

Determinants of Phubbing Behaviour Among Youth: A Systematic Literature Review

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ABSTRACT

With the rapid development of smartphones in the market, “phubbing” which is an act of ignoring others because of a deepened focus on such electronic devices rather than establishing conversations has become more pertinent. The phenomenon of phubbing among youth is a result of their desire for up-to-date information or news particularly during their studies. The present average daily smartphone usage ranges from two to ten hours among youth. Smartphones have enabled people to communicate with others from literally anywhere and anytime. However, there is growing concern that smartphones may reduce social connections rather than enhance them. This article examined the determinants of phubbing among youth and explains the determinants that link to phubbing. In this study, a systematic review was used as a research method. This article examined and compiled data from 15 research works databases namely Scopus and Google Scholar on the topic of how the impact of mobile phone addiction and depression among youth are related to phubbing. Based on the thematic analysis conducted, this review produced four themes namely: 1) smartphone addiction; 2) internet addiction; 3) fear of missing out (FOMO); and 4) Nomophobia. The findings explained that the average early identification of the consequences helps to improve the psychological well-being of the youth on how to improve relationships among others when having a conversation, being present and actively listening, being a model of healthier behaviour, and being understanding towards each other. The present findings suggest that phubbing is an important factor in modern communications that warrants further investigation.

Keywords: *FOMO, internet, nomophobia, phubbing, systematic literature review.*

INTRODUCTION

According to recent Statista (2023a), the average daily time spent on mobile Internet is expected to increase from 32 minutes in 2017 to 155 minutes in 2021. This figure shows that smartphones, social networking sites, and other Internet platforms are widely used in our daily human lives. Social media differs from traditional media as some social media platforms currently have over 100 million active users, including TikTok, Facebook, Instagram, WeChat, and X (formerly known as Twitter). Aside from traditional media, there are television, newspapers, and radio broadcasting. Social media is more convenient, high-quality, and long-lasting compared to traditional media. Social media has become a vital part of our lives as technologies grow more

prevalent, particularly among youths (Kemp, 2019). Multifunctional smartphone apps and persistent Internet connectivity have been identified as important factors contributing to increased, and even excessive, use of social media sites (Chotpitayasunondh & Douglas, 2016) which can become compulsive or problematic if not moderated (Chai et al., 2019).

Despite technological advancement, researchers have recently expressed concern about smartphones' possible negative impact on youth's psychological and physical health, as well as their social relationships with other people. The emergence of phubbing is considered as a new harmful behaviour and is linked to the increased popularity of using smartphones. According to the studies by Nazir (2017), it is found that phubbing is a modern form of social snubbing in which a person excludes another person during a social interaction by concentrating on their smartphones rather than engaging in conversation. This behaviour shows the actual harmful effects of poor communication, which jeopardise interpersonal relationships and personal well-being.

Primasari (2018) stated that phubbing is merely an unpleasant feeling of discomfort in crowded environmental conditions however, the situation has changed. Phubbing occurs during human beings' daily activities, meals, meetings, lectures, or social gatherings with family and friends. Millennials are currently phubbing in most conditions and locations. "Phubbers" (those who phub) frequently ignore and neglect the necessity of establishing and growing connections by refusing to communicate with others (Bajwa et. al., 2021). The study showed by Savci and Aysan (2017) found that the group most prone to smartphone or Internet addiction are young people and teenagers; hence, research has focused on studying young people to the exclusion of other age groups.

According to Chotpitayasunondh and Douglas (2016) with Karadağ et al. (2015) phubbing also can be associated with mobile phone addiction. Mobile phone addiction increases with the amount of time youth spend accessing the Internet. Sometimes, this addiction reaches pandemic proportions, and they begin using mobile phones even when they are prohibited. Furthermore, it has been discovered that when users disconnect from their telephones, they experience anxiety, deficiency, disorder, stress, and fear. Such cases are becoming more common, indicating that phubbing has a strong connection to mobile phone addiction and leads to depression.

Excessive use of technology can lead to addiction. Social media networking applications and websites could be one of the many causes of mobile phone addiction. Social media encourages young people to stay online by allowing for the sharing of information, gaining followers, and customer engagement through information exchange, and multimedia sharing (Zhao et al., 2021; Diotaiuti et al., 2022). Furthermore, social media is not the only determinant that leads to mobile phone addiction among youth rather than messaging service apps such as WhatsApp are among the topmost sides that fetches the attention of the youth (Statista, 2023b).

