ASSESSMENT OF EFFECT OF SOCIAL MEDIA ON SLEEP QUALITY AND ANXIETY AMONG FEMALE MEDICAL STUDENTS AT TAIF UNIVERSITY

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Abstract:
Sleep is a condition in which the body temporarily and partially loses its connection with the environment. The use of social media is growing rapidly, and very little is known about its relationship with sleep disturbance. Excess social media use has been consistently associated with more irregular sleep patterns, shorter sleep duration, as well as more sleep problems. Since poor sleep is known to contribute to anxiety, this study also examines how social media use relates to these aspects of psychological. Subjects & Methods: this is a descriptive cross-sectional study conducted among 412 medical students at Taif University. The study aimed to assess the relation of Social Media and its effect on sleep quality and anxiety among medical students attending Taif University. Results: The study found that the mean of Global PSQI Score was 7.61 (SD=±3.47), and 27.4% had a global PSQI score of more than five which indicated poor sleep quality and reported that there was a significant association between PSQI Global Score and Social media use. The study also used Generalized Anxiety Disorder-7 items Scale Score to measure anxiety, mean GAD-7 score was 10.03±3.46, and the majority of students 47.3% had moderate anxiety. There was a significant association between social media use and the GAD-7 score. Conclusion: the study concluded study there were poor sleep quality and anxiety disorder among medical student which associated with social media use.

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INTRODUCTION:

Background:

Social media platforms such as Facebook, Twitter, Instagram, and Snapchat continue to rise in popularity and permeate today's culture.

According to Morris et al (2010), the term used "*social search*" often refers to a process or a mechanism to which people used to find information online. This type of search comprises the used of search engines automatically index public information as may be found in Facebook or Twitter, and You Tube, etc. Furthermore, Cross et al (2001) reported that the evolution of knowledge has created social forums that support the creation and sharing of information across groups and organizations. The online social networking services (SNS) was created to allow people to build social networks or social relationships with others who share similar interests. Hence, we have the rise of Facebook, Friendster, LinkedIn, Twitter, MySpace etc. that establish and connect people together to enable them to present themselves in an online profile. [1-3]

In 2010, over 75% of Canadians and Americans reported having internet access in their homes. Among adolescents, prevalence rates of daily television and computer use are as high as 85 and 95%, respectively. Moreover, 72% of all internet users report using online social networking (Brenner, 2013). These high prevalence rates have led to increased concern that media use may be displacing important lifestyle behaviors, such as sleep. This is an important issue, given the pivotal role that sleep is thought to play in psychosocial functioning across the lifespan. [5-9]

Despite the advantages associated with smartphone use, such as enhanced social Excess media use has been consistently associated with more irregular sleep patterns, shorter sleep duration, as well as more sleep problems. Researchers have proposed that increased media use may be linked to poor sleep because time spent engaged in media use may directly displace sleep. Highly arousing media content (e.g. a violent movie) also may lead to nightmares and poor overall sleep quality. [10-15]

Shetty et al., 2020, published a study conducted in India at Sri Ramachandra Institute of Higher Education and Research, Chennai from October 2019 to November 2019 on 480 college students, the results showed that The prevalence of Sleep Disturbance among medical students was found to be 32.5% with 95% CI as 36.2% to 44.99% 30.4% of

the study participants reported obtaining less than six hours of sleep per day and 62.7% of study participants reported sleeping for 6-8 hours a day. [17] On the other hand, a study was conducted in China at 2017 to identify the association between mobile phone addiction and sleep quality. A sample of 1196 Chinese adolescents was recruited. Results showed that rumination partially mediated the relationship between mobile phone addiction and sleep quality. Besides, both the effect of mobile phone addiction on sleep quality and the mediating effect of rumination were moderated by mindfulness, and both of the two effects were stronger for individuals with lower mindfulness. The present study can advance our understanding of how and when mobile phone addiction leads to poor sleep quality. [18]

In Riyadh, a study was conducted by Al Suwayri., 2016 on 170 medical students in a Saudi Arabian medical school and examined The relationships between social media use and addiction (measured using the Bergen Facebook Addiction Scale) of seven platforms, quality of sleep and academic performance according to the grade point average and reported that Poor quality sleep (72.9% and 63.5% during the week or at the weekend, respectively) and social media addiction (27.1% addicted to three or more platforms) were common. Individuals with high-volume WhatsApp use were more likely to have very poor sleep quality at the weekend, the latter persisting in multivariable analysis. Students who were addicted to Snapchat (OR 2.53 [1.03–6.22], $P = 0.044$) or who were addicted to three or more social media platforms (OR 2.93 [1.19–7.23], $P = 0.019$) had an even greater risk of very poor weekend sleep quality. Social media addiction was not associated with academic performance. [19]

