

REVIEW

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Phubbing in the digital age: Understanding and mitigating the impact on social interactions and relationships

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- Phubbing as a Modern Social Disruption.
- Factors intertwine with social norms and compulsive digital engagement in reinforcing Phubbing behaviour.
- The negative impact of phubbing on emotional well-being and social trust.

Abstract

Phubbing, the act of ignoring someone in favor of engaging with a smartphone, has become a significant issue in contemporary society, affecting communication and relationships across various social contexts. This article comprehensively explores phubbing, beginning with its historical evolution and early definitions. It examines the different types of phubbing, including its occurrence in romantic relationships, workplaces, and family settings. The review systematically synthesizes a decade of literature (2014–2024) sourced from databases such as Web of Science, Scopus, TR Dizin, and thesis repositories. Approximately 145 relevant studies were reviewed, emphasizing key subtypes of phubbing and their impact on interpersonal communication. Psychological and social predictors such as personality traits and social media addiction are analyzed, alongside major theories including Social Exchange Theory and Technological Determinism. Strategies for mitigating phubbing are also proposed, aiming to foster healthier relationships with technology and enhance face-to-face interaction.

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1. Introduction

Over the past decade, smartphone technology has advanced unprecedentedly, eclipsing computers and laptops by integrating personal computer functionalities into a compact, touch-based device. With faster internet speeds, smartphones have seamlessly adapted to various aspects of daily life, including shopping, banking, traveling, reading, and socializing. They have effectively consolidated diverse tools—wristwatches, calculators, maps, measurement instruments, health monitors, and even letter-writing utilities—into an indispensable device. This convenience has made smartphone disengagement nearly impossible, rendering them essential in modern life (Hitcham et al., 2023). By 2023, it was estimated that 86.11% of the global population, or approximately 6.92 billion people, owned a smartphone (Statista, 2023).

As smartphones become increasingly integrated into our daily lives, they offer numerous conveniences but also present serious challenges to both physical and mental health (Elhai et al., 2019; Thomée, 2018; Wilmer et al., 2017). These challenges extend beyond individual well-being and significantly affect our social dynamics. In particular, the overuse of smartphones has begun to erode the quality of face-to-face communication, giving rise to new forms of social disengagement. One such emerging concern is the phenomenon of phubbing—snubbing others in favor of one's phone—which exemplifies the growing disruption in interpersonal relationships caused by digital distractions (Büttner et al., 2022).

Phubbing, a global phenomenon, was first identified in Australia. In May 2012, McCann Melbourne, an Australian advertising agency, launched a campaign to name the behaviour of ignoring others in favor of smartphone use. Experts, including lexicologists and authors, coined the term by blending "phone" and "snubbing." This term gained widespread recognition through the "Stop Phubbing" campaign, which used media and a short film to highlight the social disconnection caused by smartphone overuse (Vanden Abeele et al., 2016; Zavalii & Zhalinska, 2023). Reaching over 300 million people globally, the campaign sparked discussions about the impact of technology on human interaction and boosted awareness of smartphone etiquette. By coining "phubbing," the initiative not only named this behaviour but also encouraged reflection on its implications, influencing how society navigates the balance between technology and meaningful social engagement.

2. Method

The research for this article entailed a rigorous literature review of the phubbing phenomenon, spanning a decade from 2014 to 2024. Sources included academic databases such as Web of Science (407 out of which 358 were only research articles), Scopus (355 out of which 173 were only research articles), TR Dizin (35 out of which only 11 were research articles), and 30 thesis dissertations retrieved from national thesis databases. This database (n= 542) was further cleared terms included "phubbing," "smartphone use," "partner phubbing," "parent phubbing," "academic phubbing," and related combinations. Inclusion criteria required that studies:

- Directly investigate phubbing or one of its specific subtypes.
- Examine the impact of phubbing on communication and interpersonal relationships.
- Be peer-reviewed journal articles or academic theses.

Studies were excluded if they focused solely on general technology use without referencing phubbing explicitly. After screening, 145 articles and 12 theses were retained for synthesis. The findings were organized thematically to reflect the evolution of the topic, major patterns, conceptual debates, and gaps in the literature.

The research questions that guided this paper are as follows

- Q1. Understand the phubbing phenomenon and critically analyze the definitions of phubbing?
- Q2. The basic criteria for classifying phubbing into various types?
- Q3. What are the key predictors of Phubbing?
- Q4. What is the theoretical explanations of phubbing?
- Q5. What are the interventions which can mitigate phubbing behaviour?

3. Defining Phubbing

Over the years, scholars have proposed a range of definitions and interpretations of phubbing, reflecting the evolving understanding of the phenomenon as it has gained prominence. The literature between 2014 and 2024 showcases a variety of definitions, each highlighting different dimensions of phubbing and revealing significant variation in how the concept is explained. The following definitions illustrate the progression and shifting perspectives on phubbing over the past decade:

- *Phubbing is an act of snubbing someone in a social environment by looking at their phone instead of paying attention to the person* (Wolf, 2014).
- *Phubbing can be described as an individual looking at his or her phone during a conversation with other individuals, dealing with the mobile phone, and escaping from interpersonal communication* (Karadağ, Tosuntaş, et al., 2015).
- *Phubbing is the action of ignoring someone or multiple people's events and using smartphones to check or use Facebook, WhatsApp, or other social media applications* (Nazir & Piskin, 2016).
- *Phubbing is a kind of social exclusion and interpersonal neglect and is used to indicate the interruptions in social relationships by mobile phone usage* (David, & Roberts, 2017).
- *Phubbing is the act of snubbing someone in a social setting by looking at your smartphone instead of paying attention* (Chotpitayasunondh & Douglas, 2018).
- *Phubbing is the act of checking your smartphone in the middle of a real-life conversation with someone else and escaping from interpersonal communication* (Balta et al., 2020).
- *Phubbing is when one suddenly turns their gaze downwards and 'disappears' into their smartphone in the middle of social interaction* (Aagaard, 2020).
- *Phubbing means ignoring communication partners in co-present interactions by focusing on one's mobile phone* (Schneider & Hitzfeld, 2021).
- *Phubbing is the fleeting engagement with the smartphone during a face-to-face conversation with someone* (Al-Saggaf, 2021).

