

Instagram addiction and Anxiety among Students Pursuing Pharmacy Course

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ABSTRACT

This study attempted to find out the relationship between anxiety and Instagram addiction of students pursuing pharmacy course. The sample consisted of 136 (63 males + 73 females) students comprising of students aged between 18-28 years. The students completed Test for Instagram addiction (TIA) developed by D'Souza, Samyukta and Bivera (2018) and anxiety was measured through DASS (Lovibond & Lovibond, 1995). Test for Instagram addiction measured addiction in 6 factors—Lack of control, Disengagement, Escapism, Health and interpersonal troubles, Excessive use and Obsession. Through DASS, the authors measured anxiety scores. Pearson's product moment correlations were employed to find out the relationship between factors of Instagram addiction and anxiety. Stepwise multiple regressions was employed to find out the predictors of anxiety from components of the test of Instagram addiction. Results revealed that as the addiction to Instagram increased anxiety of the students also increased linearly and significantly. Obsession and Excessive use component of Instagram addiction were the major predictors of anxiety.

Keywords: *Instagram Addiction, Anxiety, Pharmacy Students*

The internet is a network of global exchanges – including private, public, business, academic and government networks—connected by guided, wireless and fiber-optic technologies. Though there are a lot of advantages to the internet, there are several disadvantages too which cannot be neglected. One such disadvantage is Internet addiction. There were about 500 million active internet users in India in 2018 as compared to 5 million in 2000 (Internet and Mobile Association of India, 2018). Today, internet has entered into various domains of life of people in research, amusement, business, banking and communication networks. It is estimated that about 91% of 16-24-year-olds use the Internet for social media in comparison to 51% of 55-64-year-olds and 23% of 65-year-olds and above (Chowdhry, 2018). Through internet the communication is made simple and fast, thereby avoiding controversial issues (Busari, 2016). Internet has become part and parcel of one's life. There is an extreme dependency on internet and applications related to it. It has taken over all other tasks of routine especially among adolescents. This affects their time and attention to be given to school/college work, domestic and responsibilities at home, and even

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interaction and relationships with others. Internet addiction disorder is overuse of internet with stress manifestation of signs of anger, tension and anxiety.

Internet addiction disorders (IAD) is growing at a fast rate becoming a prevalent mental health problem around the world (Goldberg, 1995). Tao et al (2010) opine that internet addiction affects health badly and results in negative impact on eye-sight, sleep pattern and other different illnesses. Even proneness to eating disorders is highlighted by their study due to internet addiction. In Nepal, Bhandari et al, (2017) found that Internet addiction mediated 16.5% of the indirect effect of sleep quality on depressive symptoms among undergraduate students. A recent study by D'Souza, Samyukta and Tejaswini (2018) revealed that as the internet addiction increased, sleep quality of the female students decreased linearly and significantly. 'Neglect work' and 'excessive use' of Internet were found to be the best predictors of sleep quality. In another study, it was found that peer stress factor of academic stress was found to be the major predictor of internet addiction (D'Souza, Manish & Raj, 2018). Sometimes even personality of an individual may also prone to Facebook and Internet addiction (D'Souza, Ravi, Lakshmeesh & Singh, 2018; D'Souza, 2018).

Internet is very attractive to adolescents and adults as it provides expressions of emotions through several social networking applications. Instagram is one such application, has taken over many other social networking applications. It is a photo sharing social networking app launched in the year 2010 has more than one billion monthly active users worldwide as of June 2018. It has high levels of user engagement and one of the fastest growing social networking sites at present. This media provides a platform for sharing photographs videos and messages in private and public way. Another study revealed that Instagram is used as "Surveillance/Knowledge about others," "Documentation," "Coolness," and "Creativity." (Sheldon & Bryant, 2016). But use of social networking applications has several antecedents. Review on this line on Instagram did not yield any studies. However, related studies have revealed the following. A recent post Times health newsletter clearly revealed that Instagram is the worst social media network for mental health and wellbeing, based on a study on almost 1500 individuals aged between 14 to 24 years (time.com/4793331/instagram-social-media-mental-health/2018). Many of the celebrities have spoken up about taking a break from social media and especially Instagram to protect their mental health. A recent study by D'Souza and Ranganatha has revealed that those who are shyer might end up in Instagram addiction. D'Souza and Meenakshi (2018) reported that among dental students as the addiction on Instagram increased, sleep quality decreased linearly and significantly. It was found that 'Lack of control' and 'Excessive use' factors of Test for Instagram addiction were the major predictors of sleep quality. So determining the effects of social media usage on teenagers is important since early adulthood is a potentially vulnerable time for emotional development. However, not many studies found to link between Instagram addiction and anxiety. In a study conducted on students by D'Souza and Hemamalini (2018a), it was found that as the Instagram addiction increased the depression of the students also increased linearly and significantly (2018). In another study by D'Souza and Hemamalini (2018b), it was observed that As the anxiety scores increased, addiction to Instagram in components lack of control, disengagement, health and interpersonal troubles and obsession increased and in total scores, also increased linearly and significantly.