On the other hand, other researches stated that The recent dramatic increase in media use has been accompanied by a rising concern that interactions with media may be replacing face-to-face interactions, resulting in lower quality social interactions and impaired psychosocial functioning. Consistent with these concerns, a number of early studies reported associations between heavy media use and mental health problems. More recent research has suggested that the relationship between media use and psychosocial functioning is more complex and nuanced. Specifically, it has been suggested that this relationship may depend on the type of media being used, the purpose for which it is being used, and the individual personality characteristics of the user. [20-34]

At medical schools of Saint-Joseph University, a cross-sectional questionnaire-based survey conducted among 600 students of three faculties: medicine, dentistry and pharmacy and found that, Potential Internet Addiction prevalence rate was 16.8% (95% confidence interval: 13.81–19.79%) and it was significantly different between males and females (*p*-value = 0.003), with a higher prevalence in males (23.6% versus 13.9%). Significant correlations were found between potential Internet Addiction and insomnia, stress, anxiety, depression and self-esteem (*p*-value < 0.001); Insomnia Severity Index and Depression Anxiety Stress Scales sub-scores were higher and self-esteem lower in students with potential IA. [35]

Woods & Scott., 2016 conducted a study on 467 Scottish adolescents. And found that, adolescents who used social media and those who were more emotionally invested in social media experienced poorer sleep quality, lower self-esteem and higher levels of anxiety and depression. Nighttime-specific social media use predicted poorer sleep quality after controlling for anxiety, depression and self-esteem. These findings contribute to the growing body of evidence that social media use is related to various aspects of wellbeing in adolescents. [36]

In 2015, a study was done on 319 university students (203 females and 116 males; mean age = 20.5 ± 2.45). Participants were divided into the following three groups: a smartphone non-user group (*n* = 71, 22.3%), a low smartphone use group (*n* = 121, 37.9%), and a high smartphone use group (*n* = 127, 39.8%). The findings revealed that the Smartphone Addiction Scale scores of females were significantly higher than those of males. Depression, anxiety, and daytime dysfunction scores were higher in the high smartphone use group than in the low smartphone use group. Positive correlations were found between the Smartphone Addiction Scale scores and depression levels, anxiety levels, and some sleep quality scores. [37]

Kandell., 2009 reported that, use of the Internet on college campuses has increased dramatically leading to pathological use which is characterized by an increasing investment of resources on Internet-related activities, unpleasant feelings (e.g., anxiety, depression, emptiness) when offline, an increasing tolerance to the effects of being online, and denial of the problematic behaviors. Individuals exhibiting such symptoms often are dealing with underlying psychological issues. College students are particularly vulnerable to pathological Internet use due to several factors including the psychological and developmental characteristics of late adolescence/young adulthood, ready access to the Internet, and an expectation of computer/Internet use. The nature of the computer medium and the sense of control experienced when engaged in computer activities can also contribute to the potential for problematic computer/Internet use. [38]

Depression, anxiety, and sleep quality is proved to have association with smartphone overuse. Such overuse may lead to depression and/or anxiety, which can in turn result in sleep problems. University students with high depression and anxiety scores should be carefully monitored for smartphone addiction. However, Other studies have presented opposite results in terms of positive impact of social networking on self-esteem. The relationship between social networking sites use and mental problems to this day remains controversial, and research on this issue is faced with numerous challenges. This concise review focuses on the recent findings regarding the suggested connection between social networking sites and mental health issues such as depressive symptoms, changes in self-esteem, and Internet addiction. [39]

Rationale:
Social media sites such as YouTube, Facebook and Twitter have rapidly become a central part of young people's lives, with over 90% now using social media, day and night. The pervasiveness of media use in our society has raised concerns about its potential impact on important lifestyle behaviors, self-wellbeing and sleep quality. Especially, the relationship between social network use and mental problems to this day remains controversial, and research on this issue is faced with numerous challenges. This study will examine how social media use related to sleep quality and anxiety among Taif university medical students.

Aim:
This study will aim to assesse the relation of Social Media and its effect on sleep quality and anxiety among medical students attending Taif University.

Objectives:
1- To assess the relation between the use of social media and sleep quality among Taif university medical students.
2- To assess the relation between the use of social media and anxiety among Taif university medical students.

MATERIAL AND METHODS:
Study design

A descriptive cross-sectional study.

Study setting
Medical university at Taif city.

Target population
Female medical students attending the Taif University

Inclusion Criteria
1- Female attending medical college of all current years.

Exclusion Criteria
1- Non-cooperative students.
2- Students not attending medical college.
3- Teaching staff.
4- Male students

Sample
All female students attending medical college were included in the study, with a total of 412 participant.

Data collection tools
A structured self-administered questionnaire was used to collect data from participants. This data included the following:

● Characteristics of participants (age, gender, year of study, reported weight and height, smoking, and caffeine consumption.