While these definitions offer valuable insights into the phenomenon, they also reveal notable limitations and criticisms. A recurring theme across these definitions is their emphasis on smartphone use during face-to-face interactions, often leading to social exclusion or neglect. However, many of these definitions can be criticized for focusing predominantly on observable behaviours without delving deeper into the psychological and social factors that drive phubbing.

For instance, while Karadağ, et al. (2015) and Chotpitayasunondh & Douglas (2018) emphasize escaping from interpersonal communication, they fail to address the motivations or compulsions underlying this behaviour. Similarly, definitions by Wolf, 2014, Nazir and Piskin (2016) and Roberts and David (2017) concentrate on the disruption of social relationships but may oversimplify the complex interplay between digital addiction and societal norms. On the other hand, Aagaard's (2020) and Schneider & Hitzfeld's (2021) definitions provide a more nuanced perspective but lack sufficient focus on the broader psychological and social consequences of phubbing, including its effects on mental health and social well-being. Overall, these definitions provide a foundational understanding of the manifestations of phubbing. However, they could benefit from a more holistic approach that integrates both behavioural and psychological dimensions. To address these gaps, this paper proposes a new definition of phubbing:

"Phubbing refers to conscious and unconscious behaviours exhibited by individuals who ignore others in social settings by persistently using or looking at their smartphones, resulting in social disconnection."

This proposed definition introduces a significant advancement by recognizing deliberate and habitual behaviours. Acknowledging that phubbing can be intentional or automatic, it moves beyond merely describing the act to incorporating its underlying cognitive and psychological processes. It also emphasizes the habitual nature of the behaviour and its disruptive impact on social bonds, distinguishing it from isolated instances of smartphone use. This broader perspective offers a more nuanced and

comprehensive understanding of phubbing, highlighting its role in fostering social disconnection and reshaping interpersonal dynamics.

4. Typologies of Phubbing

Phubbing, a pervasive phenomenon in the digital age, manifests in various forms, each intricately linked to the specific dynamics of the relationships involved. Researchers have thoroughly investigated the multifaceted nature of phubbing, employing a nuanced approach to categorize it based on the distinct interactions between the phubber (the individual engaging in phubbing) and the phubbee (the individual being ignored).

The classification of phubbing hinges on examining diverse relationship dynamics, each giving rise to distinct manifestations of this digital-age affliction. Based on the reviewed literature, five prominent subtypes of phubbing have emerged:

4.1. Parental Phubbing

Parental phubbing, a specific form of phubbing, occurs when parents prioritize their smartphones over their children, neglecting their emotional and psychological needs. This behaviour has become increasingly prevalent in the digital age, where smartphones dominate daily routines and interactions. Research highlights that parental phubbing involves parents inadvertently snubbing or ignoring their children due to excessive focus on their devices, often without realizing the long-term effects this has on their children (Liu et al., 2024; Wang et al., 2022).

Studies reveal that activities such as browsing the internet, scrolling through social media, or watching short-form video content, like reels, are common distractions for parents (Ding, 2022; Xie & Xie, 2020). These seemingly harmless pastimes interfere with meaningful parent-child interactions, reducing the quality of emotional connection. For example, Liu et al. (2024) found that parental phubbing contributes to feelings of rejection and insecurity among children, which may impair their emotional development. Similarly, Wang et al., (2022) demonstrated that this behaviour often disrupts attachment bonds, leaving children feeling emotionally neglected.

Parents may attempt to compensate for their lack of engagement by providing their children with toys or gadgets, such as smartphones or tablets, to occupy them. However, these substitutes fail to address the deeper needs of children, who require active engagement, affection, and quality time with their caregivers to thrive. Xie & Xie (2020) emphasized that children benefit most from shared activities, meaningful conversations, and genuine interaction, which cannot be replaced by mere physical presence. Parental phubbing, if left unchecked, risks fostering feelings of neglect and disconnection in children, potentially leading to long-term consequences on their emotional and psychological well-being.

4.2. Partner Phubbing

The Partner phubbing, where one partner prioritizes their smartphone over the other, disrupts communication and erodes relationship quality. It fosters feelings of exclusion, as the phubbed partner feels ignored and sidelined during interactions. Studies highlight that repeated phubbing can heighten feelings of exclusion, leaving the neglected partner invisible, negatively affecting emotional connection and satisfaction (Gonzales & Wu, 2016; McDaniel & Wesselmann, 2021). The frequency of such behaviour amplifies these feelings, leading to disengagement in communication (Beukeboom & Pollmann, 2021; Knausenberger et al., 2022).

Partner phubbing also undermines perceived intimacy in relationships. The emotional and cognitive benefits of sharing meaningful conversations are diminished when one partner is distracted by their phone (Fincham & Beach, 2010). Intimacy is reduced, and emotional satisfaction decreases as the phone interrupts emotional sharing (Abeele, 2020). This disruption leads to relational dissatisfaction, as partners feel emotionally distant (Clark & Reis, 1988; Farooqi, 2014).

Moreover, phubbing frequently leads to conflicts. It is not the phone itself but the emotional neglect it signifies that causes misunderstandings and tensions (Mahmud et al., 2024). Arguments about phone usage often arise, revealing deeper issues related to attention, validation, and emotional intimacy

(Thomas et al., 2022). Such conflicts can spill over into other areas of the relationship, leading to heightened dissatisfaction and mistrust. Feelings of jealousy also emerge when one partner perceives their significant other's phone use as threatening the relationship. If phone use is perceived as prioritizing others, especially on social media, it can evoke jealousy and insecurity, exacerbating relational tension (Baumeister & Leary, 2017; Muise et al., 2009). As jealousy increases, relationship satisfaction declines, leading to emotional distancing and a communication breakdown (Elphinston & Noller, 2011).

