



INTERNATIONAL JOURNAL OF  
EDUCATION, PSYCHOLOGY  
AND COUNSELLING  
(IJEPC)

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IMPLICATION OF NOTICING AND CHANGING  
NOMOPHOBIA: THE PERSPECTIVE OF UNIVERSITY  
STUDENTS WITH HIGH AND MODERATE NOMOPHOBIA IN  
MALAYSIA

Khong Yun Pang<sup>1</sup>, Pei Boon Ooi<sup>2</sup>, Yee Kee Tan<sup>3</sup>, Ching Sin Siau<sup>3</sup>, Caryn Mei Hsien Chan<sup>3</sup>, Samantha Arielle Lai<sup>1</sup>, Rose Manisah Sulong<sup>4</sup>, Meng Chuan Ho<sup>5\*</sup>

<sup>1</sup> Faculty of Social Sciences and Liberal Arts, UCSI University, Kuala Lumpur, Malaysia  
Email: 1001851264@ucsiuniversity.edu.my; 1001747585@student.ucsiuniversity.edu.my

<sup>2</sup> School of Medical & Life Sciences, Sunway University, Petaling Jaya, Malaysia  
Email: peiboono@sunway.edu.my

<sup>3</sup> Centre for Community Health Studies (ReaCH), Faculty of Health Sciences, Universiti Kebangsaan Malaysia, Malaysia  
Email: p116885@siswa.ukm.edu.my; chingsin.siau@ukm.edu.my; caryn@ukm.edu.my

<sup>4</sup> Department of Foundation Studies, Faculty of Educational Studies, Universiti Putra Malaysia, Malaysia  
Email: rosemanisah@upm.edu.my

<sup>5</sup> Centre for Pre-U Studies, UCSI University (Springhill Campus), Negeri Sembilan, Malaysia  
Email: homc@ucsiuniversity.edu.my

\* Corresponding Author

**Article Info:**

**Article history:**

Received date: 27.12.2022

Revised date: 30.01.2023

Accepted date: 26.02.2023

Published date: 09.03.2023

**To cite this document:**

Pang, K. Y., Ooi, P. B., Tan, Y. K., Siau, C. S., Chan, C. M. H., Lai, S. A., Sulong, R. M., & Ho, M. C. (2023). Implication Of Noticing And Changing Nomophobia: The Perspective Of University Students With High And Moderate Nomophobia In Malaysia.

**Abstract:**

Anticipating the increasing usage of mobile phones and the internet, nomophobia emerges as a modern psychological condition for those who manifest fear in the absence of phones and the internet. The global prevalence and correlational studies have unveiled the severity of the nomophobic condition and call for the need for future research. The objectives of this study are to explore the awareness of nomophobia and the intention to change nomophobia among university students. This study will also help to establish the reception of nomophobia-based intervention among university students and the role of religion to alleviate the symptoms of nomophobia. Using purposive sampling, 15 semi-structured interviews were conducted through an online medium. Four themes were identified: 1) awareness of nomophobia, 2) thoughts on nomophobia intervention, 3) religion and nomophobia, and 4) the intention to change nomophobia. The findings indicate that there is a need to raise awareness of nomophobia, while the intention to change phone usage is guided by aspects that are outlined in the health belief model and the theory of planned behaviour. University students were found to generally perceive

*International Journal of Education,  
Psychology and Counseling*, 8 (49),  
164-176.

DOI: 10.35631/IJEPC.849012

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nomophobia intervention and religious practices positively in helping to overcome nomophobia.

**Keywords:**

Nomophobia, Intervention, Religion, Change, Awareness

## Introduction

Researchers in the clinical territory have begun to realise the relevance of technological device-manifested disorders, such as mobile phone addiction (Chóliz, 2010), nomophobia (King et al., 2010; King et al., 2013), and problematic smartphone use (Elhai et al., 2017). King and colleagues (2010) have identified a symptom that is exhibited by a patient who had the fear of not being able to communicate without the use of the phone and internet, a condition they named “nomophobia”. The term started to gain popularity in 2015, initiated by Yildirim and Correia who developed a set of validated tools (e.g., Nomophobia Questionnaire, NMP-Q) to address this problem.

