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IMPACT OF SOCIAL MEDIA ADDICTION ON PHYSICAL HEALTH AND SLEEP QUALITY

Vatsal J. Upadhyay* | Dr. Sonal Patel**

** Ph.D. Scholar, Sumandeep Vidyapeeth, Waghodia, Vadodara, Gujarat, India.*

*** Professor, Sumandeep Vidyapeeth, Waghodia, Vadodara, Gujarat, India.*

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ABSTRACT:

Introduction- *In today's digital era, social media has become an integral part of young adults' daily lives, offering opportunities for communication, learning, and entertainment. However, excessive and uncontrolled use can develop into social media addiction, affecting their mental health, academic or professional performance, relationships, and overall well-being.*

Methods*- A case control study with Intervention to assess the impact of social media addiction on physical health and sleep quality among young adults studying in selected college at Arvalli district. The study was conducted on 26 samples selected with using simple random sampling. Data collection of samples by using Modified social media addiction scale, international physical activity scale, lab investigation and sleep quality scale. A Structured Counselling service administered after pre-test, and post test conducted after that. A data was analysed with the use of descriptive and inferential statistics.*

Result- *Among 26 samples 5 (19.2%) samples found to be social media addicted, also 16 (61.5%) participants had low physical activity, all participants found normal physical health parameters and 18 (69.2%) participants found moderate sleep quality. There was statistically significant association was observed between parents' occupational status and social media addiction ($\chi^2 = 6.686$, df = 2, S), odds ratio between sleep quality and social media addiction found 2 that means non addicted individuals are more likely to be good sleep quality, rest other odds ratio for the comparison of social media addiction with physical activity and physical health found normal it means social media addiction has no impact on physical activity and physical health. Calculated t value (2.83 at 0.05 level of significance and df=4) was more than table value (2.78 at 0.05 level of significance and df=4) thus counselling service among addicted samples found to be effective.*

Conclusion- *Social media addiction was associated with poorer sleep quality among young adults, and structured counselling was effective in reducing addiction levels, highlighting the need for early identification and timely interventions.*

Key words- *Social media addiction, young adults, physical health, sleep quality.*

ABOUT AUTHOR:



Author, Vatsal J. Upadhyay is a Ph.D. Scholar at Sumandeep Vidyapeeth, Waghodia, Vadodara, Gujarat, India. His academic interests include digital media use, health outcomes, and sleep-related well-being among young adults.

INTRODUCTION:

Social media has become an integral component of everyday life. Instant entertainment, information, and connectivity make social media appealing. For some individuals, having access to these platforms transforms into an addiction. Social media addiction is characterized by excessive and compulsive usage that affects daily functioning and overall well-being. It encompasses more than just spending an excessive amount of time online; it involves compulsively checking for updates, feeling anxious when offline, and suffering from negative impacts on real-life relationships and responsibilities (Alter, 2017; Andreassen et al., 2016). This addiction can manifest in several ways, such as avoiding personal and professional obligations and experiencing significant distress when unable to access any social media platforms. A broad array of stakeholders are influenced by and need to be involved in addressing this problem (Amirthalingam & Khera, 2024).

Social media is an important part of the emerging society. However, excessive social media use has been reported to increase depression, anxiety, mood, and loneliness (Koh et al., 2024). The use of technology may also contribute to the perpetuation of sleep difficulties over the long term, through pathways such as heightened arousal, light exposure, time displacement, and nighttime interruption by technology devices (Bauducco et al., 2024). As the world transitions to this new wave of technology dependence, it is vital to recommend safe and balanced social media use instead of discouraging or removing it completely. Additionally, the type of media content that an individual constantly engages with is what will continue to appear on their screen. This cycle can influence self-image, emotions, and habits, including those connected to overall health and sleep (Merino et al., 2024). As social media grows, it is important to examine the role it plays in overall health and well-being, especially in areas that affect human functionality like sleep. Sleep quality encompasses many aspects of sleep, including how satisfied you feel in your sleep, how easily you fall asleep, how well you stay asleep, how long you sleep, and how rested you feel when you wake up (Kline, 2019).

The relationship between smartphone use and physical activity, which includes walking, vigorous activities like aerobics and moderate activities like leisure time cycling, is obscure and controversial to some extent (Wang et al., 2013). Many existing studies which were done on the association between use of electronic media and sleep were mainly focused on adolescents (Arora et al., 2014; Canan et al., 2013; Goswami & Singh, 2016). There were fewer studies which have investigated the relationship between smartphone addiction and sleep quality in young adults. As the youth have less parent-imposed constraints when compared to adolescents, they are more prone to overuse of smartphone or electronic media devices (Demirci et al., 2015).

