

NOMOPHOBIA AND ITS IMPACT ON HEALTH AND MIND - A STRUCTURED REVIEW

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ABSTRACT:

Introduction: The term used to describe a growing fear in today's world is Nomophobia, a portmanteau for “ no mobile phone phobia”,refers to the discomfort or anxiety caused to a person by the non-availability of a phone. Nomophobia arises from a feeling of not being able to make and receive phone calls, send or receive text messages, losing internet connectivity and access to social networking sites and being able to access information online .The aim of the review is to explore Nomophobia and its impact on health ocomplications.

Materials and methods: The articles were collected from PubMed Database and the selection criteria for screening the literature were population with Nomophobia age group between 17 - 25. The search keywords included were nomophobia, cell phone addiction, health implication, anxiety, no mobile phone phobia. The study was conducted in the year 2020. The study group consisted of a population with Nomophobia between the age group 17-25.

Result and Conclusion: This review is done to understand the clinical symptoms, complications and various preventive measures taken against nomophobia and from the obtained results after screening relevant articles based on selection criteria it can be concluded that the addiction towards cell phones and social media might lead to depression , loss of memory and anxiety.

KEY WORDS: Nomophobia; cell phone addiction ; smartphones; anxiety.

INTRODUCTION:

A term used to describe a growing fear in today's world. Nomophobia, a portmanteau for “ no mobile phone phobia”,refers to the discomfort or anxiety caused to a person by the non- availability of a phone. Nomophobia arises from a feeling of not being able to make and receive phone calls, send or receive text messages, losing internet connectivity and access to social networking sites and being able to access information online (Yildirim and Correia, 2015) This phobia has emerged as computers and cellular phones become more technologically developed and versatile in applications and communications.

Nomophobia developed as a disorder due to instantaneous communication and gratification smart - phones provide, growing into compulsive and addictive behavior.

People addicted to the usage of phones tend to avoid feared situations . The increasing use of new technologies and virtual communications involving personal computers, tablets and mobile phones are causing changes in individuals daily habits and behavior. (King *et al.*, 2013) Nomophobia and smartphones share more qualities, but the primary trait each disorder shares is that the smartphone is a source of relief and comfort. Independent and mindful people are less susceptible to nomophobia, while individuals who prefer sacrificing and submitting in relationships are at a greater risk .(Arpaci, Baloğlu and Kesici, 2019)Although smartphones are useful gadgets, excessive use of the same is harmful. (Durak, 2019)Nomophobia is also defined as the pathologic fear of remaining out of touch with the technology.(King *et al.*, 2017) Employees with nomophobia often tend to be emotionally exhausted. (‘The Effect of Problematic Internet Use, Social Appearance Anxiety, and Social Media Use on Nursing Students’ Nomophobia Levels’, 2018) Nomophobia developed as a disorder due to instantaneous communication and gratification smartphones provide, growing into a compulsive and addictive behaviour. Advanced drug therapy methods can help to treat smartphone addiction. The introduction of mobile phones and new technologies has shaped our lives, with positive and negative aspects.

Previously our team had conducted numerous original studies (Thejeswar and Thenmozhi, 2015; Hafeez and Thenmozhi, 2016; Krishna, Nivesh Krishna and Yuvaraj Babu, 2016; Menon and Thenmozhi, 2016; Pratha, Ashwatha Pratha and Thenmozhi, 2016; Subashri and Thenmozhi, 2016; Sekar *et al.*, 2019) and surveys (Samuel and Thenmozhi, 2015; Sriram, Thenmozhi and Yuvaraj, 2015; Choudhari and Thenmozhi, 2016; Kannan and Thenmozhi, 2016; Keerthana and Thenmozhi, 2016; Nandhini *et al.*, 2018; Seppan *et al.*, 2018; Johnson *et al.*, 2020) over the past 5 years. Now we are focusing on applying this knowledge to write the review on the study I am currently working on.

The current review is an attempt to explore and collect precise data relevant to the causes, symptoms and complications of nomophobia that may help to take effective preventive measures. Hence the aim of the review is to explore the health impact of Nomophobia.

METHODS:

The articles were collected from the PubMed database and contain peer- reviewed articles. They were collected with a restrictions in time basis from 2010- 2020. When article holder websites were analysed on the topic of Nomophobia and its health impact, many articles were found, it was shortlisted based on a few keywords and its relevance to selection criteria. The search keywords included were nomophobia, cell phone addiction, health implication, anxiety, no mobile phone phobia. They were used to screen out the relevant articles from all the other reviews done under this topic. The study was conducted in the year 2020. The selected articles were assessed for its quality using risk of bias assessment tools ROBINS

1 (Sterne *et al.*, 2016) and were found to be at low risk of bias. It manifests behavior that might serve as an indication for a possible anxiety disorder. The characteristics of the study were tabulated and results are analysed (Table-1).