The global prevalence of moderate to severe levels of nomophobia was estimated to be 70.8% of the population when 20 empirical research (e.g., Bragazzi et al., 2019; Cain & Malcom, 2019; Jilisha et al., 2019) were compiled for meta-analysis (Humood et al., 2021). Besides, a systematic review that focused on the young adult’s population found that 15.2% to 99.7% participants had nomophobia (Notara et al., 2021). In Malaysia, Saleh et al. (2020) found that 85.6% of undergraduates had moderate to severe levels of nomophobia, whereas Samsudin et al. (2021) found that 51% of undergraduates had nomophobia. These studies triggered concern for the mental health of young adults, specifically, as nomophobia was found to be associated with anxiety (Darvishi et al., 2019), depression (Adawi et al., 2019), the fear of missing out (Hamutoglu et al., 2018), and stress (Tams et al., 2018).

Anticipating the emergence of nomophobia-based intervention (Khosravi et al., 2021; Nasab et al., 2021; Torpil & Pekçetin, 2021), it is important to dive into the perspective of nomophobes with regard to their awareness of the nomophobic condition, perception of changing nomophobia, and their receptiveness toward accepting intervention. In addition, with the importance of spirituality and/or religion as an additional component in many therapies (Gladding & Crockett, 2019; Propst et al., 1992; Rajaei, 2010), there is a need to adequately understand nomophobes’ stance on the association between religion and nomophobia.

## Research Questions

This study will explore:

1. What was the awareness and perception of university students with moderate to high nomophobia toward having and changing nomophobia?
2. What was the perception of university students with moderate to high nomophobia on acceptance of an intervention for nomophobia?
3. How did university students with moderate to high nomophobia see religious belief as a method to alleviate nomophobia?

## Methodology

### Participants

Table 1 showed the participants' demographic information (see Table 1). There were 15 participants in total, 10 females and 5 males, 4 from public universities, 11 from private universities, and all of them were between the ages of 18 and 24. Using the NMP-Q (Yildirim & Correia, 2015), we differentiated the participants into a severe nomophobia subgroup (4 participants) and a moderate nomophobia subgroup (11 participants) based on a cut-off value of more than 99 (e.g., a severe level of nomophobia). The cut-off value is recommended by a systematic review study (León-Mejía et al., 2021).

**Table 1: Demographic Information (N = 15)**

Participant	Gender	University	Age	Nomophobia	Nomophobia cut-off
1	Female	Public	20	127.00	Severe
2	Female	Public	22	110.00	Severe
3	Male	Private	19	123.00	Severe
4	Female	Public	23	106.00	Severe
5	Female	Private	21	98.00	Moderate
6	Female	Private	20	80.00	Moderate
7	Male	Private	22	77.00	Moderate
8	Male	Private	21	80.00	Moderate
9	Female	Private	22	61.00	Moderate
10	Female	Private	23	77.00	Moderate
11	Male	Private	22	74.00	Moderate
12	Male	Private	22	62.00	Moderate
13	Female	Private	19	66.00	Moderate
14	Female	Private	23	94.00	Moderate
15	Female	Public	23	76.00	Moderate

### Procedures

The recruitment period started from 20th January 2021 to 20th February 2021. We used purposive sampling to recruit participants through universities' discussion platforms and forums, the participants' inclusion criteria included: 1) the need to score at least 60 points in the NMP-Q, 2) is between the age of 15 to 40, and 3) is a university student. Each participant was awarded a RM30 Touch 'n Go (TNG) voucher after the interview. Mediated semi-structured interviews with both close-ended and open-ended questions were used to ensure that the researchers could compare and contrast the difference between the participants while extracting enough insights from the participants to address the research questions (Tracy, 2019). All interviews were conducted using the Microsoft Team online platform, whereby the consent forms and information sheets were exchanged electronically. Each participant was interviewed once, which took approximately 20 to 40 minutes. The primary rationale for choosing the mediated interview was to accommodate the first wave of the COVID-19 pandemic at the start of 2021.