In the present study an attempt is made to find out the relationship between anxiety and Instagram addiction among students pursuing pharmacy courses. In India, access to internet is very easy and economical; there is a high proneness to addiction to it. This may result in many psychological and physiological problems. There are controversies still exist whether

anxiety leads to addiction or addiction leads to anxiety. However, in the present study, authors have made an attempt to find out how addiction to Instagram leads to anxiety. The other interests of the researchers are to find out the major predictors of anxiety of students by various components of Instagram. It is hypothesized that anxiety does influence Instagram addiction, and there will be definite predictors for anxiety.

METHODOLOGY

Sample

Students studying their pharmacy course were selected for the purpose of the study from Mandya City of Karnataka State. A total of 136 students were randomly selected of which there were 63 male and 73 female students. Their age varied from 18 to 28 years with the mean age of 22.14 ± 1.81 years.

Tools Employed

- **Test for Instagram Addiction (TIA). D'Souza, Samyukta and Bivera (2018)**

TIA is developed by D'Souza, Samyukta and Bivera in the year 2018. It contains 26 statements, which measure Instagram addiction of the individual in 6 which included components like Lack of control, Disengagement, Escapism, Health and interpersonal troubles, Excessive use and Obsession. To be answered in 5 point Likert scale was used for scoring ranging from All the time (5), most of the time (4), sometime (3), once in a while (OW), rarely/never (1). To find out the reliability, the Cronbach's reliability test was done and the alpha value obtained for the total inventory was 0.931 and for various components varied from 0.680 to 0.863. Further, when item to total scores correlations were performed; all the correlation coefficients obtained through Pearson's product moment correlation techniques were found to be highly significant, indicating that the TIA has high reliability and validity. Even the correlation coefficients obtained between components were found to be highly significant.

- **Assessment of anxiety**

In the present study anxiety was assessed using DASS-21, developed by Lovibond and Lovibond (1995). DASS 21 comprises of 21 statements which measure Depression, anxiety, and stress of an Individual. In the present article, only anxiety scores were considered for the analysis. There are 7 statements in DASS, which exclusively measure anxiety of an individual. DASS has high internal consistency with Cronbach's alpha of 0.94 and has been used widely all over the world (Gloster et al, 2008). In India also several researchers have used DASS scale for measuring depression, anxiety and stress (Bhasin, Sharma, & Saini, 2010). The response to each question varies from "Did not apply to me at all" to "Applied to me very much, or most of the time". The scoring was done as per the instructions given by original authors separately for depression, anxiety and stress. To get a final score, total scores under anxiety were multiplied by 2.

Procedure

After taking the permission from the respective authorities, both test for Instagram addiction and anxiety scale component of DASS were administered to a total of 136 students studying in pharmacy course in Mandya city. Before administrating the questionnaire, they were assured of confidentiality. They were asked to answer all the questions. In case of difficulty in understanding the item/s, in order to get good response, they were made clear in their local language. Once the data were collected, they were scored and fed to the computer.

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The data were analysed using, Pearson's product moment correlation and simple linear regression. Table 1 provides the results of Pearson's product moment correlations between factors of Instagram addiction and stress. Table 2 presents results of the stepwise multiple regression.

