



To assess knowledge of prevalence and practice of prevention regarding Nomophobia amongst physiotherapy students of Kanpur in Covid Era

Mohd Shoeb¹, Radhika Tiwari², Nandita Pandey², Vaishnavi Singh², Pawan Bind²

¹ Head of Department, Saaii College of Medical Science and Technology, Kanpur, Uttar Pradesh, India

² Student, Saaii College of Medical Science and Technology, Kanpur, Uttar Pradesh, India

Abstract

Corona virus disease (COVID-19) is an infectious disease caused by the SARS-CoV-2 virus. Although, COVID-19 is the newest of its kind but relating to the past pandemics and how people benefited at that time by technology can be a great guide in current scenario. A psychological condition when people have a fear of being detached from mobile phone connectivity, it has been labeled as a “phobia for a particular/specific things”. The burden of this problem is now increasing globally. Other mental disorders like, social phobia or social anxiety, and panic disorder may also precipitate NOMOPHOBIC symptoms. The objective of this study to find out the prevalence and prevention regarding nomophobia. The sample size for this cross-sectional study was 130, in which we only get 119 responses. One sample proportion test was used in the analysis of this study, to test hypothesis. After analyze the data we found most of the participants are of the age between 22-30 years, male. So, the conclusion of this study shows that most of the participants knows about the nomophobia but they do not take any precautions about it.

Keywords: covid, pandemic, Nomophobia, knowledge, prevention

Introduction

Corona virus disease (COVID-19) is an infectious disease caused by the SARS-CoV-2 virus. Most people infected with the virus will experience mild to moderate respiratory illness and recover without requiring special treatment. However, some will become seriously ill and require medical attention. Older people and those with underlying medical conditions like cardiovascular disease, diabetes, chronic respiratory disease, or cancer are more likely to develop serious illness. Anyone can get sick with COVID-19 and become seriously ill or die at any age. The best way to prevent and slow down transmission is to be well informed about the disease and how the virus spreads. Protect yourself and others from infection by staying at least 1 metre apart from others, wearing a properly fitted mask, and washing your hands or using an alcohol-based rub frequently. Get vaccinated when it's your turn and follow local guidance.

The virus can spread from an infected person's mouth or nose in small liquid particles when they cough, sneeze, speak, sing or breathe. These particles range from larger respiratory droplets to smaller aerosols. It is important to practice respiratory etiquette, for example by coughing into a flexed elbow, and to stay home and self-isolate until you recover if you feel unwell ^[1]. Technology is the continually developing result of accumulated knowledge and application in all techniques, skills, methods, and processes used in industrial production and scientific research. Technology is embedded in the operation of all machines, with or without detailed knowledge of their function, for the intended purpose of an organization. The technologies of society consist of what is known as systems. Systems apply the intended application of a technology's accumulated knowledge by obtaining an input, altering this input for the system's intended purpose through what is known as a process, and then producing an outcome that alters the ultimate intended purpose of the system. This is also known as a technology system or technological system ^[2].

Pandemics leave a tremendous effect in our lives both socially and economically. Over the past hundred years, world has seen quite some deadly pandemics. Although, COVID-19 is the newest of its kind but relating to the past pandemics and how people benefited at that time by technology can be a great guide in current scenario. A few successful solutions deployed in past pandemics are discussed in this chapter. Examining the technology and related systems that are helpful in the disease identification, limiting disease spread, and disease prevention is of paramount importance. Different new age technologies can be adopted by the government as an initial response strategy. This chapter mainly focuses on the use of the Internet of Things (IoT), Internet of Medical Things (IoMT), and other smart emerging technologies like drones, robots, autonomous vehicles (AVs), Bluetooth, and global positioning system (GPS), which can be helpful in handling this pandemic.

IoT is a promising technology of interconnected computing devices, transmitting data over the network without any human intervention. In the recent times, IoMT has captivated major attention from the field of health care. It is a blend of medical devices and software applications connected to health care IT systems ^[3]. The term

