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A Descriptive Correlational Study to Assess the Level and Physical Effects of Nomophobia Among College Students in Selected Colleges, Madurai

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ABSTRACT

Technology has become a part and part of our life in recent years especially the smartphone, which has become handy and attractive as stated, technology is a boon but sometimes a curse, still a concealed fact. Nomophobia is a psychological condition were individual has a fear of getting disconnected from smartphone. This study is aimed to discover the nomophobia level among college students and its physical effects and also addresses the correlate between the level of nomophobia and its physical effects among college students. A descriptive correlation analysis was performed with a sample size of 103 nursing and diploma students selected by a convenient sampling technique. Data were collected using the Nomophobia Questionnaire and the Self-Structured Physical Effects Scale. The study findings discovered that 15 (14.6%) college students had a severe level of nomophobia, 55 (53.4%) had a moderate level of nomophobia, 31 (30.1%) had a mild level of nomophobia 2 (1.9%) had no nomophobia. Smartphones in turn cause considerable physical effects out of which pain, sleep Disturbance and insomnia contribute the highest percentage of 32 and 31% respectively. From this I conclude that , nomophobia is an emerging problem of concern among the younger generation the current study has shed light on the after effects of smartphone usage as the internet has popped up.

Keywords: *Nomophobia, Physical effects, Smart phone, College students.*

1. INTRODUCTION

As technology advances, smartphones have become a vital part of this hurry-burry world. Internet access was not easy, but as the smartphone era started, information became handy with just a touch. A modern-era disorder defined as the fear of being without one's smartphone is called nomophobia. A kind of addiction, nomophobia is becoming severe; these days, surviving without a smartphone is nearly impossible for a whole day[1].Extended anxiety surrounding the non-use of their smartphone can escalate stress, leading to a host of ailments, among them increased heart rate, headaches, and gastro problems (near lump in the throat). In addition, the constant execution of notifications or updates may interfere with their sleep patterns, leading to insomnia or poor sleep, which piles in affecting stress levels and fatigue [2]. Understanding nomophobia and its physical repercussions highlights the importance of finding a balanced approach to smartphone use and fostering healthy habits to mitigate its impact on both mental and physical health. Nomophobia has become an increasing problem among university students, colleges and schools which affect their mental stability, researchers around the globe have been working on this issue, and many such studies have been reported in recent years[3].

The number of mobile phone subscribers worldwide has nearly doubled from 12.4 million in the past two decades—now surpassing the 5.6 billion mark and currently accounts for more than 70% of the world's population. This dramatic rise in consumption has garnered attention, as you can find several articles discussing possible physical and mental health risks to people of all ages, which makes this a prominent public health concern [4,5]. Nomophobia is a growing behavioral concern

that needs to be attention is common among medical students and Ph.D. scholars and causes anxiety, and the level of stress and phobia varies from severe to mild depending on the mental health. Nomophobia affects 60-70% of college students, leading to physical symptoms like headaches, fatigue, and sleep disturbances. Excessive smartphone use increases the risk of obesity, cardiovascular disease, and musculoskeletal disorders by 30-40%. The present study, we have tried to study the physical, socio-demographic, and level of nomophobia among nursing students in Madurai district, Tamil Nadu, and this would provide insight into the varied levels of health issues associated with nomophobia.

2. METHODS

A quantitative approach was implemented following a descriptive-correlational design to predict the correlation between the variables. Convenience sampling technique was employed to scrutinize the sample. A total of 103 students belonging to Nursing and Diploma in Nursing were incorporated in this study. Prior permission was obtained before setting to conduct the study. Confidentiality of the data was assured to every participant.

Research tool

- Socio demographic variables which includes age, sex, gender, Course, Residence, Average time spent in smart phone, Frequency of checking smart phone, Context of maximum usage of smartphone, Frequency of checking smart phone without any reason, frequently used application, Average money spent for recharge and Types of gadgets using.
- Nomophobia Questionnaire (NMP-Q) item developed (7) It's a 7-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree) is applied to each NMP-Q item leading to a summated total score and which comprises of four factors Factor 1: not being able to communicate; Factor 2: losing connectedness; Factor 3: not being able to access information; and Factor 4: giving up convenience. Scoring and Interpretation for Nomophobia: 20 -Absence of nomophobia, 21-59 -Mild level of nomophobia, 60-99 -Moderate level of nomophobia and 100-140- Severe level of nomophobia
- Scoring and Interpretation of Physical effect of Nomophobia:0 – No Physical effect,1-10 –Mild Physical effect,11-20 – Moderate Physical effect,21-30 – Severe Physical effect and 31-40 – Very severe Physical effect