● Data about frequency and duration of use of social media

● Questions to measure sleep quality and pattern by predefined questionnaire, The Pittsburgh Sleep Quality Index (PSQI), In scoring the PSQI, seven component scores are derived, each scored 0 (no difficulty) to 3 (severe difficulty). The component scores are summed to produce a global score (range 0 to 21). Higher scores indicate worse sleep quality. [40]

● questions to measure anxiety by Generalized Anxiety Disorder 7-item (GAD-7) scale, This is calculated by assigning scores of 0, 1, 2, and 3 to the response categories, respectively, of "not at all," "several days," "more than half the days," and "nearly every day." GAD-7 total score for the seven items ranges from 0 to 21. 0–4: minimal anxiety 5–9: mild anxiety 10–14: moderate anxiety 15–21: severe anxiety [41]

Ethical considerations and statistical analysis:
1. Permission from the regional Research and Ethical Committee in Taif was taken for conducting the study.

2. Permission from Deans of colleges of medicine was obtained.
3. All the information in the questionnaires were kept confidential
4. . All the subjects participated voluntarily in the study
5. Written or verbal consents from all participants were obtained

Study limitations:
1- Cooperation of participants

Statistical analysis:
Collected data were verified and coded prior to computerized data entry. The researcher utilized the Statistical Package for Social Sciences (SPSS version 25.0) for data entry and analysis. Frequency, percentages, means, standard deviation (SD), median, interquartile range (IQR) and 95% confidence interval (CI) were used as descriptive statistics. Differences were tested using Mann-Whitney test for continuous variables in case of comparing two groups and Kruskal-Wallis test for comparison of more than two groups (as the data were abnormally distributed as shown through significant Shapiro-Wilk test). A p-value less than 0.05 was considered statistically significan

RESULTS:
Table (1) shows the socio-demographic data of participating students. Over half (57.3%) of participants are aged 21- years. Participants were of all academic years as 2.9%, 7.3%, 19.7%, 26.0%, 13.8%, 10.0%, and 20.4% were students of the first, second, third, fourth, fifth, sixth, and intern years, respectively, of which, 57.8% had a GPA equal to 3.5 or higher, and 54.1% had a monthly income of 5000 SAR or less.

Table (2) shows social media usage among participants. The majority (93.4%) reported daily use of social media and 97.6% of all reported daily use of more than 60 mins. Over half (51.5%) of participants reported most usage at night, and 58.7% used phones to access social media, while 39.8% used both phones and laptops/computers.

Table 3 shows the mean global PSQI score and its individual components. Mean Global PSQI score ± SD was 7.61 ± 3.47. The mean score ± SD of each component was 1.26±0.94 for subjective sleep quality, 1.69±0.88 for sleep latency, 1.31±1.15 for sleep duration, 0.23±0.55 for sleep efficiency, 1.57±0.56 for sleep disturbance, 0.32±0.59 for the use of sleep medication, and 1.23±0.99 for daytime dysfunction. Sleep disturbance was prevalent among 27.4% of all participants.

Table 4 shows the GAD-7 mean score ± SD, as well as the prevalence of mild, moderate, and severe GAD according to the scores. Mean GAD-7 score ± SD was 10.03±3.46. Of all, 46.8%, 47.3%, and 5.8% had mild, moderate, and severe GAD.

Table 5 shows the association between GAD-7 classifications and social media usage among participating medical students. A significant association was found with age in year (P=0.000), as the highest score was reported among the age >24 (10.91±3.28), followed by those at age 19-(10.8±2.86). The academic level was also significantly associated with the GAD score (P=0.000), as the fifth year had the highest score (11.82±2.55), followed by intern (11.51±3.02). the GPA was also significantly associated with the GAD-7 score (P=0.000) , as the GPA 2- had the highest score (12.40±3.72), followed by GPA<2 (12.00±3.00). The family income was also significantly associated with the GAD-7 score (P=0.000), as the income 5000-10000 had the highest score (11.98±2.94). as the highest score was reported among students who use social media once weekly (12.29±3.54), followed by those who use it once daily (9.93±3.44). The daytime usage was also significantly associated with the GAD-7 (P=0.667), as the more than 60 mins had the highest score (10.04±3.47), as the 'afternoon' users had the highest score (10.70±4.46), followed by evening users (7.78±3.36).as the both devices used to access social media had the highest score (10.28±3.15).