A youth's excessive Internet use is considered to be at a critical level when it interferes with the management of their social activities and has a negative effect such as a decline in academic performance, an excessive restriction of their outside activities, arguing with their parents and friends (Baturay & Toker, 2019). When this incident occurs, the youth continue to use the Internet in large quantities despite the potential negative effects, a phenomenon known as "harmful consumption," in addition to several other activities and interests that are neglected despite being consciously perceived as important (Tokunaga, 2017). For policymakers to

implement strict laws to stop this kind of behaviour, particularly in formal settings, it is necessary to investigate the impact of the phubbing phenomenon in more detail.

According to Hu et al. (2021), it was stated that dependence on these gadgets is a new type of technology addiction that results from people's interactions with these mobile impacts of digital dependence syndrome technologies (Galhardo et al., 2020; Yildirim & Correia, 2015). Further to this, "nomophobia" that refers to behaviours or symptoms that are related to excessive mobile phone use (Kaviani et al., 2020, & King et al., 2020) was cited by researchers that further deliberation that addiction and excessive smartphone use were the root causes of nomophobia disorders. Situations such as the inability of making contact with others, lacking connection with online identities and social media, as well as the inability to access information and perform searches via smartphone, are all linked (Yildirim & Correia, 2015).

METHODOLOGY

This section starts with the researcher explaining the beginning of the section by using the Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA). The researcher then evaluates how systematic searching strategies (identification, screening, and eligibility), quality assessment, data extraction, and analysis are executed.

Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA)

PRISMA was used as the publication standard for this systematic review. PRISMA directs researchers in developing research questions that enable systematic research, in the determination of inclusion and exclusion criteria, and attempts to analyse the substantial body of scientific literature over a specific time frame (McKenzie et al., 2021). On top of that, PRISMA guided the researcher to perform meticulous searches on the terms related to the key determinants of phubbing and investigate the determinants of mobile phone addiction and depression that contributed to this behaviour among youth.

(a) Identification

Identification is a procedure used to improve the primary search terms. This is crucial since the identifying procedure enhances the likelihood that more relevant articles will be found for the review (Shaffril et. al, 2021). The researchers are putting an effort into looking and finding related synonyms by using online thesaurus, searching keywords from previous studies, and keywords recommended by databases, and seeking the advice of experts. As shown in Table 1, the search functions used to combine the enhanced keywords included Boolean Operators, phrase searching, truncation, wild cards, and field code functions.

Selected databases were used during the search phases namely Scopus, WOS and Google Scholar. The researchers additionally used Boolean Operators and whenever suitable based on the searching approaches to find any similar articles. To begin the review, a preliminary search on Google Scholar used the keyword string for "phubbing". This was done to determine the optimal keyword combinations for a thorough database search. The search retrieved 170 documents; where top 120 were selected to identify other frequently used terms that could match the original search string from the last 10 years (Khanra & Joseph, 2019). Next, the researchers also performed manual searching and selected relevant articles. During this process,

30 potential articles were identified because they were up to the last five years and 15 were later discarded, resulting in 15 articles being included in these analyses.

Table 1: The search string used for the systematic review process

Databases	Keywords Used
Scopus	TITLES-ABS-KEY ((*phubbing* AND *youth* OR *impact phubbing youth* AND *Mobile Phone* AND *addiction* AND *Youth* AND *Depression* OR *Depress* OR *adolescent* AND *Internet Addict* OR *Internet Addiction Youth* AND *Nomo* OR *Fear Missing Out* OR *Missing Out* AND *Phubber* OR *Phubbing* OR *Implications*
Google Scholar	Main searching items – where all is found in the title of the articles. Secondary searching terms.

(b) Screening

In this step, the researchers effectively screened the 120 articles selected using the identifying process, and 30 articles were removed. Several criteria have been considered which consist of language, year of publication, and literature type. Since the primary data are essential for the systematic review study, journal articles have been used as the primary data for this review. The researchers mostly referred to articles written in English because it was easier to comprehend and grasp the articles’ contents (Kraus et al., 2020). To include a sufficient number of articles in the review, the study chose seven years which are the articles published between 2015 and 2023 to perform a systematic literature review.