NOMOPHOBIA or NO Mobile Phone Phobia is used to describe a psychological condition when people have a fear of being detached from mobile phone connectivity. The term NOMOPHOBIA is constructed on definitions described in the DSM-IV, it has been labeled as a “phobia for a particular/specific things”. Various psychological factors are involved when a person overuses the mobile phone, e.g., low self-esteem, extrovert personality. The burden of this problem is now increasing globally. Other mental disorders like, social phobia or social anxiety, and panic disorder may also precipitate NOMOPHOBIC symptoms. It is very difficult to differentiate whether the patient become NOMOPHOBIC due to mobile phone addiction or existing anxiety disorders manifest as NOMOPHOBIC symptoms. The signs and symptoms are observed in NOMOPHOBIA cases include- anxiety, respiratory alterations, trembling, perspiration, agitation, disorientation and tachycardia. NOMOPHOBIA may also act as a proxy to other disorders. So, we have to be very judicious regarding its diagnosis. Some mental disorders can precipitate NOMOPHOBIA also and vice versa. The complexity of this condition is very challenging to the patients’ family members as well as for the physicians as NOMOPHOBIA shares common clinical symptoms with other disorders. That's why NOMOPHOBIA should be diagnosed by exclusion. We have to stay in the real world more than virtual world. We have to re-establish the human-human interactions, face to face connections. So, we need to limit our use of mobile phones rather than banning it because we cannot escape the force of technological advancement ^[4].

Methodology

Ethical statement: The web-based open E-survey research is submitted and Approved by the ethics committee of Saaii college, Kanpur. we ensured that the study was performed according to the principles laid by, declaration of Helsinki (Revised 2013), Council for International Organizations of Medical Sciences (CIOMS) guidelines, International ethical guidelines for health-related research involving humans (2016) and National guidelines for biomedical and health research involving human participants (2017). The purpose of the survey, introduction and about the length of the survey was added within the web-based open E-survey. A separate statement of consent was asked before starting the survey questionnaire.

Sample and design: A cross-sectional online survey was sent to physiotherapy students during COVID-19 period in the April months of 2022 and June 2022. Physiotherapy students were included in the study by a simple random sampling method. physiotherapy students who are not willing to spare time for filling survey questionnaires, who do not have an account in social networking sites such as Facebook, WhatsApp, and Instagram and who do not have smart phones were excluded from the web-based open E-survey.

Survey development: A series of questionnaires were created for the survey. The Survey contained three sections. The first section contains a consent form, the second section includes Demographic data, the third section of survey comprises questions about knowledge of prevalence and practice of prevention regarding nomophobia of physiotherapy students. Demographic related questions included in the survey were name, gender and email address. Third section contains questions related to knowledge of prevalence and practice of prevention regarding nomophobia of physiotherapy students. We want to know how physiotherapy students tackle these conditions.

Administration of survey: The study was executed by sending the online link (https://docs.google.com/forms/d/e/1FAIpQLSfG5hBQtRhKEB-KkTRtHB6DTs_s96RtmaTalrzwVbmoFvHJew/viewform) to the physiotherapy students through social networking sites such as Facebook, WhatsApp, and Instagram. 130 potential participants were identified and E-survey link was sent to them through the messaging services. The Survey was administered using the online survey portal, Google forms. As people are mostly active on social networking sites and messengers when compared to frequent checking emails, social networking sites were used for circulating the survey questionnaire. The reminder survey link was sent to them, if response was not received within a period of two weeks. Web-based open E-survey is cost-effective, eco-friendly, time-saving and practically feasible during the pandemic period.

Sample size: The sample size for this cross-sectional study was 130, in which only 119 responses were received. The incomplete submission of survey questionnaires was not possible due to the function in Google Forms which prevents submission of partially answered or filled Questions. Hence, when the survey responses hit 119 and time limit is exceeded the web based open E-survey link is closed for accepting further responses and analyzed.

Variable: According to Polit DF, Hungler BP (2004) ^[5]. A variables imply something that varies, and variables may be any quality of a group or situation that takes on different values.

Selection and development of tools: Tool is an instrument used by the researcher to collect data. The instrument selected in a research should be as far as possible be the vehicle that would be best obtaining data for drawing conclusions, which are pertinent to data. The self-structured questionnaire was used for study, where interested in establishing rapport and obtaining facts of study.

Validity of tool: Burns N, Groove SK (2003) [6], states that validity is the extent to which the method of measurement includes all the major elements relevant to the construct being measured. To measure the content validity of the tool, the questionnaire was given to the 3 experts from the field of health. The experts were chosen based on their clinical expertise, experience, qualification, and interest in the problem area. The validity of the tool was confirmed by expert's opinions regarding the relevance of items.

Reliability of tool - Polit DF, Hungler BP (2004) [7], states that reliability of an instrument is the degree of consistency with which it measures the attributes it is supposed to be measuring. Reliability of the tool was estimated by a split half method which included computing Pearson's coefficient of correlation and thereafter applying Spearman Brown prophecy formula, which was found to be $r' 0.84$. Hence the tools were reliable.