Table 6 shows the association between PSQI global score and social media usage among participants. A significant association was found with age in year (P=0.000), as the highest score was reported among the age >24 (8.66±3.41), followed by those at age 21-(7.37±3.26). The academic age was also significantly associated with the PSQI global score (P=0.000), as the intern had the highest score (8.94±3.63), followed by fifth year (8.19±3.88). the GPA was also significantly associated with the PSQI global score score (P=0.000) , as the GPA 2.5- had the highest score (10.09±3.89), followed by GPA>3.5 (7.58±3.48). The family income was also significantly associated with the PSQI global score (P=0.000), as the income 5000-10000 had the highest score (8.92±3.20) . as the highest score was reported among students who use social media once weekly (10.38±2.82), followed by those who use it once daily (10.38±3.46). The daytime usage was also significantly associated with the PSQI global score (P=0.017), as the more than 60 mins had the highest score (7.65±3.49), as the 'evening' users had the highest score (8.22±3.70), followed by night (7.78±3.36), as the both devices used to access social media had the highest score (7.88±4.15).

Figure 1 illustrates the association between the mean scores of both, GAD-7, and PSQI global with an academic year of medical students. The highest point of PSQI global score was observed in the intern year, followed by the fifth year, while the highest point of the GAD-7 score was observed in the fifth year, followed by the intern year.

Figure 2 illustrates the association between GPA and the mean scores of GAD-7 and PSQI global. The highest scores were observed at the students whose GPA ranged from 2.5-2.99. The GAD-7 score second-highest point was observed at a GPA of less than 2.5, followed by >3.49.

Figure 3 shows the association between the GAD-7 and PSQI global scores and social medial daily usage. Both lines followed a similar pattern, and the highest point in both lines was observed at the 1-2 hours social media daily use.

Table (1): Soci-demographic data of Taif university medical students, KSA, 2020 (N=412).

Parameter	Frequency	Percent
Age in years		
● **19 -**	61	14.8%
● **21 -**	236	57.3%
● **≥ 24**	115	27.9%
Academic level		
● **First year**	12	2.9%
● **Second year**	30	7.3%
● **Third year**	81	19.7%
● **Fourth year**	107	26.0%
● **Fifth year**	57	13.8%
● **Sixth year**	41	10.0%
● **Intern**	84	20.4%
GPA		
● **< 2.5**	2	0.5%
● **2.5 -**	70	17.0%
● **3 -**	102	24.8%
● **≥ 3.5**	238	57.8%
Average monthly income		
● **Less than 5000 SR**	223	54.1%
● **5000 – 10000 SR**	51	12.4%
● **10000 – 15000 SR**	87	21.1%
● **More than 15000 SR**	51	12.4%

Table (2): Social media usage among Taif university medical students, KSA, 2020 (N=412).

Parameter	Frequency	Percent
Frequency of social media use		
● **Daily**	385	93.4%
● **2-6 days/week**	6	1.5%
● **Once weekly or less**	21	5.1%
Daily usage of social media		
● **Low (60 mins or less)**	10	2.4%
● **High (more than 60 mins)**	402	97.6%
Most time of usage		
● **Morning**	38	9.2%
● **Afternoon**	46	11.2%
● **Evening**	116	28.2%
● **Night**	212	51.5%
Device used to access social media		

● **Laptop/Computer**	6	1.5%
● **Phone**	242	58.7%
● **Both**	164	39.8%

Table (3): Pittsburg Sleep Quality Index Score among Taif university medical students, KSA, 2020 (N=412)

Parameter	Mean±SD
Component 1: Subjective sleep quality	1.26±0.94
Component 2: Sleep latency	1.69±0.88
Component 3: Sleep duration	1.31±1.15
Component 4: Sleep efficiency	0.23±0.55
Component 5: Sleep disturbance	1.57±0.56
Component 6: Use of sleep medication	0.32±0.59
Component 7: Daytime dysfunction	1.23±0.99
Global PSQI Score	7.61±3.47
Global PSQI score > 5 (%)	27.4%

Table (4): Generalized Anxiety Disorder-7 items Scale Score among Taif university medical students, KSA, 2020 (N=412)

Parameter	Mean±SD
GAD-7 Score	10.03±3.46
Mild (%)	46.8%
Moderate (%)	47.3%
Severe (%)	5.8%

Table (5): Generalized Anxiety Disorder-7 items Scale Score and association with social media usage among Taif University medical students, KSA, 2020 (N=412)

Parameter		GAD-7 Scale		P-value*
		Mean	SD	
Age in years	• 19 -	10.08	2.86	**0.003**
	• 21 -	9.59	3.61	
	• ≥ 24	10.91	3.28	
Academic level	• First academic level	8.67	1.87	**0.000[1]**
	• Second academic level	10.27	3.45	
	• Third academic level	9.00	3.81	
	• Fourth academic level	8.87	3.25	
	• Fifth academic level	11.82	2.55	
	• Sixth academic level	9.80	3.58	
	• Intern	11.51	3.02	
GPA	• < 2.5	12.00	.00	**0.000[1]**
	• 2.5 -	12.40	3.72	
	• 3 -	7.94	2.63	
	• ≥ 3.5	10.21	3.19	
Family income	• Less than 5000 SR	9.84	3.88	**0.000[1]**
	• 5000 – 10000 SR	11.98	2.94	
	• 10000 – 15000 SR	9.47	2.06	
	• More than 15000 SR	9.88	3.34	
Frequency of social media use	• Daily	9.93	3.44	**0.006[1]**
	• 2-6 days/week	8.67	1.03	
	• Once weekly or less	12.29	3.54	
Daily usage of social media	• 60 min or less per day	9.60	3.10	0.667[2]
	• > 60 min per day	10.04	3.47	
Most time of usage	• Morning	9.42	2.21	0.267[1]
	• Afternoon	10.70	4.46	
	• Evening	10.28	3.15	
	• Night	9.86	3.55	
Device used to access social media	• Laptop/Computer	9.33	1.03	**0.780[1]**
	• Phone	9.97	3.38	