Table 2: The inclusion and exclusion criteria

Criterion	Eligibility	Exclusion
Language	English	Non-English
Timeline	Between 2015 and 2023	2014 and earlier
Literature Type	Journal (research articles)	Book series, conference, proceeding, Journals (systematic review) and chapter in the book

(c) Eligibility

The last stage of the systematic literature review method in this study is through eligibility. All the remaining 40 articles from the screening process were checked again to ensure they met the criteria that had been required. By using the titles and abstract as guidance, the paper was evaluated to see if they were suitable enough for review purposes. If the researchers choose to look at the contents and chosen articles and are still unsure regarding the contents, the researcher opted to exclude the articles from being selected. After careful consideration, a total of 25 articles or publications were removed because either the articles published before 2015 or did not specifically address the phubbing topic that had been discussed. The remaining 15 articles were ready for appraisal for quality (see Figure 1).

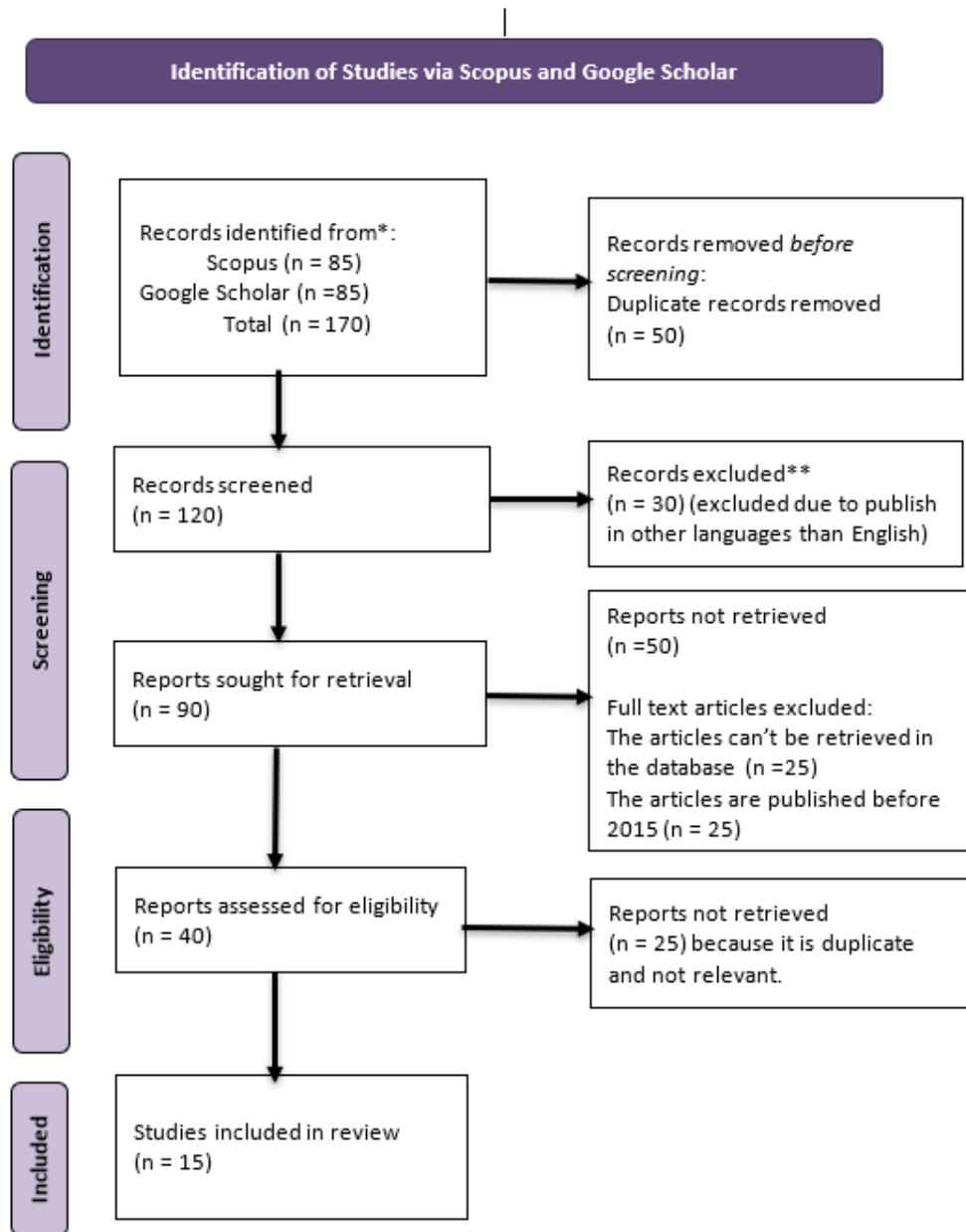


Figure 1: The flow diagram for searching databases and obtaining publications for systematic reviews.
 Source: Modified from Moher et al. (2010)

RESULTS AND DISCUSSION

Results of Selected Studies

This study examined 15 selected articles that are relevant to the scope of the research. Based on the thematic analysis, some findings contributed to the determinants of phubbing behaviour among youth. There is smartphone addiction, internet addiction, fear of missing out, dependence on phones, or nomophobia. An examination of the articles found that seven studies used the quantitative method approach, four articles used a qualitative approach, and the rest of the articles used a mixed method approach.

Table 3: Table of findings

No	Studies/Region	Years	Determinants of Phubbing
1.	Ivanova et al. (Ukraine)	2020	SM and NP
2.	Han et al. (Korea)	2022	SM
3.	Ang et al. (Malaysia)	2019	SM, I, FoMO
4.	Tekkam et al. (India)	2020	SM, I, NP
5.	Chotpitayasunondh & Douglas (Thailand)	2016	SM, I, FoMO, NP
6.	Sanjeev et al. (Poland, Germany)	2018	SM, FoMO, NP
