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Research Paper

A study on addiction of Smartphones aid among Postgraduate Students as an indicator of Mental Health

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ABSTRACT

This abstract examines the growing role of smartphones as multifunctional devices integrating communication and computing capabilities, particularly in the context of higher education. With global subscriptions projected to exceed 7.8 billion by 2028, smartphones have become essential tools for learning, communication, and information access. Their portability and internet connectivity enable flexible, student-centered education, especially in the post-pandemic era. However, while moderate usage supports academic engagement and connectivity, excessive use may negatively affect study habits and contribute to mental and physical health issues. The study highlights the need to balance smartphone use to maximize educational benefits while minimizing potential risks among postgraduate students.

Keywords: *Mental health, Smartphone, Addiction*

A smartphone is an advanced technical device that combines a mobile phone and a computer system. This dual system allows it to perform multiple functions in addition to its main one. In addition to its functions, this device has gained popularity among students as a teaching aid. The number of Smartphone mobile network subscriptions worldwide reached almost 6.6 billion in 2022, and is forecast to exceed 7.8 billion by 2028. China, India, and the United States are the countries with the maximum number of smartphone mobile networks. In addition to the advantages of the internet, smartphones provide qualitatively distinct services. While older people use their cell phones to make voice call and video calls to their distant children, younger people use them to watch videos, express themselves, connect with friends, and look up information. A smartphone's accessibility and portability allow it to be used anywhere, at any time. Nowadays, it is common for students in higher education to acknowledge their smartphones due to the quick development of technology and the improvement of the educational system. Students are using internet platforms more often than traditional classrooms after the Corona period. Nowadays, among the younger age, smartphones are the most sought-after gadget. It is now simpler to use cell phones to access the internet thanks to the expansion of mobile data and WiFi. Although using a mobile phone might make life easier for students, but excessive usage of a phone can sometimes impair a student's study habits or cause imbalances in their mental and physical health. Smartphone use patterns among postgraduate students can signal mental health trends, with moderate use often linked to benefits and excessive use tied to issues like anxiety and depression.

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EMERGENCE OF THE STUDY

Recently, 'smartphone addiction' has grown to be a significant problem in our culture. Kwon, M., et al. (2013) studied smartphones also produced symptoms of addiction that were similar to those caused by the internet, such as craving, withdrawal, tolerance, disruption of daily life, and preference for relationships centred around cyberspace. National Information Society Agency (2012) published internet addiction survey for 2011 where large number was larger among teenagers and those in their twenties than among those in their thirties and forties suggests that this issue might get worse in the future. Choi, H.S., et al. (2012) conducted the influence of smartphone addiction on mental health, campus life and personal relations– Focusing on Koran university students. South Korean university students have also proven the relationship of smartphone addiction to mental health, campus life, personal relations, self-control and life stress. Kim, D.I., et al. (2012) studied teenagers may be more likely than adults to experience these issues with smartphone use since they use smartphones as an alternate means of accessing the internet, as evidenced by the media addiction study.

Statement of the problem

The problem was about addiction of smartphones aid among postgraduate students as an indicator of Mental Health especially adverse effects on mental health i.e stress, anxiety, depression.

Definition of selected keywords

- **Smartphones aid** : Mobile phone that performs many of the functions of Computer. A smartphone combines the services of the internet and a mobile phone.
- **Addiction of smartphones aid:** The excessive use of mobile devices that disrupts work, relationships, and daily life activities is known as addiction of smartphones aid
- **Postgraduate Students :** 150 students from Master's degrees (M.A and Postgraduate Diplomas) had been taken from Rabindra Bharati University, Kolkata.
- **Indicator of Mental Health :** Indicator of mental health defined adverse effects on mental health. Smartphones overuse can lead negative consequences on student's psychological issues like stress, anxiety, depression etc.

Objectives of the study

This study assessed relationship between addiction of smartphones aid among postgraduate students as an indicator of mental health i.e stress, anxiety, depression etc.

Hypotheses

Ho1. There is no significant relationship between Smartphone addiction score and Depression score among post graduate students on consideration sample.

Ho2. There is no significant relationship between Smartphone addiction score and anxiety score among post graduate students on consideration sample.

Ho3. There is no significant relationship between Smartphone addiction score and stress score among post graduate students on consideration sample.

Ho4. There is no significant relationship between Depression score and Anxiety score among post graduate students on consideration sample.

Ho5. There is no significant relationship between Depression and stress score among post graduate students on consideration sample.

Ho6. There is no significant relationship between Anxiety and Stress score of post graduate students on consideration sample.

METHODOLOGY:

This study was done on the basis of Descriptive Survey Method.

Delimitation of the study

The delimitations of the study were below:

1. The study was delimited 150 postgraduate students i.e. students studying of Master's degrees (M.A and Postgraduate Diplomas

2. The study was delimited Rabindra Bharati University.

3. The study was delimited to Kolkata from West Bengal.

Population of the study

Population of the study was considered as students studying Master's degrees (M.A and Postgraduate Diplomas) from Rabindra Bharati University, Kolkata, West Bengal.