| | Both | 10.15 | 3.63 | |

[1] One-way ANOVA test was used.
[2] Independent Samples T-Test was used.

Table (6): Pittsburg Sleep Quality Index Score and association with social media usage among Taif university medical students, KSA, 2020 (N=412)

Parameter		PSQI Global Score		P-value
		Mean	**SD**	
Age in years	19 -	6.54	3.90	**0.000**[1]
	21 -	7.37	3.26	
	≥ 24	8.66	3.41	
Academic level	First year	5.17	2.21	**0.000**[1]
	Second year	5.80	3.72	
	Third year	6.85	3.24	
	Fourth year	7.97	3.14	
	Fifth year	8.19	3.88	
	Sixth year	6.63	2.45	
	Intern	8.94	3.63	
GPA	< 2.5	4.00	.00	**0.000**[1]
	2.5 -	10.09	3.89	
	3 -	6.05	1.81	
	≥ 3.5	7.58	3.48	
Family income	Less than 5000 SR	7.00	3.51	**0.000**[1]
	5000 – 10000 SR	8.92	3.20	
	10000 – 15000 SR	7.76	2.66	
	More than 15000 SR	8.69	4.17	
Frequency of social media use	Daily	7.49	3.46	**0.000**[1]
	2-6 days/week	5.67	.52	
	Once weekly or less	10.38	2.82	
Daily usage of social media	Low	6.00	1.76	**0.017**[2]
	High	7.65	3.49	
Most time of usage	Morning	6.16	3.80	**0.001**[1]
	Afternoon	6.43	2.48	
	Evening	8.22	3.70	
	Night	7.78	3.36	
Device used to access social media	Laptop/Computer	6.67	1.86	0.363[1]
	Phone	7.44	2.95	