7.	Diotaiuti et al. (Italy)	2022	SM and
8.	Basu & Mukherjee (India)	2021	SM, I, FoMO
9.	Mentes et al. (Italy)	2022	I, FoMO, NP
10.	Lo et al. (United States)	2023	SM, I, FoMO, NP
11.	Etchezahar et al. (Argentina)	2023	I and FoMO
12.	Hong et al. (United States)	2019	SM, FoMO
13.	Aagard (United Kingdom)	2020	SM, I
14.	Bajwa et al. (Malaysia)	2023	SM, I, FoMO, NP
15.	Al-Saggaf et al. (Australia)	2019	SM, I, FoMO

Note: Smartphone (SM), Internet (I), Fear of Missing Out (FoMO), Nomophobia (NP)

a. Smartphone Addiction and Phubbing Behaviour

Phubbing is an effect of a disturbance that results from several kinds of youth addiction to their smartphone application (Davey et al., 2018). Youth are becoming more attached to their smartphones, and web-based platforms and online services based on mobile phones should quickly develop a way to fight the addiction, profiling the user according to these factors to assess their phubbing-related risk. The psychological aspect is related to ongoing explanations of the cell phone (Karadağ et al., 2015). The anxious desire to know about mobile phone updates causes anxiety, which leads to frequent mobile phone checking. The behavioural component includes maintaining a close connection with the cell phone and keeping an ongoing eye on the electronic device.

Smartphone addiction is a behavioural addiction that has four components: compulsive smartphone use, tolerance (characterised as a person's decreased sensitivity to an addictive chemical or stimuli as a result of repeated use), withdrawal, and functional impairment (Yang et al., 2024). Researchers discovered that both phubbing and smartphone addiction decrease people's social functioning. According to previous research, during the COVID-19 outbreak, youth especially in higher education were required to keep a social distance and only have access to information about the disease via smartphones. This has unintentionally increased the time and frequency spent on the device. As a result, many people felt isolated and abandoned, making it difficult to socialise and form strong connections with others. When the movement restrictions on students were lifted, and society entered the endemic phase, undesirable behaviours such as phubbing started to develop.

