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INSTAGRAM ADDICTION AND SLEEP QUALITY AMONG MEDICAL STUDENTS

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ABSTRACT Instagram is one of the social networking applications that is developing at the exponential rates. This application is frequently utilised by a majority of students. Social media constantly stimulates the brain and body, disrupting sleep.

Objectives To explore the sleep quality in students who are addicted to Instagram and to Identify prevalence of Instagram addiction among medical students **Methods:** This study was correlational. Third-year medical students from SMIMER Hospital in Surat, India were enrolled. Common google form with Pittsburgh Sleep Quality Index (PSQI) sleep assessment scale and Instagram Addiction Test (TIA) scale was sent to participants and results were computed. **Results:** Out of total students only 1.6% were addicted. The majority of the selected sample had healthy sleep quality. Student's sleep quality fell progressively as their Instagram addiction increased. **Conclusions:** It was concluded that Instagram addiction affects sleep quality negatively

KEYWORDS : Instagram Addiction, Sleep Quality, Medical Students

Introduction-

Addiction occurs when a person is so hooked on a substance or behaviour that they keep doing it despite the risks. Addiction is neurobiologically linked. These behaviours and substances engage cognitive circuits of reward and fortification, including dopamine synapses.

Over the past few years, the Internet has been a major contributor to youth addiction.

Social media addiction is "an impulse-control condition that does not require an intoxication" (IA) [1] Internet addiction disorder (IAD) is rapidly becoming a frequent global psychological health concern. Approximately 20% of adolescents have been reported to have Internet addiction [2], and approximately 45% of school children have been reported to have at least one sort of sleep difficulty by their wards. Internet word data estimates that global Internet penetration is 55.1% and growth is 1066%. Social Media Disorder is strongly associated with adolescent sleep Social media use globally reduces sleep quality and duration. Levenson et al. (2016) found that excessive social media use decreased sleep in 12- to 18-year-olds [3]. Woods and Scott (2016) also observed that emotionally charged nocturnal social media use affected sleep quality [4] . As natural light decreases, our brains release melatonin, which lowers alertness. It tells us to relax and sleep. Mobile phone blue light has the greatest impact on melatonin levels. It suppresses melatonin production which delays sleep.

The body remains in "cognitive arousal" without melatonin signalling. By looking at social media, endless stimulation is provided, signalling to brain and body to remain active and keep engaged and thus disturbing the sleep Chen and Gau found that Internet-addicted students are more likely to have sleep issues. Work neglect and Internet overuse were the best predictors of sleep quality.[5]

Shorter sleep duration also increases student social media use .Lemola et al. (2015) found that late-night social media users in Swiss universities slept less. [6]

Espinoza and Juvonen (2011) found that one-third of social media users in U.S. colleges had too little sleep. The disturbing association between social media use and sleep issues has sparked much research into the impact of this trend on mental health since sleep is a vital restorative function.[7]

Instagram has replaced many social media apps. This photo-sharing app had over one billion monthly active users worldwide in June 2018.

Instagram is growing swiftly and engaging users. This media provides private and public photo, video, and message sharing. One study found that hash tagged photos generally reflect emotions and changes in commemorative and memorialization norms [8].

Due to numerous circumstances, students may become addicted to Instagram, Facebook, and other apps

Objectives-

Is to explore the sleep quality in students who are addicted to Instagram and to identify prevalence of Instagram addiction among medical students

Study Design

The present study adopted a correlational research design. The association between the severity of an Instagram habit and the quality of sleep was determined using Pearson's correlations. The main predictors were identified using stepwise multiple regression.

Inclusion criteria

Students who are currently using Instagram for at least 6 months
Students of 3rd year M.B.B.S students

Exclusion criteria

- Students suffering from psychiatric illness
- History of substance use

Tools Employed

Test for Instagram Addiction (TIA)

D'Souza et al. 2018's 26-item TIA assessed Instagram addiction. The TIA evaluates Instagram addiction in six areas: loss of control, disengagement, escapist, health and interpersonal difficulties, excessive usage, and fixation. TIA needs a five-point Likert scale. Always (5), often (4), occasionally (2), and rarely/never (1). Cronbach's reliability test gave the inventory an alpha value of 0.931 and individual components 0.680–0.863. Pearson's product moment correlation coefficients were all highly significant, proving the TIA's reliability and validity. High TIA scores indicate Instagram addiction.

Pittsburgh Sleep Quality Index.

Pittsburgh measured sample sleep. Has 18 self-reports. Duration, disruption, latency, daytime disturbance, habitual sleep efficiency, quality, and medication use are evaluated 0–3. Global sleep quality is 0–21. Excellent PSQI internal consistency and test-retest reliability. PSQI correlates with sleep quality ($r > 0.69$) and has high concurrent validity. Sleeplessness elevates PSQI. Five or less is poor sleep.

Method-

Third year medical undergraduate students were chosen for the study's objective. The principal investigator shared a Google form with students for the survey. The Google form included the study's goal and basic sociodemographic information such Instagram use length (months) and psychiatric history. After informed consent, Instagram addiction and Pittsburgh Sleep Quality Index tests were carried out and results were computed.

