

# The Emotional and Behavioral Impact of Parental Phubbing

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## ABSTRACT

The term “*phubbing*” is a portmanteau word of “phone” and “snubbing” used to describe the phenomenon in which an individual focuses on their smartphone during face-to-face communication instead of paying attention to others (Karadag et al., 2016). Converging evidence demonstrates that parental phubbing hampers the quality of parent-child relational interactions and adversely associates with children’s mental health (Chotpitayasunondh & Douglas, 2016; Xie et al., 2020) and behavior (Fu et al., 2020; McDaniel & Radesky, 2018). The central purpose in this paper is to critically review how strong these empirically verified findings are. This paper will a) provide a brief introduction of parental phubbing and the scope of this paper b) critically review parental phubbing and childhood outcomes, including its current definition, parental phubbing instruments, applied research methods and theories. This paper will suggest important questions or issues for future investigators to consider.

**Keywords:** Parental phubbing, Adolescents, Emotional and behavioral outcome

## INTRODUCTION

A growing body of research investigates the role of parental phone distraction on their child’s development and parent-child interactions. The term “*parental phubbing*” is defined as a parent’s undesired mobile phone usage during a parent-child interaction (Xie et al., 2019). Although previous studies have verified the adverse effects of parental phubbing on a child’s emotional and behavioral outcomes, some limitations exist in these studies. The extend of these outcomes requires further clarification: Are the negative effects of phubbing strong enough to evoke changes in children? How much of an adolescent’s negative behaviors and emotions can be ascribed to parental phubbing? How consistent are the effects of phubbing across studies and different populations? In which conditions do these observed effects change? To address these questions, this paper will: 1) provide a narrative review of the extant research on parental phubbing, including a look into adolescents’ associated behavioral and emotional outcomes; 2) examine how parental phubbing is measured and critique the approaches of previous researchers; 3) assess the major findings and note areas where findings conflict and gaps

remain, thereby allowing us to provide future researchers with directions for further research.

Mobile phone mediated communication has been examined in different relational contexts (Courtright, J., & Caplan, 2020; Qiao & Liu, 2020). The importance of the parent-child relationship carries over into adolescent life. As an integral part of daily life, the smartphone has become a critical contextual factor that impacts adolescent development (Yang & Christofferson, 2020). Prior studies have applied a range of terms to describe this phone mediated in-person interaction including: “technofence” (McDaniel & Coyne 2016), “phubbing” (Chotpitayasunondh & Douglas, 2016), “multicommunicating” (Seo, Kim, & David, 2015), and “parallel communication” (Kneidinger-Müller, 2017) etc. The most used terms in the context of parent-child relationships are: technofence (McDaniel et al., 2018), mere presence (Lanette, 2018), and parental phubbing (Xie & Xie, 2020). The presence of technology in a conversation is the common factor that these terminologies emphasize. However, “mere presence” emphasizes the presence of a cell phone but not the use of it (Courtright & Caplan, 2020), while both technofence and phubbing highlight the overwhelming technology usage that intrudes into and interrupts face-to-face communication. Although researchers find phubbing and technofence conceptually interchangeable (McDaniela & Drouinb, 2019), technofence covers a wider range of meanings (Yang & Christofferson, 2020). Technofence is not limited to the smartphone; it can refer to any form of technological disruption that occurs during interpersonal communication—for instance the use of televisions, computers, or tablets (McDaniel & Coyne, 2016). This study will only focus on cell phone-mediated interactions. To be precise, this study will use the term “parental phubbing.” This review will also include studies that used the term technofence but specifically examined how mobile device use affects parent-child interactions.

## DEFINITION

*Phubbing* is a portmanteau of the words “phone” and “snubbing.” Since snubbing carries a negative connotation—“to insult someone by not giving them any attention or treating them as if they are not important” (Cambridge English Dictionary)—phubbing depicts an undesirable behavior (instead of being a neutral description of behavior) (Aagaard, 2020). The assumption of phubbing indicates that the phubbee negatively perceives phubber’s behavior (Yang & Christofferson, 2020). However, categorizing all phone usage in a social setting as phubbing is not accurate. Phubbing relates to a normative judgment: the extent to which people feel phubbing is normal (Chotpitayasunondh & Douglas, 2016; Aagaard, 2020). The normative judgment can be different across individuals, especially for young people. Youth may be more accustomed to the intrusion of their phones, which, in turn, redefines what they perceive as acceptable communication patterns (Baron, 2008). Given the sophisticated role of phone use during interpersonal interactions, we recommend examining what constitutes normative parental phone use

and then separately test for neutrally, negatively, and even positively perceived technology use during face-to-face interaction. This is crucial considering that phone use is socially accepted. Especially in the context of the parent-child relationship, studies of parental phubbing should consider including subjective evaluations. Taken together, further research should more precisely define phubbing, with attention to what kind of behavior can be categorized as phubbing. Otherwise, ill-defined parental phubbing exacerbates the chaos of measurement which is discussed in the next section.

