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A Study on Muscular Skeletal Problems Due to Excessive Use of Mobile Devices

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Abstract: ***The mobile phone industry has been one of the fastest growing industries in modern history. Today, India has million mobile phone subscribers. Cell phones are considered to be one of the most speedily emerging technologies in the human race especially in younger generation within a short span of time. Youth is more inclined towards using mobile phones for activities other than communication than older generation because in adolescent stage, people are more susceptible to changing fashion trends and style, building them more. The present study was conducted in Jhajjar district of Haryana state with objectives (i) to identify the muscular skeletal problems from mobile phone use (ii) to assess usage pattern of mobile phones among adults. The results showed that maximum (60.00%) of the respondents were unmarried. Majority of the respondents (85.00%) used mobile phone for calling facility, (85.00%) had eyes problems due to use of mobile phones and (79.00%) respondents said that they had lack of sleep due to use of mobile devices.***

Keywords: Communication, Muscular skeletal, Youth

1. Introduction

Mobile phone usage is rapidly increasing among the youths. It is now very difficult to say who are the people not using smart phone. The mobile phone users can not even think that the mobile phones not working for an hour. The main advantage of using smart phone or mobile phone is that it keeps users online. However, there are many negative effects of mobile phone or smart phone. The physical, cognitive and social health implications of mobile phone use in young users are considered. Many new symptoms associated with use of smart phones such as sleep disturbance, memory problems, headaches, nausea, and dizziness. The use of mobile phones also results in indirect effects, such as car accidents, mobile phone addiction, ringxiety and obsessive compulsive disorder among users. The use of mobile phones, tablets also have negative impacts on the musculoskeletal disorder or caused injuries when not used properly.

2. Review of Literature

Acharya et.al. (2013) reported that headache was found to be the commonest symptom (51.47%) followed by irritability/anger (50.79%). Other common mental symptoms included lack of concentration and academic performance, insomnia, anxiety etc.

P. satlin et.al. (2016) studied that about 40.00% participants perceived that mobile phones can be used to promote health. Out of them, 57.30% said that call would be a better mode of communication for health promotion than SMS. Regarding their perception about health problem due to mobile phone usage, about one third (32.1%) responded that mobile phones can lead to health problems.

Shiny et. al. (2017) reported that 35% of the students were frequent users that is they used for>30 minutes per day. Most common problems faced during its use were battery going down (41%) followed by unable to contact the desired person (18%).

(34%) experienced false perception of ring out of which 69%were males and 37% were females. Mobile phone dependence was also found to be increased which is evident from ringxiety experienced by (34%) and waking up from sleep to check the mobile for call or message by (41%) commented that life without mobile will be boring and (25%) said that they will feel alone or unsafe.

Sumaiya Mushroor et. al. (2019) showed that Majority (57.5%) had physical discomfort after prolong use of mobile devices. Maximum (50.7%) smart device users felt lack of concentration followed by (37.7%) suffered from headache and 91 (20.7%) had ear problems. Maximum respondents 37.7% suffered from headache, followed by 28.9% and 42.9% from eye pain and ear pain, respectively. Almost half (50.7%) suffered from experienced lack of concentration.

Objectives of the study

1) To identify the muscular skeletal problems from mobile phone use.
2) To assess usage pattern of mobile phones among adults.

3. Methodology

Locale of the study: Jhajjar district from Haryana state was selected randomly. total number of respondents were 100 students in which 50 were male students and 50 were female students. Data were collected personally by researcher using interview schedule.

4. Results

Table 1: Personal profile of the respondents

Sr. No	Variables	Category	Male (n=50)	Female (n=50)	N=100 (%)
Personal and demographic variables					
1.	Age (in years)	14-17	11	4	15(15.00)
		18-21	16	21	37(37.00)
		22-25	23	25	48(48.00)
2.	Marital status	Married	21	19	40(40.00)
		Unmarried	29	31	60(60.00)
3.	Family type	Joint	11	15	26(26.00)
		Nuclear	39	35	74(74.00)
4.	Family size	Up to-3 (small)	8	5	13(13.00)
		4-6 (medium)	31	30	61(61.00)
		7-9 (large)	11	15	26(26.00)
5.	Qualification	Senior secondary	17	18	35(35.00)
		Graduation	26	23	49(49.00)
		Post Graduation	7	9	16(16.00)
Socio-economic variable					
6.	Monthly family income (Rs.)	Up to Rs. 30000/-	11	6	17(17.00)
		Rs. 30001-Rs. 60000/-	26	29	55(55.00)
		Rs. 60001-Rs. 90000/-	13	15	28(28.00)

Age: Table 1 showed that the personal profile of the respondents. Results showed that in respect to age, (48.00%) respondents were belonged to the age group of 22-25 years. In respect to marital status, maximum (60.00%) of the respondents were unmarried. Regarding family type, (74.00%) of the respondents were belonged to nuclear family and qualification of maximum (49.00%) of the respondents were post graduation. Maximum (55.00%) of the respondents having their monthly family income between Rs. 30001-Rs. 60000/- per month.

