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Yeslam Al-Saggaf

The Psychology of Phubbing

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Yeslam Al-Saggaf

The Psychology of Phubbing

This is what happens to your child, partner, family member, friend, and colleague when you ignore them in favour of your smartphone

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For
Ahmed Al-Saggaf
Abdul Qadir Al-Saggaf
Abdul Majeed Banaja

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About the Author

Yeslam Al-Saggaf is an internationally recognised authority on the ethical, sociological, psychological, and political aspects of computing technology, as evidenced by his appointment as a consultant by Snapchat and by the featuring of his research in reports submitted to the United Nations, UNESCO, and Al Arabiya.Net, which is the official website of the popular Arabian TV station Al Arabiya. He is a leading expert on phubbing behaviour, as evidenced by the considerable media attention his research has attracted. He has been interviewed numerous times by leading media outlets, including the BBC World Service, the Huffington Post, and The Wall Street Journal, as well as several other international media publications such as the Daily Dot and PsyPost. Nationally (Australia), he has been interviewed by SBS News, WIN News (Channel 9), Prime News (Channel 7), Bupa, and the House of Wellness and has featured many times on ABC Radio. In addition to these media engagements, which resulted in hundreds of other media reports, further highlighting the status he enjoys worldwide and his eagerness to share his knowledge with others, the author regularly engages with the broader community through public lectures and online learning. His recent course, "IT Ethics: Professionalism and Ethics in Computing" via FutureLearn, attracted 9,339 learners from 168 countries. As of 2022, he has authored or co-authored more than 91 research publications. His publications currently have 1650 Google Scholar citations. His publications are as follows: an authored book, a co-edited book, 13 book chapters, 43 refereed journal articles, and 33 papers in refereed conference proceedings. Many of his research articles appear in high-impact international journals. His h-index is 20, and his i10-index is 32.

Chapter 1
Introduction

It is almost 10:30 am. The sudden sound of the movement of feet in the narrow corridor of our work building on a Friday morning used to mean only one thing—it was time for our regular end of week coffee get together. My work colleagues and I valued these brief face-to-face moments over coffee immeasurably because, in addition to the weekly dose of socialisation we derived from them, they always included at least one deep, mutually enriching, intellectual conversation in which we shared our considered opinions. These catch-ups were so sacred that one of our colleagues used to prepare for them before joining. The advent of smartphones has changed all that. Currently, these coffee conversations are as intermittent, fragmented, and interrupted as a WhatsApp conversation. These days my colleagues 'zone out' of a conversation as soon as they hear their smartphone ring or vibrate or see an alert, banner, badge, or an app notification on their screen. While they would often 'zone in' to the conversation within seconds, the conversation would have progressed and the moment to 'butt in' would have passed. The issue is that the constant switching of attention from the co-present individuals to the smartphone and back to the co-present individuals not only deprives the co-present individuals of a continuous conversation but the frequent 'zoning in' and 'zoning out' during a face-to-face social event denies those present the opportunity to experience a genuine sustained meaningful connection. A pivotal moment for me was when most colleagues unexpectedly 'zoned out' while I was excitedly talking, to glance at the seemingly urgent Outlook message that announced our new rector. Notwithstanding the importance of the announcement, I nevertheless felt annoyed.

Maybe there is nothing wrong with my colleagues' simultaneous 'zoning out' given the circumstance, so I should not have felt annoyed. As an academic who was never bothered by his students' looking at their smartphones during lectures and tutorials, in fact always encouraged that, I should be used to being ignored with a smartphone. Ignoring someone during a physical social interaction in favour of the smartphone is known in the literature as phubbing.

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Definition of phubbing

Phubbing is the fleeting engagement with the smartphone during a face-to-face conversation with someone (Al-Saggaf, 2021b). It is the momentary shifting of one's attention from a face-to-face conversation with another person to the smartphone (Al-Saggaf, 2021a).

There is no disagreement in the literature on what is phubbing, as an observable act (i.e. ignoring someone in favour of the smartphone), but as a psychological concept (Al-Saggaf & O'Donnell, 2019), it is not clear what phubbing is. Is it a single construct (Roberts & David, 2016)? Is it a multi-dimensional construct, as the way it is currently measured suggests (see, for example, (Roberts & David, 2016); Chotpitayasunondh and Douglas (2018); and Karadağ et al. (2015))? Is it a behaviour? Is it a habit? Is it a state experience (i.e. transient)? Is it a sudden reaction? Is it a feeling? Is it an emotion? Is it a personality trait? Is it a recurring tendency or a chronic disposition? These questions are not for researchers to address in future. These questions are for the scientific community to address now; either at a conference, as part of a dedicated track, or in a special issue of a journal or both. The literature on phubbing is changing as fast as the technology is advancing, so it is important that scholars are fully aware of the true nature of phubbing before they start new research projects on phubbing.

The world population is 7.9 billion,[1] and there are 6.5 billion smartphone users worldwide,[2] a figure that is forecast to reach 7.7 billion in five years. Correspondingly, there are 3.96 billon[3] social media users worldwide, the vast majority of whom access social media from their smartphones. The literature indicates that phubbing is a worldwide phenomenon, not unique to a specific country, society, culture, social group, or generation. Phubbing is so common that people do it unconsciously—it is not unlikely that the person with whom you next have a face-to-face conversation will 'zone out' to check their smartphone while you are talking to them. The occasional looking at the smartphone during co-present social interactions may not be dreadfully harmful, but the systematic habitual form of phubbing can have profound detrimental effects on mental health and well-being.

This book focuses on the effects of phubbing by parents on their children, partners on their partners, bosses on their employees, friends on their friends, and family members on other family members. Having synthesised findings from published research about the specific effects on these phubbed individuals in important relationships, the book then presents an exposition of the psychological predictors of phubbing (the triggers), followed by a broader account of the psychological effects of phubbing behaviour. The final chapter looks at the role of social norms in explaining the act of phubbing beyond the individual predictors that trigger the behaviour as it tries to draw a connection between phubbing and social theory.

[1] https://www.worldometers.info/world-population/.

[2] https://www.statista.com/statistics/330695/number-of-smartphone-users-worldwide/.

[3] https://www.statista.com/statistics/278414/number-of-worldwide-social-network-users/.

1.1 Why a Book on Phubbing?

While phubbing is still an emerging focused area of research, it is growing exponentially as evidenced by the significant increase in the number of publications on this topic in the last two years. Currently, there are no books on this focused research area. In fact, the lack of a resource that brings together the various facets of this topic inspired the writing of this book. It was further encouraged by the apparent lack of a research agenda that can direct and guide the research efforts and interests of phubbing researchers. Moreover, while the effect of phubbing on children, partners, and employees has received considerable attention from phubbing scholars, there is a paucity of research on other individuals on the receiving end of phubbing, such as parents, close friends, grandparents, and individuals with disabilities, migrants, and members of minority groups. Indeed, children's phubbing of their parents, friends' phubbing of their close friends, grandchildren's phubbing of their grandparents, and the effects of phubbing on individuals with disabilities, migrants, and members of minority groups are seriously under-researched. Furthermore, summarising the findings of published research on phubbing and presenting these summaries in one place allow readers the opportunity to understand the phubbing phenomenon better. The aim is to raise awareness of the serious consequences of phubbing behaviour. All these factors suggest that this book will be of enormous value to the reader.

1.2 The Scholarly Value of This Book

The book makes a significant contribution to the literature on this focused area of research for several reasons, the chief of which is serving as an academic reference for scholars interested in phubbing research. The book begins by illuminating the specific effects of phubbing experienced by individuals in important relationships, namely children phubbed by their parents, partners phubbed by their loved ones, and employees phubbed by their supervisors. Unfortunately, the literature on the effects of phubbing on other family members and friends is scarce, so the book only lightly touches on these. The book then sheds light on the psychological predictors of phubbing. That is, the factors that trigger this behaviour, before returning to take a holistic view of the consequences of phubbing behaviour. The book concludes by interrogating the role of changing social norms in the widespread phubbing phenomenon while looking for answers through theory. With the book covering all major topics of the current research on phubbing, readers from all backgrounds will find it a one-stop-shop for all their specific phubbing research needs. Moreover, this bird's eye approach to the book has uncovered gaps in the existing research. For example, the effect of children's phubbing of their parents has not received any attention from phubbing scholars. By bringing this gap to the attention of phubbing scholars, it is hoped the gap will be filled soon.

1.3 The Book Chapters

Chapter 2 highlights the detrimental effects of parents' phubbing on their children. These detrimental effects include children feeling socially disconnected from their parents and rejected by them. There is evidence in the chapter that children's life satisfaction was negatively affected, their anxiety levels increased, and their depression symptoms worsened. The chapter details evidence that parents' phubbing caused children to become addicted to their smartphones and engage in cyberbullying and hostile behaviour in cyberspace, such as cyber flaming.