## **MEASUREMENTS**

There are three scales that researchers use to measure parental phubbing: the Technology Interference in Life Examples Scale (TILES), the Parental Phubbing Scale, and the Generic Scale of Being Phubbed (GGBP). All of these widely used scales focus on how parental phubbing interferes in conversations by assessing the frequency and duration of parental phone use. Researchers base these measurements on the unstated assumption that an amount of device usage leads one to perceive that they are being phubbed. However, should phubbing be defined by the quantity of use?

Although the convergence across previous research that finds parental phubbing as deleterious is salient—i.e. that it produces depression (Bai et al., 2020; Wang et al., 2019; Xie & Xie, 2020), adolescent problematic phone use (Xie et al., 2019; Hong et al., 2019; Liu et al., 2019; Fu et al., 2020; Niu et al., 2020; Liu et al., 2019; Qiao & Liu, 2020; Allred, 2020), cyberbullying (Wang et al., 2020), gaming disorder (Xie et al., 2020)—adolescent psychological processes determine the consequences (Lapierre and Lewis, 2018; Allred, 2020). It is phubbee perceive and label partner's phone use as phubbing that play a major role in negative consequences, rather than a certain degree of usage. On the one hand, when the phubbee perceives the behavior as neutral, the consequences could be relatively nuanced for the phubbee. On the other hand, a high level of parental phone use during an interaction does not mean that the adolescent child necessarily experiences phubbing consequences. As previously mentioned, parental phubbing relates to a normative judgement, and parent use phone during interaction may be acceptable for some adolescents. However, current parental phubbing instruments merely assess the frequency and duration of phone use. Quantifying a normative use as time spent on the phone during a parent-child interaction is therefore likely to be inherently flawed. It thus also places worry about current findings across literature, in particular whether or to what extent a certain frequency of parental phone usage predicts adolescent negative outcomes. Therefore, the relevant and significance of individual subjective evaluation highlights the importance of understanding the adolescent's perception of the parental phubbing. We suggest these issues need to be explored more carefully, and we encourage researchers to take adolescent perception into account and investigate questions of "when" and "how," rather than "how much." i.e., when parental phone use become a problem, when phubbing is negatively perceived, when parental phubbing leads to negative consequences, and how the negative impact occurs.

Furthermore, parental phubbing reported by the adolescent is limited by several intrinsic shortcomings, including biased recall frequency of parental phone use, misunderstanding of the questions, and varying interpretations of the rating frequency. An observational study found that individuals poorly recall the occurrence, frequency, and duration of their conversational partner's phubbing (Abeelee et al., 2019). An adolescent may recall the most salient parental phubbing or may not even notice it at all when it occurs (Aagaard, 2020). Additionally, some scales, such as the GSBP, assessed the frequency and duration of being phubbed during one week. Adolescents struggled to accurately recall the amount of parental phone use, making the accuracy in a one-week period highly unreliable (David & Roberts, 2020). Thus, further research should consider including multiple sources of reports, (e.g., from the parents themselves or other family members, or collecting dyadic data that will allow for the evaluation of potential bias) as well as other methods (e.g., using video-recorded naturalistic observation or developing an app for the parents' phones to track usage).

Taken together, it is still debatable whether parental phubbing is defined by the negative perception of this behavior, adolescent negative consequences, or the frequency and duration of usage. From the individuals different points of view, not all phone use is perceived as phubbing. The evaluation and perception of parental phubbing may determine mental health and behavioral outcomes more than the phubbing event itself. By using a certain degree of frequency to infer the degree of severity that adolescents perceive of their parent's phone use can mislead the true impact of parental phubbing on adolescents. The research gaps require further examination of how adolescents perceive their parents' phone use and how robust their perceptions are across adolescents. If future research prefers to use frequency and duration to assess parental phubbing, it is necessary to differentiate and examine the relationship between parents' degree of phone usage and adolescents' subjective perceptions.

