



Effect of Communication Technology Usage on Sleep and Physical Activity Level in Nursing Students



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Purpose

Electric and magnetic fields (EMA) have an important place in the life of all living things in the natural structure of the world. At the same time, with the development of technology, the use of human-based EMA tools has become an integral part of human life, bringing together many problems. Today, communication technologies that are widely used among university students are widely used among nursing students.

Nursing students who are studying in the field of health and who will serve patient individual after graduation constitute a special group among the university students. It is important for technological tools to be aware of their effects on the negative effects of sleep and movement, which are important elements in the developmental period, and to raise awareness and take appropriate precautions. The present study was conducted in order to examine effect of communication technology usage on sleep and physical activity level in nursing students.

Methods

This descriptive and cross-sectional study was carried out with 215 nursing students in the Nursing Department of a Faculty of Health Sciences in Istanbul in the 2016-2017 academic year. 215 nursing students who agreed to participate in the study constituted the sample group. Approval of the institution and informed consent was obtained from patients before the start of the study. The data were collected by interviewing face-to-face using "Structured Question Form", "Pittsburgh Sleep Quality Index (PSQI)" and "International Physical Activity Inventory (IPAQ short form)". Data obtained by using data collection forms with validity of the research data gathered were analyzed in the program of SPSS 21.00 .

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Results



		n	%
Gender	Female	162	86.17
	Male	26	13.83
Consumption of caffeinated beverages before sleep	Yes	118	62.8
	No	70	37.2
Internet usage status	Yes	176	93.6
	No	12	6.4
The average Internet usage time per day	1-3 hours	85	45.2
	3-6 hours	66	35.1
	6 hours and over	37	19.7
The technological vehicle in the bedroom	Television	140	74.5
	Computer	129	68.6
	Smartphones	149	79.3
	Ipad	23	12.2
	Play Station	3	1.6
	DVD Player	6	3.2
	Other	32	17
Membership status for any social network site	Yes	177	94.2
	No	11	5.8
Activity before sleep	TV or movies	81	43.1
	Play Station Game	22	11.7
	Use of internet	107	56.9
	Social network site	84	44.7
	Using a smartphone	141	75