RESULTS

Table 1 Results of product moment correlations between anxiety scores and factors of Instagram addiction

Variable 1 Factors of TIA	Variable 2	Correlation coefficient
1. Lack of control	Anxiety	0.388***
2. Disengagement	Anxiety	0.441***
3. Escapism	Anxiety	0.399***
4. Health and interpersonal troubles	Anxiety	0.387***
5. Excessive Use	Anxiety	0.489**
6. Obsession	Anxiety	0.495***
Total scores	Anxiety	0.496***

Note: $Df=133$; *** $P=.001$, ** $P=.01$; * $P=.05$

From the table 1, it is clear that depression scores were significantly and positively related to all the components of Test for Instagram Addiction (TIA). Anxiety was found to be significantly and positively related to lack of control ($r=0.388$), disengagement ($r=0.441$), escapism ($r=0.399$), health and interpersonal troubles ($r=0.387$), excessive use ($r=0.489$), obsession ($r=0.495$) and total Instagram addiction scores ($r=0.496$). As the anxiety scores increased, lack of control, disengagement, escapism, health and interpersonal troubles, excessive use and obsession increased linearly and significantly, including total Instagram addiction scores.

Regression Analysis

Table 2 Results of stepwise multiple regression (IV= Factors of TIA; DV=Anxiety)

Model	Variables entered	R	R ²	Adjusted R ²
1	Obsession	.495	.245	.240
2	Excessive use	.528	.279	.268
Beta coefficients				
		Step I	Step II	
1.	Obsession	.495	.296	
2.	Excessive use	-	.272	

To find out the major predictors of anxiety by components of TIA, Stepwise multiple regression was employed. When all the scores of 6 factors of Instagram addiction tests were regressed on the anxiety scores, stepwise multiple regressions revealed that only two factors

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of TIA were found to be the major predictors of sleep quality. The first factor entered into the equation was obsession with correlation coefficient of .495, squared R value of .245 and adjusted R² value of .240. The second factor of TIA to enter into the equation was excessive use along with obsession, with the combined correlation coefficient of .528, squared R value of .279 and adjusted R² value of .268. In other words, both obsession and excessive use factors of TIA contributed to 26.8 % of the anxiety among the students pursuing pharmacy. The beta values for the first predicted models obsession at steps I and II were 0.495 and 0.296 respectively. The beta coefficient for the second predicted model-obsession was found to be .272 at step II.

DISCUSSION

Major findings of the study

1. As the addiction to Instagram increased anxiety of the students also increased linearly and significantly.
2. Obsession and Excessive use component of Instagram addiction were the major predictors of anxiety.

The internet is a new tool that is evolving into an essential part of everyday life all over the world (Nalwa & Anand, 2003) and its use increases especially among young people. Like any other addiction, internet addiction has its own negative affects psychologically, physically and physiologically. Internet addiction may also contribute to anxiety and stress (Egger & Rauterberg, 1996). Those who suffer from anxiety and stress often have a great deal of trouble communicating and interacting with others in a healthy, positive and meaningful way. Problematic internet use may serve to worsen to social fears and avoidance to face the social interactions (Lee & Stapinski, 2012). Adolescents with internet addiction showed reduced functional connectivity spanning distributed network (Hong et al, 2013)

Instagram addiction was found to significantly influence depression among college students. Further regression analysis revealed that health and interpersonal troubles and obsession were the major predictors of depression. Time.com (2018), study revealed that Instagram is associated with high levels of depression; anxiety; bullying and fear of missing out phenomenon (FOMO). There are not many studies available to substantiate our findings which are directly related to Instagram addiction and anxiety, except a study by D'Souza and Hemamamlini (2018b), where anxiety was directly related to Instagram addiction. +However, few studies related to depression and social network addiction are in agreement with the findings of the present study. McNicole and Thorsteinsson (2017) found that internet addiction was associated with increased levels of psychological distress. Studies by Müller, Beutel and Wölfling (2014), Morrision and Gore (2010) and Leung (2006) found significant relationships between internet addiction and depression and other co-morbid disorders.

Several strategies can be planned to avoid addiction to Instagram. According to Busari (2016) use of internet must be alternatively replaced with less risky and healthy activities, which might include Yoga practising, exercising, meditation and involving in sports activities. Tracking your usage time can also help control time used on the Instagram. The addiction towards social networking applications like Instagram, Facebook, TikTok etc., are on increase day by day. Therapies like Cognitive behaviour therapy may play a major role in reducing the addiction to internet/social networking applications by changing their thought process from negative to automated positive thoughts for a better living. Future research should focus on these lines to underpin the ill effects of Instagram addiction.

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Conflict of Interest

The authors carefully declare this paper to bear not conflict of interests

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