3. RESULTS

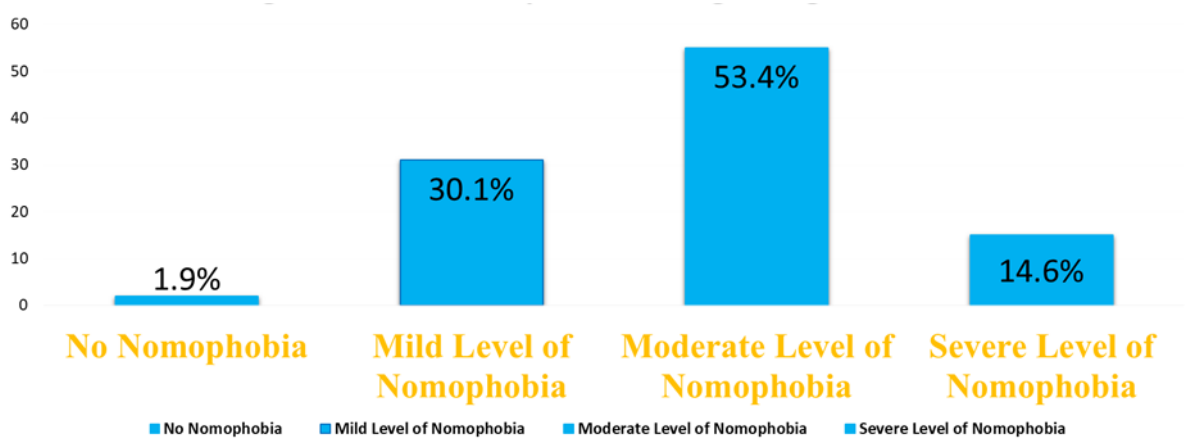
The study reveals some interesting facts related to smartphone users among college students. As per demographic data of concerns the majority of students use their smartphones before sleeping and during their leisure time, and the most frequently used application is Instagram followed by WhatsApp and others. More than 61 (59.2 %) of students checked their smartphones without any reason. Almost 22.3 % of college students use their smartphone for spending time on social media and 11.7% of the students play games on mobile. 13.6% of the students spend more than 4 and up to 6 hours on smartphones.

Table 1: Frequency distribution of Sociodemographic variables Of College Students (N=103)

Sl.No	Sociodemographic variables	Frequency	Percentage (%)
1	**Age**		
	17 years	57	55.3
	18 years	46	47.7
2	**Gender**		
	Male	31	30.1
	Female	72	69.9
3	**Course**		
	B.Sc. Nursing	73	70.9
	B.DGNM	30	28.2
4	**Residence**		
	Urban	88	85.4
	Rural	15	14.6

5	**Average time spent in smartphone**		
	1 to 3 hours	86	83.5
	4 to 6 hours	14	13.6
	7 to 9 hours	2	1.9
	Above 9 hours	1	1
6	**Frequency of checking smartphone without any reason**		
	3 times and less	26	25.2
	4 to 6 times	66	64.1
	7 times and more	11	10.7
7	**Purpose of using smartphone**		
	Calling and SMS	38	36.9
	To play games	12	11.7
	Academic	16	15.5
	Social media	23	22.3
	To get information	6	5.8
	To avoid loneliness	8	7.7
8	**Context of maximum usage of smartphone**		
	Leisure time	24	23.3
	Before sleeping	47	45.6
	During Travelling	26	25.2
	At the college	0	0
	While waking	2	1.9
	While eating	4	3.8
9	**Checking the mobile phone without any reason**		
	Never	18	17.5
	Sometimes	61	59.2
	Always	24	23.3
10	**Frequently used application**		
	Whats up	25	24.3
	Facebook	7	6.8
	Instagram	56	54.4
	Others	15	14.6
11	**Types of Gadgets used**		
	Smartphones	102	99
	Tab	1	1

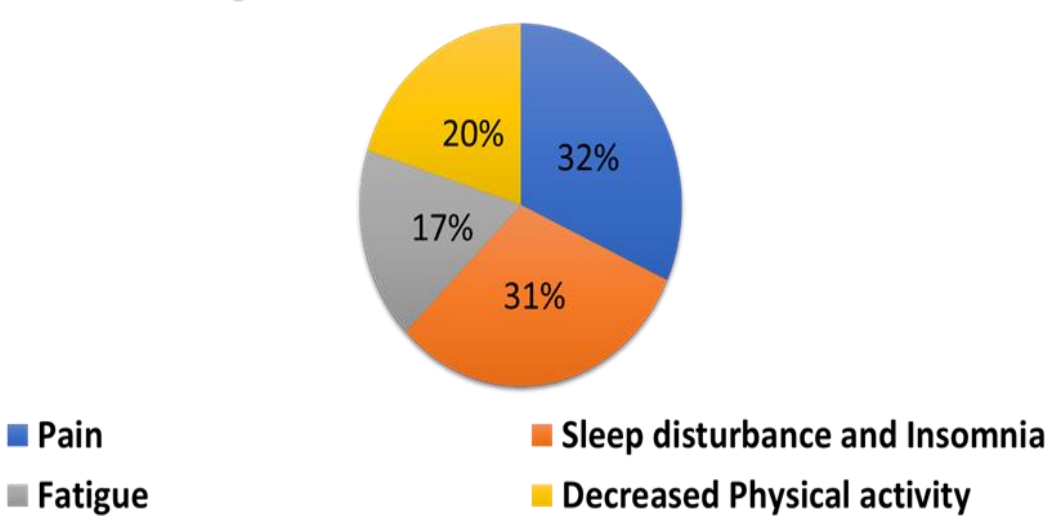
Figure 1: Distribution of Level of nomophobia