To address privacy issues, the interview recordings were encrypted in a secure system based on the agreement of the participants, the participants were also permitted to turn off their cameras during the interview. The recordings were transcribed verbatim and sent back to each

participant for fact-checking, which helps to triangulate the data and ensure the validity and reliability of the content (Birt et al., 2016). We used the phonetic iterative analysis (Tracy, 2019) to analyse the data, while reflexivity was ensured through the periodical discussion among the research team members. The “RQDA” R package (Huang, 2018) and R programming (R Core Team, 2021) were used to carry out coding and collaboration.

## Results

Table 2 summarises the opinions of all the participants on each theme (see Table 2). The themes that are generated from the raw data include: ‘awareness of nomophobia’, ‘thoughts on nomophobia intervention’, ‘religion and nomophobia’, and ‘intention to change nomophobia’.

**Table 2: Summary of Participants’ Opinion on Each Themes**

Participant	Nomophobia subgroup	Awareness of nomophobia	Thoughts on nomophobia intervention	Nomophobia and religion	Intention to change nomophobia
1	Severe	No for the term, but aware that phone is necessary nowadays	Not now, but will only consider if I have mental health problem	No, it is not a serious mental health problem	Yes, I do not want to over rely on my phone
2		Yes, I use phone to do important things	Not now, but will only consider if I have mental health problem	No, everyone is the same in front of phone regardless of religion	No, I will only want to change it if I feel my life is empty because of phone
3		Kind of aware because other people told me	May try for short term but not long term	Yes, it helps us to shift our attention	No, I feel nomophobia do not affect my normal life
4		Yes, nobody can live without phone	Can try, but it most likely cannot help	It will help if we hold firm on it	Yes, I tried to leave my phone out of reach previously but do not work every time
5	Moderate	Yes, cousin told me	Yes, I want to improve myself	No, I go to temple but it does not help	Yes, because I want to focus on my study and a better future
6		Not really, I don’t feel I use it too much	No, I still had control over the situation	May help but not effective	Yes, because I want to reduce procrastination and have a better lifestyle
7		No, shocked at first, but feel okay later	No, intervention cannot help but I have to depend on myself	Yes, it helps me to pay attention to something more	Yes, because there are more important things

			valuable than phone	in life other than phone
8	No, thought of myself as low nomophobia only when informed	Not now, but I will only consider if I have mental health problem	May help, it helps to shift attention	No, because I do not think it affect me
9	No, I am not dependent on phone but internet	Not now, yes only if I have a severe nomophobia	It will help if we hold firm on it	psychologically No, because nomophobia does not affect my productivity
10	Yes, I uninstalled my social media before	I want to try, see if it really can help me	Yes, it makes us spend more time with someone we love	Yes, because I am running out of time to do other important work
11	No, I do not think so	I want to try because it is a serious problem nowadays	May help a bit, but I do not know much about religion	No because I don't think I have, but if I have I will change because it will affect my future career
12	Yes, I need to have phone with me all the time	I want to try because I do not want to be the slave to the phone	Can either help or harm	Not now, I may do it in the future, but cannot think of any reasons to change now
13	Not so, especially moderate...	Not now, I will go only if feel like cannot manage	Yes, religion can foster positivity and strong mentality	Yes, because I want to have a better lifestyle and doing more positive things
14	No, I have a mindset to not use social media a lot	No, because I think it is not necessary	Yes, religion manifest a strong sense of responsibility	Yes, I do not want to over rely on my phone
15	Yes, I feel bored without using the phone	No, because I still have control but it may be useful for people who have severe symptoms	No, my understanding on my own religion tells me nothing to decrease nomophobia	Yes, I do not want to revolve my life around the phone and internet

### ***Awareness of Nomophobia***

The proposed two main questions in this section are, "Are you aware of having nomophobia/using the phone a lot?" and "What are the benefits of knowing that you have nomophobia?".

***Severe Nomophobia Subgroup***

Participants in the severe nomophobia subgroup were generally aware of themselves spending most of their time on their phones, even though not every one of them admitted to having nomophobia. They felt that the phone had fully integrated into their lives, and it carried most of the essential functions to deal with today's lives:

“These days who cannot live without their phone. I noticed this very much when I'm supposed to be studying but I cannot leave my phone for 10 minutes so it really disturbed my studying.” (P4)

“I'm actually using the phone to deal with some important and meaningful things.” (P2)

Knowing that they have nomophobia, three participants have said that it would help to shift their attention to the problem, which would help them to find ways to reduce their time on their phones.