Studies relating to smartphone use and its relationship with components of well-being such as physical activity and sleep quality especially in the youth have not yet yielded conclusive results. Understanding this relationship further will help provide an insight into the extent to which smartphone use is affecting the youth. Thus, a need was identified to find if smartphone use, sleep quality and physical activity levels were related to each other. The present authors hypothesised that an increased level of smartphone use may be associated with decreased sleep quality and decreased physical activity levels. The aim of this study was to find out the correlation between smartphone addiction, sleep quality and physical activity among young adults (Haripriya et al., 2019).

METHOD & MATERIAL:

Research Approach: - Quantitative research approach used to assess the impact of social addiction on physical health and sleep quality among young adults.

Research Design: - In this case-control study with an intervention, all participants were initially screened for social media addiction using a standardized assessment tool. Based on the screening results, participants identified as having social media addiction were included in the case group, while those without social media addiction were included in the control group. The physical health status and sleep quality of both groups were then assessed and compared. The odds ratio (OR) was used to determine the association between social media addiction and its impact on physical health and sleep quality. Based on the assessment findings, participants in the case group who were found to be affected received counselling services as the intervention. Following the completion of the counselling sessions, a post-test was conducted among the same participants to evaluate the effectiveness of the counselling intervention in improving their physical health and sleep quality.

Sampling Techniques: - Simple Random Sampling was adopted for study.

Description Of Data Collection Tool: -

Section-A:- Consist of Demographic Variables such as Age, Sex, Family Income status, area of living, Relationship status, How many years has it been since you started using social media (such as WhatsApp, Instagram, snapchats, Facebook), Parents occupational status, and Average Screen time of last week.

Section-B:- Consists of Modified social media addiction scale is a 5 point Likert's type scale consists of 25 items, where maximum score is 125 and minimum is 25, 76-125 score indicate addicted to social media and 25-75 indicate Not Addicted to social media.

Section-C:- Consists of Physical health Parameter and International Physical activity Questionnaire to assess physical health **.** In Physical Health includes 6 parameters are Waist Circumference, Triglycerides, HDL Cholesterol, Blood Pressure, and Fasting Blood Glucose. International physical activity questionnaire (IPAQ) consists of 7 items for assessing physical activity of young adults. IPAQ Score classification will be below 500 MET-low activity, 600 or above-Moderate activity and 1500 or above MET-High activity.

Section-D:- consists of Sleep Quality scale to assess sleep quality include 28 items maximum score is 84 and minimum score in 0, 0-28 indicates good sleep quality, 29-56 indicates Moderate sleep quality, 57-84 indicates poor sleep quality.

Research Setting: - A study was conducted at Mahavir College of Nursing, Vatrak.

RESULT:

Data Analysis for pilot study are as follows: -

Section I: Description of Demographic Variables
Section II: Assessment of Social Media Addiction
Section III: Assessment of Physical Health
Section IV: Assessment of Sleep Quality
Section V: Association between Social Media Addiction and Demographic Variables
Section VI: Comparison of Physical Health and Sleep Quality with Social Media Addiction
Section VII: Effectiveness of Counselling (Pre-test vs Post-test in Case Group)

SECTION I: DESCRIPTION OF DEMOGRAPHIC VARIABLES:

Table-1. Frequency and Percentage Distribution of Demographic Data of Sample. (N=26)

SR NO	DEMOGRAPHIC VARIABLE		FREQUENCY (f)	PERCENTAGE (%)
1	Age	19-20 years	9	34.6
		21-22 years	15	57.7
		23 years or above	2	7.7
2	Sex	Male	9	34.6
		Female	17	65.4
3	Family Income Status	Upper Class	3	11.5
		Middle Class	23	88.5
		Lower Class	0	0.0
4	Area of Living	Rural	20	76.9
		Urban	6	23.1
5	Relationship Status	Unmarried	24	92.3
		Married	2	7.7
6	How many years has it been since you started using social media	3 years	5	19.2
		4 years	8	30.8
		5 years	11	42.3
		6 years	2	7.7
7	Parents Occupational Status	Only Father	20	76.9
		Only Mother	1	3.8
		Both	5	19.2
8	Average Screen Time	2-4 hours	5	19.2
		5-7 hours	13	50.0
		8-10 hours	8	30.8

SECTION II: ASSESSMENT OF SOCIAL MEDIA ADDICTION:

Table-2. Frequency and Percentage distribution of Social Media Addiction (N=26)