4.3. Friend Phubbing

Friend phubbing, using smartphones during in-person interactions with friends, is becoming increasingly prevalent in modern social dynamics. While friendships provide emotional support and opportunities for personal growth (Demir et al., 2015), phubbing can undermine these relationships. Friendships thrive on trust, empathy, and active participation during interactions (Clark & Ayers, 1993). However, when individuals prioritize their phones over face-to-face engagement, it signals disinterest and can create feelings of neglect and frustration (Al-Saggaf et al., 2019). The constant presence of smartphones often leads to diminished attention and communication quality, undermining relational satisfaction (Krasnova et al., 2016).

Research shows that people are more likely to phub their friends than other relationships, possibly because friendships are perceived as more forgiving and stable (Al-Saggaf et al., 2019). However, frequent phubbing erodes the quality of these connections, potentially leading to resentment and emotional distancing. Even the mere presence of a smartphone during a conversation has been shown to reduce the perceived quality of the interaction (Przybylski & Weinstein, 2013). Over time, this behaviour can disrupt the reciprocity in friendships, leading to one-sided emotional labor (Roberts & David, 2016).

Friend phubbing is also linked to feelings of loneliness, especially for individuals with certain personality traits like shyness. Research indicates that individuals who feel socially uncomfortable may turn to smartphones as a form of social compensation, inadvertently phubbing their friends during in-person interactions (Valkenburg & Peter, 2007; Yaseen et al., 2021). While online interactions can provide comfort, they lack the emotional depth of face-to-face communication, exacerbating feelings of disconnection.

As friend phubbing becomes more frequent, relational intimacy may suffer. Phubbing in intimate friendships is often seen as less harmful due to assumed emotional closeness, but this can backfire. Studies suggest that even in long-term friendships, the repeated use of smartphones during key moments erodes trust and satisfaction (Sun & Wong, 2024). This shift can lead to feelings of exclusion and jealousy, further deteriorating the relationship (Krasnova et al., 2016). Ultimately, phubbing diminishes relational evaluation, signaling to friends that they are less valued than the phone, causing feelings of ostracism (Hales et al., 2018).

4.4. Boss Phubbing

Boss phubbing (B-Phubbing) refers to a supervisor prioritizing their smartphone over direct, face-to-face communication with their employees. This behaviour disrupts interactions between supervisors and their subordinates, leading to a breakdown in communication, trust, and emotional connection (Yousaf et al., 2020). In an increasingly digital world, smartphones have become integral to daily professional interactions, yet their misuse during work-related conversations can harm employee morale and organizational dynamics (Sha et al., 2019).

Research by Nakamura (2015) highlights that smartphone use during conversations significantly undermines the emotional bonds between employees and supervisors. Frequent smartphone usage, particularly in the presence of others, leads to reduced eye contact—a critical non-verbal cue that fosters emotional connection (Shellenbarger, 2013). When a supervisor is distracted by their phone during a conversation, it signals to the employee that they are not a priority. This perceived neglect diminishes feelings of value and respect, which are vital for maintaining strong interpersonal relationships. This disruption of emotional connection is especially damaging in professional environments, where trust and

communication are foundational. Shellenbarger (2013) suggests eye contact is essential to building trust and fostering positive relationships. When supervisors engage in smartphone use rather than fully attending to the employee in front of them, they inadvertently create a barrier that hinders trust and collaboration. In turn, employees may begin to feel devalued, which can lead to decreased motivation and engagement.

The impact of boss phubbing extends beyond emotional connection, directly undermining trust between supervisors and employees. Trust is crucial for a positive work environment, as it is linked to job satisfaction and organizational commitment (MacKenzie et al., 2001; Mulki et al., 2006). According to Cameron & Webster (2011), maintaining eye contact and full attention during interactions is essential for building trust in professional relationships. When supervisors engage in phubbing, they signal to employees that their input is not valued, eroding the trust fundamental to a healthy workplace dynamic. A study by Vanden Abeele et al. (2016) underscores that smartphone use during work-related interactions is perceived as socially inappropriate and rude. This behaviour diminishes the emotional connection between supervisors and employees and weakens the trust employees place in their leadership. In one real-world example, an employee may meet with their supervisor for feedback on a critical project, only to be ignored as the supervisor scrolls through their phone. This behaviour can lead to a breakdown in trust, as the employee may feel their contributions are unimportant, resulting in a loss of respect for the supervisor and a decline in overall engagement.

The consequences of boss phubbing extend beyond emotional disconnection to affect the broader organizational culture negatively. A supervisor's disengagement through smartphone use sends a message to employees that this behaviour is acceptable, potentially leading to a ripple effect throughout the organization. As employees witness this behaviour, they may adopt similar practices, creating a work environment characterized by disengagement and diminished collaboration (Yousaf et al., 2020). Moreover, the lack of trust and emotional connection resulting from boss phubbing can significantly impact employee engagement. When employees feel ignored or undervalued, their motivation to invest in their work diminishes, leading to reduced productivity and job satisfaction (Abdi et al., 2021). This disengagement affects individual performance and has broader implications for organizational efficiency and morale. Therefore, supervisors using smartphones rather than attending to employees during interactions inadvertently create an emotional disconnect, reducing employees' sense of value and trust in their leadership. This leads to diminished job satisfaction, decreased organizational commitment, and ultimately, decreased overall workplace productivity.