Procedure

Burns N, Groove SK (2003) [8], states that data collection is the identification of subjects and precise, systematic gathering of information (data) relevant to the research purpose or the specific objectives, questions or the assumptions of a study. The data was collected from physiotherapy students by sending the link of google form through mail, WhatsApp and Facebook. The present study was conducted on 01/04/22 to 20/06/22. Purpose of the study was explained to the subjects. The subjects were assured about anonymity and confidentiality of the information provided by them as informed consent was taken from those who were willing to participate in the study. 130 potential participants were identified and an E-survey link was sent to them through the messaging services and time taken by each survey to fill approximately 5 – 10 minutes.

Analysis

Data analysis was done using IBM SPSS Statistics (software package used for statistical analysis 2019 version - 26). One sample proportion test is used in the analysis of current study To Assess knowledge of prevalence and practice of prevention regarding Nomophobia amongst physiotherapy students of kanpur in Covid era, to test hypothesis; which help to determine whether to reject or accept Null hypothesis.

Total Consent for Participation = 130

Total Successful Participants in Survey = 119

Total Unsuccessful Participants in Survey = 11

Table 1: Gender wise distribution of all participants.

Category	Number of Participants	Participants %
Male	69	57.9
Female	50	42.1
Others	0	0
Total	119	

Table 2: Age wise distribution of all Participants.

Age group (In Yrs)	Number of Participants	Participants %
Under 21	31	26
22-30	61	51
31-40	19	16
41-50	8	7
Total	119	

Table 3: Use of Smart phone hour wise distribution of all participants.

Category	Number of Participants	Participants %
< 1 hrs	10	8.4
1 - 2 hrs	41	34.4
4 - 5 hrs	52	43.7
> 5 hrs	16	13.5
Total	119	

Table 4: Frequently check mobile wise distribution of all participants.

Category	Number of Participants	Participants %
Every minute	19	16
1 - 2 hrs	42	35
Not frequently	34	28.5
Undecided	24	20.5
Total	119	

Table 5: Scared to loose mobile wise distribution of all participants.

Category	Number of Participants	Participants %
Yes	97	81.5
No	22	18.5
Total	119	

Table 6: Heard about Nomophobia wise distribution of all participants.

Category	Number of Participants	Participants %
Yes	64	53.8
No	55	46.2
Total	119	

Table 7: taking precaution about Nomophobia wise distribution of all participants.

Category	Number of Participants	Participants %
Yes	29	24.4
No	90	75.6
Total	119	

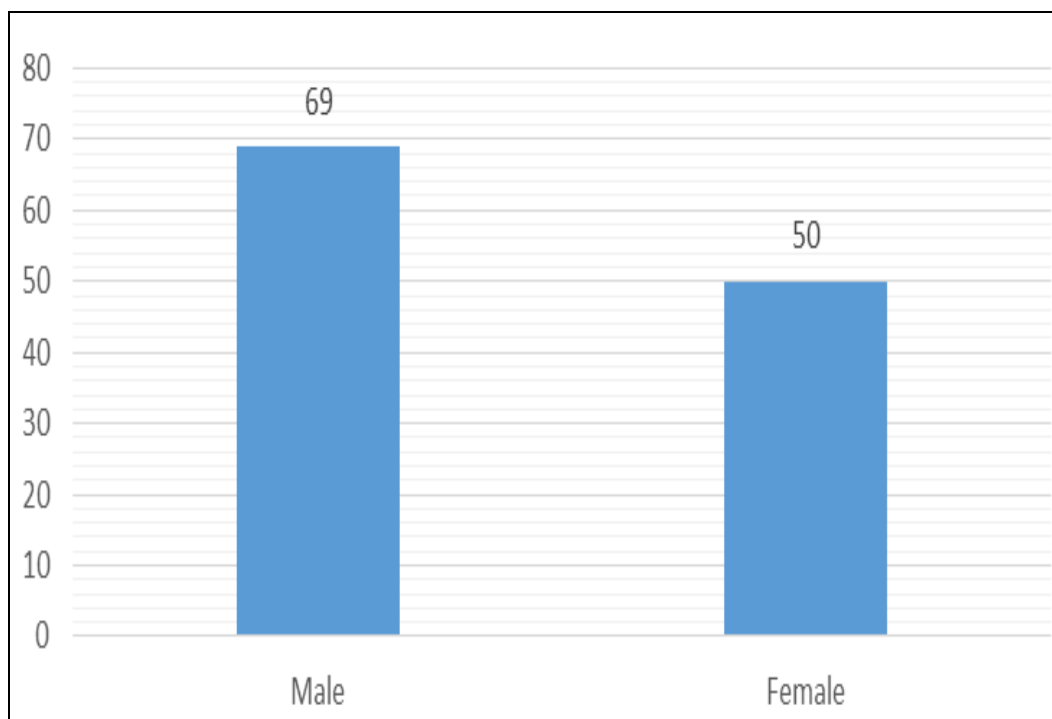
Table 8: Anxiety wise distribution of all participants.