## RESEARCH METHOD

One line of parental phubbing research has focused on behavioral outcomes, mostly as a potential predictor of future problematic phone use. Another line has focused on negative emotional outcomes, specifically whether parental phubbing predicts loneliness and depression. Current research relies heavily on cross-sectional design to uncover the underlying mechanism with a mediation model. When mediation models are tested on cross-sectional data, it is of absolute importance to present and discuss alternate models. Nevertheless, the lack of examining alternative models in previous research makes it hard to provide insight about the best fit model or other possibilities to explain the mechanism. In addition, chronic exposure to parental phubbing may lead to long-term outcomes. However, the absence of developmental design makes the findings on long-term outcomes of parental phubbing scarce. We encourage this approach even for the use of longitudinal design. Furthermore, scale datasets can only examine cross-sectional correlation links; therefore, the

direction of the effect is uncertain. For example, it is difficult to know whether adolescent emotional and behavioral outcomes predict more parental phubbing or whether more parental phubbing predicts these outcomes. This bidirectional characteristic further emphasizes the need to test theoretically plausible models when building a moderated model in order to understand the underlying mechanism. The lack of experimental design makes it difficult to make causal conclusions in research on parental phubbing.

In summary, there is a lack of insight into what role parental phubbing plays in the development of long-term outcomes, such as interpersonal outcomes (i.e., relationship devaluation) and intrapersonal outcomes (i.e., mental health, self-evaluation), the trajectory of how parental technology use influences adolescent child development, and identifying aging-related changes influenced by parental phubbing. To better understand the consequences of chronic exposure to phubbing, it is strongly recommended to conduct longitudinal studies.

## **RESEARCH SAMPLES**

Certain geographical areas are overrepresented in parental phubbing research, as most participants are Chinese adolescents. Considering smartphone use may differ based on geographical and cultural factors, overrepresented samples restrict our understanding of the extent to which the results can be generalized to other populations. A different digitalization rate across countries leads to different rates of cell phone ownership, which affects the frequency at which parental phubbing occurs. Besides, schools in economically well-developed areas may have more coverage of digital education in their curricula, which may lead to adolescents having different social norms than students in other areas. For instance, Fu et al. (2020) recruited participants from Beijing—the capital city of China, where both technology and education are well-developed—while Niu et al. (2020) used samples from central China, which is much less developed. The differences in digital education and digitalization may affect how adolescent children experience and respond to phubbing. Furthermore, previous studies verified that the perception of cell phone usage during interaction differs across cultures (Campbell, 2007). Undoubtedly, different cultures have different social norms, and it is possible that certain ones may be more tolerant towards phone use during social interactions in which case the phubbees would be less negatively impacted by it. Additionally, culture, as a critical contextual factor, also significantly shapes parenting styles, which results in differing parental behaviors, interactions between child and parent, and familial policies for phone use. Therefore, adolescent children from different cultures may perceive the same parental behavior differently. Future study needs to examine whether the findings can be generalized in cultures that differ in dimensions such as individualism-collectivism, power distance, and parental style. Further, the negative impact of parental phubbing might be statistically significant but could hold little practical value. Current studies which discussed the practical implication are scarce. Future studies should provide a comprehensive way to report both the practical and scholarly implications.

Taken together, it is recommended that researchers conduct random sampling and evaluate technoference cross-culturally so as to address the generalization problem and consider the extent to which parental phubbing predicts a variety of consequences for adolescent children.

### **PERCEPTION OF PARENTAL PHUBBING**

Previous research framed parental phubbing as a form of ostracism (Williams, 2007, 2009; Bai et al., 2020). However, parental phubbing is an ambiguous activity which in turn can also be perceived as a form of rejection, neglect, or distraction. Parental phone use interrupts a child's need for a timely response and full attention, which in turn can be a form of neglect. On the one hand, parental neglect might be relatively stable, as when an adolescent child suffers from parental neglect since early childhood (Khaleque, 2015). Moments of parental neglect as parental phubbing may reflect a chronic problem within a parent-child relationship. Or parental phubbing may be a new addition to a series of other forms of parental neglect. As the prevalence of technology has increased, parental phubbing has emerged as a new concern in parent-child interactions. It is possible that parental neglect did not happen until parental phone use frequently interfered in parent-child communications. Parental distraction with mobile device refers to instances when parents or caregivers are temporarily distracted by their phones (Kildare, 2017). Phubbing behavior require the parent to allocate their attention to the phone, which can draw the parent's attention away from the parent-child interaction. Therefore, parental phubbing also can be a form of parental distraction. In addition, it is possible that habitual distraction caused by phone use will become a certain pattern of parent-child interaction, which may become a form of parental rejection or neglect in the long run.