Figure 1: Pittsburgh Sleep Quality Index Score Averages

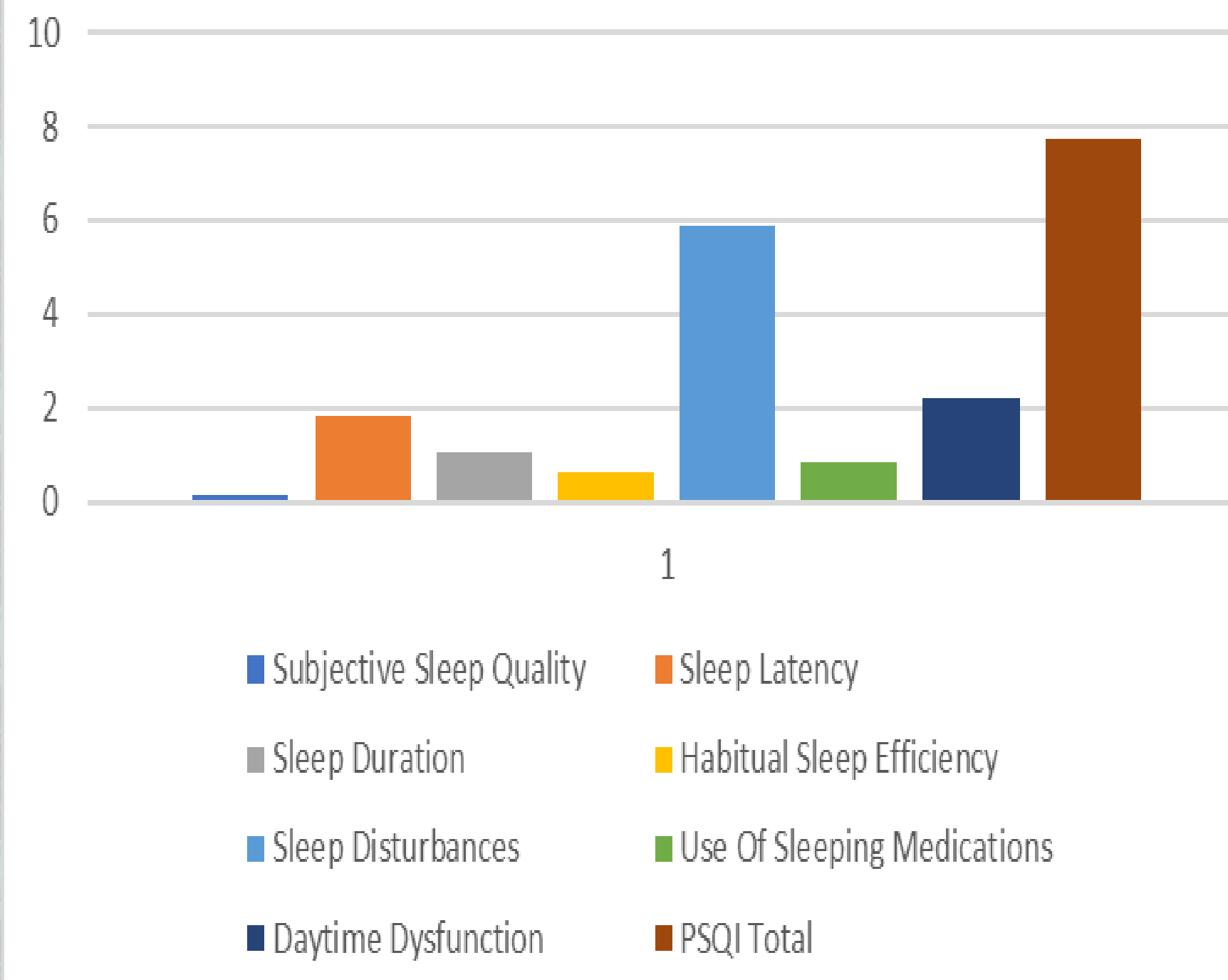
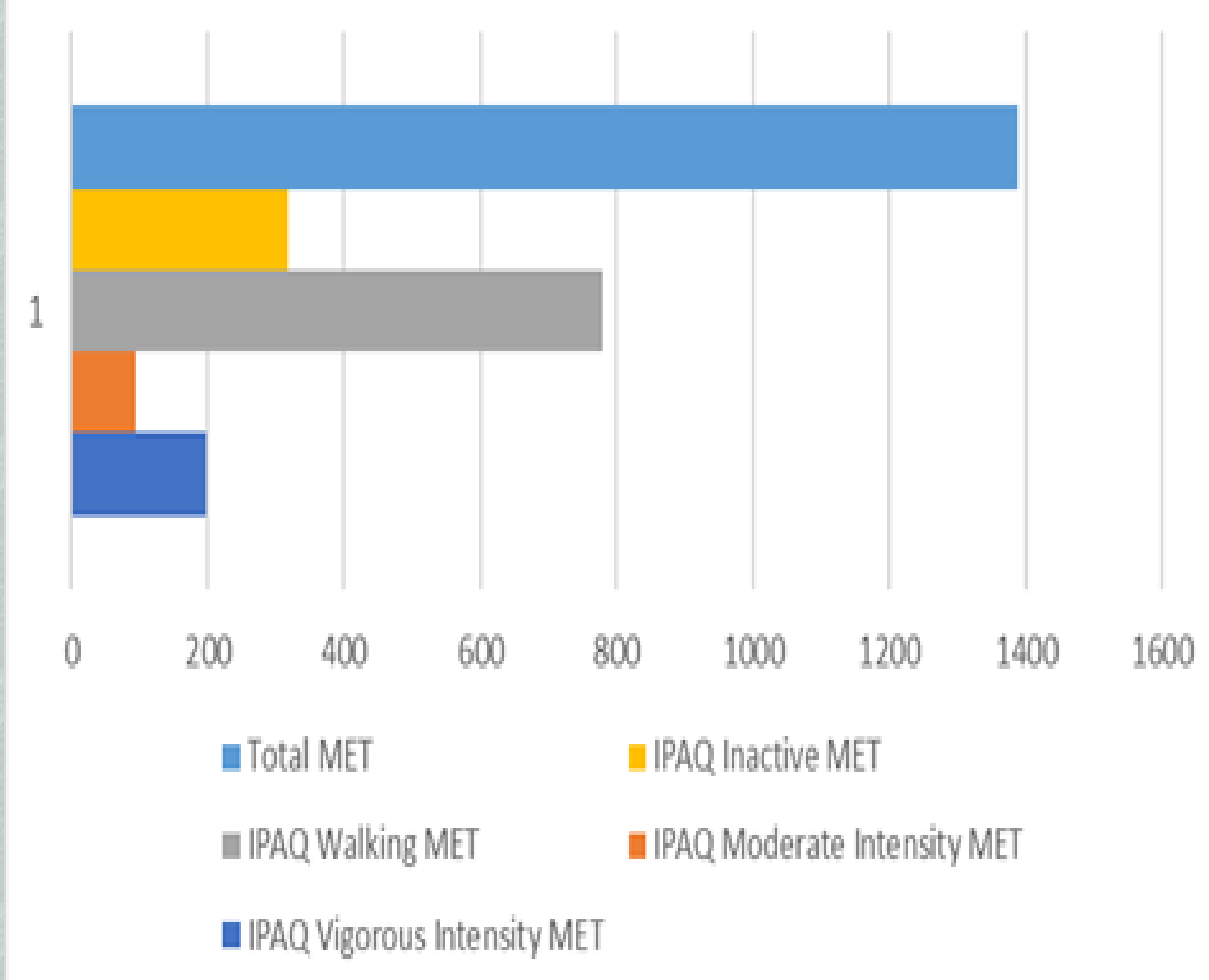


Figure 2: International Physical Activity Inventory Score Averages



It was determined that shorter sleep duration was associated with increasing internet usage time. There was a statistically significant difference between membership status for any social network site and vigorous physical activities ($p < 0.05$). There was a positive correlation and statistically significant difference between membership status for any social network site and Subjective sleep quality and sleep latency ($p < 0.001$).

There was a statistically significant difference between Internet usage frequency and sleep duration, habitual sleep efficiency, sleep disturbances ($p < 0.05$). It was determined that the amount of technology used in the bedroom was significantly related to sleep disturbances and daytime dysfunction and Pittsburgh Sleep Quality Index (PSQI) total score. There was a statistically significant difference between the amount of technology used in the bedroom and vigorous physical activities ($p < 0.05$).

Conclusion

These findings suggest that use of technology before sleeping impact usage on sleep and physical activity level in nursing students. Thus, students' awareness of the use of technology and the relationship between sleep and physical activity should be increased.