Category	Number of Participants	Participants %
Yes	95	79.8
No	24	20.2
Total	119	

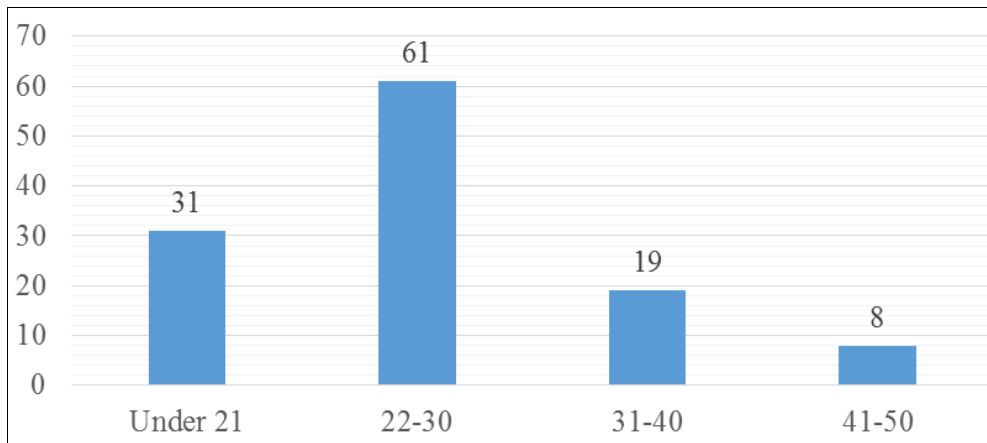
Table 9: worry of running out battery wise distribution of all participants.

Category	Number of Participants	Participants %
Yes	69	58
No	50	42
Total	119	

Result

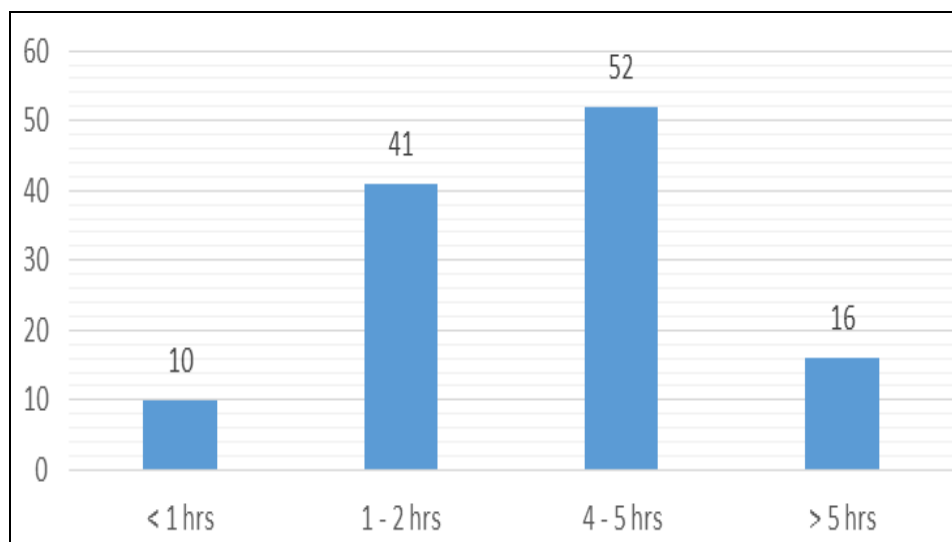
**Graph 1:** Gender of all Participants

Graph 1: Represents the gender wise distribution of all 119 participants. The results suggest that 57.9% of participants (69 out of 119 participants) are Male, 42.1% of participants (50 out of 119 participants) are Female. It reflects that maximum number of participants are Male.