4.5. Academic Phubbing

Academic phubbing refers to students, lecturers, supervisors, or teachers disengaging from face-to-face academic interactions by focusing their attention on smartphones or other digital devices, intentionally or unintentionally, during academic activities. This practice disrupts communication, hinders engagement, and ultimately weakens the academic relationship between students and educators (Koc & Caliskan, 2023). In academic settings, academic phubbing can manifest in two primary forms: student phubbing (S-phubbing) and teacher phubbing (T-phubbing). Both forms negatively impact the quality of academic relationships, leading to reduced trust, motivation, and overall academic performance (Koc & Caliskan, 2023).

Despite its growing prevalence in educational environments, the issue of academic phubbing has been under-researched. Few studies have examined its impact on student-teacher relationships and the broader academic atmosphere. However, a survey conducted by Nazir (2020) in Turkey highlights the adverse effects of student phubbing on the motivation and performance of lecturers. The study found that younger lecturers (aged 30–40) were particularly affected by student phubbing, experiencing emotional distress, negative self-assessment, and decreased motivation to prepare for classes. In some cases, this even led to hostility towards students. Conversely, older lecturers (aged 40 and above) viewed the behaviour as a generational issue, responding more passively, which resulted in less emotional distress and a reduced impact on their teaching strategies.

Teacher-initiated phubbing is another equally significant issue. When educators divert their attention to smartphones during meaningful academic consultations, such as meetings regarding assignments or thesis work, it mirrors the negative impact of student phubbing. Research by Koc, T., & Caliskan, K. (2023) reveals that teachers' phubbing erodes trust between students and supervisors. Trust is a fundamental element of the student-teacher relationship, influencing satisfaction, motivation, and academic progress. When students feel neglected during critical interactions, such as discussions about their educational development, they may experience feelings of being undervalued, leading to diminished trust in their mentors.

The emotional disconnection caused by academic phubbing, whether initiated by students or teachers, has far-reaching consequences for academic relationships. It can leave students feeling demotivated, unheard, and alienated. These feelings can negatively affect students' confidence in their supervisors' abilities and reduce the quality of the feedback and support they receive. Moreover, persistent academic phubbing can erode the sense of academic community and mentorship, weakening the overall educational experience.

In summary, the classification of phubbing types can vary depending on the nature of the dyadic relationship. While existing studies have primarily focused on specific types of relationships, such as those mentioned above, phubbing should not be limited to these contexts. It can be further categorized based on any form of human face-to-face interaction within dyadic settings.

5. Predictors of Phubbing

The literature identifies multiple predictors of phubbing behavior. Smartphone addiction, Personality types, Fear of missing out, and Boredom were found as strong factors that can predict phubbing behaviour (Al-Saggaf, MacCulloch, & Wiener, 2019). These predictors suggest that phubbing is both an individual psychological response and a broader social phenomenon shaped by digital culture.

5.1. Smartphone Addiction

Smartphone addiction has led to compulsive phone use that significantly impacts social interactions, often resulting in phubbing. This addiction is characterized by constant phone checking and anxiety when the phone is unavailable (Safaria et al., 2024). Research consistently identifies smartphone addiction as a major predictor of phubbing, mainly through social media usage, gaming, and internet browsing. Studies show strong correlations between smartphone addiction and phubbing (Al-Saggaf et al., 2019; Davey et al., 2020; Karadağ et al., 2015).

Social media platforms, particularly Instagram, exacerbate phubbing behaviour due to their immersive and engaging nature. Instagram's continuous feed of personalized content and notifications makes it difficult for users to disengage, leading them to prioritize their phones over real-life interactions (Balta et al., 2020). For example, someone checking Instagram during a conversation may be scrolling for longer, effectively phubbing those around them.

Factors like internet addiction and a lack of self-control further contribute to phubbing. Individuals with internet addiction feel compelled to stay online, even at the expense of real-world interactions. At the same time, those lacking self-control struggle to resist checking their phones in inappropriate situations (Chotpitayasunondh & Douglas, 2016). This behaviour creates a cycle where addiction reinforces phubbing, further distancing individuals from meaningful face-to-face interactions, ultimately eroding the quality of their social relationships.

5.2. Personality Types

Personality traits significantly influence phubbing behaviour, with individuals high in openness to experience less likely to engage in phubbing, as they prefer face-to-face interactions and value intellectual stimulation (Erzen et al., 2021). Conversely, those with lower openness may turn to their phones when social situations lack engagement, increasing phubbing tendencies. Negative emotionality, a component of neuroticism, drives phubbing as individuals use smartphones to escape negative emotions like anxiety or stress, often through excessive Instagram use, leading them to neglect real-life

interactions (Balta et al., 2020). In contrast, highly conscientious and agreeable individuals are less prone to phubbing due to their self-discipline and consideration for others. Conscientious individuals manage their social media use effectively, while agreeable people avoid phone distractions in social settings out of respect for those around them (Balta et al., 2020). These personality traits are key in shaping phubbing behaviour and impacting social interactions. Furthermore, narcissistic characteristics—such as an inflated sense of self-importance, need for admiration, and lack of empathy—are linked to low agreeableness, which correlates with problematic smartphone use, including social media addiction (Kircaburun & Griffiths, 2018; Miller et al., 2010; Zhou et al., 2017).

Narcissistic individuals often seek validation through social media, driving them to excessively use platforms like Facebook and Instagram (Davey et al., 2018; Pearson & Hussain, 2015). This self-centered nature and preoccupation with online gratification make them more prone to phubbing, as they prioritize their need for admiration over in-person social interactions (Li et al., 2024). Narcissism, combined with smartphone addiction, further predicts increased phubbing, as individuals with narcissistic tendencies focus on their self-promotion rather than engaging with those around them, thereby neglecting social etiquette (T'ng et al., 2018). Thus, narcissistic traits contribute significantly to phubbing behaviour, driven by the desire for constant validation and social media engagement.

