	0.042	0.76
MPD	28.61 (6.21)	25.17 (8.85)	15.60**	27.93 (6.52)	25.85 (7.79)	5.64*	3.33
Entrapment	20.47 (4.96)	18.35 (5.28)	13.08**	19.49 (4.79)	19.32 (5.63)	0.087	7.08**

Note

SD Standard Deviation

FoMO Fear of missing out

MPD Mobile phone dependency

** $p < 0.01$ level

* $p < 0.05$ level

mobile phone dependency. In other words, the undergraduate boys students are more dependent on mobile phones than the undergraduate girls students.

Table 1 also states that there is no significant gender difference ($p < 0.05$) with respect to the fear of missing out and entrapment.

Simultaneously, Table 1 also indicates an interaction between gender and type of college between the variables of fear of missing out, mobile phone dependency and entrapment.

Table 2 reveals that there is statistically no significant relationship ($p > 0.05$) between fear of missing out (FoMO) and mobile phone dependency in undergraduate boys from government colleges. Also, there was no significant relationship ($p > 0.05$) between fear of missing out (FoMO) and entrapment and between mobile phone dependency and entrapment in undergraduate boys from government colleges.

Table 3 shows that there is statistically no significant relationship ($p > 0.05$) between fear of missing out (FoMO) and mobile phone dependency and between mobile phone dependency and entrapment in undergraduate girls from government

Table 2 Results of the correlation between fear of missing out (FoMO), mobile phone dependency and entrapment in undergraduate boys from government colleges ($N = 75$)

	Mobile phone dependency	Entrapment
Fear Of missing out (FoMO)	0.16	0.18
Mobile phone dependency		0.01

** $p < 0.01$ level

* $p < 0.05$ level

colleges. But, it was seen there exists a high significant positive correlation between fear of missing out (FoMO) and entrapment ($r = 0.39, p < 0.01$) in undergraduate girls from government colleges.

Table 4 reveals a high significant positive correlation between fear of missing out (FoMO) and mobile phone dependency ($r = 0.32, p < 0.01$) in undergraduate boys from private colleges. There is a high significant positive correlation between mobile phone dependency and entrapment ($r = 0.40, p < 0.01$) in undergraduate boys from private colleges. And there exists a significant positive correlation between fear of missing out (FoMO) and entrapment ($r = 0.25, p < 0.05$) in undergraduate boys from private colleges.

Table 5 reveals that there is no significant relationship between fear of missing out (FoMO) and mobile phone dependency in undergraduate girls from private colleges. There is a significant positive correlation between mobile phone dependency and entrapment ($r = 0.23, p < 0.05$) in undergraduate girls from private colleges. And there exists a high significant positive correlation between fear of missing out (FoMO) and entrapment ($r = 0.33, p < 0.01$) in undergraduate girls from private colleges.

Table 3 Results of the correlation between fear of missing out (FoMO), mobile phone dependency and entrapment in undergraduate girls from government colleges ($N = 75$)

	Mobile phone dependency	Entrapment
Fear Of missing out (FoMO)	0.19	0.39**
Mobile phone dependency		0.14

** $p < 0.01$ level

Table 4 Results of the correlation between fear of missing out (FoMO), mobile phone dependency and entrapment in undergraduate boys from private colleges ($N = 75$)

	Mobile phone dependency	Entrapment
Fear Of missing out (FoMO)	0.32**	0.25*
Mobile phone dependency		0.40**

** $p < 0.01$ level

Table 5 Results of the correlation between fear of missing out (FoMO), mobile phone dependency and entrapment in undergraduate girls from private colleges ($N = 75$)

	Mobile phone dependency	Entrapment
Fear Of missing out (FoMO)	0.20	0.33**
Mobile phone dependency		0.23*

** $p < 0.01$ level

* $p < 0.05$ level

6 Discussion

The rationale of the current study was to see if the type of college and gender influences fear of missing out, mobile phone dependency and entrapment in undergraduate students. The objective of the current study was to find out if there is any relationship between fear of missing out, mobile phone dependency and entrapment in undergraduate students from different types of colleges, i.e. government and private colleges.

In the present study, the results using two-way analysis of variance (ANOVA) indicated that the undergraduate students from government colleges scored higher than undergraduate students from private colleges in mobile phone dependency and entrapment.

The results of the study conducted by Dixit et al. (2010) are suggestive of mobile phone dependence amongst the students of M.G.M. Medical College, Indore. The data indicated that fear of being out of mobile phone contact seems to be an emerging problem of undergraduate college students in modern times, as mobile phones have ceased to be a status symbol but has become a necessity due to its extensive features which makes it perform various roles from a personal assistant to a handy musical device (Dixit et al., 2010). According to DNA India, nowadays, there is now a higher level of awareness in the people not only to judge each other on the basis of their clothes and their houses, they also tend to rate others on the basis of the gadgets they use in public. Therefore, one of the plausible reasons for the undergraduates from government colleges to score higher than private colleges could be the need to attain an equivalent social status (in the case of cell phones) in the society ("Gadgets Often Seen As", 2013).

The results in the present study have indicated that undergraduate boys are more dependent on mobile phones than undergraduate girls. This can be supported by a research done on males and females by Devis, Carmen, Vicente and Thomas (2009) which reported that girls spend less time on mobile phones than boys. A study done by Turner, Love and Howell (2008) stated that the individual traits like gender and age and personality are associated differentially with certain features of mobile phone-related behaviour. In contrast, it was discovered by Walsh, White, Cox, and Young (2011) that gender was associated with mobile phone involvement but not with frequency of use.