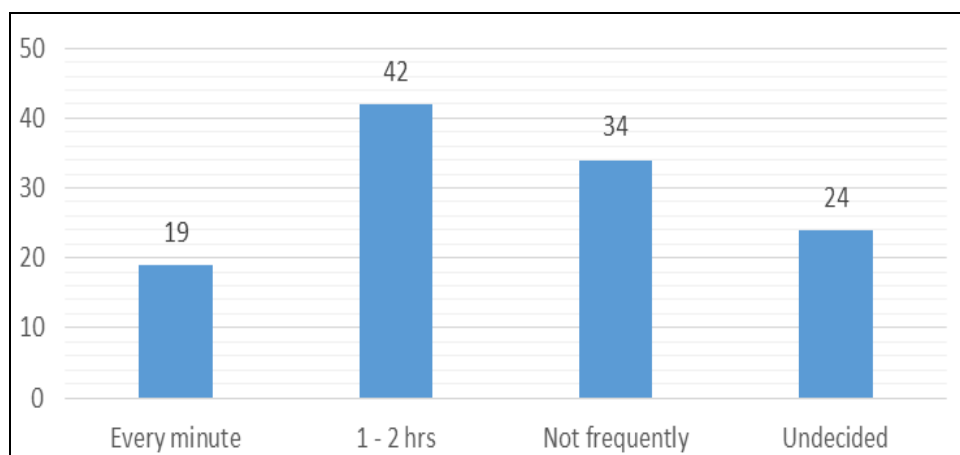
Graph 2: Age wise distribution of all participants

Graph 2: Represents the Age wise distribution of all the 119 participants. The result suggest that 26% of participants (31 out of 119 participants) are under 21 years, 51% of participants (61 out of 119 participants) are 22 - 30 years, 16% of participants (19 out of 119 participants) are 31 - 40 years, 7% of participants (8 out of 119 participants) are 41 - 50 years, it reflects that maximum number of participants are of age between 22 - 30 years.



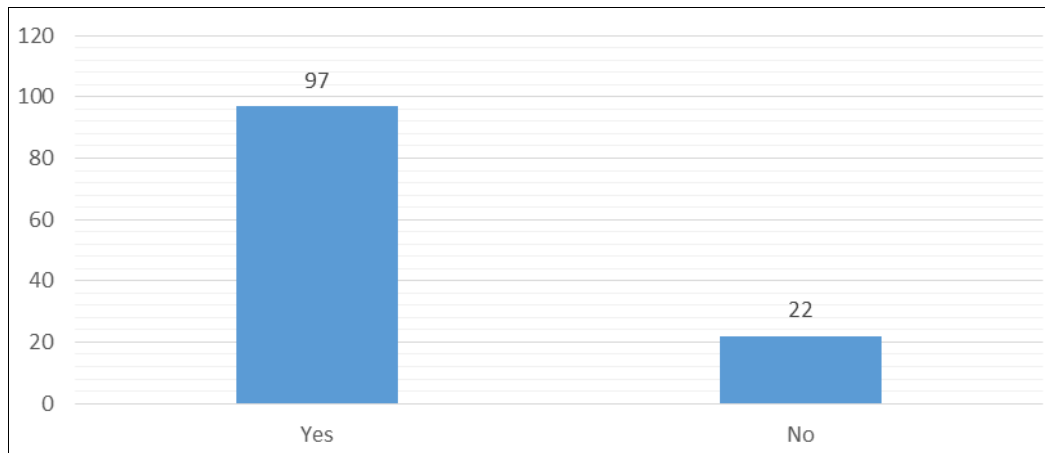
Graph 3: Use of Smartphone hour wise distribution of all participants

Graph 3: Represents the use of smart phone wise distribution of all the 119 participants. The result suggest that 8.4% of participants (10 out of 119 participants) use smart phone less than 1 hour, 34.4% of participants (41 out of 119 participants) use smart phone 1 - 2 hour, 43.7% of participants (52 out of 119 participants) use smart phone 4 - 5 hour, 13.5% of participants (16 out of 119 participants) use smart phone more than 5 hours, it reflects that maximum number of participants use smart phone for about 4 - 5 hours.



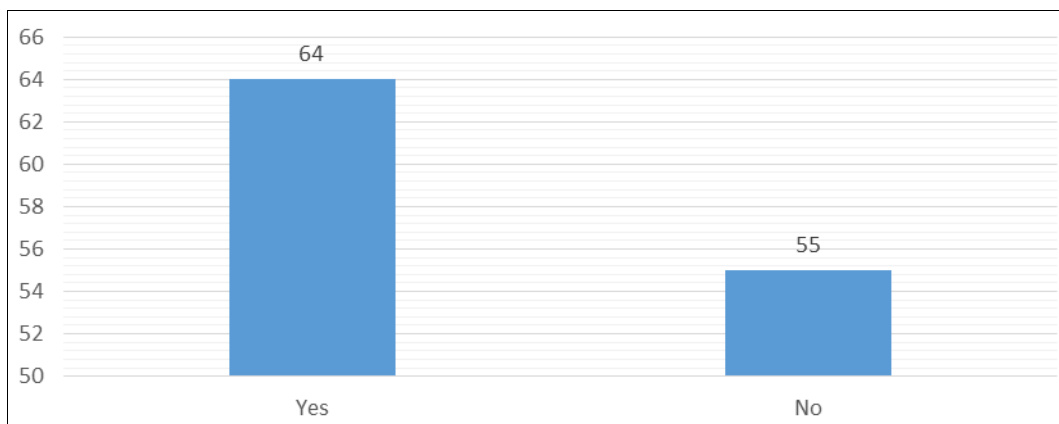
Graph 4: Frequently checking of mobile wise distribution of all participants