5.3. Deliberately Ignoring and Boredom

Phubbing can be influenced by deliberate ignoring and boredom, which are significant predictors of this behaviour. Deliberately ignoring others through smartphone use is a subtle form of avoidance, signaling disinterest or unavailability (Al-Saggaf, 2021). While avoiding eye contact can be seen as rude in many cultures, using smartphones to convey busyness or deliberate ignorance has become increasingly normalized in social interactions. Individuals can sidestep eye contact and prevent conversations by focusing on their devices, signaling that they are preoccupied and not open to social engagement. This phenomenon has become a socially accepted way of indicating disinterest, with research by Roberts & David (2016) showing that phubbing is often used to express a lack of availability subtly. Further supporting this, Dwyer et al. (2018) found that smartphones are frequently used to avoid social interactions, making phubbing a standard means of communicating a desire to disengage from others. In specific social contexts, phubbing is now considered a norm, reinforcing the behaviour in everyday interactions (Leuppert & Geber, 2020).

In addition to deliberate ignoring, boredom is another significant driver of phubbing (Al-Saggaf et al., 2019). Individuals who are bored in one-on-one conversations, office meetings, or family gatherings often turn to their smartphones as a distraction. Smartphones and their constantly engaging applications provide a tempting escape from the monotony of these environments. Kushlev et al. (2017) highlighted boredom as a significant factor behind smartphone use in social settings, noting that people frequently check their phones to alleviate feelings of disengagement. The design of smartphones and apps is intended to capture and retain attention, exacerbating this behaviour. As individuals seek stimulation and entertainment from their devices, they reinforce using smartphones as a default response to boredom, disrupting social interactions and further entrenching phubbing as a behavioural norm. Thus, deliberate ignoring and boredom contribute significantly to phubbing, with individuals using smartphones to avoid interactions and alleviate boredom in unengaging situations.

5.4. Fear of Missing Out (FOMO)

The fear of missing out (FOMO) is a psychological phenomenon where individuals constantly need to connect to others' activities, driven by the belief that others have more rewarding experiences in their absence (Przybylski & Weinstein, 2013). This fear, particularly on social media, often leads individuals to remain engaged with their smartphones to avoid missing important updates or events. FOMO has been linked to excessive smartphone use, which can lead to phubbing, as individuals prioritize online interactions over face-to-face conversations. Hong et al. (2012) found that the anxiety associated with missing out on social interactions or updates contributes to smartphone overuse, subsequently increasing the likelihood of phubbing. Franchina et al. (2018) confirmed this relationship, showing that

adolescents with high levels of FOMO are more likely to engage in phubbing to stay connected with their online networks, often at the expense of real-world engagement. The study highlighted that this behaviour is particularly prevalent in adolescents, who are more susceptible to social influences and peer validation.

Additional research by Balta et al. (2020) and Chotpitayasunondh & Douglas (2016) further supports the link between FOMO and phubbing, indicating that individuals with high FOMO tendencies are prone to excessive smartphone use, leading to more frequent instances of phubbing. Furthermore, Davey et al. (2018) found that FOMO significantly contributes to phubbing, with individuals diverting their attention to their smartphones during social interactions, neglecting those around them, and reinforcing the cycle of smartphone dependency. Overall, empirical studies consistently demonstrate that FOMO is a significant predictor of phubbing, as individuals with high FOMO overuse their smartphones to stay connected, prioritizing virtual interactions over in-person ones. Addressing FOMO and its impact on smartphone use is essential for reducing phubbing and fostering healthier social interactions.

5.5. Neurological and Psychological Dimensions

Phubbing is a behaviour shaped by both neurological and psychological factors. Neurologically, it is driven by the brain's reward system, particularly dopamine, released during smartphone use. When notifications are received, they trigger the mesolimbic pathway, reinforcing phone-checking behaviours (Berridge & Kringelbach, 2015; Ikemoto, 2010). However, other neurotransmitters, such as serotonin and oxytocin, also contribute. Imbalances in serotonin can lead to smartphone use to manage negative emotions (Banskota et al., 2019). Low oxytocin levels may encourage virtual interactions over face-to-face communication (Stevens et al., 2013). Additionally, dysfunction in the prefrontal cortex, which regulates impulse control, can increase susceptibility to phubbing, especially in younger individuals (Veissière & Stendel, 2018).

Psychologically, phubbing is linked to mental health conditions like ADHD, OCD (obsessive-compulsive disorder), and depression, which affect impulse control and social interactions. Individuals with ADHD, for example, often struggle to maintain focus and may check their phones frequently (Cibrian et al., 2022), while OCD can lead to compulsive phone-checking due to anxiety about missing updates (Figuee et al., 2016). Social anxiety also contributes, as individuals avoid face-to-face interactions, using phones to reduce discomfort (Bitar et al., 2023). Depression may drive individuals to use smartphones for distraction, worsening their feelings of loneliness and isolation (Liu et al., 2021). Emotional regulation plays a crucial role, as individuals with poor emotional control may turn to smartphones to escape stress or discomfort (Billieux et al., 2015). Phubbing, therefore, acts as a maladaptive coping mechanism, masking deeper emotional issues. While it shares traits with addictive behaviours, phubbing exists on a spectrum, from habitual use to more compulsive behaviours, often tied to mental health conditions. Addressing these factors is key to understanding and mitigating phubbing.

6. Theoretical Explanations of Phubbing

Several theories have been applied to understand the mechanisms underlying phubbing and are as follows

6.1. The Theory of Interpersonal Behaviour

The Theory of Interpersonal Behaviour (TIB), developed by Triandis (1977), provides a framework for understanding phubbing—engaging with smartphones at the expense of face-to-face interactions. According to TIB, behavioural intention, habits, and facilitating conditions are key to explaining phubbing. Behavioural intention is a conscious decision influenced by attitudes, social factors, and emotional states. Individuals may have different attitudes towards phubbing; some see smartphone use during conversations as enhancing productivity, while others perceive it as disruptive to social interactions. Social norms and self-concept also shape behavioural intentions. For example, individuals in social groups with common phubbing may view it as acceptable. Habits are another significant factor

in TIB, as phubbing can become a repetitive, automatic behaviour over time. Once individuals regularly check their phones during conversations, it becomes difficult to control them consciously, even if they recognize their negative impact on relationships. Finally, facilitating conditions, such as the availability of smartphones and constant notifications, contribute to phubbing. These conditions make it challenging for individuals to avoid phubbing, even when they intend to refrain from it.