According to Nand et al. (2020), smartphone use significantly impacts how higher education students behave in social and academic settings. Furthermore, youth in the academic level frequently utilise smartphones for educational purposes (Nand et al., 2020). Researchers have recently expressed concern about smartphones' potential harmful effects on students' psychological and physical health, as well as the quality of their relationships with others, despite the gadgets' benefits (Hazita et al., 2014). Excessive smartphone use has been linked to attention

deficit hyperactivity disorder and focus difficulties among youths. Nonetheless, the role of phubbing in these symptoms is largely unknown. In Malaysia, smartphone use disorder among higher education students is increasing, indicating the likelihood of phubbing among Malaysian youth (Bajwa et al., 2021). Furthermore, even in this day and age of e-learning, only a small proportion of students utilise smartphones to supplement their studies. The significant majority of them use smartphones for personal communication, implying that phubbing may have several predicted or connected characteristics.

Additionally, a study on the detoxification of digital time (Ugur & Koc, 2015) demonstrates a link between the overuse of smartphone addiction and phubbing. With technological advancements, the youth now have an extensive variety of platforms of e-communication tools at their fingertips. According to (Zhao et al., 2021; Diotaiuti et al., 2022) youth are found to own mobile phones and use them for learning purposes such as looking for information from the Internet and personal reasons. Recent research suggests that these phenomena may have an impact on youth at higher education levels. Students' academic achievements, particularly those who engage in smartphone activities in class (Dontre, 2021). According to Fernández-Andújar et al. (2022), phubbing can lead to psychological distress, loneliness, depression, insecurity, hopelessness, low self-esteem, somatization, and alexithymia. Such mental anguish may be associated with poor academic achievement, connections with others, social identity, and relationships with family members (Yang et al., 2024).

When communication disruption occurs, mobile phone addiction causes signs of depression. Previous research has found that disregarding the interlocutor(s) by utilising a smartphone in their presence could increase the feeling of separation from the social environment (Karadağ et. al, 2016). Furthermore, recent studies by (Bajwa et al., 2023) found several definitions associated with mobile phone addiction with four elements: compulsive smartphone usage, tolerance, withdrawal, and functional impairment. The researchers also stated that both phubbing and social media addiction Inter. The findings are consistent with previous study findings: there is a positive correlation between mobile phone dependence and phubbing behaviour that occurs among them (Wang et al., 2022).

b. Internet Addiction and Phubbing

Information and Communication Technologies (ICT) enable quick information transfer, the construction of non-physical bonds, and the generation of knowledge. Frequent use of the Internet will become a potentially dangerous activity for individuals (Gedam et. al, 2016). As a result, obsessive Internet use, cyber addiction, and Internet addiction arise. Impulsiveness is one of the personality qualities that has been identified to be most inclined to developing Internet addiction (Roberts et. al, 2021; Siddiqui & Ali, 2015). High impulsiveness has been associated with difficulty in focus (Liu et al., 2020), hopelessness, and anxiety (Whitetaker et al., 2020) in youth especially among university students. More specifically, impulsiveness is linked to concentration problems because phones give a large number of activities that relieve boredom or irritability (Levpuscek, M. P. & Cukon, M., 2022). Similarly, while some research shows that using ICTs promotes academic engagement (Fook et al., 2021) others show that students with Internet addiction and phubbing have considerably lower academic success (Elbilgahy et. al, 2021).

During the previous decade, the frequency and duration of internet use have increased dramatically (Dong, Lu, Zhou, & Zhao, 2011; Smahel, Brown, & Blinka, 2012), and the increased duration of computer usage has gained prominence. During the previous decade, the frequency and duration of internet use have increased dramatically (Smahel, Brown, & Blinka, 2012), and the increased duration of computer usage has gained significance. Most research can be split into two categories based on their understanding of internet addiction. First, some researchers believe that this type of addiction is a new type of disorder, while the second group of researchers attempted to understand internet usage contents such as online gaming, social media, or pornography, which are associated with excessive use of the Internet (Yellowlees & Marks, 2007).

In line with previous research, it highlights the relevance of exploring the number of hours spent on mobile phones and the presence of clinical symptomatology as predictors of internet addiction in youths (Duan et al., 2021). Furthermore, a lack of self-control has been highlighted in other studies, in which both the number of hours spent, compulsive behaviour towards the smartphone, and other demographic and psychological variables such as isolation, depression, and attitudes towards the academic area may act as predictors of internet addiction and phubbing (Billieux et al., 2008; De Cock et al., 2014; Roberts et al., 2015). Furthermore, in samples from other countries, such as Turkey and Spanish university students, it has been revealed that internet addiction increases students' depressive and anxiogenic states and diminishes their ability for self-control (Duan et al., 2021).