Graph 4: Represents the Frequently checking of smart phone wise distribution of all the 119 participants. The result suggest that 16% of participants (19 out of 119 participants) checking smart phone every minute, 35% of participants (42 out of 119 participants) checking smart phone 1 - 2 hour, 28.5% of participants (34 out of 119 participants) not frequently check smart phone, 20.5% of participants (24 out of 119 participants) are undecided for frequently checking of smart phone, it reflects that maximum number of participants checking smart phone for about 1 - 2 hours.



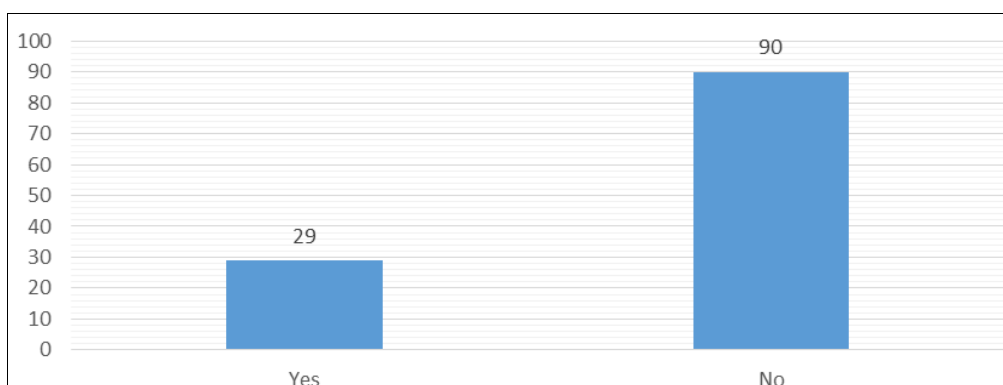
Graph 5: Scared to loose mobile wise distribution of all participants

Graph 5: Represents the Scared to loose smart phone wise distribution of all the 119 participants. The result suggest that 81.5% of participants (97 out of 119 participants) are scared to loose mobile, 18.5% of participants (22 out of 119 participants) not scared to loose mobile, it reflect that maximum number of participants are scared to loose smart phone.



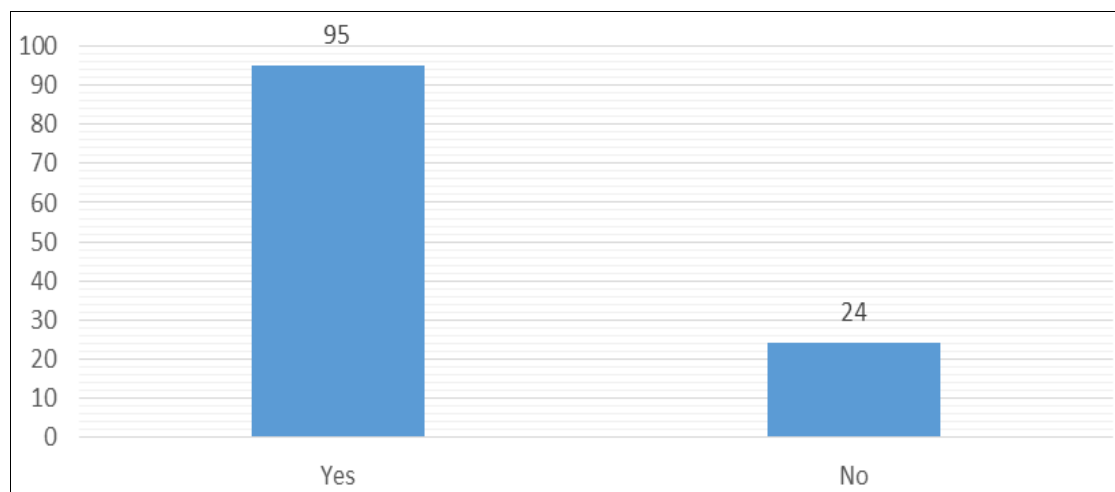
Graph 6: Heard about Nomophobia wise distribution of all participants

Graph 6: Represents that participants heard about Nomophobia wise distribution of all the 119 participants. The result suggest that 53.8% of participants (64 out of 119 participants) are heard about Nomophobia, 46.2% of participants (55 out of 119 participants) not heard about Nomophobia, it reflect that maximum number of participants are heard about Nomophobia.