In particular, despite their self-restraint, they will start unnecessary searches using their phone. Meanwhile, one participant suggested leaving the phone out of reach (e.g., outside the room) while doing something important that did not require a phone. Out of the four participants, one of them said that knowing herself to be nomophobic through her friends gave her mixed feelings. For instance, she felt happy that her friends cared for and loved her, but she also felt that her friends did not understand her need to use the phone:

“Now that I know that it's something which is in my life maybe I can work towards like trying to use my phone less if it's not necessary or anything like that.” (P1)

“Sometimes I take it like as a compliment that they're trying to care for me but at the same time I'm like, sometimes you (refer friends) don't understand I need this, I need to use my phone.” (P3)

***Moderate Nomophobia Subgroup***

More than half of the participants from the moderate nomophobia subgroup were not aware of having nomophobia. Among those who were aware, they became aware of it based on their sense of procrastination, being told by others, losing track of time while using their phones, having the need to keep the phone close to them all the time, and feeling bored when they were not using the phone:

“If I'm doing assignment, I really think that the time is so slow and if I'm playing with my phone, the time is like so fast.” (P6)

“When I charge my phone, I literally have no device on my hand right, so I'll be very meaningless.” (P15)

For these participants, knowing about nomophobia was more about making them aware of their behaviours, some suggested that it had prompted them to change their behaviour such as limiting their phone time to a specific period: “Currently somehow I try to like not [using] my phone during from morning to afternoon on my social media like reduce the time.” (P10)



Besides, one participant shared that he perceived himself as an expert in using the phone when he knew he had nomophobia, as quoted by him:

“I need [to] always have my phone that means, I have fully control of phone, and I have a 100[%] knowing its skills, what can it do. So, I think it is someone with nomophobia will be a really good expert on how to use the phones or how to like maybe can fix the phone even can build a phone I think.” (P11)

There was also one participant who felt that the labelling of ‘nomophobia’ had upset him.

### ***Thoughts on Nomophobia Intervention***

The interview questions that address this theme are, “If there is a specific intervention or therapy for nomophobia, will you go for it?” and “Do you think this kind of intervention will help people?”.

#### ***Severe Nomophobia Subgroup***

The participants who had severe nomophobia were generally sceptical towards the nomophobia intervention, two out of four of them had said that they might give it a try, while one said that she could only commit to a short-term intervention. Accordingly, another participant said that the intervention would most likely not be of help to her due to the impact of the recent COVID-19 pandemic which had switched many things online. Another two participants said that they would only consider going for the intervention for mental health problems:

“I will see how can it lessen this nomophobia, but then I don’t think that it will change me that much because everything is online now especially the classes online. I don’t think I can leave my phone off for long in this period of time.” (P4)

“Right now, no because I don’t think it has liked such a big impact until I need to seek for like professional help or anything, but let’s just say if like it becomes very bad then maybe if I have the opportunity.” (P1)

#### ***Moderate Nomophobia Subgroup***

Only four out of the eleven participants had said that they would like to try out the intervention, the reasons included: 1) wanting to improve oneself, 2) curious about the efficacy of the intervention, 3) perceiving nomophobia as a serious problem nowadays, and 4) do not want to be a slave of the phone. While the rest of the participants had said that they did not feel nomophobia had interfered with their lives, there were four who were receptive to the intervention when they perceived nomophobia had severely affected their mental health:

“I think with my with my current use of my phone I will not go to that [intervention] to the counselling or treatment because I think that I still have control, I still can control my mobile phone usage and I think as long as it did not impact our health or well-being, I think it’s okay and do not [go to] this [intervention], [as long as it] do not interfere with our daily life, I mean like assignment and all as long as I still can finish most of my tasks and all I think it depends on me like I’m the one who control it.” (P6)

***Religion and Nomophobia***

We proposed the question “Do you think religious belief can help to decrease nomophobia?”