On the other hand, other studies concluded that there were a high mobile phone dependency and usage in women than in men. Billieux, Van der Linden, and Rochat (2008) examined the gender differences in terms of impulsion and problematic phone usage faced by the young. It was found that women are more dependent on phones than men who tend to use their cell phones more frequently only in dangerous circumstances. Jenaro, Flores, Gómez-Vela, González and Caballo (2007) analysed the compulsive and obsessive smartphone and Internet use amongst 337 Spanish college students, and learned that excessive mobile phone use is viewed as a feminine quality, and having high level of anxiousness and insomnia.

In the current study, the results showed that there was an interaction between gender and type of college in the variable of entrapment.

Using Pearson's product-moment correlation coefficient, it was found that there was a significant relationship between fear of missing out and entrapment in both undergraduate girls from government colleges and in undergraduate girls from private colleges. In contrast to the results of the present study for fear of missing out and mobile phone usage, it was discovered in a study done by Abel, Buff and Burr (2016) that while assessing gender and FOMO, there was no significant finding that was found. Also, the average total fear of missing out (FoMO) score for men was marginally lower than that reported by women. The results have also indicated that there was a significant relationship between fear of missing out, mobile phone dependency and entrapment in undergraduate boys from private colleges.

Findings of present study for fear of missing out (FoMO) and mobile phone usage are supported by a research done by Trnkova, Nguyen, and Madeira (2015) who have suggested that there is an underlying correlation between fear of missing out and usage of mobile phone. Though the term fear of missing out (FoMO) is rather new in psychology, its consequences have been known for the past many decades. Easy connectivity at all times and all places increases real-time digital updates on our constant group contacts via our smartphone. People keep on checking their cell phones in their anxiety not to miss any new information or rewarding experience (Vaughn, 2012). According to Chaudhry (2015), the phenomenon of fear of missing out (FoMO) can be indirectly linked to loss of their relationships with their close social media relations/contacts through smartphones and mobile applications. The fear of missing out, a current phenomenon experienced by nearly 75% of young adults using social media, results from constant usage of social media due to its efficiency for providing prompt and constant connection to social networks and contacts. This inevitably leads to a deep addiction and dependence to social networking sites, and thereby to extensive usage of the mobile apps, to phones also (Chaudhry, 2015).

Findings of the present study for mobile phone dependency and entrapment are supported by a research done by Subba et al. (2013). This study aimed to discover the proportion of students who experienced "ringxiety" (phantom ringing) and other perceived effects, as well as the pattern of the mobile phone usage amongst private college students. Amongst the total number of students, the proportion of the students who had the symptom of "ringxiety" was 34.6% (116). Of these, 51.8% (60) were males and 48.2% (56) were females. This study illustrates that men are more affected by "phantom ringing" and other perceived effects of the mobile phones, which could be one of the possible reasons which is creating more dependence on mobile phone especially in males.

Findings of present study for fear of missing out and entrapment are also supported by a research done by Alt (2015) which established positive linkage between two motivational factors: Extrinsic and amotivation for learning and social media engagement and these links are more likely to be mediated by fear of missing out (FoMO). As mentioned earlier, students extensively depend on mobile phone tools and apps to stay in touch with others through mobile phones (Ophus & Abbitt, 2009)

which is likely to lead to hyper-coordination, i.e. the need to socialize and interact with others on a daily basis (Ling, 2004; Ling & Yttri, 2002) which finally leads to entrapment (Baron, 2011; Hall & Baym, 2012).

The results in the current study have indicated that there was a significant causal relationship between mobile phone dependency and entrapment in undergraduate girls from private colleges. A research done by Hall and Baym (2012), who concluded that the overdependence on mobile phones, is built upon the feeling of entrapment, but instead of cementing the desired relationship, it may lead to loss of satisfaction in the relationship linkage. Though extensive usage of mobile and social media can help create more connectedness, but its adverse consequences may result in cementing of suffocative constant contacts over autonomy, which can also lead to feelings of addictive overdependence and finally entrapment. This inevitable contradictory pulls between remaining in constant contact through technology and feeling entrapped and imprisoned by technology are reported in different user profiles, from American college students (Baron & Ling, 2007) to poor urban Philippine spouses (Portus, 2008) and middle-class Indian families (Donner, Rangaswamy, Steenson, & Wei, 2008).

6.1 Limitations

Regression can be done to explore the relationships between fear of missing out, mobile phone dependency and entrapment and predict how they affect and influence each other.

The second limitation is that sample in the study has been restricted to just college undergraduates from different types of colleges. This study can be further conducted on adolescents, adults and older people to assess whether or not people from different age groups experience fear of missing out, mobile phone dependency and entrapment.

6.2 Implications

It is observed from the present study that the undergraduate students from government colleges, especially boys are more dependent on mobile phones than the undergraduate students from private institutions. Thus, these findings can help the teachers and school psychologists in government educational institutions to determine the source of anxiety and stress for the young adults and help in building measures for reducing the same.

The study also helps the students and even the adolescents in identifying to what extent they are dependent on mobile phones, which is increasing at a rampant pace due to them experiencing this phenomenon of fear of missing out, and in many cases leads to them feeling entrapped or cornered. It will be helpful in introspecting different ways to counteract and reduce the same.

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