Chapter 3 is concerned with the detrimental effects of partner phubbing. The chapter points to evidence that partner phubbing negatively affected relationship satisfaction and the quality of the marriage, increased levels of depression and social anxiety, and lowered levels of well-being. Other detrimental effects of partner phubbing highlighted in this chapter include increasing smartphone-related conflicts between partners, decreasing feelings of intimacy, and intensifying feelings of social exclusion. Partner phubbing made the phubbed partner feel less close towards the partner and more jealous.

Chapter 4 presents findings relating to the consequences of boss phubbing. In this chapter, you will find that boss phubbing negatively affected employees' trust in their supervisors and strengthened their feelings of social exclusion. Other adverse effects of boss phubbing include reduced feelings of belonging, self-esteem, and meaningful existence. Boss phubbing also lowered employees' organisation-based self-esteem and feelings of work meaningfulness. The chapter also delves into the threat that boss phubbing poses to employees' job performance and intrinsic motivation and the cost associated with employees' engagement in cyberloafing and the phubbing of others.

Chapter 5 considers the impact of phubbing on other family members and friends. In the summarised findings for this chapter, older adults took younger family members' phubbing to mean they were not important to their family and not good enough for their company. This increased older adults' levels of loneliness and depression and decreased their connection to family and satisfaction with life. Friends who were phubbed, their friendship satisfaction decreased, which caused them to experience higher levels of depression and social anxiety. This in turn led to higher levels of friend phubbing. This chapter documents other effects of phubbing, including feeling 'ignored,' 'annoyed,' and 'invisible.' Phubbing also increased the phubbed individual's levels of attention-seeking and selfie-liking behaviours and was seen as rude and face threatening. Phubbing reduced the phubbed individual's levels of happiness and increased their levels of sadness. Lastly, the chapter also highlights the experience of early career lecturers whose academic performance and motivation suffered and their confidence in their teaching abilities was undermined due to students' phubbing.

Chapter 6 addresses the question: What factors predict phubbing behaviour? The chapter presents evidence pointing to several predictors of phubbing behaviour with addictions, especially to the smartphone and social media, appearing to be the

strongest predictors of phubbing. The findings summarised in the chapter indicate that fear of missing out was the second strongest predictor, followed by certain psychological personality traits (conscientiousness, neuroticism, agreeableness, openness, narcissism, assertiveness, and passiveness). In addition, the chapter also details the role played by boredom, loneliness, emotional support, attentional failures, and relative deprivation in predicting phubbing while acknowledging that the evidence that links phubbing to these predictors is not as strong as the evidence that links it to the three predictors mentioned above.

Chapter 7 is an important one. It takes a broader look at the consequences of phubbing. The chapter cites evidence that phubbing causes depression or aggravates existing levels of depression. It leads to distress, withdrawal, aggression, and cyberbullying. Phubbing worsened feelings of loneliness, boredom, and acceptance and exacerbated feelings of trait anxiety and social interaction anxiety. Phubbing caused smartphone addiction and social media addiction and made communication skills and responsiveness ability much weaker. The summarised findings also show that phubbing diminished relationship satisfaction, life satisfaction, and one's self-assessment of personality traits. It worsened individuals' emotional stability and deepened their levels of narcissism and neuroticism. Among young people, phubbing resulted in moral disengagement, job burnout, procrastination, and poor academic performance.

Chapter 8 talks about the role of social norms in shaping attitudes towards phubbing behaviour. It begins by discussing whether the use of smartphones in social situations is inevitable, as the theory of technological determinism would have us believe, or alternatively, while phubbing is afforded by certain features of the smartphone, the smartphone is not solely responsible for this behaviour, as the mediation theory would explain because the smartphone is only a mediator. Having considered phubbing through the lens of these theoretical frameworks, the chapter then synthesises research findings based on the role of social norms in phubbing behaviour outside the influence of the known individual predictors. The research on social norms appeared to be theoretically driven, with politeness theory, expectancy violation theory, and the theory of planned behaviour the most adopted theoretical frameworks. The chapter accepts that the results from this research are promising in offering clues about the reasons for this behaviour but laments the inconsistency in the use of terminology.

1.4 The Audience of This Book

This scholarly book is for scholars interested in phubbing as a focused area of research. However, phubbing is multidisciplinary because the behaviour impacts people from all walks of life. Psychologists, both academics and practitioners, will be interested in the psychological triggers and effects of phubbing. Sociologists, both scholars and practitioners, will be interested in the impact of phubbing on romantic and marriage relationships, as well as on other family relationships and friendships. Social science academics will be interested in the impact of phubbing on offline friendships. Child psychology scholars and practitioners will want to understand the

impact of parents' phubbing on children. Education academics and policymakers will find the book valuable for developing their understanding of the consequences of students' phubbing of their teachers and peers. Researchers in business, management, leadership, human resources, and organisational behaviour will want to learn about the consequences of supervisors phubbing on their staff. Computing academics and professionals, who continue to view technology as a neutral tool, as well as technology designers, developers, and software engineers, who are either unaware of the harmful effects of the technology they design and develop or are not bothered by those effects, will find the book a helpful starting point for considering the harmful effects of computing technology. Computer-mediated communication researchers and new media scientists observing mediated communication via the smartphone will find this book highly relevant. People ignore others in face-to-face settings to be on social media, so this book is at the heart of social media research. Cultural researchers interested in the rapidly changing social norms caused by excessive use of the smartphone will find the book a useful read. Computing ethicists will find the book food for thought as they develop moral arguments for and against computing technology. The book is written for the educated layperson. It will appeal to the general public, researchers, and students (undergraduate and postgraduate).

1.5 A Note About Methodology

The research for this book was carried out as follows: The search for literature was done in Google Scholar, but the resources were accessed via the author's university library. The term searched was 'phubbing' in the title; that is, the 'all in title' search criterion was selected, and all resources with the term phubbing appearing in the title of the resource, published between 2018 and 2022, were returned. The reason for selecting this date range is because the focus of the book is on research studies published in the past five years. Publications written in a language other than English or poorly written or those published in poor-quality journals were excluded. Works published before 2018 were also consulted as these were already stored in the author's Mendeley database. References based purely on literature reviews were studied but not included in the analysis. Upon skimming the references to determine their relevance, all selected references and their PDFs were imported into Mendeley. The final list of resources included in the analysis consisted of 170 publications. The analysis proceeded as follows: First, the publication was reviewed. Next, the main theme and the subtheme that emerged from the review of the publication were developed and assigned to the publication under review. For example, a main theme would be 'Phubbed individuals,' and a subtheme under the main theme would be 'Children.' The analysis (coding of each publication) also included other criteria such as the country where the study was conducted, a note on the study design, the type of participants recruited in the study, and keywords of interest. Finally, the publications were carefully read, the findings were summarised, and the summaries were synthesised.

1.6 How to Read This Book

Some of the terminology used in this book may not be familiar to you. For example, the phrase 'significantly positively predicted' appears several times in the text. Allow me to share with you my understanding of what this phrase means in the context of this book. 'Significantly' means the p-value detected was less than or equal to 0.05. In hypothesis testing, the null hypothesis assumes the research hypotheses are not true; for example, that there is no relationship between two variables. The alternative hypothesis assumes the opposite, that is, the research hypotheses are true. If the p-value of the statistical test is less than or equal to 0.05, there is a less than 5% probability that the null hypothesis is true, so we can reject the null hypothesis and accept the alternative hypothesis. This also means there is a less than 5% probability that the results occurred through random chance. The term 'positively,' in the phrase 'significantly positively predicted,' means the 'direction' of the relationship between the predictor variable and the dependent variable in regression analysis is positive. A positive regression coefficient of the predictor variable in regression analysis, which is a measure of effect size, means increases in the predictor variable are associated with increases in the dependent variable. If 'positively' is used in the context of a correlation analysis, a positive correlation coefficient means the direction of the relationship between two variables is positive. The verb 'predict' in regression analysis means the independent variable included in the model explains or estimates or determines the outcome in the dependent variable. The verb 'mediate' is associated with mediation analysis and indicates that a third variable, or more, transmits all or part of the effect of the predictor variable to the dependent variable. Mediation explains how the indirect effect of the predictor variable takes place, in other words and in this context, the underlying psychological mechanism. The verb 'moderate' is associated with moderation analysis, which answers questions relating to the conditions for when, or for whom, the predictor variable affects the dependent variable. Moderators are the 'control knob' of the relationship. Moderation analysis can shed light on which research participants are affected by the predictor variable more strongly than others.