Sr. No.	Categories for Modified Social Media Addiction Scale	Frequency (f)	Percentage (%)
1	Non-Addicted	21	80.8
2	Addicted	5	19.2
TOTAL		26	100

SECTION III: ASSESSMENT OF PHYSICAL HEALTH:

Table-4. Frequency and Percentage distribution of Physical Activity (N=26)

Sr. No.	Categories for Physical activity	Frequency (f)	Percentage (%)
1	Low	16	61.5
2	Moderate	10	38.5
3	High	0	0
TOTAL		26	100

Table-5. Frequency and Percentage distribution of Physical health Parameters. (N=26)

Sr. No.	Categories for Physical Health Parameters	Waist Circumference	Triglycerides	HDL Cholesterol	Blood Pressure	Random Blood Sugar
1	Normal	25 (96.15%)	22 (84.62%)	26 (100%)	21 (80.77%)	26 (100%)
2	Abnormal	1 (3.85%)	4 (15.38%)	0 (0%)	5 (19.23%)	0 (0%)
Total		26	26	26	26	26

SECTION IV: ASSESSMENT OF SLEEP QUALITY:

Table-6. Frequency and Percentage distribution of Sleep Quality (N=26)

Sr. No.	Categories for Sleep Quality Scale (SQS)	Frequency (f)	Percentage (%)
1	Good	8	30.8
2	Moderate	18	69.2
3	Poor	0	0
TOTAL		26	100

SECTION V: ASSOCIATION BETWEEN SOCIAL MEDIA ADDICTION AND DEMOGRAPHIC VARIABLES

The association between selected demographic variables and social media addiction among young adults. In contrast, a statistically significant association was observed between parents' occupational status and social media addiction ($\chi^2 = 6.686$, df = 2, S), indicating that this variable has an influence on addiction levels. Lastly, average screen time was not significantly associated with social media addiction ($\chi^2 = 1.486$, df = 2, NS). Overall, among all the variables studied, only parents' occupational status showed a significant association with social media addiction.

SECTION VI: COMPARISON OF PHYSICAL HEALTH AND SLEEP QUALITY WITH SOCIAL MEDIA ADDICTION:

- For Sleep Quality Both groups mainly had moderate sleep quality, but the non-addicted group had a higher percentage of good sleep compared to the addicted group. The **odds ratio of 2** suggests that non-addicted individuals are more likely to have better sleep quality than those who are addicted to social media.
- For Physical activity both groups show similar patterns, with the majority having low physical activity and no one engaging in high physical activity. The **odds ratio of 1.083** indicates that there is very little difference between addicted and non-addicted groups in terms of physical activity levels.
- For Physical health parameters the findings suggest **no major differences in physical health parameters between addicted and non-addicted groups**, with only slight variations observed in some measures.

SECTION VII: EFFECTIVENESS OF COUNSELLING (PRE-TEST VS POST-TEST IN CASE GROUP):

- For Social Media addiction**,** the comparison of pre-test and post-test social media addiction scores. The mean pre-test score (82.2) is higher than the mean post-test score (67.6)**,** indicating a reduction after the intervention. The calculated t-value 6.76 with df = 4 at 0.05 level of significance is statistically significant.
- For Sleep Quality, the comparison of pre-test and post-test Sleep Quality scores. The mean pre-test score (36) is higher than the mean post-test score (29.4)**,** indicating a reduction after the intervention. The calculated t-value 4.71 with df = 4 at 0.05 level of significance is statistically significant.
- For Physical activity, the comparison of pre-test and post-test Physical activity scores. The mean pre-test score (778.6) is higher than the mean post-test score (1333.7)**,** indicating a reduction after the intervention. The calculated t-value 2.83 with df = 4 at 0.05 level of significance is statistically significant.

CONCLUSION

The study on the "Impact of Social Media Addiction on Physical Health and Sleep Quality among Young Adults in selected colleges of Arvalli District" found that most participants were young (21–22 years), female, from middle-class rural backgrounds, and largely non-addicted to social media, although moderate usage was common. The majority reported low physical activity and moderate sleep quality, despite generally normal physical health parameters, with only minor abnormalities observed. No significant association was found between social media addiction and most demographic variables except parents' occupational status, while differences in physical health and activity levels between addicted and non-addicted groups were minimal; however, non-addicted individuals showed slightly better sleep quality. Importantly, the intervention proved effective, with statistically significant improvements observed in reducing social media addiction and enhancing sleep quality and physical activity levels, highlighting the importance of counselling services in promoting healthier lifestyles among young adults.

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