However, TIB has several shortcomings in explaining phubbing. It overemphasizes individual factors, such as personal attitudes and habits, while neglecting the influence of broader social and cultural contexts. Social and group norms are crucial in determining whether phubbing is acceptable, but TIB does not fully address these external factors. Additionally, TIB does not account for the compulsive nature of smartphone use, which can go beyond habitual behaviour. Phubbing often becomes compulsive, driven by an overwhelming urge to check notifications, which overrides intentional actions and conscious decision-making. TIB does not sufficiently explain this compulsive aspect of smartphone use.

6.2. Theory of Planned Behaviour (TPB)

The Theory of Planned Behaviour (TPB), developed by Ajzen (1985), offers valuable insights into the cognitive processes of phubbing using smartphones during face-to-face interactions. TPB identifies three key components influencing behaviour: attitudes, subjective norms, and perceived behavioural control. In the case of phubbing, an individual's attitude toward the behaviour plays a central role. For instance, some individuals may view smartphone use as necessary for staying informed or multitasking, leading to a positive attitude toward phubbing. This attitude varies depending on the context—phubbing might be acceptable in casual settings but disrespectful in romantic relationships or academic environments. Subjective norms, or social pressures to conform to group behaviours, also shape phubbing. In groups where phone-checking is prevalent, individuals are more likely to adopt this behaviour, perceiving it as socially acceptable. This is particularly evident in romantic relationships and professional or academic settings, where established norms influence individuals' phone use. Perceived behavioural control, which reflects the individual's belief in their ability to perform a behaviour, further influences phubbing. When individuals feel that notifications or addictive tendencies hinder their ability to control smartphone use, they are more likely to engage in phubbing despite their intentions.

According to TPB, attitudes, subjective norms, and perceived behavioural control shape intentions, which drive behaviour. Thus, a person's intention to engage in phubbing depends on their evaluation of the behaviour, the social pressures they experience, and the control they perceive over their actions. For example, students may be more likely to phub during class if they have a positive attitude, perceive that their peers are also phubbing, and feel they have limited control over their phone use. However, while TPB provides valuable insights, it has limitations. One of the significant shortcomings is the assumption that individuals engage in rational decision-making. TPB overestimates the extent to which individuals consciously deliberate over their behaviour.

In contrast, phubbing often involves automatic responses to smartphone notifications with little conscious thought. Additionally, TPB does not fully account for the compulsive nature of smartphone use. People may engage in phubbing due to addictive tendencies, where conscious control over the behaviour is diminished. Finally, TPB underestimates the role of habitual behaviours, such as reflexively checking phones, which occur without intentional thought, which the theory does not adequately address.

6.3. Social Norms Theory (SNT)

Social Norms Theory (SNT), developed by Perkins & Berkowitz (1986), explains how societal expectations influence individual behaviour, distinguishing between descriptive norms (what most people do) and injunctive norms (what people believe should be done). These norms significantly shape phubbing, as individuals' actions are often guided by perceptions of what is socially acceptable. Descriptive norms, for example, play a significant role in phubbing by shaping perceptions of how common or acceptable the behaviour is. If people observe that others regularly check their phones during face-to-face interactions, they are more likely to view this behaviour as acceptable and adopt it

themselves. This aligns with the Expectancy Violation Theory (EVT), which suggests that repeated exposure to phubbing leads to its normalization within a group (Leuppert & Geber, 2020). In settings where phone use is frequent, individuals may follow suit, believing that phubbing is typical and socially permissible.

Injunctive norms refer to social approval or disapproval of certain behaviours, and these norms can either encourage or discourage phubbing. In professional settings, where attentiveness and focus are valued, phubbing may be viewed negatively, with potential social repercussions. However, in more casual environments, injunctive norms may be more lenient, allowing for occasional phone checking without significant negative consequences. Cultural variations also play a role in phubbing norms. In cultures that value digital engagement and multitasking, such as in parts of East Asia, phubbing may be more socially acceptable, altering both descriptive and injunctive norms (Nazir & Piskin, 2016). In contrast, cultures that prioritize face-to-face interaction may view phubbing more negatively. Research on academic phubbing in Turkey by Koç et al. (2022) illustrates how, even in professional environments, phubbing can become normalized due to habitual smartphone use, with students often perceiving supervisor phubbing as acceptable.

While Social Norms Theory provides valuable insights into the social forces shaping phubbing, it has limitations. One significant shortcoming is its overemphasis on social awareness, assuming that individuals are always consciously aware of and responsive to social norms. However, phubbing often occurs impulsively or habitually without actively considering social expectations. The theory also neglects internal factors such as emotional states, cognitive overload, or addiction, which can drive individuals to engage in phubbing even when they are aware that it is socially disapproved. Moreover, SNT does not adequately address the role of smartphone addiction, where the desire to engage with digital devices may override social expectations, even in settings where phubbing is deemed unacceptable. This limitation calls for a more nuanced understanding of phubbing that accounts for habitual and compulsive behaviours.