In addition to causing children to feel socially excluded, parental phubbing signals a parent's inattention, indifference, or disinterest (Hiniker, 2016; Chotpitayasunondh & Douglas, 2016; Miller-Ott & Kelly, 2015), which can also be categorized as parental rejection, neglect, or distraction. Although all these perceptions potentially predict deleterious consequences for adolescents, they are different (i.e., having a distracted parent is very different from feeling neglected or ostracized) and lead to different psychosocial outcomes. Nevertheless, very few empirical studies evaluate and compare the differences between these different categories. Taken together, a lack of differentiation restricts our understanding of the entire spectrum of the psychological outcomes of parental phubbing. To provide a robust and transparent investigation of parental phubbing on adolescents, this paper encourages researchers to have clearer theoretical differentiation and clarification.

### **ASSOCIATED OUTCOME**

One of the main consequences associated with parental phubbing is problematic phone use. Problematic phone use is also called smartphone addiction or nomophobia. In parental phubbing research, most research regarded an adolescent's problematic phone use as an addiction. However, the concept

of problematic phone use is controversial, as many disagree about whether problematic phone use can be regarded as an addictive behavior. Using an addiction framework makes it hard to accurately capture the usage problem that a phone elicits (i.e., the pleasurable impact of habitual smartphone use vs. the compulsive motivation to engage in phone usage) (Busch & McCarthy, 2020; Bethany et al., 2020). Therefore, framing an adolescent's phone usage as an addiction—regardless of the increasing prevalence of habitual phone usage among adolescents—will also mislead the influence of parental phubbing and its implications in the real world.

There are many different ways to operationalize the concept of problematic phone use in instruments which exacerbates the chaos of measurements and findings. Some scales did not follow or provide addictive criteria to create the construct, although researchers tended to use an addictive framework. For instance, Xie et al. (2019), Qiao & Liu (2020), and Liu et al. (2020) used the Smartphone Addiction Scale, which was developed by Su et al. (2014) to assess whether parental phubbing increased the risk of adolescent smartphone addiction. However, the Smartphone Addiction Scale did not report criterion-related validity, making the criteria to determine the disorder unclear. Moreover, measurements have yet to confirm a standard cut-off point to determine when phone use becomes a problem (Harris et al., 2020). The majority of empirical studies on problematic phone use rely on self-reported data which is known to be noisy. The low quality of the outcome measurements diminished the association with parental phubbing and limited the generalizability of the results. Therefore, adolescent problematic phone use is an important outcome in parental phubbing research. Improving the accuracy of phone use reporting and carefully conceptualizing problematic phone use are particularly crucial when examining the influence of parental phubbing.

## **CONCLUSION**

Overall, previous research has provided insight into the nature of parental phubbing, its underlying mechanisms, and adolescent outcomes. The preceding research positions parental phubbing as a social practice that signals parent inattention, disengagement, and ignorance. This premise is a starting point for understanding the underlying mechanisms that show why parental phubbing is ultimately harmful. These findings can benefit further research; yet, they are limited by an unclear definition of parental phubbing, problematic parental-phubbing instruments, a rather homogeneous research method, and a lack of theoretical frameworks that integrate current perspectives. These deficiencies inspire further theorizing and testing.

In the field of parental-phubbing effects, most of the previous studies tend to draw conclusions that villainize technology and promote media panic over technology. In these studies, the act of parental phubbing is to blame for a child's poor well-being. Yet, parental phubbing during a parent-child interaction is probably only "a symptom," reflecting other problems in the parent-child relationship or their communication (i.e., a lack of interest, or cold relationships that may be the underlying cause of the child's poor well-being). Without putting too much emphasis on blaming technology for our

problems, further research should consider reframing its focus away from media panic to a more balanced approach that considers models with various directional effects.

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