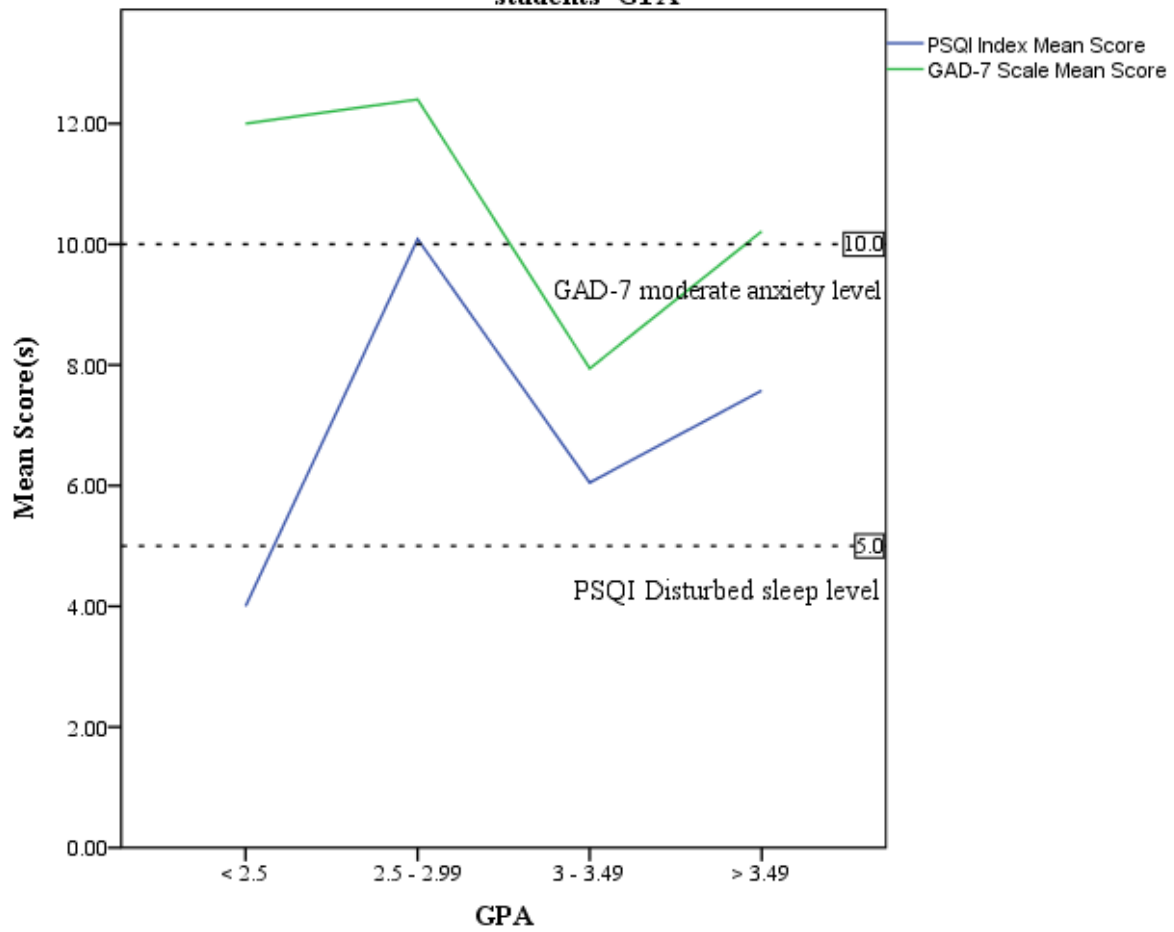|		7.88	4.15	
	• **Both**			

**¹ One-way ANOVA test was used.**
² Independent Samples T-Test was used.

Figure (1): The association between PSQI Global and GAD-7 scores with medical students' academic level
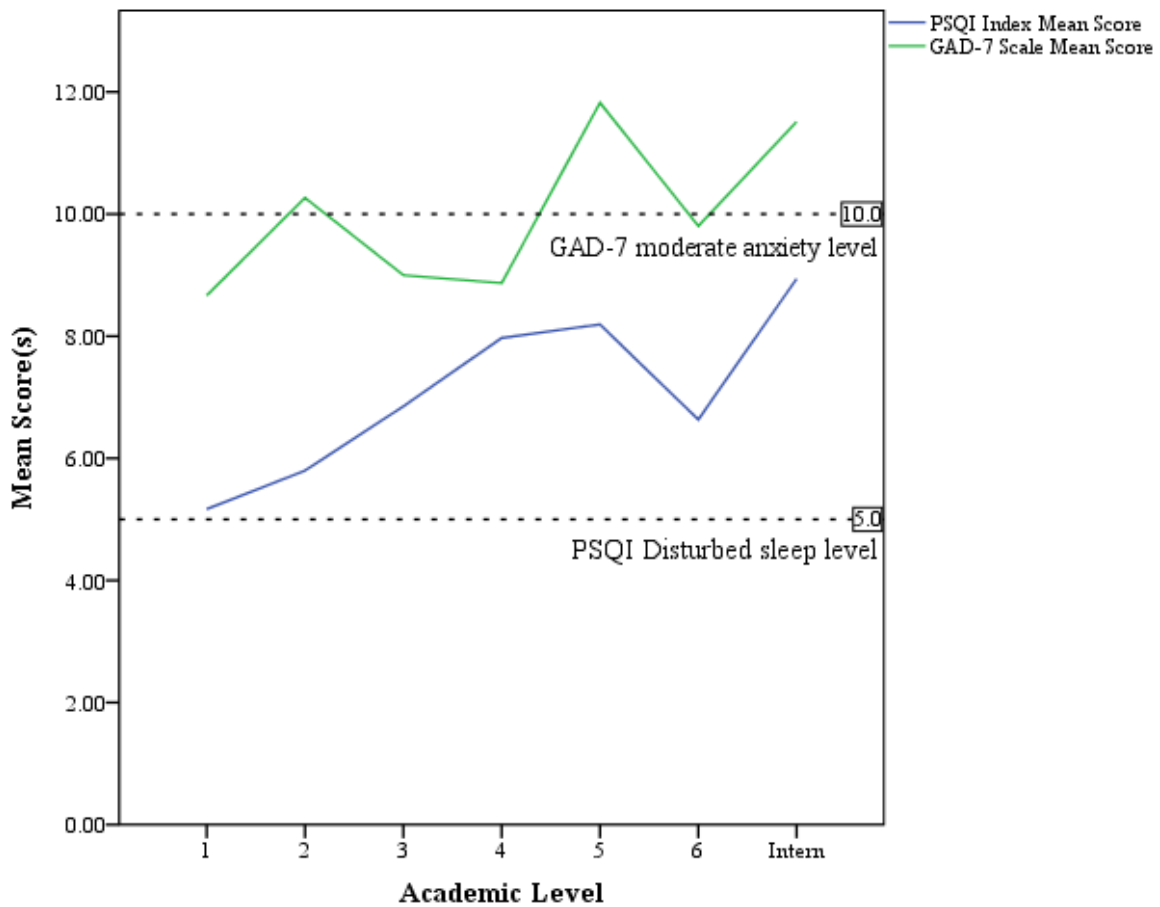
Figure (2): The association between PSQI Global and GAD-7 scores with medical students' GPA