I hope the above explanation improves the readability of the research findings presented in the book as you go through the individual chapters and allows you to see how I interpreted those findings. I encourage you to do your research or consult other authoritative resources if you want to learn more about what these terms mean. If you are familiar with these terms, you can simply read on. Of course, you may find the persistent use of the above terms throughout the book's chapters somewhat strange. But this is done purely to ensure the psychological interpretations from the reported findings are preserved. It was important to remain faithful to how the statistics have been inferred.

There is another feature of the book that I would like to bring to your attention. I begin each chapter with a personal anecdote; a short story inspired by a real event. No doubt this is not scholarly, and I would understand if you preferred that I had not included those short stories, but in my view, they serve a good purpose. In the absence

of qualitative research findings on phubbing behaviour, which is highly regrettable and a serious shortcoming of this research area, these personal anecdotes present rich accounts of how it feels to be phubbed. Of course, these accounts may be considered biased because they are expressed from the perspective of the author, and as such, they can't be useful for drawing generalised conclusions, but drawing generalised conclusions is not sought here. Methodologically speaking, offering in-depth qualitative descriptions of the observed or lived experience, for example, of those being phubbed, can be illuminating, and something that psychological measurements through questionnaires cannot capture. Plus, these personal anecdotes can set the scene for the psychological contents ahead and can bring to life the voices of the thousands of research participants who took part in the reviewed studies but whose voices are buried in the reported statistics.

Warning

The book's contents may evoke negative emotions, especially if they trigger memories of bad experiences. Please exercise caution. If at any stage you feel distressed, you are encouraged to stop reading. If you feel you need to talk to someone, please contact a relevant health care professional or counsellor or a close friend. Beyond Blue at https://www.beyondblue.org.au has excellent resources for support.

References

Al-Saggaf, Y., & O'Donnell, S. B. (2019). The role of state boredom, state of fear of missing out and state loneliness in state phubbing. In *Australasian conference on information systems*, (pp. 214–221).

Al-Saggaf, Y. (2021a). Phubbing, fear of missing out and boredom. *Journal of Technology in Behavioral Science, 6*(2), 352–357. https://doi.org/10.1007/s41347-020-00148-5

Al-Saggaf, Y. (2021b). Time spent on social media, phubbing and fear of missing out. In *[New] normal technology ethics proceedings of the ETHICOMP 2021: 19th international conference on the ethical and social impacts of ICT*, (pp. 143–148).

Chotpitayasunondh, V., & Douglas, K. M. (2018). Measuring phone snubbing behavior: Development and validation of the Generic Scale of Phubbing (GSP) and the Generic Scale of Being Phubbed (GSBP). *Computers in Human Behavior, 88*, 5–17. https://doi.org/10.1016/J.CHB.2018.06.020

Karadağ, E., Tosuntaş, ŞB., Erzen, E., Duru, P., Bostan, N., Şahin, B. M., Çulha, İ, & Babadağ, B. (2015). Determinants of phubbing, which is the sum of many virtual addictions: A structural equation model. *Journal of Behavioral Addictions, 4*(2), 60–74. https://doi.org/10.1556/2006.4.2015.005

Roberts, J. A., & David, M. E. (2016). My life has become a major distraction from my cell phone: Partner phubbing and relationship satisfaction among romantic partners. *Computers in Human Behavior, 54*, 134–141. https://doi.org/10.1016/j.chb.2015.07.058

Chapter 2
Parents' Phubbing of Children

Nothing tops alone time in bed with the smartphone, especially after a long day at work. Occasionally, a child will storm into your bedroom demanding your attention, bringing an abrupt stop to this guilt-free pleasure. If you have ignored them and continued Insta-scrolling, you are not alone.

One of my vivid memories of ignoring my child in favour of the smartphone was when he was eight years old. It was after dinner and I had just finished tidying up the dinner table, cleaning up the kitchen, and stacking the dishes in the dishwasher. At that time, I wanted nothing more than to retire to my bed. Within minutes into my 'me time,' my solitude was interrupted. My son entered the room yelling as if the world had suddenly collapsed, demanding that I attend to his urgent matter immediately. As I was too tired to respond, I gave him a 'single eyebrow raise' and kept scrolling through my TikTok feed. My son, next shouted: 'Dad,' but my head remained bowed down and I continued gently tapping on my smartphone screen hoping he would go away. With his eyes wide open in shock, he mumbled something in agonising disappointment and left the room.

It was wrong for me to phone snub him, or 'phub' him as this behaviour is commonly known, because my lack of response must have upset him. Of course, I apologised to him afterwards, told him a bedtime story, and tucked him into bed. However, my behaviour was not uncommon. In a study I was involved in on phubbing (Al-Saggaf & MacCulloch, 2018), the majority of our 387 online survey participants (62.34%) reported looking at their smartphone while having a face-to-face conversation with another person or persons. Our participants, mostly Australians, reported that they were more likely to phub their children[1] than they would phub their

[1] Persons under the age of 18 years https://policy.csu.edu.au/document/view-current.php?id=76. Most of the studied reviewed in this chapter adopted the term adolescent to describe their school children sample whose aged ranged from 10 to 18. But for this chapter, the term child is used to identify persons under the age of 18 in accordance with the Child Protection (Working with Children) Act 2012 No 51. https://legislation.nsw.gov.au/view/html/inforce/current/act-2012-051#sec.5.

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parents, acquaintances, strangers, other relatives, colleagues, subordinates, grandparents, work supervisors, managers, clients, or customers. While they revealed they would phub their children less than their partners, close friends, friends, and siblings, the fact that they would phub their children more than their parents, strangers, and colleagues suggests that they don't see phubbing their children as being morally wrong.

The effects of parents' phubbing of their children have been found to be detrimental. Recent published research on this phenomenon highlighted a number of these detrimental effects. Parental phubbing can cause children to feel socially disconnected from their parents. Ignoring children in favour of a smartphone can signal disinterest in them, heighten their feelings of rejection, and lower their feelings of being accepted by their parents. It can also reduce the quality of the relationship with their parents and worsen their feelings of satisfaction with life. Parents' phubbing of their children has also been found to be associated with depression. Parental phubbing can also lead to smartphone addiction and smartphone dependency. One study found that phubbed children duplicated their peers' deviant behaviour as a result of their parents' phubbing. Parental phubbing can even have an impact on the children's friends. Recent research found that parental phubbing can cause children to engage in cyberbullying and cyber flaming. Parents' phubbing can also increase children's levels of anxiety and even cause children to experience academic burnout and poor mental health.

Let us first consider social disconnection from parents. Using Roberts and David's (2016) partner phubbing scale, Pancani et al. (2020) developed two subscales to measure parental phubbing: one subscale to measure mother phubbing, the other to measure father phubbing. They were especially interested in the effect of parents' phubbing on children's feelings of social disconnection from parents. So, they measured social disconnection along with the sociodemographic variables. They measured social disconnection by asking participants if they felt a lack of companionship from a parent, were ignored by a parent, and were left out by a parent. They tested their parental phubbing subscales using an online questionnaire, which a sample of 3289 Italian high school students completed in computer laboratories under supervision. The authors used the two subsets of questionnaires, as mentioned above, the mother phubbing subscale and the father phubbing subscale. The authors found both subscales valid and reliable for measuring parent's phubbing. Importantly, they found that parents' phubbing was significantly and positively associated with the feeling of social disconnection from parents. This means as parents' phubbing increased, children's feelings of social disconnection strengthened.

Social disconnection from parents may differ between the two parents. The difference between father phubbing and mother phubbing was investigated by Pancani and colleagues. Pancani et al. (2020) found that the influence of phubbing on social disconnection was stronger for mother phubbing than for father phubbing, suggesting mother phubbing may be more problematic to children than father phubbing. Interestingly, in Allred's (2020) study, female participants were more likely than male participants to report being phubbed by their female primary caregiver. This finding

adds another dimension to the finding related to mother phubbing being more problematic. The authors also observed that since phubbing by adults can lead to relational devaluation and is associated with social disconnection, children will inevitably experience relational devaluation and potentially even social exclusion when they grow up. Relational devaluation relates to people's perception that they are not as important, valuable, or close as they would like to be.

