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ORIGINAL RESEARCH

A study on effect of social media usage on sleep quality and life satisfaction among medical students in Bangalore

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ABSTRACT

Background: University students are frequent social media users, integrating it into their daily routines. Social media has a significant impact on students' mental health, influencing life satisfaction and contributing to depressive symptoms. There is increasing concern over how adolescents' use of social media affects their psychological well-being. This study aimed at study the effect of social media on sleep quality and life satisfaction among medical students. **Methods**: 305 Medical students from all academic years were selected. A questionnaire, containing components to assess sleep quality, life satisfaction and social media usage was used. **Results:** Among 177 people who persistently used social media, 160(90.3%) had poor sleep quality ($p<0.05$). Among 92 people who had used deception to use social media, 18(19.5%) had low life satisfaction. **Conclusions**: There is an association between the social media usage (especially persistence in using it and using it as an escape), sleep quality and life satisfaction among the students. Further research needs to be done to relate it to larger populations.

Key words: Social media, Sleep quality, Life satisfaction

INTRODUCTION

Social networks have evolved into powerful tools for connecting individuals, enabling users to display their connections and view the networks of others. [1] These platforms now play a central role in modern communication, influencing nearly every aspect of daily life. [2] Students, in particular, are frequent users of social media, dedicating a significant portion of their time to these platforms as part of their everyday routines. Research shows that university students are among the most active users of social networking across different age groups. [3]

Social media has a notable effect on students' mental health and plays a central role in the everyday experiences of university students. Increasing attention has been given to how adolescents engage with social media (SMU), particularly regarding its influence on their psychological health, life satisfaction, and signs of depression. [4] In a study conducted in Saudi Arabia among female students aged 17 to 29, 68% indicated that social media use led to delayed sleep, and 59% acknowledged its adverse impact on their social relationships. [5]

A study of 203 medical students in Tamil Nadu found that 61% used smartphones at night, 72.4% had poor sleep quality, 66.5% experienced moderate stress, and 14.8% suffered from severe stress. They also stated that mobile phone usage was significantly associated with poor sleep and lower academic performance. [6] In a study by Navya M. Patel involving 64 college students aged 18–22, 56% had poor sleep quality. The prevalence was higher among females (63.1%) compared to males (44.5%), and girls also showed significantly worse sleep hygiene.[7]

This study aimed at study the effect of social media on sleep quality and life satisfaction among medical students by measuring sleep quality levels and life satisfaction levels among medical students and comparing them across academic years. It was also determined whether any association was present between social media usage, sleep quality and life satisfaction among them.

METHODS

A cross sectional study was carried out on 305 medical students in 1st, 2nd, 3rd and 4th MBBS years

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of MVJ medical college and Research hospital Hoskote, Bengaluru. It was a universal sampling. A structured questionnaire, containing PSQI (Pittsburgh sleep quality index)[8], Students life satisfaction scale[9], social media disorder scale[10] regarding social media usage was used to obtain information. Google forms, Microsoft Excel, Microsoft Word & SPSS software version 20 were used for data processing and analysis. Level of significance was fixed at 0.05.

RESULTS

Most of our responses, 175 (56.8%) are from the students of 1 st year of MBBS. Most of our responses are from students 20 years of age(26.8%) Most of our responses are from females (71.8%).