***Severe Nomophobia Subgroup***

There were separate views on religion and nomophobia; Participant 1 said that nomophobia was not a serious mental health problem, therefore, it did not make sense to draw help from religious beliefs. Participant 2 said that everyone was the same in his or her usage of the phone irrespective of his or her religion, therefore, changing nomophobia depended upon oneself. The other two participants who were Christians said that religion could shift one’s attention away from the phone, especially if one held firm on one’s belief:

“I think everyone is just same in front of the phone, [or] using the phone yeah, so it’s not about the belief.” (P2)

“Definitely yes, so like for me I’m a Christian right, so like even in the Bible even like what like [the] God says, [it] is like we shouldn't focus on the world’s things too much which all these things can like really distract you.” (P3)

***Moderate Nomophobia Subgroup***

Most of the participants had a positive view of religion to help in coping with nomophobia. Typically, religion will help to shift attention, foster positivity, as well as strengthen mentality and responsibility. Notably, most of the participants had a religious background in Christianity and Islam. Participant 5 said that religion could not reduce nomophobia, as she still loved to use the phone all the time despite occasionally making a trip to the temple, while participant 15 said that religion had never taught her the idea of spending less time on the phone. Participant 12 said that religion can help to reduce nomophobia, but it can also cause harm to people, especially to those people who had difficulty balancing the choice between religion and using the phone: “I think religious belief can’t [help] me. Because I go to the temple but I am still using my phone every time. I cannot leave my phone.” (P5)

***Intention to Change Nomophobia***

The interview questions that have helped to address this theme include: “Do you want to change nomophobia?”, “Have/would you take any steps to change nomophobia?”, and “What do you think can help you to change nomophobia?”.

***Severe Nomophobia Subgroup***

Changing nomophobia was not guaranteed among severe nomophobes, participant 3 said that she had no intention to change nomophobia because it did not affect her life although it had impacted her daily work or study, social life, and family relationships. Participant 2 said that he would only consider changing if he felt his life was empty because of being engaged on the hand phone for too long. The reason for changing nomophobia was to negate being over-reliant on the phone, while participant 4 admitted that she tried to keep her phone out of reach from time to time to lessen her nomophobia, but most of the time it would not work as using the phone was crucial:

“[When to change nomophobia], when I start to feel empty in my life and my daily life feels like wasting time and then doing nothing [the] whole day, [but] only with the



phone and then couldn't even think of the whole day what I already do with my phone, [like] I just spent 20 hours on it." (P2)

### ***Moderate Nomophobia Subgroup***

Most of the participants with moderate nomophobia would have the intention to change nomophobia, the reasons to change nomophobia include: 1) wanting to develop a better future, 2) rebuilding a better lifestyle, 3) do not want to rely too much on phone, and 4) focusing on the present work. Most of the participants who had expressed no intention to change were because nomophobia did not influence their life or they were not aware of having nomophobia: "No, I think like because I don't think I have nomophobia. But if I have nomophobia I may change. Yes because people who always focus on the phone, I think they cannot do anything that [make them] success." (P11)

### **Discussion**

The present finding suggests that individuals who are aware of nomophobia can help themselves to better understand their behaviour and plan to change it; this is especially relevant among individuals who have severe nomophobia. This indicates that the awareness of having nomophobia has prepared them to change and get them into the contemplation stage in the transtheoretical model (Prochaska & DiClemente, 1984). However, the community will need to be careful with the condition labelling of 'nomophobia', as it can generate a negative feeling of self-perception and distrust towards clinicians and researchers, which is rather detrimental as nomophobia has become a norm among the young adult population (Humood et al., 2021). Therefore, condition labelling can create identity crises and status imbalances among young adults.

The majority of the participants from this study rejected undergoing a nomophobia intervention based on their current condition. It was believed that perceived severity and perceived benefits (Strecher et al., 1997) played big roles in their intention to seek treatment, as most thought that they could manage the condition on their own accord. As suggested by Rickwood et al. (2007), the participant may see the decreasing of nomophobic symptoms as dependent upon oneself rather than seeking help from mental health professionals. Besides, nomophobia could appear as a misnomer (Griffiths, 2018), as most participants stated that they did not feel nomophobia had a profound effect on their mental health and lives. Perhaps, the increasing usage of the phone was meant for the current changing of life paradigm, as most daily activities nowadays were integrated into the online medium, a notable influence is the emergence of the COVID-19 pandemic (Abbruzzese et al., 2020).