RESULTS:

The relevant articles were filtered from all the other reviews which populate based on a few keywords nomophobia, definitions, clinical relevance, complications, treatment and preventive measures. Selected articles were analysed and were at low risk of bias. The characteristics of studies were tabulated (Table 1) under the following subheadings:

1.Defintion:

Nomophobia which is a combination of the phrases mobile phones and addiction. Is a consequence of anxiety, stress and fear due to lack of access to mobile phones and related issues. (Darvishi *et al.*, 2019) Nomophobia, a state of socio- psychological illness, refers to lack of access to mobile phones, which is thought to be a modern age disorder that causes negative health risks and harmful psychological effects.(Daei, Ashrafi-Rizi and Soleymani, 2019) Nomophobia is a no mobile phone phobia the fear of being without a mobile device or beyond mobile phone contract.(Farooqui, Pore and Gothankar, 2018) The dependence on smartphones and the internet.(Cain and Malcom, 2019) In the article written by Ahmed,Nomophobia was defined as mobile usage.(Ahmed *et al.*, 2019) . Defined as fear of no- cellular phone contact, by Arpaci. (Arpaci, Baloğlu and Kesici, 2019)

2.Clinical symptoms: Nomophobia was described as no mobile phone phobia. Addiction towards the use of smartphones can be an important clinical symptom.(Daei, Ashrafi-Rizi and Soleymani, 2019) In the article written by Venkatachalam, it was stated that overuse of mobile phones is one of the symptoms.(Venkatachalam *et al.*, 2019) Similarly in a study by Farooqui, stated that increased mobile phone dependence is a symptom of nomophobia.(Farooqui, Pore and Gothankar, 2018) According to another study, it was stated that mobile usage is a symptom. (Gurbuz and Ozkan, 2020)Fear of no cellular phone contact is a major clinical symptom for nomophobia.(Arpaci *et al.*, 2017)

3.Complication:

Nomophobia in most cases leads to anxiety, depression and anger (Darvishi *et al.*, 2019) .But on reviewing other articles , it was stated to cause socio- physiological illness(Daei, Ashrafi-Rizi and Soleymani, 2019). In an article written by Farooqui, Nomophobia leads to time , money waste.(Farooqui, Pore and Gothankar, 2018) On another similar study nomophobia causes a negative impact on academic performance.(Ahmed *et al.*, 2019) But in an overall review most author's stated that nomophobia leads to anxiety, frustration, loss of memory and harmful psychological needs.

4.Treatment: In an article written by Mohammad Darvishi, the author stated that it is important to understand the pattern of phone users to treat nomophobia.(Darvishi *et al.*, 2019) . Another study stated that reducing unnecessary usage of phones will help in treating nomophobia.(Venkatachalam *et al.*, 2019) In a similar article written by Arpaci, stated that mindfulness based therapy is a method to treat nomophobia during advanced stages of addiction. (Arpaci *et al.*, 2017)

5.Preventive measures:

Steps taken to reduce the addiction towards the phone is by reducing the usage of phones. (Darvishi *et al.*, 2019)In the article written by Daei, the preventive measures are by conducting educational programs. (Daei, Ashrafi-Rizi and Soleymani, 2019). It is necessary to educate the population with sufficient information (Venkatachalam *et al.*, 2019). It is also important to understand the complications which leads to anxiety frustration and depression. (Cain and Malcom, 2019)

Today, cell phones have become an important part of life, especially for young people. According to studies teenagers are more attached to their phones than adults. Studies by experts on the negative, physical, psychological complications of excessive use of cell phones indicate that it can lead to dependency syndrome. Nomophobia is a modern phobia which is a consequence of interactions between a human being and mobile communications technology , especially smartphones. Most important characteristics of this disorder include discomfort, anxiety, anger, or stress due to lack of contact with the cell phone. The article with a sample size of about 100 students in Iran. The author defined it as a no mobile phone phobia due to addiction of cell phones. The research suggests that nomophobia negatively

leads to anxiety, depression and anger. The author also stated that it is important to minimize the usage to avoid its complications. (Darvishi *et al.*, 2019)

DISCUSSION:

On comparing this article with the review written by Azra Daei, the study consisted of about 320 university students. The author gave a different definition stating that it is the fear of lack of access to mobile phones. Adding on to the complications stated by the previous author he stated that increased use might lead to socio- psychological illness. And it is important to organise educational programs and drug therapy for advanced stages. (Soleymani, Daei and Ashrafi-rizi, 2019)