Previous findings are consistent with earlier studies, indicating that internet addiction interferes with the attention-related processes required to read or follow a class, and impedes youth's time management, and hence academic performance (Dalbudak et al., 2017). This is an emotional investment that has physical (e.g., sleep deprivation) and psychological consequences (Mahapatra, S., 2019) lowering their quality of life (Chotpitayasunondh & Douglas, 2018). This study investigated an intriguing new line of research into the fact that youth who see themselves as more competent can allocate attentional resources to several things during their classes, such as checking their mobile devices using the internet while studying, and so on.

According to studies by Nesbit and Bourne, (2018) found that some of the cognitive processes damaged by Internet addiction and phubbing include attentional processes because they involve youth in multitasking situations such as texting and social networking at the same time and are the most destructive to academic enhancements and lead to increased cognitive fatigue. In addition, poor time management and planning, procrastination, and less effective commitment will lead to the poor achievement of learning goals (Tian et. al, 2021) are other consequences of cognitive processes. It has even been claimed that poor academic achievement, combined with other characteristics such as difficulty with self-regulation, could be a significant contributing factor in the development of Internet addiction and phubbing (Mahapatra, 2019).

Kraut et al. (2017) identified the following potential reasons for depression in the context of Internet addiction. Internet use harms well-being, increasing the possibility of Internet addiction leading to depression; similarly, when interpersonal interactions are considered, phubbing indirectly increases depression symptoms by decreasing relationship satisfaction and life satisfaction (Ergün et. al, 2020). Partner phubbing indirectly contributes to depression by decreasing relationship satisfaction (Siddiqui et. al, 2015).

c. Fear of Missing Out as Determinants of Phubbing

Excessive use of social media might trigger problems. Several research has looked into problematic social media use. The literature is still debating the distinctions between problematic social media use and potential social media behavioural addiction. In the studies that explore the nature of phubbing, social comparison orientation and fear of missing out (FoMO) can be taken into account due to their connection with social media addiction and phubbing. According to the Social Comparison Theory or Compensatory Internet Use explains how people learn about themselves by comparing themselves to others. FoMO is characterised as a condition caused by a lack of psychological demands (competence, relatedness, autonomy), all of which are essential components of self-determination (Zhou, 2019).

With the rise of mobile socialisation, FoMO has arisen as an urgent concern. Previous research has found a strong relationship between FoMO and depressed symptoms, but the underlying psychological mechanisms remain unclear. Furthermore, little study has been conducted on this topic in the context of mobile social media, namely MSM-related FoMO and phubbing behaviour among youths. As a diffuse anxiety, MSM-related FoMO is more likely to lead to problematic smartphone use, such as phubbing, which are unquestionably risk factors for depressive symptoms. Furthermore, individuals' FoMO and phubbing may have a significant impact on their regular social functioning and interpersonal connections, resulting in social exclusion.

The findings found a positive link between MSM-related FoMO and depressed symptoms, comparable with previous cross-sectional studies (Elhai et al., 2020). There are various possible causes for these findings. FoMO may impede an individual's good metacognitive functioning (Baker et al., 2016) resulting in the development of social media addiction. At the affective level, increased FoMO may cause a diffuse anxiety state, which is more likely to elicit negative feelings among individuals such as anxiety and depression (Casale et al., 2018). FoMO may cause individuals to engage in inappropriate behaviours such as problematic use of mobile phones (Elhai et al., 2017) excessive alcohol consumption (Riordan et al., 2015), and poor sleep (Scott & Woods, 2018). Thus, it is obvious that FoMO harms youth's cognition, mood, and daily behaviours, which is likely to worsen depressive symptoms.