Parents' phubbing can also signal disinterest to the child and heighten their feelings of rejection. Liu et al. (2021) found this connection, but they said the effects depended on the children's attachment style. In Liu and colleagues' study of high school students in China aged between 12 and 16, the 303 study participants first read the descriptions of the four attachment styles—secure, preoccupied, fearful, and dismissing[2]—then selected the one best suited to their relationship style. Next, they responded to questions that confirmed the consistency of their choice of attachment style to ensure the selection of their attachment style in the first step was appropriate for them. Subsequently, the high school children completed the study questionnaire, which in addition to looking at the effect of parental phubbing on relationship satisfaction, also looked at the effect of parental phubbing on life satisfaction. The study revealed that parental phubbing affected children's life satisfaction negatively. What was interesting was the finding in relation to the effect of parental phubbing on relationship satisfaction. According to Liu and colleagues' study, higher parental phubbing predicted lower relationship satisfaction among the preoccupied teens and the fearful teens, but it had no effect on relationship satisfaction among the secure teens and the dismissing teens. The authors concluded that the preoccupied teens and fearful teens must have interpreted parental phubbing as a sign their parents were not interested in them or were even rejecting them. This is because, they reasoned, the preoccupied and fearful teens are hypersensitive to relational distressing stimuli, so they create negative explanations for their parents' blurred behaviours. But for the secure teens who see themselves as deserving of their parents' love, care, and acceptance, they would not construe these negative interpretations about their parents' phubbing and instead remain positive and forgiving towards their parents.

Feelings of acceptance and rejection due to being phubbed by parents can even affect young adults. A study by Allred (2020) of American university students aged between 18 and 22, who were all single and mostly white, found that parental phubbing negatively affected parental acceptance through a lack of satisfaction with their parents' use of the smartphone. These young adults interpreted their parents' smartphone use during social situations as a sign of rejection. The findings of this study are consistent with the findings of another study of school children as young as 10 years old that was conducted in China. Xie and Xie (2020) found that parental phubbing positively predicted parental rejection. That means, the more parents phubbed their children, the stronger the feelings of rejection the children experienced.

Depression in children as a result of parental phubbing has been reported in at least three empirical research studies. Xie and Xie (2020) found that parental phubbing

[2] For these descriptions see (K. Liu et al., 2021).

positively predicted school children's depression, which means as parental phubbing increased, school children's depression also increased. Depression is linked to parental phubbing through children's feelings of rejection by their parents, which was highlighted above. Xie and Xie (2020) found that rejection was positively associated with depression. The stronger the feelings of rejection the children experienced as a result of their parents' phubbing, the more depressed they became. More recently, Li et al. (2022) found that father phubbing predicted adolescents' depressive symptoms and that perceived father acceptance mediated this relationship. As father phubbing increased, perceived father acceptance decreased, and as a result, adolescents' depressive symptoms increased. Resilience was found to be a significant moderator, but unexpectedly, for adolescents who scored high on resilience, perceived father acceptance became worse as a result of father's phubbing.

Depression is also linked to parental phubbing through low self-esteem and a lack of social support. Wang et al. (2020) surveyed 2407 school children aged between 11 and 16 to determine if self-esteem and social support would moderate the relationship between parental phubbing and children's depressive symptoms. Social support is the awareness that in a time of need, there is someone you can rely on. The authors measured parental phubbing using a modified version of Roberts and David's (2016) partner phubbing scale and measured children's depressive symptoms using the Centre for Epidemiologic Studies Depression Scale. The authors found that parental phubbing significantly positively predicted children's depressive symptoms. Children who experienced higher levels of parental phubbing were more likely to be depressed than those who experienced lower levels of parental phubbing. Self-esteem was found to be a significant moderator in this relationship. Higher levels of parental phubbing resulted in higher levels of depressive symptoms for children with lower levels of self-esteem. When social support was added to the mix, the moderating role of self-esteem and social support remained significant for both. That is, increases in parental phubbing resulted in increases in depressive symptoms for children with low self-esteem and low social support.

Addiction to the smartphone is another detrimental effect of parents' phubbing of their children. In a study of 1007 Chinese school children aged between 11 and 16, Xie et al. (2019) found that parents' phubbing significantly positively predicted smartphone addiction, suggesting the more parents phubbed their children, the more the children became addicted to their smartphones. The authors concluded that as children observe their parents ignore them in favour of the smartphones, children emulate this behaviour and subsequently become addicted to their smartphones. Xie and colleagues also looked at the mediating role of parent–child attachment style in the relationship between parents' phubbing and smartphone addiction to understand the underlying psychological mechanism. The authors found that attachment style had a significant negative indirect effect on the relationship between parents' phubbing and children's smartphone addiction. Higher levels of parental phubbing lowered children's attachment to their parents, and in response, children became more addicted to their smartphones. Of course, a strong parent–child attachment can reduce the effect of parents' phubbing by making children copy their parents' problematic use of the smartphone to a lesser extent (Xie et al., 2019). Interestingly, the

findings of this study also showed that males and females differed in their response to their parents' phubbing. Males were more likely to be addicted to their smartphones compared to females as a result of being phubbed by their parents.

Problematic smartphone use by children as an outcome of parental phubbing was evident in the findings of another study conducted in China. The findings of Hong et al. (2019) study, highlighted below, support the findings above. Hong et al. conducted a large-scale study involving 1721 school children aged between 11 and 17 who completed paper-based questionnaires under the supervision of trained research assistants. The authors wanted to understand the effect of parents' phubbing on children's problematic smartphone use, considering the roles of the parent–child relationship and children's self-esteem. The authors found that children whose parents engaged in higher levels of phubbing exhibited higher levels of problematic smartphone use. They found that the parent–child relationship and children's self-esteem mediated the effect of parents' phubbing on children's problematic smartphone use. This means that as parents' phubbing worsened the parent–child relationship, children's self-esteem suffered, and this, in turn, deepened the children's problematic smartphone use. A satisfactory parent–child relationship can foster a secure emotional bond between parents and children, and this can further enhance children's self-esteem. Children with high self-esteem exhibited lower levels of problematic smartphone use as a result of their parents' phubbing, suggesting self-esteem can serve as a protective shield against the compulsive use of the smartphone (Cebollero-Salinas et al., 2022; Hong et al., 2019).

Compulsive smartphone use association with parental phubbing is also established in Niu et al. (2020), the third study from China. The researchers surveyed 726 school children aged between 12 and 18 with the aim of understating the effect of parental phubbing on children's smartphone addiction. They found that parental phubbing was positively associated with children's smartphone addiction. They also found that the parent–child relationship partially mediated the effect of parents' phubbing on children's smartphone addiction, which suggests that affection, intimacy, and satisfaction with the parent–child relationship can weaken the effect of parents' phubbing on children's smartphone addiction. This is similar to the mediating roles of the parent–child attachment style in Xie et al. (2019) research and the parent–child relationship in Hong et al. (2019) research, both highlighted above. Niu et al. (2020) also found that self-control moderated the relationship between parents' phubbing and children's smartphone addiction. The results indicate that the effect of parents' phubbing on children's smartphone addiction is stronger for children with low self-control. Children with high self-control developed problematic smartphone use to a lesser extent when phubbed by their parents.

Dependency on smartphones by children as a result of parental phubbing was the subject of a fourth study, also from China. De Liu's et al. (2019) findings support the findings of Xie et al. (2019) and Niu et al. (2020), highlighted above, in relation to the effect of parental phubbing on children's smartphone addiction. De Liu et al. (2019) studied the effect of parental phubbing on school children's smartphone dependency and found that parental phubbing significantly increased school children's smartphone dependency. De Liu et al. (2019) found that subjective norms and

dependency intentions further reinforced school children's smartphone dependency in response to parental phubbing. Subjective norms, in the context of this study, should be understood as children's perception of what their parents think the children ought to do with their smartphones. Dependency intensions drew on the theory of planned behaviour, that is, that individuals' behaviours are tied to their intentions. The authors found that parents' phubbing affected school children's smartphone dependency in two ways. First, it increased the children's dependency intentions and this, in turn, increased their smartphone dependency; second, it reinforced children's subjective norms regarding the appropriate amount of time spent on the smartphone and this increased children's smartphone dependency.

Deviant peer behaviour was also reported as one of the effects of parents' phubbing. For example, Xie et al. (2019) found a link between parents' phubbing and deviant peer behaviour. The more the parents phubbed their children, the more the children became influenced by their peers' deviant behaviour. Xie and colleagues also looked at parents' phubbing and parent–child attachment style and found a significant negative mediating effect on the relationship between parents' phubbing and peers' deviant behaviour. Higher levels of parental phubbing lowered children's attachment to their parents and in response children became more influenced by their peers' deviant behaviour. That said, a strong parent–child attachment, as indicated above, can reduce the effect of parents' phubbing by making children copy their peers' deviant behaviour to a lesser extent (Xie et al., 2019). The findings of this study also showed that males and females differed in their response to their parents' phubbing. Males were more likely to develop deviant peer behaviour than females due to being phubbed by their parents.