The level of Nomophobia among college students

While analyzing the level of nomophobia among college students it was observed that out of the 103 students, it was shocking to note that 53.4% had a Moderate level of Nomophobia and 14.6% students had severe nomophobia, for further detailed results refer to Figure 1. The results revealed that Nomophobia is a serious health issue that needs attention. While evaluating the physical effects of nomophobia, pain Sleep disturbance, and Insomnia contribute 32% and 31% respectively for other contributing factors view Figure 2.

Figure 2: Distribution of physical effects of nomophobia among college students



Physical effects of Nomophobia

Statically evaluation of the level of nomophobia and physical effects was found to be r=0.8 Association between the level of nomophobia, physical consequences, and selected socio-demographic variables showed that results had a significant association between the physical effects and selected socio-demographic variables concerning average time spent in a smartphone (p=0.05), checking the phone without any reason (p=0.01) and most frequently used application (p=0.01). It was observed that there was a great correlation between the level of nomophobia and few socio-demographic variables, such as the residence location, average time spent using the smartphone, frequency of checking the smartphone, frequency of checking the phone without any particular reason, and most used application (p = 0.01).

4. DISCUSSION

The role of smartphone in our daily life is increasing and it has become our companion in life. A day without a smartphone is stressful but issues of using smartphone are increasingly high. In this study we have tried to emphasis medical health issues

because of this handy attractive object. A health condition called nomophobia is gaining importance and this study had attempted to shed light into this issue that is still unknown to many. The study was conducted among college students especially nursing division with a total number 103 candidates. The students were categorised into four division based on the level of nomophobia it was shocking to know that 53.4% and 14.6% are at Moderate and Severe nomophobia and only 1.6% students out of this nomophobic condition. This present study, the level of nomophobia was evaluated in four categories and was similar to that of a study conducted by Ozdemir B, Cakir O, Hussain I [8], identified that highest number students lies in the category "Moderate level" and severe level. Various prevalence study was conducted in many developed and developing countries had reported that nomophobia was evidently very high among young adults with a range of 77% and 99% .

The study findings reveals that, majority of the college students experiences sleep disturbance and insomnia (31%) , pain such as back and neck pain (32%) due to the maintaining of poor posture while using smartphone this findings was supported by a study conducted by Richa Hirendra Rai and colleague [9] 95% developed insomnia and text neck syndrome. In this current Association between the level of nomophobia, physical effects and selected socio demographic variables was supported by similar study conducted by Vaishali.V et al.[10]This study was done in selected colleges in Haryana to assess the prevalence of nomophobia among college students with 56.0% of the students were having moderate nomophobia. Similarly there was positive correlation observed between level of nomophobia and smartphone usage.

In the present study there was a substantial association between the nomophobia level and socio demographic with special importance to average time spent in smart phone, frequency of checking smart phone, checking the phone without any reason and most frequently used application (p=0.01) with statistical significance. Findings of pertinent studies indicated that most of the participants (92%) employed their smartphone to view social media information (91.5%) to attend the phone calls and sending SMS. It was reported that individuals whose main motives for smartphone usage were texting and social networking and would have high probability of nomophobia (Vagka, E. et al. ,2023)[11].

5. CONCLUSION

The medical condition like nomophobia has significant physical effects among college students and this present research highlights that excessive usage of smartphone may lead to a wide range of health problems that includes disrupted sleep patterns, significant increase in the level of stress and symptoms associated with eye strain and poor posture. The constant connectivity and dependency on mobile devices can also contribute to sedentary lifestyles, further exacerbating physical health concerns. This study emphasis the effect of continuous use of smarphone insist to create awareness among the community to restrict the over usage of smartphone especially among young adults.

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All authors have been personally and actively engaged in significant contributions in the creation of this paper. First author contributed in Conceptualization, Methodology, Data Curating and Manuscript Writing Second, Third and Fourth author has significant contribution in Conception and design, Critical revision providing intellectual content and research article editing and validation.

Ethics Approval:

Informed consent was obtained from the participants.

Abbreviations:

NMP-Q : Nomophobia Questionnaire

DGNM: Bachelor of Diploma in General Nursing and Midwifery

SMS: Short Message Service

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