According to (Przybylski et al., 2013; Zhou, 2019) FoMO can be characterised as a condition of uncertainty caused by a lack of psychological requirements (competence, relatedness, and autonomy), which are necessary for self-determination. In addition, there is literature that examines the relationship between the following: (a) FoMO associated with the need for the relationship (Conlin et al., 2016; Dogan, 2019), (b) psychological deficits such as loneliness (Alt, 2018) and depression (Wegmann et al., 2017) that induce FoMO and motivate excessive social media engagement (Dhir et al., 2018; Reer et al., 2019; Yin et al., 2019) and (c) the relationships with rapid usage of digital technology to keep up with the fast-paced life which can lead to permanent state of being online (Coskun & Muslu, 2019; Zhou, 2019).

Individual characteristics and personality features may influence FoMO, according to seminal literature (Przybylski et al., 2013). Scholars conducted empirical studies on individual differences (divided into two categories: age and gender). Appel et al. (2019) investigated age and gender disparities in the relationship between FoMO and an individual's participation in virtual social interactions while strolling in metropolitan locations. They discovered that FoMO

can cause distracted walking; this association was adversely connected with age but unrelated to gender. Servidio (2019) and Milyavskaya et al. (2018) discovered comparable absences of gender differences in FoMO in their research. Oberst et al. (2017) discovered significant gender disparities in people's experiences of FoMO and highlighted a lack of gender-specific research on the topic. According to Milyavskaya et al. (2018) and Yin et al. (2015), FoMO is directly associated with an individual's emotions and mood. Individual differences in psychological features, according to Reer et al. (2019), contribute to the development of FoMO, but Casale et al. (2018) argue that FoMO should be considered a state of metacognitive awareness.

According to Wolniewicz et al. (2018), FoMO has a mediating effect on the connection between fear of judgement and problematic smartphone use. Oberst et al. (2017) discovered that FoMO mediates psychopathology and the harmful effects of using mobile phones to access social media platforms. According to the studies by Chai et al. (2019) discovered that FoMO moderated the effect of social overload on social media use and well-being. Franchina et al. (2018) in their study stated that young people suffering from advanced FoMO may use an increased number of social media sites and experience anxiety as a result of problematic use. Fuster et al. (2017) proposed FoMO as a motivator for social media involvement, while Dempsey et al. (2019) discovered it to predict the severity of Facebook use. In addition to this research, Franchina et al. (2018) proposed that FoMO plays a greater influence in promoting the usage of private social media platforms such as Facebook than public channels example is X (previously known as Twitter).

A recent study proposed that FoMO could be a more complex construct that refers to a specific cognition, such as an online fear of missing out, rather than a single phenomenon (Oberst et al. 2017). As a result, they viewed FoMO as a complex structure that included dispositional trait FoMO, a stable individual characteristic, and state FoMO, a FoMO of digital content and interactions with others (Wegmann et al. 2017). Lastly, FoMO has been associated with an increase in sleep-related disorders (Milyavskaya et al., 2018), depression, and stress (Barber & Santuzzi, 2017), particularly among youths (Scott & Woods, 2018; Woods & Scott, 2016). According to the studies, FoMO is a societal and public health concern that can have an influence on both physiological and mental health at the community level (Scott et al., 2019; Talwar et al., 2019). Our study emphasises the importance of promoting awareness about the severe effects on society.

d. Dependence on Smartphone and Nomophobia

Since smartphones offer a variety of functionalities that can serve multiple purposes, these devices have become vital in people's daily lives (Kim et al., 2017; Yildirim & Correia, 2015). An individual can take them wherever they go because of their portability and easy to perform several functions. The diverse applications of these devices provide numerous benefits in human life, including social inclusion, quick access to information, instant phone and text messaging communication, and the use of applications linked to communication, health, education, and finance makes people's lives easier (Masadeh, 2021).

King et al. (2014) defines nomophobia as behaviours or symptoms associated with excessive smartphone use (Kaviani et al., 2020). They expand on this issue, claiming that nomophobia disorder is caused by smartphone addiction and misuse. Yildirim and Correia (2015)

identify four dimensions: difficulty in communicating, lack of connection, inability to obtain information, and loss of convenience. The term inability to communicate relates to a lack of immediate communication and access to services, resulting in a sense of being unable to contact or be reached by others. Loss of connection refers to the loss of connectivity and detachment from one's online identity and social media. The dimension of difficulty to access information indicates the incapacity to retrieve information or conduct searches on the smartphone. Finally, the dimension of loss of convenience refers to the experience of being unable to use smartphones conveniently.