Cyberbullying is one of these deviant behaviours in which school children tend to imitate their peers when phubbed by their parents. In another Chinese study of 450 school children aged between 11 and 18, Wei et al. (2021) found that parents' phubbing was positively associated with cyberbullying, which means the more the parents phubbed their children, the more the children committed cyberbullying. The authors also found that parents' phubbing was positively associated with anxiety, meaning as parents' phubbing of their children increased, their children's anxiety levels increased. More importantly, the authors found that anxiety mediated the effect of parents' phubbing on cyberbullying. This means parents' phubbing increased children's anxiety levels and this in turn exacerbated their cyberbullying perpetration. Wei and colleagues also included a moderator called 'Zhong-Yong thinking', which is similar to the concept of 'perspective taking' (Wang et al., 2022), to see if it could restrain phubbed children from engaging in cyberbullying. The research team found that the effect of parents' phubbing was stronger for children with lower levels of Zhong-Yong thinking than those with higher levels of Zhong-Yong thinking. That is, children who could exercise self-control, not act on their impulses, consider the impact of their actions on others, and select the best course of action, engaged in cyberbullying less when phubbed by their parents.

Cyber flaming is another deviant behaviour linked to parents' phubbing. Wang et al. (2022) recruited 689 school children in China with a mean age of 17 years, in order to understand the effect of parents' phubbing on school children's hostility

online. To understand the underlying psychological mechanism, they also studied the mediating role of perspective taking and the moderating role of gender. The authors found that parents' phubbing positively predicted cyber flaming. This means the more the parents phubbed their children, the more the children became hostile in cyberspace. Perspective taking mediated the relationship between parents' phubbing and cyber flaming, indicating the effect of parents' phubbing was weaker for school children with higher levels of perspective taking than those with lower levels of perspective taking; but this was true only for males. For females, perspective taking did not make any difference. This means parents' phubbing of male children with lower levels of perspective taking will place these children at a greater risk of expressing hostility towards others in cyberspace.

Academic burnout and poor mental health are two adverse effects of parents' phubbing, specifically mothers' phubbing of their children. Bai et al. (2020) analysed the responses of 2996 Chinese school children, with a mean age of 16.64 years, to a questionnaire that included mental health, agreeableness, and neuroticism scales in addition to the mother phubbing and academic burnout scales. In the context of this study, academic burnout should be understood in terms of feelings of exhaustion, exhibiting a cynical attitude and efficacy towards one's schoolwork. The authors found that children phubbed by their mothers exhibited higher levels of academic burnout. They also found that mother phubbing was negatively associated with mental health, such that as mothers' phubbing increased, mental health deteriorated. Mental health also mediated the relationship between mother phubbing and academic burnout. This means the more a mother phubs her children, the poorer the children's mental health gets, resulting in higher levels of academic burnout. But these relationships are also moderated by the children's levels of agreeableness and neuroticism. Agreeableness moderated the relationship between mother phubbing and children's mental health. Children both high and low on agreeableness reported higher levels of mental health as a result of mother phubbing, but children with higher levels of agreeableness were affected more negatively in response to their mother phubbing than those with lower levels of agreeableness. Similarly, neuroticism moderated the relationship between mental health and academic burnout. Children both high and low on neuroticism reported higher levels of academic burnout as a result of mother phubbing, but children with higher levels of neuroticism (see Chap. 6) were affected more negatively because of mother phubbing than those with lower levels of neuroticism. Another more recent study, from China, also found a link between phubbing and academic burnout. Zhang's et al. (2022) study revealed that as parental marital conflicts increased, which according to the authors were exacerbated by COVID-19 lockdowns, students' negative emotions increased leading them to engage in higher levels of phubbing. This, in turn, caused them to experience academic burnout.

To summarise the findings, parents' phubbing affected children's feeling of social disconnection from parents. As parents' phubbing increased, feelings of social disconnection strengthened. Parental phubbing triggered parental rejection such that the more parents phubbed their children, the stronger the feelings of rejection the children felt. Parents' phubbing affected children's life satisfaction negatively and

has been found to increase children's anxiety levels and worsen depressive symptoms. Children who experienced higher levels of parental phubbing were more likely to become depressed than those who experienced lower levels of parental phubbing. Parents' phubbing caused smartphone addiction; so the more the parents phubbed their children, the more the children became addicted to their smartphones. Similar results were found when researchers investigated the effect of parents' phubbing on children's problematic smartphone use and dependency. Parents' phubbing has led children to engage in cyberbullying and replicate their peers' deviant behaviour. The more the parents phubbed their children, the more they engaged in cyberbullying or imitated their peers' deviant behaviour, such as engaging in cyber flaming or becoming hostile in cyberspace. In the face of these findings, parents should be cognisant of the effects of their phubbing on their children because their actions not only have devastating effects on their children now but potentially catastrophic consequences for the society of tomorrow. It is clear from these findings that the effects of parents' phubbing on children are cause for grave concern.

Here is how the underlying psychological mechanism of parents' phubbing works. Parents' phubbing can lead children to experience social disconnection, and these feelings of social disconnection from parents can result in children developing feelings of relational devaluation and potentially even social exclusion. Parental phubbing creates in children a lack of satisfaction with their parents' use of the smartphone. This in turn weakens the children's feeling of parental acceptance. When the role of feelings of rejection in the relationship between parents' phubbing and depression was investigated, one study found rejection played a significant role. The stronger the feelings of rejection that the children endured as a result of their parents' phubbing, the more depressed they became. In terms of the behaviours that children turned to when phubbed by their parents, parents' phubbing further reinforced school children's smartphone dependency through affecting subjective norms and smartphone dependency intentions. The parent–child relationship has been found to play a significant role in the effect of parents' phubbing on children's smartphone addiction. Parents' phubbing reduced affection, intimacy, and satisfaction with the parent–child relationship, intensifying children's problematic smartphone use. The mediating effect of parent–child relationship was identified in another study which found affection, intimacy, and satisfaction with the parent–child relationship could weaken the effect of parents' phubbing on children's smartphone addiction. Similarly, when children are phubbed by their parents, the parent–child attachment style can protect against children duplicating their peers' deviant behaviour. Also, while parents' phubbing increased children's anxiety levels, which in turn exacerbated their cyberbullying perpetration, the effect of parents' phubbing was only stronger for children with lower levels of perspective taking, Zhong-Yong thinking, and self-control. For children with stronger levels of perspective taking, Zhong-Yong thinking, and self-control, the effect of parents' phubbing was weaker.

Parents' phubbing did not affect all children in the same way. There were differences between males and females in their response to their parents' phubbing. Males were more likely to be addicted to their smartphones compared to females as a result of being phubbed by their parents. They were also more likely to develop deviant peer

behaviour than females due to being phubbed by their parents. Even the underlying psychological mechanism differed across genders. For example, the role of perspective taking in cyber flaming was only apparent for boys. Phubbing boys with lower levels of perspective taking places them at a greater risk of engaging in cyber flaming. Perspective taking did not affect girls. In another example, parental phubbing lowered relationship satisfaction only among the preoccupied teens and fearful teens. It did not affect relationship satisfaction between the secure teens and dismissing teens. Higher levels of parental phubbing caused children to develop depressive symptoms, especially for children with lower levels of self-esteem and social support. Children with high levels of self-esteem and social support were less affected. Parents' phubbing made children develop problematic smartphone use, especially children with lower levels of self-esteem. Similarly, parents' phubbing made children addicted to smartphones, but the addiction was stronger for children with low self-control. In addition, the parent–child attachment style played a significant role in the relationship between parents' phubbing and children's problematic use of the smartphone. Children who are secure and dismissing did not replicate their parents' problematic smartphone use when phubbed by their parents compared to the preoccupied and fearful children who did.

There were also differences in how children responded to their mother's phubbing and their father's phubbing. Children were affected by mother phubbing more than they were affected by father phubbing. For example, the influence of phubbing on social disconnection was stronger for mother phubbing than for father phubbing. In addition, children phubbed by their mothers exhibited higher levels of academic burnout and mental health. However, children with lower levels of agreeableness were affected less negatively because of mother phubbing than those with higher levels of agreeableness. Similarly, children with lower levels of neuroticism were affected less negatively because of mother phubbing than those with higher levels of neuroticism.