6.4. Expectancy Violation Theory (EVT)

Expectancy Violation Theory (EVT), proposed by Burgoon, (1993), explains how individuals react to unexpected behaviours in social interactions, mainly nonverbal communication. EVT suggests people develop expectations about others' behaviours based on social context, appearance, and past experiences. When these expectations are violated, it leads to cognitive arousal and uncertainty, prompting an evaluation of the behaviour as positive or negative. Minor violations can lead to positive outcomes, especially in meaningful relationships, by fostering openness and flexibility. Still, significant violations often result in negative evaluations, prompting the violator to justify or repair their actions. In the case of phubbing—ignoring someone in favor of using a smartphone—EVT highlights how this behaviour disrupts expectations of attention and engagement in social interactions, leading to feelings of disrespect. The theory uses three components to explain this: expectancies (anticipated behaviours in a social context), violation valence (the perceived positivity or negativity of the violation), and communicator reward valence (how the value of the communicator influences how the behaviour is interpreted). Phubbing is typically perceived as a harmful violation, but its impact can vary depending on the relationship and context. However, EVT has limitations in explaining phubbing, such as its lack of insight into the motivations behind the behaviour and its focus on the emotional reactions of the person being phubbed rather than the compulsive or habitual nature of smartphone use, which contributes significantly to phubbing behaviour. Furthermore, EVT does not consider how technology is designed to capture attention and shape these behaviours.

6.5. Social Learning Theory

Albert Bandura's (1971) Social Learning Theory offers valuable insights into the spread of phubbing in modern society by explaining how behaviours are learned through observation, imitation, and modeling.

According to the theory, individuals observe the behaviours of others, internalize them, and then imitate these actions, especially when they see positive outcomes. Phubbing, or ignoring someone in favor of using a smartphone, is a socially learned behaviour that fits well within this framework. For phubbing to be learned, individuals must first pay attention to it. In social settings where smartphones are ubiquitous—such as at a family dinner or a workplace meeting—people observe others frequently using their phones, even in situations where direct conversation should be the focus. This attention captures individuals' awareness, signaling that phubbing is acceptable in such settings. Once individuals pay attention to phubbing, they retain this behaviour in memory. Repeated exposure to phubbing solidifies it as a learned behaviour later reproduced in future social interactions. For instance, students who regularly see their parents using their phones at family dinners may begin doing the same with their friends. Phubbing's ease of reproduction, as it simply requires diverting attention from the person in front of a phone, contributes to its rapid spread across groups. Motivation also plays a key role in sustaining phubbing. The immediate rewards of checking social media or receiving notifications reinforce the behaviour, making it more likely to be repeated.

Additionally, the lack of immediate consequences in many social settings, such as family gatherings, makes phubbing habitual. In contrast, potential negative consequences, such as in professional environments, can discourage it. Furthermore, media portrayals of phubbing in television shows, movies, and advertisements further normalize the behaviour, demonstrating how media indirectly contributes to its social learning process by continuously exposing individuals to this behaviour in various contexts. This combination of attention, retention, reproduction, and reinforcement, along with the influence of media, explains how phubbing has become a widespread and accepted behaviour in modern society.

6.6. Psychological Theories: Addiction and Self-Control

Phubbing, the act of ignoring someone in favor of using a smartphone, can be analyzed through psychological theories of addiction and self-control, providing insights into the internal mechanisms driving this behaviour. Addiction theory suggests that phubbing is akin to compulsive behaviour, driven by the immediate satisfaction derived from social media notifications, likes, or online validation, which creates a feedback loop that reinforces the behaviour (West & Brown, 2013). Dopamine surges from these digital interactions make it difficult to disengage, even at the cost of social relationships (Burke, 2019). However, addiction theory risks over-pathologizing phubbing by framing it as an addiction in all cases. Not all instances reflect compulsive behaviour—some may be driven by social norms, multitasking, or boredom (Billieux et al., 2015). Therefore, phubbing should be viewed as existing on a spectrum, with habitual behaviours coexisting with compulsive ones.

On the other hand, self-control theory posits that individuals with lower self-control are more prone to engaging in immediate gratification behaviours like phubbing (Baumeister et al., 2007). This theory helps explain why some individuals find it more challenging to resist the temptation to check their phones, even at the expense of their social interactions. However, self-control theory is limited as it focuses solely on individual traits, overlooking the influence of external factors, such as professional environments where constant connectivity is expected or academic settings requiring frequent phone checks for updates (Panek, 2014). Both addiction and self-control theories offer valuable insights but fail to fully address the broader social, technological, and environmental factors that shape phubbing. External influences such as social norms and the design of smartphone technologies, which intentionally capture attention, also significantly encourage phubbing, regardless of individual self-control levels (Kuss & Griffiths, 2017). Additionally, phubbing may be a coping mechanism for cognitive overload rather than a result of addiction or lack of self-control, as managing multiple tasks and competing demands for attention can lead to phubbing (Wilmer et al., 2017). Thus, a more comprehensive understanding of phubbing requires consideration of both internal psychological processes and external situational factors.

6.7. Digital Displacement Theory (DDT)

Digital Displacement Theory (DDT) provides a more holistic explanation for phubbing by emphasizing how digital engagement gradually replaces real-world interactions. Unlike existing theories, such as Social Learning Theory or the Theory of Planned Behaviour, which focus on specific aspects like imitation, behavioural intentions, or social norms, DDT highlights the profound impact of technology on human behaviour. DDT asserts that smartphones, by offering instant gratification and emotional regulation (Shi et al., 2023), shift individuals' focus away from in-person communication. The theory identifies three key dimensions of displacement: emotional displacement, where individuals turn to their phones to manage emotions like boredom or social anxiety instead of engaging with others (Hoffner & Lee, 2015); cognitive displacement, where attention is diverted from cognitively demanding tasks, such as meaningful conversations, to more immediately gratifying digital content (Karadağ et al., 2016; Schimming, 2022); and social displacement, where individuals withdraw from face-to-face interactions to engage in digital communication (Verduyn et al., 2021). These processes result in phubbing becoming habitual and, in some cases, compulsive as digital engagement increasingly replaces social, emotional, and cognitive connections in the real world, reinforcing the behaviour over time (Greenfield, 2021).