Table 2: Usage pattern of mobile phones among adults

Sr. No	Usage pattern	Male	Female	Total(100)	%
1	Calling facility	45	40	85	85.00
2	SMS facility	12	17	29	29.00
3	Listening to music	37	20	57	57.00
4	Playing games	38	3	41	41.00
5	Internet usage	50	50	100	100.00
6	Social networking	35	39	74	74.00

Table 2 showed that usage pattern of mobile phones among adults. All respondents used mobile phone for internet usage. Maximum respondents (85.00%) used mobile phone for calling facility and followed by, (74.00%) used for social networking and (57.00) used for listening to music.

Table 3: Physical health problems due to use of mobile devices

Sr. No	Variable	Total Frequency	%
1	Earache	56	56.00
2	Eyes pain	85	85.00
3	Neck pain	66	66.00
4	Pain in shoulder	34	34.00
5	Pain in hand	23	23.00
6	Back pain	79	79.00
7	Tinnitus	59	59.00
8	Painful fingers	48	48.00
9	Restlessness	12	12.00
10	Morning tiredness	9	9.00
11	Tingling fingers	27	27.00
12	Fatigue	76	76.00

Table 3 depicts that physical health problems due to use of mobile devices. Majority of respondents (85.00%) had eyes problems due to use of mobile phones, followed by (79.00%) had back pain problem, (76.00%) had fatigue and (66.00%) had neck pain due to use of mobile phones.

Table 4: Mental health problems due to use of mobile devices

Sr. No	Mental health symptoms	Total Frequency	%
1	Headache	56	56.00
2	Irritability	31	31.00
3	Lack of concentration	68	68.00
4	Anxiety	73	73.00
5	Lack of sleep	79	79.00
6	Emotional imbalance	38	38.00
7	Poor academic performance	40	40.00
8	Vertigo	23	23.00
9	Hypertension	28	28.00

Table 4 showed that mental health problems due to use of mobile devices. Maximum respondents (79.00%) said that they had lack of sleep due to use of mobile devices, followed by 73.00% respondents said that they felt anxiety, 68.00% respondents said that they had lack of concentration and 56.00% had headache due to use of mobile devices.

Table 5: Use of mobile phone during sleeping hours

S. No	Mobile phone during sleeping hours	Frequency	%
1.	Putting mobile on switch off mode while sleeping		
	Yes	23	23.00
	No	77	77.00
2.	Keeping the mobile near the pillow		
	Yes	86	86.00
	No	14	14.00
3.	Putting mobile on airplane mode while sleeping		
	Yes	24	24.00
	No	76	76.00
4.	Using blue light filter while using mobile in dark		
	Yes	21	21.00
	No	79	79.00
5.	Using mobile for at least 30 minutes after light turned off		
	Yes	69	69.00
	No	31	31.00

Table 5 showed that use of mobile phone during sleeping hours. Majority of the respondents (86.00%) kept the mobile phone near the pillow and (79.00%) respondents not used blue light filter while using mobile phone in dark. Maximum respondents (77.00%) kept mobile phone on mode while sleeping and (76.00%) not put their mobile phone on airplane mode while sleeping.

5. Discussion

Maximum respondents (79.00%) said that they had lack of sleep due to use of mobile devices, followed by 73.00% respondents said that they felt anxiety, 68.00% respondents said that they had lack of concentration and 56.00% had headache due to use of mobile devices. Acharya et.al. (2013) reported that headache was found to be the commonest symptom (51.47%) followed by irritability/anger (50.79%).

Majority of respondents (85.00%) had eyes problems due to use of mobile phones, followed by (79.00%) had back pain

problem, (76.00%) had fatigue and (66.00%) had neck pain due to use of mobile phones. Sumaiya Mushroor et. al. (2019) showed that Majority (57.5%) had physical discomfort after prolong use of mobile devices. Maximum (50.7%) smart device users felt lack of concentration followed by (37.7%) suffered from headache and 91 (20.7%) had ear problems. Maximum respondents 37.7% suffered from headache, followed by 28.9% and 42.9% from eye pain and ear pain, respectively. Almost half (50.7%) suffered from experienced lack of concentration.

6. Conclusion

Maximum respondents said that they had lack of sleep due to use of mobile devices. Majority of respondents had eyes problems due to use of mobile phones and more than half of the respondents suffered from experienced lack of concentration.

7. Suggestions

1) Avoid long conversation.
2) Avoid using phone on low battery.
3) Use headsets or speakerphone option.
4) Keep mobile devices away from your body.
5) Turn off Cellular data and Wi-Fi.
6) Avoid calls at places with low signal reception.
7) Fewer calls More Text.
8) Use landline telephones.
9) Keep mobile conversations to a minimum.
10) Avoid living near base stations.
11) Turn off your phone or put it on airplane mode when not in use.

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