Six observations about the research on parents' phubbing of children are worth making. Most of the studies reported in this chapter utilised large sample sizes involving, in most cases, thousands of high school students. This, without a doubt, can only enhance the credibility of the findings from these studies. Most of the studies were conducted in China. It is not clear why there is hardly any research in this area from elsewhere, but it could be due to the difficulty involved in securing ethics approval for conducting research involving children in countries like Australia, the United States, and European countries. In Australia, for example, ethical approval for research involving children is not difficult to obtain but it does involve additional steps to be taken when applying and additional requirements to be met. This may mean doing research that involves persons above 18 years of age is more straightforward. Most of the research studies reviewed for this chapter relied on an adapted version of Roberts and David (2016) now widely used partner phubbing scale to measure parents' phubbing. The journals that published this research were of high quality, listed in Scopus, and all were high impact, with several ranked in Q1 or Quartile One. Furthermore, most of the studies reported in this chapter adopted questionnaires, which means the researchers relied on self-report and memory recall strategies

for these psychologically complex topics. But strategies like controlled experiments or brain scanning, for example, electroencephalogram (EEG), are costly, extremely complicated and may raise ethical concerns; thus, questionnaires understandably offer a pragmatic yet reliable option. Finally, much of the research reported in this chapter adopted a mediated moderated analysis. In most cases, the mediation was carried out using the now widespread Hayes PROCESS models and Macro in SPSS. This allowed the findings not only to speak about the effects of parents' phubbing of children (regression) but also how the effects occur, that is, the underlying psychological mechanism (mediation), and which groups of people were affected most or for which personal characteristics the effects were stronger (moderation).

Future research should investigate how children's phubbing of parents and friends affects the phubbed parents and friends. Children's phubbing of others has surprisingly never been studied yet. A future study should also investigate children's phubbing of other family members, such as siblings and grandparents. Self-esteem and parent–child attachment style acted as protective shields against inappropriate use of the smartphone caused by parental phubbing. How males and females differed in this regard? This is a question for future research. Relatedly, these studies from China show clear differences between paternal phubbing and maternal phubbing. A future study could investigate the effects of mother phubbing and father phubbing on children in culturally different societies, like the Australian, to see if these gender differences hold true elsewhere.

References

Al-Saggaf, Y., & MacCulloch, R. (2018). Phubbing: How frequent? Who is phubbed? In which situation? And using which apps? *International conference on information systems 2018, ICIS 2018*, *2018*, (pp. 1–9).

Allred, R. J. (2020). *Cell phone presence, phubbing, and rejection: Antecedents and effects of cell phone usage during face-to-face communication.* In *PhD thesis.* University of Connecticut. https://opencommons.uconn.edu/dissertations/2569

Bai, Q., Bai, S., Dan, Q., Lei, L., & Wang, P. (2020). Mother phubbing and adolescent academic burnout: The mediating role of mental health and the moderating role of agreeableness and neuroticism. *Personality and Individual Differences, 155*, 109622. https://doi.org/10.1016/J.PAID.2019.109622

Cebollero-Salinas, A., Cano-Escoriaza, J., & Orejudo, S. (2022). Are emotional e-competencies a protective factor against habitual digital behaviors (media multitasking, cybergossip, phubbing) in Spanish students of secondary education? *Computers & Education*, *181*, 104464. https://doi.org/10.1016/J.COMPEDU.2022.104464

Hong, W., Liu, R. D., Ding, Y., Oei, T. P., Zhen, R., & Jiang, S. (2019). Parents' Phubbing and Problematic Mobile Phone Use: The Roles of the Parent-Child Relationship and Children's Self-Esteem. *Cyberpsychology, Behavior, and Social Networking, 22*(12), 779–786. https://doi.org/10.1089/CYBER.2019.0179

Li, B., Wang, P., Xie, X., Chen, Y., Wang, W., Liu, C., Zhao, M., Zhu, M., & Mao, N. (2022). Father Phubbing and Adolescents' Depressive Symptoms: Perceived Father Acceptance as a Mediator and Resilience as a Moderator. *The Journal of Psychology, 156*(5), 349–366. https://doi.org/10.1080/00223980.2022.2044745

Liu, R. D., Wang, J., Gu, D., Ding, Y., Oei, T. P., Hong, W., Zhen, R., & Li, Y. M. (2019). The Effect of Parental Phubbing on Teenager's Mobile Phone Dependency Behaviors: The Mediation Role of Subjective Norm and Dependency Intention. *Psychology Research and Behavior Management, 12*, 1059. https://doi.org/10.2147/PRBM.S224133

Liu, K., Chen, W., Wang, H., Geng, J., & Lei, L. (2021). Parental phubbing linking to adolescent life satisfaction: The mediating role of relationship satisfaction and the moderating role of attachment styles. *Child: Care, Health and Development*, *47*(2), 281–289. https://doi.org/10.1111/CCH.12839

Niu, G., Yao, L., Wu, L., Tian, Y., Xu, L., & Sun, X. (2020). Parental phubbing and adolescent problematic mobile phone use: The role of parent-child relationship and self-control. *Children and Youth Services Review, 116*, 105247. https://doi.org/10.1016/J.CHILDYOUTH.2020.105247

Pancani, L., Gerosa, T., Gui, M., & Riva, P. (2020). "Mom, dad, look at me": The development of the parental phubbing scale. *Journal of Social and Personal Relationships*, *38*(2), 435–458. https://doi.org/10.1177/0265407520964866

Roberts, J. A., & David, M. E. (2016). My life has become a major distraction from my cell phone: Partner phubbing and relationship satisfaction among romantic partners. *Computers in Human Behavior, 54*, 134–141. https://doi.org/10.1016/j.chb.2015.07.058

Wang, H., Zhou, L., Geng, J., & Lei, L. (2022). Sex differences of parental phubbing on online hostility among adolescents: A moderated mediation model. *Aggressive Behavior, 48*(1), 94–102. https://doi.org/10.1002/ab.21994

Wang, X., Gao, L., Yang, J., Zhao, F., & Wang, P. (2020). Parental phubbing and Adolescents' depressive symptoms: Self-esteem and perceived social support as moderators. *Journal of Youth and Adolescence, 49*(2), 427–437. https://doi.org/10.1007/S10964-019-01185-X/TABLES/3

Wei, H., Ding, H., Huang, F., & Zhu, L. (2021). Parents' phubbing and cyberbullying perpetration among adolescents: The mediation of anxiety and the moderation of Zhong-Yong thinking. *International Journal of Mental Health and Addiction*, 1–14. https://doi.org/10.1007/S11469-021-00535-W/FIGURES/3

Xie, X., Chen, W., Zhu, X., & He, D. (2019). Parents' phubbing increases Adolescents' mobile phone addiction: Roles of parent-child attachment, deviant peers, and gender. *Children and Youth Services Review, 105*, 104426. https://doi.org/10.1016/J.CHILDYOUTH.2019.104426

Xie, X., & Xie, J. (2020). Parental phubbing accelerates depression in late childhood and adolescence: A two-path model. *Journal of Adolescence, 78*, 43–52. https://doi.org/10.1016/J.ADOLESCENCE.2019.12.004

Zhang, H., Gao, T., Hu, Q., Zhao, L., Wang, X., Sun, X., & Li, S. (2022). Parental marital conflict, negative emotions, phubbing, and academic burnout among college students in the postpandemic era: A multiple mediating models. *Psychology in the Schools*. https://doi.org/10.1002/PITS.22707

Chapter 3
Partner Phubbing

Phubbing is so normalised nowadays that most people in relationships don't even notice when their partners phub them. But for some, partner phubbing can trigger a myriad of emotions. I witness people engage with their smartphones during face-to-face conversations with others nearly every day. As someone who is not highly dependent on his smartphone, I can't say these phubbing encounters don't affect me as a bystander. One of my lingering memories is from an incident that occurred last year.

The Indian restaurant in town was buzzing with diners on a Saturday night as I sat with my young family at a table closest to a corner. We munched on our appetisers while watching the kitchen entrance so as not to miss the moment our food arrived and occasionally looked at the rain through the window. At one point, our little one decided he had enough waiting for the food, so he started misbehaving, making the salt grinder fight the pepper grinder as if they were Spiderman and the Vulture. As I lowered my eyebrows, tightened my lips, and looked at the boy angrily, I glanced at the table behind us to see if I was caught in this compromised position. The young woman at the table opposite sighed deeply at the image of her partner fully immersed with his smartphone—she turned her lowered misty eyes absent-mindedly towards the rain through the window. She was clearly sad.