7. Phubbing Interventions

Phubbing has become a significant issue affecting relationships and social interactions across different contexts. A key aspect of addressing phubbing is recognizing its presence and understanding the severe impact it can have on individuals. Studies have demonstrated that phubbing leads to feelings of social exclusion, reduced self-esteem, and increased stress levels among those being ignored (Liu et al., 2021; Zhang et al., 2024). Additionally, it can erode trust and communication in romantic relationships, resulting in greater relationship dissatisfaction and emotional disconnection (Mahmud et al., 2024). The implications of phubbing extend beyond romantic or personal relationships, affecting professional environments as well, where it has been linked to decreased work engagement and lower productivity (Yuda & Suyono, 2024).

To address phubbing, it is essential to implement interventions that recognize its existence and provide strategies to mitigate its harmful effects. One effective intervention is promoting the balance between online presence and real-life engagement. In today's digital age, smartphones and constant notifications create an ongoing distraction that undermines face-to-face interactions. Strategies such as setting boundaries on phone use, including designated "tech-free zones" or specific times during which notifications are silenced, can help restore the quality of personal interactions (Przybylski & Weinstein, 2013). Research supports this approach, highlighting that phone-free environments lead to more meaningful and productive conversations (Misra et al., 2016).

In addition to setting boundaries, developing a culture of 'phone etiquette' in various settings—such as at home, in workplaces, schools, and social gatherings—can significantly reduce the occurrence of phubbing. Creating rules such as limiting phone use during family meals, meetings, or study sessions can encourage individuals to engage more fully with one another, improving the quality of both personal and professional interactions. For example, some families encourage phone-free meals by having a designated basket for phones. At the same time, workplaces can introduce policies restricting phone use during meetings to foster more focused and productive discussions (Roberts & David, 2016).

Another critical factor driving phubbing is the role of social media in increasing digital dependence. Social media-induced phubbing, where individuals prioritize online engagement over real-life interactions, is pervasive in personal and professional settings. Studies have shown that taking breaks from social media, also known as digital detoxes, can improve mental well-being and reduce feelings of anxiety, depression, and FOMO (Brailovskaia et al., 2023; Lambert et al., 2022). Incorporating regular social media detoxes and limiting digital engagement can significantly reduce the tendency to engage in phubbing, allowing individuals to reconnect with their surroundings and foster more substantial, meaningful relationships.

In romantic relationships, phubbing can be particularly harmful. Implementing specific strategies like establishing phone-free times during meals, dates, and bedtimes, as well as using techniques like the Imago Dialogue to enhance communication, can help mitigate the adverse effects of phubbing. Studies suggest that practicing mindfulness and engaging in regular digital detoxes can strengthen emotional bonds and reduce the impulse to check smartphones during crucial moments (Karremans et al., 2020; Wilmer et al., 2017). In cases where phubbing has caused significant distress, couples therapy may be necessary to address the underlying issues and improve communication (McDaniel & Coyne, 2016).

Finally, raising awareness about the impact of phubbing through public campaigns and institutional interventions can help change societal norms around smartphone use. Simple strategies, such as placing signs in restaurants or workplaces to remind people of the importance of phone-free moments, can help cultivate a culture that values face-to-face interactions. Institutions, including schools and workplaces, can also benefit from promoting 'phone etiquette,' encouraging people to disconnect from their phones during key social and academic moments (Hendrix, 2007). In this way, spreading awareness and establishing clear guidelines can shift societal behaviour and promote healthier relationships with technology, ultimately reducing phubbing behaviours.

For individuals struggling with digital addiction or behaviours like FOMO, seeking psychological support is critical. Addiction to smartphones and social media can severely impair relationships and contribute to phubbing, as evidenced by studies on social media and internet addiction (Andreassen et al., 2016; Kuss & Griffiths, 2017). Professional support can help individuals manage these behaviours and develop healthier habits, ultimately reducing the prevalence of phubbing and strengthening interpersonal relationships. By addressing the root causes of phubbing through awareness, boundary-setting, mindfulness, and professional support, individuals and communities can foster healthier relationships and more meaningful social interactions in the digital age.

8. Conclusion

Phubbing, the act of ignoring someone in favor of engaging with a smartphone, has emerged as a multifaceted and socially normalized behavior with significant consequences for interpersonal relationships, mental health, and communication dynamics. This study revealed that phubbing manifests in distinct forms parental, partner, friend, academic, and boss phubbing each with unique psychological, emotional, and relational impacts. For instance, partner and parental phubbing were associated with emotional disengagement and developmental issues in children, while boss and academic phubbing disrupted trust and engagement in professional and educational environments. The research also identified key predictors of phubbing, including smartphone addiction, personality traits (e.g., neuroticism, narcissism), social anxiety, boredom, and Fear of Missing Out (FOMO). These predictors underscore that phubbing is not merely a social faux pas, but a behavior deeply rooted in digital dependency and emotional regulation. Furthermore, the theoretical integration particularly the Social Norms Theory, Digital Displacement Theory, and Expectancy Violation Theory demonstrated that phubbing is both a habitual and socially reinforced behavior. Its normalization across cultures and settings has contributed to a subtle yet pervasive erosion of meaningful face-to-face interactions. Addressing phubbing requires a holistic and multi-layered intervention strategy. Strategies such as setting boundaries, cultivating 'phone etiquette,' promoting digital detox practices, and engaging in psychological support are critical in mitigating its effects. Equally important is public awareness and institutional policy-making that reinforce the value of uninterrupted human connection. In conclusion, phubbing is not a trivial byproduct of smartphone use but a behavior with far-reaching social, psychological, and relational consequences. By understanding its typologies, predictors, and theoretical underpinnings, this study provides a framework for developing targeted interventions and fostering healthier technology use in the digital age.

Statement of Researchers

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