In a similar study by Iqbal Ahmed Farooqui, he defined nomophobia similar to how Darvishi defined the no mobile phone phobia and the author stated that along with various complications mentioned by the previous authors there is a possibility of waste of money and time. (Farooqui, Pore and Gothankar, 2018)

In comparison with the review written by G. Jilisha, aimed to study the prevalence and also factors leading to nomophobia. In this study the author did not mention the complications and the various preventive measures, against nomophobia. (Venkatachalam *et al.*, 2019)

The article written by Jeff Cain (2019), states about the psychological attachment to smartphones among the college students and defined it as internet and smartphone dependence. The author stated that it leads to anxiety and depression, as stated by the previous author. (Cain and Malcom, 2019) In comparison with a cross-sectional survey conducted by Sohail Ahmed (2019), defined it as fear of no mobile phones. Adding on to the complications given by the other authors, the author stated that nomophobia has a negative impact on academic performances. (Ahmed *et al.*, 2019)

Ana Galhardo in 2020 assessed nomophobia's complications through a structured questionnaire. Defined as no- mobile phone phobia. This is due to the lack of smartphones and incapability to use the internet. But the author did not mention much about the complications and treatment, hence the study needs further explanation. (Galhardo *et al.*, 2020) Mohammad Advi, (2018), gave a similar definition as the other authors, no mobile phone phobia. But did not go in detail with the clinical symptoms of nomophobia and the complications. (Bernardini, 2018) Ismail Bulent Burluz (2019), investigated the prevalence and level of nomophobia among people in Turkey. He defined it as the mobile usage dependence. Leads to social, media addiction. On comparing with other articles, the author did not specify the clinical symptoms nor the complications. (Gurbuz and Ozkan, 2020). In a similar study written by Ibrahim Arpaci (2017), defined it as a fear of no- cellular phone contact. The author stated that it is important to undergo mindfulness based therapy to reduce the addiction over smartphones and social media, to reduce various complications. (Arpaci *et al.*, 2017)

CONCLUSION:

This review is done to understand the clinical symptoms, complications and various preventive measures taken against nomophobia. From the obtained results through reviewing the shortlisted literature it can be concluded that the addiction towards cell phones and social media might lead to depression, loss of memory and anxiety. Hence it is important to reduce the usage of mobile phones by organizing educational programs to create awareness about the various risk factors of nomophobia.

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AUTHOR CONTRIBUTION:

Sl.no	AUTHOR NAME	CONTRIBUTION
1.	Aarthi	Study design, data collection, drafting manuscript.
2.	Dr.Lavanya Prathap	Study design, Revising manuscript, final approval of manuscript.
3.	Ms.Jothi Priya	Collection of reviews, drafting manuscript
4.	Dr. S Preetha	Collection of reviews.

CONFLICT OF INTEREST: Nil

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TABLE1:

CHARACTERISTICS OF INCLUDED STUDY

AUTHOR AND YEAR	LOCATION	POPULATION AND SAMPLE SIZE	DEFINITION	CLINICAL SYMPTOMS	COMPLICATION	TREATMENT	PREVENTIVE MEASURES
Mohammad Darvishi-2019	Iran	100 college students	Addiction-cell phones	No mobile phone phobia	Anxiety depression anger	Understand the pattern of phone users.	Minimize phone usage.
Azra Daei-2019	Iran	320 students	Fear of lack of access to mobile phones.	Addiction	Socio physiological illness	Educational programs , drug therapy	Educational programs
G.Jilisha	India	774 college students	Utilising smartphones	Overuse mobile phones	Anxiety, frustration	Reduce, unnecessary usage	Educate witty sufficient

							information.
Iqbal Ahmed Farooqui	India	145 students	No mobile phone phobia	Mobile phone dependence	Time money waste	Not mentioned	Not mentioned
Jeff Cain-2019	United nations	192 college students	Internet and smartphone dependence	Discomfort without phone	Anxiety	Not mentioned	Understand complications
Sohel Ahmed-2019	India	157 students	Smartphone addiction	Fear of no mobile phone	Negative impact on academic performances.	Not mentioned	Not mentioned
Ana Galhardo - 2020	Europe	500 participants	No mobile phone phobia	Fear of lack of smartphone incapable of internet	Not mentioned	Not mentioned	Psychometric properties.
Mohammad Adavi - 2018	Italy	403 participants	No mobile phone phobia	Not mentioned	Not mentioned	Not mentioned	Not mentioned.
Ismail Bulent Burluz	Turkey	400 young people	Mobile usage	Social media addiction	Not mentioned	Not mentioned	Not mentioned
Ibrahim Arpaci	Global population	450 undergraduate students	Fear of no cellular phone contact	Phobic disorder.	Feeling of discomfort, anxiety	Mindfulness based therapy	Not mentioned.