Result

FACTORS OF TIA-

Table 1

	Score Range	Frequency	Percent
Nil/Minimal	<=26	3	2.4
Low	27-52	35	28.5
Average	53-78	59	48
Addict Prone	79-104	24	19.5
Definite Addict	105-130	2	1.6
	Total	123	100.0

The results show that majority of students i.e 19.5% were within the moderately addicted to Instagram zone while 1.6% came in severe addiction zone

PSQI SCORING

Table -2

		Frequency	Percent
Healthy	<5	56	45.5
Poor	>=5	67	54.5
	Total	123	100

- While the PSQI showed 54.5% of the students had poor sleep quality Relationship Between Factors Of TIA And Sleep Quality Using Pearson's Correlation

Table 3

		Total sleep quality
Total sleep quality	Pearson correlation	1
	Sig (2-tailed)	
	N	123
Lack of control	Pearson correlation	.150
	Sig (2-tailed)	.097
	N	123
Disengagement	Pearson correlation	.177(*)
	Sig (2-tailed)	.050
	N	123
Escapism	Pearson correlation	.237(**)
	Sig (2-tailed)	.008
	N	123
Health and interpersonal use	Pearson correlation	.171
	Sig (2-tailed)	.59
	N	123
Excessive use	Pearson correlation	.177(*)
	Sig (2-tailed)	0.050
	N	123
Obsession	Pearson correlation	.24(**)
	Sig (2-tailed)	.009
	N	123
TIA total	Pearson correlation	.225(*)
	Sig (2-tailed)	.012
	N	123

The association between sleep disturbance and Instagram addiction was examined using Pearson's correlation. Escapism factor was significant which favoured towards sleep disturbance when the five components of Instagram addiction were individually analysed.

Regression Analysis

Stepwise multiple regression was used to confirm. It was discovered that the TIA Escapism factor was a significant predictor of sleep quality.

		Unstandardized coefficients		Standardized coefficients	T	Sig.
Model		B	Std.error	Beta	B	Std. error
1	(constant)	3.232	1.013		3.191	.002
	Escapism	.192	.071	.237	2.688	.008

DISCUSSION

According to the study's findings, just 1.6% of the selected students were actual addicts, while 19.5% were 'prone to addiction.' The majority of the sample reported a healthy quality of sleep. As medical students' Instagram addiction intensified, their sleep quality declined significantly and linearly. The *'Escapism'* component of the Instagram addiction test were significant predictors of sleep quality.

Based on a study of nearly 1500 people between the ages of 14 and 24, recent studies have conclusively shown that Instagram is the worst social media platform for mental health and well-being. Additionally, it was discovered that Instagram addiction is linked to high levels of despair, anxiety, bullying, and the phenomenon of missing out (FOMO). There are no research specifically examining the relationship between Instagram addiction and students' quality of sleep. However, a recent study by D'Souza et al. revealed that 5.7% of medical students were Instagram addicts and 13.0% were at risk for addiction. Comparatively speaking,students pursuing dentistry and medical degrees had less of an Instagram addiction than those pursuing non-professional studies[9]

Ko et al. [2]found that teenage Internet addiction causes academic failure, strained family relationships, impaired social functioning, emotional disorders, and psychiatric concerns. Over 50% of Malaysian medical university students reported that Internet use negatively affected their academic and professional performance. The authors believe persons who score below 60% spend most of their time online socialising. Because they're not utilising it for school, their grades suffer. Thus, students must be advised on how to use the Internet for academic purposes.

He found that 20% of youth are Internet addicts, and parental observation of elementary and junior high students showed that 45% have sleep issues . Thus, validating the long-term correlations between sleep issues and Internet addiction may lead to prevention and treatment efforts to improve sleep quality and reduce addiction.

D'Souza and Samyukta [10]discovered that 9.7% of college students were Facebook addicts and 43% had moderate to high addiction out of which 53.7% of the chosen sample had good sleep quality, whereas 43.3% of the sample had poor sleep quality. Sleep and Internet addiction are widespread in children and teens, and parents worry about both.

Internet addiction mediated 16.5% of the indirect influence of sleep quality on depressed symptoms in Nepali undergraduates.[11]

Instagram use, both individually and overall, was linked to poor sleep quality. The authors found publications on social media addiction (Facebook, etc.) and sleep quality, but not Instagram addiction.

A longitudinal study by Chen and Gau found that insomnia preceded Internet addiction and then circadian rhythm disruption [5].

It's common for young people who have trouble sleeping to use the internet to pass the time while they're awake, but this behaviour might cause disruptions in their circadian rhythms, probably due to the impact of being exposed to light at inappropriate times.

In conclusion, the Internet and social media have a major impact on medical students. Smart phones, digital watches, and other devices may be causing internet addiction. However, lack of control and excessive use may affect sleep quality. Sleep disturbances cause mental health issues both acutely and in a long run. Providing education on how to use Instagram and other social media platforms safely can have a positive effect on users' mental health.

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