Not all partner phubbing situations will elicit such strong emotions but if partners phub each other at a restaurant that they booked in advance, marked in their calendars, and dressed up for, perhaps even to celebrate an occasion, what stops them from phubbing each other at home over the dinner table? Indeed, in our 2018 study (Al-Saggaf & MacCulloch, 2019), we found that our research participants reported phubbing their partner (i.e. wife, husband, girlfriend, boyfriend, etc.) more frequently than they phubbed their close friends, friends, siblings, children, parents, acquaintances, strangers in the street, other relatives, colleagues, subordinates, grandparents, work supervisors and managers, clients, and customers. It was clear that people are more likely to look at their smartphones while having a face-to-face conversation with people with whom they have a closer relationship than with people with whom

Y. Al-Saggaf, *The Psychology of Phubbing*, SpringerBriefs
in Psychology, https://doi.org/10.1007/978-981-19-7045-0_3

they have a less close relationship (Al-Saggaf & MacCulloch, 2019). The study also revealed that phubbing occurs during mealtimes with family and even in bed.

The literature indicates that people in romantic relationships should be extremely careful not to ignore their partners in social situations in favour of the smartphone, as the consequences can be regrettably catastrophic. It turns out partner phubbing can lead to depression, lowers feelings of intimacy, attachment, and relationship satisfaction, triggers feelings of exclusion, decreases marital quality, ignites smartphone conflicts and jealousy, and, overall, negatively affects the phubbed partner's well-being. This is not an exhaustive list of the effects of partner phubbing but a glimpse of what will be highlighted below. It indicates that partner phubbing has attracted significant attention from researchers.

Depression's link to partner phubbing appeared first in the ground-breaking research by Roberts and David (2016), who developed the now widely used partner phubbing scale. In the first study, Roberts and David tested their partner phubbing scale using a sample of 308 United States adults recruited via Amazon's Mechanical Turk. In the second study, the authors investigated the relationships among partner phubbing, smartphone conflict, attachment anxiety, relationship satisfaction, satisfaction with life, and depression using a sample of 145 United States adults, also recruited via Mechanical Turk. The authors found that partner phubbing indirectly affected depression (through mediation). Partner phubbing negatively affected relationship satisfaction because partner phubbing increased smartphone conflict. At the same time, relationship satisfaction positively affected life satisfaction and life satisfaction had a negative effect on depression. Thus, the more the partners are satisfied with the relationship, the more they are satisfied with life. The more they are satisfied with life, the less depressed they become.

Attachment anxiety played a moderating role in Roberts and David's (2016) research. Attachment anxiety relates to the fear of abandonment by the partner and the extent to which people are concerned about whether they will be accepted in a relationship. In Roberts and David's (2016) research, participants who scored high on attachment anxiety reported higher levels of conflict about smartphone use than those who scored lower on attachment anxiety. This suggests that phubbing affected partners with low attachment anxiety to a lesser extent. Interestingly, Roberts and David's (2022a) latest research, in which they investigated attachment anxiety as a mediator between the length of the relationship (between partners) and the perceived partner phubbing, revealed that enduring relationships were associated with lower attachment anxiety and lower attachment anxiety was associated with lower perceived partner phubbing. But there was another psychological mechanism that played an opposing role. As relationships lasted longer, passion declined and this decline in passion was associated with higher perceived partner phubbing.

Intimacy is what sustains a relationship. A study conducted by Vanden Abeele et al. (2019) revealed that partner phubbing decreased intimacy rating by a significant amount. This study recruited 200 participants who formed 100 dyads. While not all the dyads in this study were in romantic relationships, the study results offer important clues about the effects of partner phubbing on intimacy. Methodologically, the researchers used a paper-based questionnaire to understand the effect of phubbing

on intimacy, among other things. Importantly, they conducted unobtrusive silent observation of participants at a restaurant frequented by university students. The use of mixed methods allowed the researchers to observe how dyads used the smartphone in social situations. The authors conclude that partner phubbing can give rise to a situation where the conversation partners are 'absent present' (Gergen, 2009), or as Sherry Turkle called it, 'alone together' (Turkle, 2012). While the authors believe that the effect of partner phubbing on intimacy is so small that people don't seem even to notice it, their findings paint a different picture. Their findings show that individuals who had been phubbed by their partners even just once during their face-to-face conversation reported experiencing lower conversation intimacy.

Social exclusion features prominently in the research for this chapter of the book. David and Roberts (2020), who developed the partner phubbing scale (Roberts & David, 2016), conducted two studies to investigate the relationships between perceived phubbing, social exclusion, the need for attention, and social media intensity. In the first study, they developed the perceived phubbing scale using a sample of 258 university students and tested their initial hypothesis regarding the association between perceived phubbing and social exclusion. In the second study, they tested the robustness of their scale (David & Roberts, 2017) on their model using a sample of 157 United States adults recruited via Amazon's Mechanical Turk. The authors found that their perceived phubbing scale was valid and reliable and that perceived phubbing was significantly positively associated with social exclusion. Perceived phubbing ignited feelings of social exclusion. They also found that perceived phubbing affected social media intensity indirectly through the mediating role of feelings of exclusion and the need for attention. This means as perceived phubbing stirred up the phubbee's feelings of social exclusion, these feelings triggered the phubbee's need for attention, which the phubbee satisfied by spending an extensive amount of time on social media. David and Roberts (2020) also found that perceived phubbing indirectly affected the phubbee's well-being, as they found that higher levels of perceived phubbing were associated with higher levels of anxiety and depression.

Social exclusion is strongly linked to partner phubbing (McDaniel & Wesselmann, 2021), but the reason for phubbing can weaken this link. McDaniel and Wesselmann's study is interesting because it is one of the few studies that adopted an experimental design in addition to a short survey. The authors randomly allocated their young participants, almost 100 university students, to three experimental conditions. In the first condition, the smartphone was not used; in the second, the smartphone was used and an important reason for the phubbing was given to the phubbed partner (e.g. mother was in hospital); in the third, the smartphone was used but a trivial reason for the phubbing was given to the phubbed partner (e.g. making plans with friends for the weekend). Participants reported feeling more excluded and less close when phubbed by their partner regardless of the reason their phubbing partner gave them. However, participants phubbed for an important reason reported feeling less excluded than those who were given a trivial reason. This study sheds light on the importance of attributional information in the underlying psychological mechanism of phubbing. If the reason given for smartphone use during face-to-face conversations is important, it can make phubbed partners feel less excluded.

Attributional processing of the phubbing behaviour was investigated from an observer's perspective. While the study was not conducted in the context of partner phubbing, the findings are illuminating of how the reason given for smartphone use in social situations can wither the negative effects of phubbing. Abeele and Postma-Nilsenova (2018) employed video vignettes to depict more realistically the scenario of phubbing a conversation partner under five experimental conditions, including gazing at a newspaper (instead of a smartphone) while interacting with a conversation partner, phubbing using a smartphone while speaking to a conversation partner, and phubbing using a smartphone while listening to a conversation partner. Abeele and Postma-Nilsenova were interested in testing the effect of phubbing on the observer's evaluation of the phubber's scores on affiliation, which is the tendency to foster social harmony and emotional cohesion, and affiliation-extraversion, which is the tendency to enjoy being with people, willingly accept them and make an effort to win them as friends. The authors discovered that gazing at a newspaper did not generate lower ratings of affiliation or affiliation-extraversion, suggesting phubbing using a newspaper does not elicit a negative effect. In contrast, gazing at a smartphone led to a more negative evaluation of the conversation partner than gazing at a newspaper, which was associated with more affiliation to the conversation partner. Again, participants judged the act of averting the gaze to a newspaper to be less problematic than averting the gaze to a smartphone. The reason a magazine was perceived as an acceptable excuse for phubbing someone was because the magazine was considered important, educating, and a useful resource for preserving one's attentiveness (Mantere et al., 2021). The smartphone, on the other hand, was thought to be an unacceptable excuse for phubbing someone because it was judged as 'unimportant' (Mantere et al., 2021). Interestingly, this study revealed that phubbing using a smartphone while listening to a conversation partner was worse than phubbing while speaking to a conversation partner. The authors note that phubbing signals disinterest in the face-to-face conversation and conversation partner and conclude that the object to which the gaze is averted plays a role in activating attributional processes of relational devaluation, highlighted in Chap. 2.