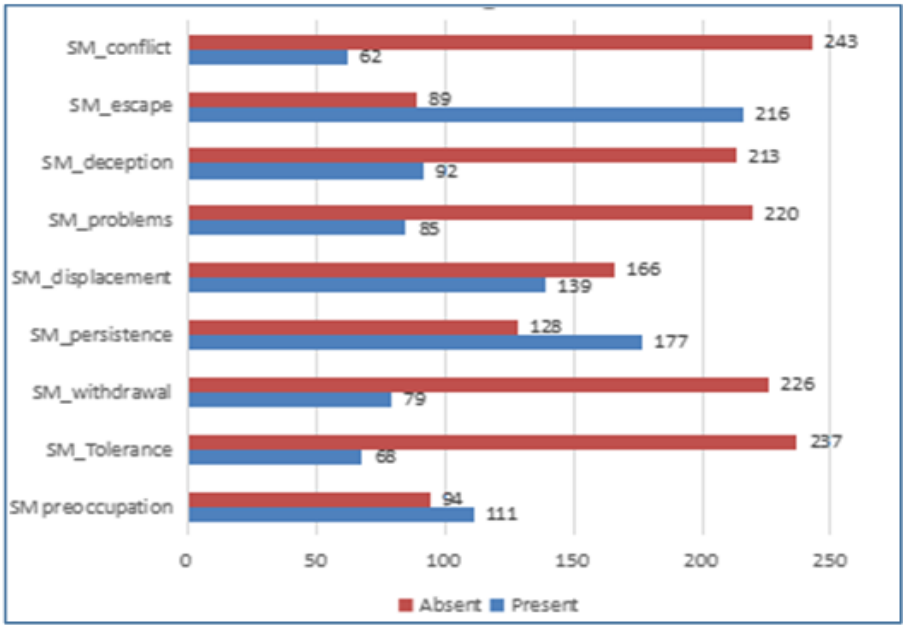

Figure 1. Distribution of students based on each component of social media usage.

Figure 1 shows that out of 305 responses, 216(70.81%) have used social media as an escape. 177(58%) have persistently used social media .111(36.5%) have preoccupation with social media.

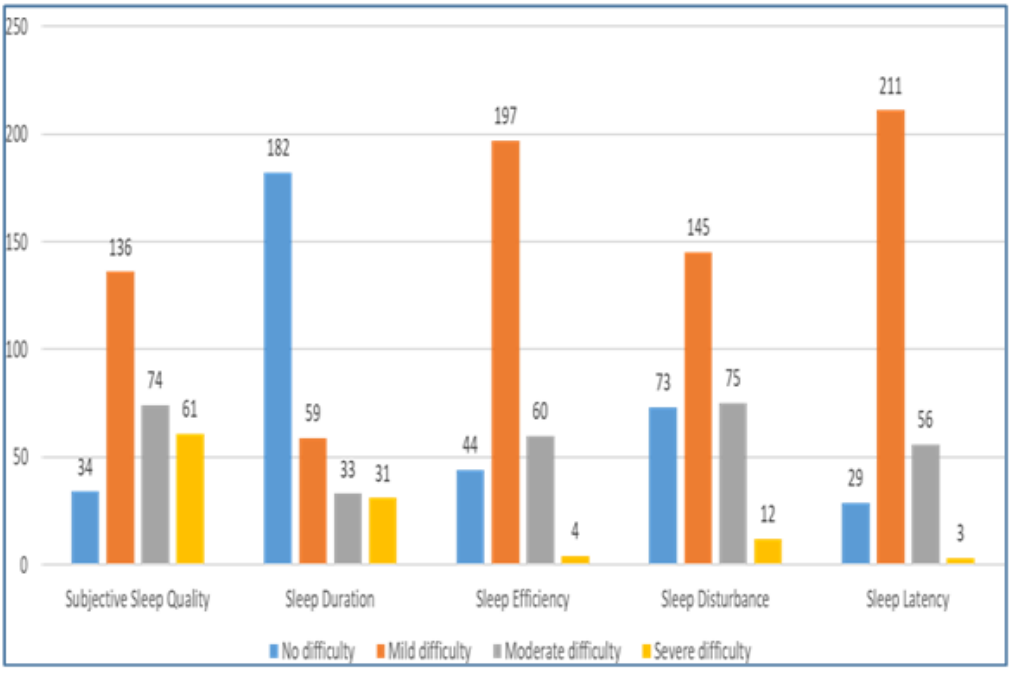

Figure 2. Distribution of students based on each component of their sleep quality.

Figure 2 shows that among 305 responses, 182 (59.6%) had no difficulty in sleep duration, 197 (64.5%) had mild difficulty in sleep efficiency, 211(69.1%) had mild difficulty in sleep latency.