Figure (3): The association between PSQI Global and GAD-7 scores with medical students' social media daily usage
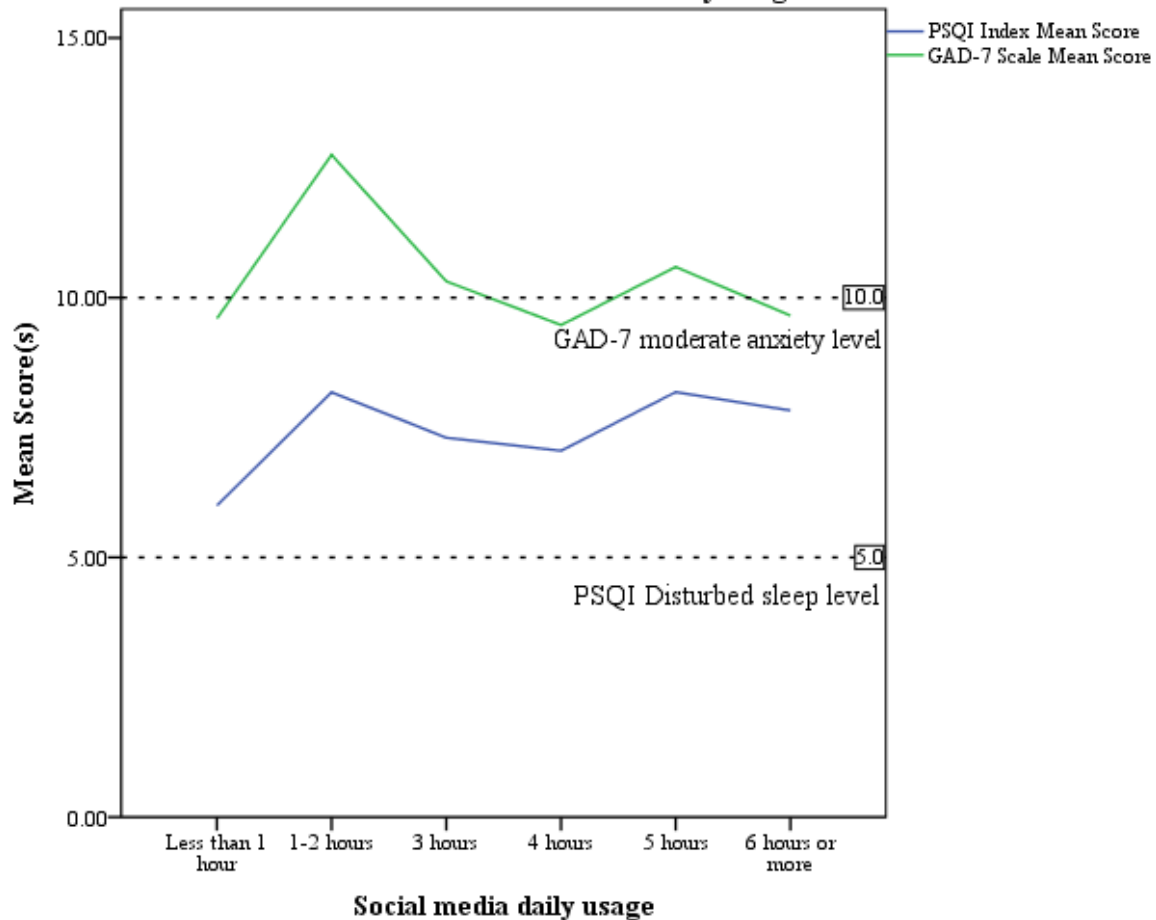
DISCUSSION:

Sleep is a condition in which the body temporarily and partially loses its connection with the environment. Adolescents' and young adults' sleep patterns and sleep quality can be affected by several biological, psychosocial, and environmental factors. Today, poor sleep quality (PSQ) is a very common problem among young adults. PSQ and insufficient hours of sleep are associated with a wide range of poor health outcomes, including obesity, diabetes mellitus, high blood pressure, cardiovascular disorders, anxiety, depression, and poor mental health [42-45].

Social media (SM) sites have quickly become a central part of young people's lives, and now more than 90% use social media day and night. The use of social media is growing rapidly, and very little is known about its relationship with sleep disturbance. Medical students' sleep quality may be influenced by social network use, considering its pervasiveness. A study at the University of Adelaide in Australia showed that one in five adolescents reported bedtime delay because of electronic media usage and that pathological social media users reported significantly more sleep problems than non-pathological users [46-47].