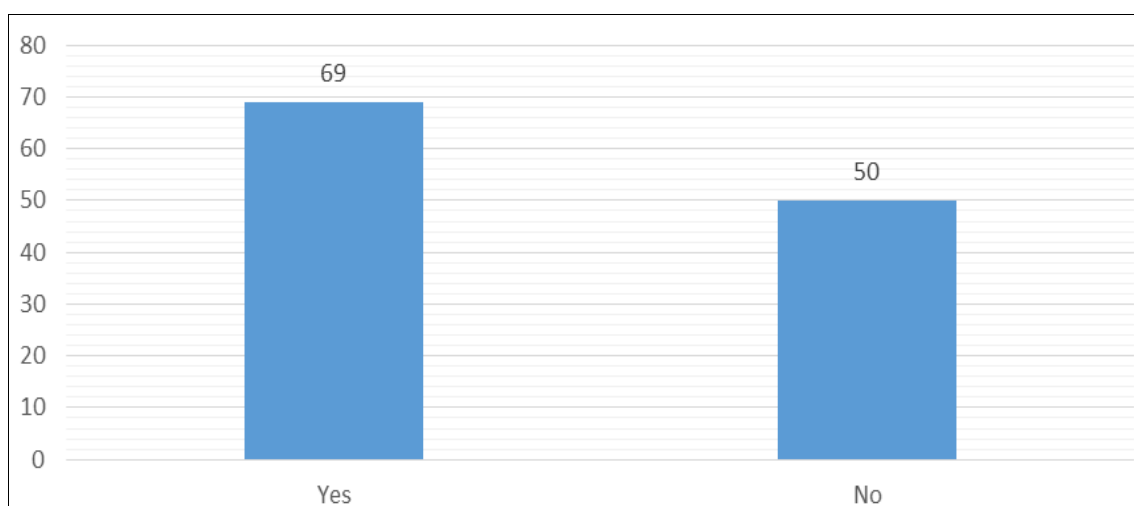
Graph 7: Taking precautions about Nomophobia wise distribution of all participants

Graph 7: Represents that participants taking precaution about Nomophobia wise distribution of all the 119 participants. The result suggest that 24.4% of participants (29 out of 119 participants) are taking precaution about Nomophobia, 75.6% of participants (90 out of 119 participants) are not taking precaution about Nomophobia, it reflect that maximum number of participants are not taking precaution about Nomophobia.



Graph 8: Anxiety wise distribution of all participants

Graph 8: Represents that participants get anxiety wise distribution of all the 119 participants. The result suggest that 79.8% of participants (95 out of 119 participants) are getting anxiety, 20.2% of participants (24 out of 119 participants) are not get anxiety, it reflect that maximum number of participants are get anxiety.



Graph 9: Worry running out battery wise distribution of all participants

Graph 9: Represents that participants worry running out battery wise distribution of all the 119 participants. The result suggest that 58% of participants (69 out of 119 participants) are worry running out battery, 42% of participants (50 out of 119 participants) are not worry running out battery, it reflect that maximum number of participants are worry running out battery.

Conclusion

Hence, we concluded that over all based-on result of current study and previous researches, it can be said that Reverberation of pandemic on income of health care professionals as we concluded that –

1. Maximum number of participants are male.
2. Maximum number of participants are of age between 22 - 30 years.
3. Maximum number of participants are use smart phone 4 - 5 hours.
4. Maximum number of participants are frequently checked their smart phone every 1 - 2 hours.
5. Maximum number of participants are scared to loose mobile.
6. Maximum number of participants heard about Nomophobia.
7. Maximum number of participants do not take precautions about Nomophobia.
8. Maximum number of participants are suffering from anxiety because of not getting messages, call or anything they want to.
9. Maximum number of participants are worried of running out battery.

Discussion

To determine the knowledge of prevalence and practice of prevention regarding Nomophobia amongst physiotherapy students, we conducted cross sectional simple randomized online survey among the physiotherapy students. We received 119 feedback's with consent based on inclusion and exclusion criteria.

In question 1 we asked about the gender of all the participants, which represents the gender wise distribution of all the 119 participants, we found that maximum participants are Male. The result suggest that 57.9% of participants (69 out of 119 participants) are Male, 42.1% of participants (50 out of 119 participants) are Female.