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Table I. mean PSQI and SLSS scores across the academic years

ACADEMIC YEAR	PSQI Mean (SD)	SLSS Mean (SD)
1st year	12.34 (6.08)	27.88 (7.1)
2nd year	12.09 (7.2)	27.48 (6.6)
3rd year	12.84 (7.8)	26.53 (6.7)
4th year	14.54 (7.6)	27.32 (7.6)

Table I shows that the PSQI and SLSS scores are almost the same, highest being in 4th year and 1st year respectively.

Table II. Association between PSQI and social media usage.

		PSQI		Total	Chi square
		Poor quality	Good quality		
Preoccupation with social media	Present	96	15	111	0.484
	Absent	166	28	194	
Tolerance to social media	Present	60	8	68	0.342
	Absent	202	35	237	
Withdrawal from social media	Present	68	11	79	0.563
	Absent	194	32	226	
Persistence to use	Present	160	17	177	0.007
	Absent	102	26	128	
Displacement problems	Present	124	15	139	0.087
	Absent	138	28	166	
Social media problems	Present	72	13	85	0.418
	Absent	190	30	220	
Deception to use social media	Present	81	11	92	0.304
	Absent	181	32	213	
Social media as an escape	Present	188	28	216	0.237
	Absent	74	15	89	
Social media causing conflict	Present	56	6	62	0.181
	Absent	206	37	243	

Table II shows that among 177 people who had persistence to use social media, 160(90.3%) had poor sleep quality, 17(9.6%) had good sleep quality and among 128 people who did not have persistence to use social media, 102(79.6%) had poor sleep quality ,26(20.3%) had good sleep quality. This association being statistically significant ($p<0.05$).

Table III. Association between social media usage and life satisfaction.

		Satisfaction with Life		Total	Chi square
		Low levels	High levels		
Preoccupation with social media	Present	16	95	111	0.318
	Absent	23	171	194	
Tolerance to social media	Present	13	55	68	0.062
	Absent	26	211	237	
Withdrawal from social media	Present	9	70	79	0.416
	Absent	30	196	226	
Persistence to use	Present	23	154	177	0.521
	Absent	16	112	128	
Displacement problems	Present	16	123	139	0.332
	Absent	23	143	166	
Social media problems	Present	15	70	85	0.085
	Absent	24	196	220	
Deception to use Social media	Present	18	74	92	0.018
	Absent	21	192	213	
Social media as an escape	Present	30	186	216	0.242
	Absent	9	80	89	

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Social media causing conflict	Present	9	53	62	0.392
	Absent	30	213	243	

Table III shows that out of 92 people who had deception to use social media, 18(19.5%) had low life satisfaction, 74(80.4%) had high life satisfaction and among 213 people who did not have persistence to use social media, 21(9.8%) had low life satisfaction, 192(90.1%) had high life satisfaction. This association being statistically significant($p<0.05$).

DISCUSSION

A study by Sonya D. Cox at the University of Hudson, conducted among a similar age group, reported an average PSQI score of 8.14 with a median score of 7. In comparison, our study found a significantly higher average PSQI score of 12.9, with a median score of 7.17, indicating a notable difference in sleep quality between the two groups.[11] A comprehensive meta-analysis by Rao et al. in 2020, which reviewed observational studies on sleep quality among medical students, reported that 52.7% of the participants experienced poor sleep quality, with a mean PSQI score of 6.1. In comparison, our study found a significantly higher prevalence of poor sleeps quality, with 85.9% of participants reporting poor sleep. The mean PSQI score in our study was 7.17, indicating a more pronounced sleep disturbance among the participants. [12] A study conducted by Lucas Blinka on Czech adolescents to validate social media disorder found that 26.4% exhibited social media escape, 25.7% showed social media persistence, and 16.1% experienced social media preoccupation. In contrast, our study revealed higher rates of social media-related behaviors, with 70.81% of participants displaying social media escape, 58% demonstrating social media persistence, and 36.5% showing social media preoccupation.[13]

CONCLUSION

At the end of our study, we have observed that there is an association between social media usage and sleep quality. The way in which social media usage, either persistently, using it as an escape or utilising deception to continue using social media can affect satisfaction with life, especially among students. Further research needs to be done to relate it to larger populations.

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