Sampling technique

Researcher used sampling technique for the study was random sampling.

Sample of the study

The study was conducted with a sample of 150 students studying Master's degrees (M.A and Postgraduate Diplomas) from Rabindra Bharati University, Kolkata, West Bengal.

Tools used in the study

1. Smartphone addiction scale (SAS): The scale was developed by Kwon, Kim et al., in 2013 for smartphone addiction that consisted of 6 factors and 33 items with a six-point Likert scale where 1 for 'strongly disagree' and 6 for 'strongly agree'. The six factors were daily-life disturbance, positive anticipation, withdrawal, cyberspace-oriented relationship, overuse, and tolerance. The overall SAS-SV scores range from 10 to 60. According to Kwon, Kim et al., in 2013, cutoff values of 31 for males and 33 for females were used to indicate the presence of Smartphone addiction.

2. The Depression, Anxiety, and Stress Scale (DASS-21): The scale was a validated tool developed by Menezes, L. and Paula,W.D. et al., used globally across various populations and cultural contexts, including Australia, Greece, China, and Hong Kong. DASS-21 contains sub-sets of seven items for measuring depression, anxiety, and stress on a 4-point Likert's scale ranging from 0 to 3 (0 for 'did not apply to me', and 3 for 'applied to me very much or most of the time)'. After adding the individual points for each subset, the obtained scores were multiplied by 2 to calculate the final scores from 0 to 42 for the interpretation. The levels of depression and stress experienced were classified into normal, mild, moderate, severe, or extremely severe. For depression, scores 0–9 were considered normal; 10–13 mild; 14–20 moderate; 21–27 severe; and above 28 very severe. Regarding stress scores, 0–14 were considered normal; mild 15–18; moderate 19–25; severe 26–33; and above 34 very severe.

Data collection and analysis:

Researcher received authorization from the educational institution to collect data from students to fulfil purpose of the study and the significance of giving truthful responses to every question were covered during an interactive introduction session. They answered the questionnaires after signing the consent form. IBM SPSS Statistics (Version 25.0) was used to analyse the data.

Data Distribution :

Table 1 Descriptive statistics of the measure of overall data :

Statistics (n =150)	**Smartphone addiction score**	**Depression score**	**Anxiety score**	**Stress score**
Mean	38.71	29.87	32.01	29.23
Median	37.00	28.00	30.00	28.00
Mode	33	30	26	26
Standard Deviation	5.839	6.147	7.207	5.049
Range	25	30	30	30
Skewness	1.055	1.124	.684	1.023
Kurtosis	.775	1.387	-.300	2.206

Interpretation:

Table 1 showed descriptive statistics of Smartphone addiction score (mean 38.71, Median 37.00and mode 33 and SD 5.839) whereas depression score (mean 29.87, median 28.00 and mode 30.00, SD 6.147) and for anxiety score (mean 32.01, median 30.00 and mode 26, SD 7.207) whereas Stress score (mean 29.23, median 28.00 and mode 26, SD 5.049).After seeing the data distribution, for Smartphone addiction score, Depression score, Anxiety score and stress score, it can be said that quite nearby mean and median and mode for 150 postgraduate students. Besides these raw score of skewness are under -1.96 to +1.96, therefore we can say that Data are followed nearly normality distribution for 150 postgraduate students. For determination of correlations among Smartphone addiction score, Depression score, Anxiety score and Stress score, pearson's correlation was used.

Table 2 Inferential statistics

Determination of correlations among Smartphone addiction score, Depression score, Anxiety score and Stress score

Variables	n	1	2	3	4
1. Smartphone addiction	150	-	.240**	.142	.008
2. Depression	150	.240**	-	.233**	.118
3. Anxiety	150	.142	.233**	-	.216**
4. Stress score	150	.008	.118	.216**	-

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

Interpretation

The table 2 presented a positive and significant relationship between Smartphone addiction and Depression ($r = .240$, $p < 0.01$). Therefore, the null hypothesis was ($H_0 1$) rejected. The result showed that the students who scored high on Smartphone addiction, they tend to have high scores on Depression.

The table 2 showed a positive and non-significant relationship between Smartphone addiction and Anxiety of post graduate students on consideration sample ($r = .142$, $p > .01$). Therefore, the null hypothesis was accepted ($H_0 2$). The result showed that the students who scored high on Smartphone addiction, they tend to have low scores on Anxiety.

The table 2 presented a positive and non-significant relationship between Smartphone addiction and Stress score of post graduate students at the 0.01 level of significance ($r = .008$, $p > 0.01$). Therefore, the null hypothesis was accepted ($H_0 3$). The result showed that the students who scored high on Smartphone addiction, they tend to have low scores on Stress score.

The table 2 showed a positive and significant relationship between Depression and Anxiety score of post graduate students at the 0.01 level of significance ($r = .233$, $p < 0.01$). Therefore, the null hypothesis was rejected ($H_0 4$). The result showed that the students who scored high on Depression, they tend to have high scores on Anxiety score.