This is a descriptive cross-sectional study conducted among 412 of female medical students attending the Taif University, Taif city, KSA. The study aimed to assess the relation of Social Media and its effect on sleep quality and anxiety among medical students attending Taif University.

Our study used The Pittsburgh Sleep Quality Index (PSQI) to measure sleep quality and pattern by predefined questionnaire, we found that the mean of Global PSQI Score was 7.61 (SD=±3.47) and 27.4% had a global PSQI score of more than five which indicate poor sleep quality. In Dammam, Eastern Province of Saudi Arabia, A cross-sectional design was used and 842 students of College of Medicine, Imam Abdulrahman bin Faisal University (IAU). The

study found as regard PSQI Score that 75.4% of students had poor sleep quality, which was higher than our results. A Descriptive cross-sectional study was conducted among 702 of medical students of King Abdul-Aziz University, and Batterjee Medical College reported that more than 66% suffered from poor sleep quality [49]. Two studies conducted in Turkey and Sudan revealed that 79.62% and 61.4% of medical students experienced PSQ, respectively [50, 51].In Tehran University, another study conducted among 553 of medical student reported; about 60% of our sample had a global PSQI score of more than 5 (cut off of poor sleep quality) with mean global PSQI score of 6.32 (SD=2.72) [48-52].

According to the association between the Pittsburgh Sleep Quality Index Score and social media usage among Taif University medical students, our study reported that there was a significant association between PSQI Global Score and Social media use (p=0.002) and time of usage (p=0.001). However, we found no association with daily use in hours and types of devices used to access social media (p>0.05). Findings from another study reported that the risk of PSQ among SM users was significantly lower among laptop users (p = 0.026) as well as among those students who used SM before bedtime (p = 0.001), the relationship was significant even after the adjustment. However, the risk of having PSQ was higher when the duration of SM usage during bedtime was longer (p = 0.046). On the other hand, the longer the usage of SM during the day, the lower was the risk of PSQ. Another study found a significant relationship between duration of electronic device use before sleep and sleep quality was observed, a negative correlation was found between sleep quality (duration) and electronic device duration of use (p < 0 .05). The relationship between sleep latency, which is the actual time spent in bed before sleep, and the duration of electronic devices used for social media before sleep was significant, which was a positive correlation (p <0 .05). However, another study reported no significant association between PSQI and the use of social media, duration of social media usage, frequency of use of social media sites, time spent on each entry to social media and the device used to connect to social (P>0.05) [48-52].

Regarding social media usage among Taif University medical students, the majority of students 93.4% use social media daily, half of the students 50% used it for more than 60 mins , most time of usage reported was night by 51.5% followed by 28.2% in the evening and most common device used to access social media was phone reported by 58.7% followed

by 39.8% used both phone and laptop /Computer. Similar to our results, another study found that 89.9% of the participants reported daily usage of SM, and 67.9% of them used SM more than four times each day. Around 90.4% of students used SM at bedtime, However, (69.5%) of the participants used SM for longer than 2 hrs per day, and the smartphone was the most common device used by 99% . Another study revealed that 92.3% of the sample population used electronic devices before they fell asleep, and 88.4% of them used these devices for social media . In Turkey, another study carried out among 204 university students reported; 96.6% of students were actively using social media sites, 89.7% use of social media sites more than once every day, 68.6% spent an hour or less on each entry to social media sites and similar to our findings phone was the most device used to connect to social media site which reported by 94% [48-53].

Also, the study used Generalized Anxiety Disorder-7 items Scale Score to measure anxiety with a mean GAD-7 score of 10.03±3.46. The majority of students, 47.3% had moderate anxiety, followed by 46.8% mild and only 5.8% severe.

As regards the association between Generalized Anxiety Disorder-7 items Scale Score with social media, the study reported significant association with social media use, daily use in hours, most times of usage, and type of device used to access social media (p<0.05).

CONCLUSION:

This study is the first to examine how social media use and social media relate to sleep quality and anxiety in female medical students . Our findings indicate that the timing of social media use is an important factor that merits further investigation in relation to sleep quality and levels of anxiety. An important novel contribution of this study is the finding that the social media is more strongly with anxiety , associated with social media use . In conclusion , this study contributes to the growing body of evidence linking social media use to sleep quality and anxiety . Consistent with previous research , higher levels of social media use were associated with poorer sleep quality and increased anxiety . In addition , our findings indicated social media use is associated with poorer sleep quality and higher anxiety levels .

Recommendations
Based on the results of the present study, the following are recommended:

1-Limit when and where you use social media by Commit to not checking social media during meals with family and friends. Make sure doesn't distracting you from class room. In particular, keep your phone or computer away from the bedroom it disrupts your sleep

2. Have 'detox' periods by Schedule regular multi-day breaks from social media

3. unfollow, mute or hide contacts; that may be boring, annoying, infuriating or worse.

4. Follow Inspiring Accounts That Make You Feel Good

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