In question 2 we asked about the age of all the participants, which represent the age wise distribution of all the 119 participants, we found that maximum participants are of age between 22 - 30 years. The result suggest that 26% of participants (31 out of 119 participants) are under 21 years, 51% of participants (61 out of 119 participants) are 22 - 30 years, 16% of participants (19 out of 119 participants) are 31 - 40 years, 7% of participants (8 out of 119 participants) are 41 - 50 years.

In question 3 we asked about the use of smart phone of all the participants, which represents the hour wise distribution of all the 119 participants, we found that maximum participants are use smart phone 4 - 5 hours. The result suggest that 8.4% of participants (10 out of 119 participants) use smart phone less than 1 hour, 34.4% of participants (41 out of 119 participants) use smart phone 1 - 2 hour, 43.7% of participants (52 out of 119 participants) use smart phone 4 - 5 hour, 13.5% of participants (16 out of 119 participants) use smart phone more than 5 hours.

In question 4 we asked about the frequently checking mobile of all the participants, which represent the hour wise distribution of all the 119 participants, we found that maximum participants are frequently check smart phone every 1 - 2 hours. The result suggest that 16% of participants (19 out of 119 participants) checking smart phone every minute, 35% of participants (42 out of 119 participants) checking smart phone 1 - 2 hour, 28.5% of participants (34 out of 119 participants) not frequently check smart phone, 20.5% of participants (24 out of 119 participants) are undecided for frequently checking of smart phone.

In question 5 we asked about the scaring of loosing mobile of all the participants, which represent the scaring of participants wise distribution of all the 119 participants, we found that maximum participants are scared to loose mobile. The result suggest that 81.5% of participants (97 out of 119 participants) are scared to loose mobile, 18.5% of participants (22 out of 119 participants) not scared to loose mobile.

In question 6 we asked about the Nomophobia of all the participants, which represent the knowledge of participants wise distribution of all the 119 participants, we found that maximum participants are hear about Nomophobia. The result suggest that 53.8% of participants (64 out of 119 participants) are heard about Nomophobia, 46.2% of participants (55 out of 119 participants) not heard about Nomophobia.

In question 7 we asked about the taking precaution about Nomophobia of all the participants, which represent the precaution of participants wise distribution of all the 119 participants, we found that maximum participants do not take precautions about Nomophobia. The result suggest that 24.4% of participants (29 out of 119 participants) are taking precaution about Nomophobia, 75.6% of participants (90 out of 119 participants) are not taking precaution about Nomophobia.

In question 8 we asked about the anxiety of all the participants, which represents the anxiety of participants wise distribution of all the 119 participants, we found that maximum participants are suffering from anxiety. The result suggest that 79.8% of participants (95 out of 119 participants) are get anxiety, 20.2% of participants (24 out of 119 participants) are not get anxiety.

In question 9 we asked about worry of running out battery of all the participants, which represents the worry of participants wise distribution of all the 119 participants, we found that maximum participants are worried of running out battery. The result suggest that 58% of participants (69 out of 119 participants) are worry running out battery, 42% of participants (50 out of 119 participants) are not worry running out battery.

References

1. The World Health Organization is a specialized agency of the United Nations responsible for international public health. The WHO Constitution states its main objective as "the attainment by all peoples of the highest possible level of health". <https://www.who.int/health-topics/coronavirus>
2. Wikipedia is a multilingual free content online encyclopedia written and maintained by a community of volunteers through a model of open collaboration, using a wiki-based editing system. Individual contributors, also called editors, are known as Wikipedians. <https://en.wikipedia.org/wiki/Technology>
3. The National Center for Biotechnology Information is part of the United States National Library of Medicine, a branch of the National Institutes of Health. It is approved and funded by the government of the United States. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8084752/>
4. The National Center for Biotechnology Information is part of the United States National Library of Medicine, a branch of the National Institutes of Health. It is approved and funded by the government of the United States. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6510111/>
5. Polit DF, Hungler BP. Nursing Research Principal and Method 7th Edition Philadelphia; a Lippincott, 2004. reviewed on 03/03/2019.
6. Burns N, Groove SK. Understanding Nursing Research. 7th Edition, New Delhi; Harcourt (India) Private Limited, 2003. reviewed on 05/03/2019.

7. Polit DF, Hungler BP. Nursing Research Principal and Method 7th Edition Philadelphia; a Lippincott, 2004. reviewed on 12/03/2019.
8. Burns N, Groove SK. Understanding Nursing Research. 7th Edition, New Delhi; Harcourt (India) Private Limited, 2003. reviewed on 15/03/2019.