Several studies have been developed regarding factors associated with smartphone addiction and nomophobia. Nomophobia has been associated with factors such as loneliness (Kim et al., 2017), anxiety (Essel et al., 2021), and depression (Kim & Koh, 2018). Some studies addressed reactions to the excessive use of smartphones and users' productivity due to frequent interruptions (Duke & Montag, 2017). In addition, young people are the public that most use these devices (Gurbuz & Ozkan, 2020). Thus, age has been considered an essential factor in the dependence on these devices (Galhardo et al., 2020).

Cho and Lee (2017) found that the concerns regarding the rising use of smartphones in youth have become more popular. As a result, academics and researchers have created studies to comprehend this phenomenon. Hu et al. (2021) claimed that dependence on mobile devices has resulted in a new type of technological addiction, which is an outcome of the relationship between individuals and these mobile devices (Galhardo et al., 2020). Thus, the excessive use of mobile devices has negative adverse effects on youth's daily lives as well as their physical and mental health (Kim & Koh, 2018). In addition, the public that uses these devices the most is young people (Gurbuz & Ozkan, 2020).

Youths with technology-dependent behavioural disorders are acknowledged as representing a risk to others. Although the primary causative component is unknown, research indicates that they play a correlation, mediator-moderator impact, or predictive role. Studies have established a link between nomophobia and phubbing (Alt, 2018). Although the relationship between netless phobia and these technology-dependent behavioural disorders has not been extensively investigated in the literature, one study discovered a link between nomophobia, FOMO, and phubbing (Rogers et al., 2019). The relationship between anxiety and the internet is crucial, as anxiety is a key factor in the development of behavioural disorders (Pawanteh et al., 2009).

Smartphones and internet access are essential for staying up-to-date with developments. The loss of connections and detachment from online identities and social media are related to the loss of connectivity (Ergün et al., 2023). Inability to communicate refers to the experience of losing instant communication and the incapacity to use services, as well as the feeling of being unable to contact or be reached by others. The inability to find and retrieve information using a smartphone. Finally, the concept of loss of convenience refers to the experience of not being able to use smartphones conveniently.

CONCLUSION

The systematic literature review has its own main limitations. First, the search for relevant studies was restricted to three digital databases which are Scopus, WoS and Google Scholar. Second, this

paper looked solely at empirical papers published in peer-reviewed international publications. Future papers should incorporate results from new databases as well as works that have not been published in journals. The current study did not take into account practitioner publications or trade papers that discussed this behaviour. More practice-oriented research might benefit specific interventions aimed at curbing this pattern of behaviour. Despite these constraints, the current study provides an organised, comprehensive, and cutting-edge knowledge structure for this behaviour by incorporating data from the articles. The following research framework could serve as a valuable reference for future studies on phubbing behaviour.

The millennial generation's ignoring habit is particularly disturbing for the growth of Malaysia's golden generation. This practice prevents millennials from realizing their full potential and increases their risk of developing mental diseases known as phubbing. Nevertheless, the findings could be used in addition to the primary prevention technique. Indeed, future online services should strive to prevent the emergence of psychologically dangerous issues among teenagers and adolescents, such as phubbing, and, as a result, promote well-being among Internet users.

On the one hand, a more complete picture of phubbing antecedents could be extremely useful in assessing users' prospective phubbing risk and, as a result, adapting service-user interactions via cell phones. Our findings, however, could be used to specialize mobile phone settings to assist with limiting the pervasiveness of ICTs for potential phubbers, such as efficiently reducing the duration and frequency of smartphone alerts. The usage of smartphones during face-to-face encounters may be troublesome and bring negative behaviour among youth.

The main objective of this study was to perform a comprehensive evaluation of studies on the factors that influence phubbing behaviour among youths in Malaysia. This study indicates there is a need to create awareness about the benefits of healthy Internet use to prevent the negative impacts of phubbing on psychological distress among youths while also improving their well-being and interpersonal relationships among others. In a nutshell, this study has improved the community's understanding of the predictors of phubbing behaviour and may be useful in developing future intervention programs to eliminate this behaviour. This study can help future researchers better understand the predictive effects of phubbing behaviour in future research investigations.

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