The table 2 showed a positive and non-significant relationship between Depression and Stress score of post graduate students at the 0.01 level of significance ($r = .118$, $p > 0.01$). Therefore, the null hypothesis was accepted ($H_0 5$). The result showed that the students who scored high on Depression, they tend to have low scores on stress score.

The table showed a positive and significant relationship between Anxiety and Stress score of post graduate students at the 0.01 level of significance ($r = .216$, $p < 0.01$). Therefore, the null hypothesis was rejected ($H_0 6$). The result showed that the students who scored high on Anxiety, they tend to have high scores on stress score.

FINDINGS AND SIGNIFICANCE OF THE STUDY

1. The study reflected significant relationship between Smartphone addiction and Depression ($r = .240$, $p < 0.01$) and positive and significant relationship between Depression and Anxiety score of post graduate students at the 0.01 level of significance ($r = .233$, $p < 0.01$) and positive and significant relationship between Anxiety and Stress score of post graduate students at the 0.01 level of significance ($r = .216$, $p <$

0.01) and also positive and significant relationship between Anxiety and Stress score of post graduate students at the 0.01 level of significance (r =.216, p < 0.01). The result showed that the students who scored high on Smartphone addiction, they tend to have high scores on Depression and also the students who scored high on Depression, they tend to have high scores on Anxiety score and the students who scored high on Anxiety, they tend to have high scores on stress score.

2. The study reflected positive and non-significant relationship between Smartphone addiction and Anxiety among post graduate students on consideration sample (r =.142, p >.01)and also a positive and non-significant relationship between Smartphone addiction and Stress score of post graduate students at the 0.01 level of significance (r =.008, p > 0.01) and also a positive and non-significant relationship between Depression and Stress score of post graduate students at the 0.01 level of significance (r =.118, p > 0.01). The result showed that the students who scored high on Smartphone addiction, they tend to have low scores on Anxiety besides that the students who scored high on Smartphone addiction, they tend to have low scores on Stress score whereas the students who scored high on Depression, they tend to have low scores on stress score.

However, Smartphone excessive use is now a progressive universal public health problem that cannot be ignored. This study highlighted relationship between addictions of smartphones aid among postgraduate students as an indicator of mental health i.e. stress, anxiety, depression etc. The importance of addressing smartphone addiction among post graduate students because smartphone excessive use can be a cause or a consequence that worsens some psychiatric problems i.e. stress, anxiety, depression. To reduce the negative effects of smartphone use, it is necessary to limit their use and to provide early psychological counselling session for post graduate students.

REFERENCE:

Choi, H.S., Lee, H.K., & Ha, J.(2012). The influence of smartphone addiction on mental health, campus life and personal relations– Focusing on K university students. *Journal of Korean Data & Information Science Society*. 23(5),1005 -1015.

Dale, O. (1949) . The Concept of Attitude. Proceedings of the Iowa Academy of Science.56(1), 279-284. https://scholarworks.uni.edu/pias/vol56/iss1/39

Kim, D.I., Lee, Y.H., Lee, J.Y., Kim, M.C., & Keum, C.M. (2012). New Patterns in Media Addiction: Is Smartphone a Substitute or a Complement to the Internet? *The Korean Journal of Youth Counseling*. 20(1), 71–88.

Kim, N.S., Lee, K.E. (2012). Effects of self-control and life stress on smart phone addiction of university students. *Journal of the Korea Society of Health Informatics and Statistics*.37(2),72–83.

Kwon, M., Lee, J.Y., Won, W.Y., Park, J.W., & Min, J.A. (2013). Development and Validation of a Smartphone Addiction Scale (SAS). *PloS one*.8(12), e83558- e83558.

Mahmud, A., Adnan, H. M., & Islam, M. R. (2020). Smartphone Addiction and Bonding Social Capital Among University Students of Youth Community in Bangladesh. *Global Social Welfare*. Available at https://doi.org

Menezes, L. and Paula,W.D. et al.,(2016). Predictive accuracy of the 8- and 12-item versions of the DASS-21 in measuring depression, anxiety and stress in Brazilian university students. *Public Health*. 252, 106150-106160.

Naik,B. S., Ramana, M.V.,& Rani, A.K.N. (2020). Post-graduation student's attitude and perception towards use of smartphones for higher learning with reference to Chittoor

District, Andhra Pradesh, India.*PalArch 's Journal of Archeology of Egypt/Egyptology*.17 (6), 7305-7318.

National Information Society Agency. (2012). *Internet Addiction Survey 2011*. National Information Society Agency. 118–119.

Shahi, M., Chaulagain, A., & Kayastha, J.(2019). Knowledge, skills and attitude of mobile learning among BSN students. *Global Journal of Medicine & Public Health*,8(2),1-7. www.gjmedph.com

Taylor, P.(2023). Smartphone mobile network subscriptions worldwide 2016-2028. https://www.statista.com/statistics/330695/number-of-smartphone-users-worldwide/

Wang, Z., & Zheng, J. (2020). Relationship between smartphone usage time and mental health of college students. *Revista Argentina de Clinica Psicologica*. 29(1), 177–186. https://doi.org

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Conflict of Interest

The author(s) declared no conflict of interest.

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