Religions were found to serve as a great protective factor against psychological distress, as such researchers and clinicians should consider religious practices as one of the modern therapies (AbdAleati et al., 2016; Levin, 2010). Most participants saw the positive light of religious belief to combat nomophobia, as it instilled positivity and physical connection among people. Interestingly, while religion was found to be positively associated with two dimensions of nomophobia (e.g., giving up convenience or losing connectedness and not being able to communicate) it was negatively associated with "not being able to access information" (Bragazzi et al., 2019). Zakiye et al. (2019) suggested that spiritual well-being was mediating the relationship between nomophobia and loneliness. This was aligned with the participants' view that religion may help to shift the attention of the participants from the phone to other aspects of their lives, hence, decreasing both nomophobia and the sense of loneliness.

The participants had a mixed view of changing nomophobia regardless of the severity of their condition. The intention of changing can be further elaborated by the Health Belief Model (Strecher et al., 1997) and the Theory of Planned Behaviour (Ajzen, 1991). The former highlighted that perceived susceptibility, perceived severity, perceived benefits, perceived barriers, cues to action, and self-efficacy were the pillars to enforce the willingness to change the behaviour, while the latter highlighted attitude, subjective norm, and perceived behavioural control. Most of the participants had rejected changing because they perceived that the symptoms of nomophobia did not cause severe damage to their mental health and hence did not feel themselves to be vulnerable to the condition; some even suggested that they had control over the nomophobic condition. In addition, they perceived no reason to change and thus the lack of awareness could serve as a barrier to changing nomophobia. For those who want to change nomophobia, there was a perceived benefit of wanting to have a better future and lifestyle. Similarly, there was a participant who had acted on her own accord to reduce nomophobia.

This study has a few implications. As elucidated, there is a need to educate students on nomophobia as the lack of its awareness is prevalently indicated in the sample. Moreover, by raising their awareness students can reconsider their approach in the way they are using their phones; although nomophobia may not imply serious consequences on the users' mental health, it helps them to set up self-boundaries regarding the usage of phones. The nomophobia-based intervention was found to be welcomed by the university students, especially when they perceived that their nomophobic condition is severe and is out of control, significantly, some have expressed the willingness to give it a 'try' when the opportunity arises. In addition, religion was found to be helpful in general, thus it may be of help for populations who are highly religious. Therefore, clinicians and researchers are encouraged to build their intervention to address the severity of the nomophobic condition, the benefit of going for the intervention, and to consider adding religious practices to the intervention. The nomophobes' intention to change nomophobia is centred and elaborated by both the Health Belief Model and the Theory of Planned Behaviour; therefore, it is highly recommended that future studies incorporate either of the above theories into their intervention on nomophobia.

### ***Limitations***

The participants of this study comprised Malaysian university students only. Therefore, the results may not be transferable to other populations and people from other regions in Malaysia. Moreover, this study was conducted in the middle of the COVID-19 pandemic; therefore, internet and phone usage were expected to increase exponentially during this period. As such, the result may not be transferable to the post-pandemic scenario.

### ***Conclusion***

The findings from this study help to gain insight into university students who have severe and moderate nomophobia pertaining to their awareness level of the nomophobic condition. The participants exemplified awareness of their nomophobia but were hesitant to use the label on themselves. There was a low motivation to change their nomophobic behaviour due to perceiving that having nomophobic symptoms is not a detrimental aspect of their lives and may even be a norm.

**Acknowledgements**

We would like to thank all our participants.

**Conflicts of Interest**

No potential conflict of interest was reported by the authors.

**Funding**

This study is supported by the UCSI Research Excellence & Innovative Grant (REIG). The approval code [REIG-FOSSLA-2020-047].

**Ethics Approval**

The study was conducted in accordance with the Declaration of Helsinki and the ethics approval was obtained from the UCSI Institutional Ethics Committee (IEC-2020-FOSSLA-053).

**Informed Consent Statement**

Informed consent was obtained from all subjects involved in the study.

**Data Availability Statement**

The data that support the findings of this study are available from the corresponding author upon reasonable request.

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