Relationship satisfaction is the first feeling that partner phubbing threatens. As seen from the paragraph above about depression, a reduction in satisfaction with the relationship triggers a domino effect. When relationship satisfaction is down, satisfaction with life goes down, and as a result, feelings of depression go up. Beukeboom and Pollmann (2021) investigated the link between partner phubbing and relationship satisfaction in two studies. In the first study, a sample of 507 participants, who were in a relationship for at least four months, responded to questions related to partner phubbing, relationship satisfaction, feelings of exclusion, intimacy, partner responsiveness, shared phone use, and conflict over phone use. In the second study, a sample of 386 participants, who were in a relationship for at least three months, responded to questions related to the above psychosocial constructs with two main differences. The first difference was the inclusion of feelings of jealousy as another mediator in the relationship between partner phubbing and relationship satisfaction; the second was the use of different scales for relationship satisfaction and shared phone use. The main reason for cross-checking the findings from the two studies is

to check their robustness. In the first study, the authors found that relationship satisfaction, responsiveness, and intimacy decreased with age, while feelings of exclusion increased. In the second study, responsiveness and intimacy decreased with age, while feelings of exclusion increased. Contrary to the first study, relationship satisfaction did not correlate with age. From these two studies, it was clear that as partners' age increased, their responsiveness and intimacy declined, and feelings of exclusion went up. The findings of both studies showed that partner phubbing is negatively associated with relationship satisfaction. In both of Beukeboom and Pollmann's (2021) studies, feelings of exclusion, intimacy, and partner responsiveness mediated the relationship between partner phubbing and relationship satisfaction. This means that the effect of higher levels of partner phubbing on the reduction in relationship satisfaction is almost fully explained by stronger feelings of exclusion, weaker partner responsiveness, and lower levels of intimacy. That partner phubbing negatively affects relationship satisfaction is also confirmed recently by Wang and Zhao's (2022), Chmielik and Błachnio (2021), and Roberts and David's (2022a, 2022b) studies. Thus, there is strong evidence that partner phubbing can decrease satisfaction with the relationship. In Wang and Zhao (2022) study, higher levels of partner phubbing resulted in reduction in marital interaction, which in turn increased marital conflicts. These two mediators sequentially led to poorer relationship satisfaction. However, in Roberts and David's (2022a, 2022b) study, while the research participants considered partner phubbing as 'uncouth' behaviour, they did not take it personally. Indeed, another recent study by Frackowiak et al. (2022) revealed that participants did not experience a drop in relationship satisfaction on days their partners phubbed them compared to days they were not phubbed by their partners. In fact, the opposite was true in the case of Aljasir's (2022) recent study. Aljasir's study, which inloved married Saudi participants, revealed that as partner phubbing increased, relationship satisfaction increased. The researcher did not give an explanation for this contradictory finding. That said, these latest research findings may mean that partners may be beginning to see partner phubbing as a normal behaviour.

Feelings of jealousy did not mediate the relationship between partner phubbing and relationship satisfaction when thrown into the mix with the other mediators in Beukeboom and Pollmann's (2021) second study. The authors also looked at the moderating role of shared phone use when one partner lets the other partner watch on their smartphone. In the first study, the authors found that higher levels of smartphone sharing with the partner made the negative effect of partner phubbing on relationship satisfaction disappear. In the second study, the moderating effect of shared phone use was not significant, but shared phone use reduced conflicts over phone use. Furthermore, in study one, the authors looked at the mediating role of conflict over the phone separately and found that it had an indirect effect on the relationship between partner phubbing and relationship satisfaction, but it was not significant when included with the other mediators. Similarly, in the second study, when the authors tested the mediating effect of feelings of jealousy separately, they found it mediated the relationship between partner phubbing and relationship satisfaction, but it was not significant when included with the other mediators.

Feelings of jealousy did play a mediating role in the relationship between partner phubbing and relationship satisfaction in David and Roberts' (2021) research. David and Roberts conducted three studies to explore the effects of partner phubbing and the underlying psychological mechanism associated with it. The first study investigated the effect of partner phubbing on relationship satisfaction and the mediating role of feelings of jealousy using a sample of 191 United States adults recruited via Amazon's Mechanical Turk. As they predicted, the authors found partner phubbing negatively affected relationship satisfaction and that the effect of partner phubbing on relationship satisfaction was mediated by feelings of jealousy. The second study assessed the moderating role of attachment anxiety in the partner phubbing process using a sample of 120 United States adults recruited via Amazon's Mechanical Turk. As expected, the authors found that the effect of partner phubbing on feelings of jealousy was significant only for participants who scored high on attachment anxiety. For participants who scored low on attachment anxiety, the effect of partner phubbing on romantic jealousy was not significant. Similarly, the second study revealed that the effect of partner phubbing on relationship satisfaction, which was transmitted by feelings of jealousy, was significant only for the participants who scored high on attachment anxiety.

Well-being was the psychological construct that replaced relationship satisfaction in David and Roberts' (2021) third study discussed above. Using a sample of 300 United States adults recruited via Amazon's Mechanical Turk, David and Roberts again found that the effect of partner phubbing on feelings of jealousy was significant only for participants who scored high on attachment anxiety. More importantly, this third study revealed that the effect of partner phubbing on well-being, which was transmitted by feelings of jealousy, was significant only for the participants who scored high on attachment anxiety. The authors noted that partner phubbing intensified highly anxious partners' feelings of jealousy, as they worried that their partner phubbing might signal that their partner could be pursuing someone romantically and this in turn negatively affected their relationship satisfaction with their partner and their well-being. The earlier findings of Ning (2019), who studied the effect of phubbing on well-being, are consistent with David and Roberts' (2021) findings above, even though Ning studied the effect of phubbing in general; that is, there was not a specific focus on partner phubbing. Ning's findings showed that phubbing negatively affected participants' well-being. While giving a reason for the phubbing or reciprocating the phubbing lessened the effect of phubbing on the phubbed individual's well-being, the effects did not disappear. The author concluded that phubbing is a form of ostracism that can have detrimental effects on the phubbed individuals even if an explanation for the phubbing was received or the phubbed individuals 'revenged phubbed' the people who phubbed them.

Self-esteem has been found to influence how partner phubbing affects relationship satisfaction. Relationship satisfaction can worsen due to partner phubbing, especially for those with higher levels of self-esteem. Wang et al. (2021) were interested in the moderating role of self-esteem and marital status in the association between partner phubbing and relationship satisfaction. Their sample of 429 Chinese adults consisted

of 243 married adults and 186 unmarried adults. Interestingly, the negative association between partner phubbing and relationship satisfaction, reported in Beukeboom and Pollmann (2021) above, was only significant for married participants. For adults in romantic relationships who were not married, partner phubbing did not affect their relationship satisfaction. This finding suggests that married partners and unmarried individuals in romantic relationships differed with respect to the effect of partner phubbing on relationship satisfaction. But this finding could be because the married participants scored slightly higher than the unmarried participants in partner phubbing. That is, the married participants phubbed their spouses more than the unmarried participants did to their partners. That aside, self-esteem played a key role in moderating the relationship between partner phubbing and relationship satisfaction. The negative effect of partner phubbing on relationship satisfaction was significant only for participants with high levels of self-esteem. Partner phubbing did not adversely affect relationship satisfaction for participants with low levels of self-esteem.

The quality of marriage can suffer as a result of partner phubbing. A study from Malaysia looked into this negative effect. Khodabakhsh and Le Ong (2021) recruited 390 Malaysian married adults who had been married for more than a year to see if partner phubbing affects the quality of the marriage, which they assessed using the Dyadic Adjustment Scale. The findings revealed that partner phubbing significantly negatively affected marital quality. Age and gender both moderated the effect of partner phubbing on marital quality. The effect of partner phubbing on the quality of marriage was stronger for younger people than for older people. In fact, the effect of partner phubbing on marital quality was not even significant for participants in the 51–60 age group. On the other hand, the effect of partner phubbing on marital quality was the strongest for the participants in the 21–30 age group. With respect to gender, the effect of husbands' phubbing on the quality of the marriage was much stronger for the wives than the effect of wives' phubbing on the quality of marriage for the husbands. Ippolito (2020) reported a similar finding to Khodabakhsh and Le Ong's (2021) finding about the effect of females' phubbing on relationship satisfaction for males in established romantic relationships. While Ippolito found male participants indicated that less phubbing was associated with better relationship satisfaction, being phubbed by their female partners did not correlate with relationship satisfaction, suggesting their relationship satisfaction remained high even if their female partners occasionally phubbed them.

To summarise the findings, partner phubbing negatively affected relationship satisfaction. As partner phubbing increased, relationship satisfaction declined. Partner phubbing has been found to be associated with depression. Partner phubbing increased smartphone-related conflicts and decreased feelings of intimacy. Phubbing ignited partners' feelings of social exclusion and made them feel less close to their partners. Partner phubbing triggered feelings of jealousy—the more the individuals were ignored by partners in social situations in favour of the smartphone, the stronger the feelings of jealousy became. Partner phubbing negatively affected overall well-being, not only because it worsened partner depressive symptoms but also because it increased partners' social anxiety levels. Partner phubbing also made the quality of the marriage suffer. Considering these findings, partners should be aware of the effects

of phubbing on their partners because phubbing not only threatens their relationship with their partners but negatively affects the well-being of their partners.

The underlying psychological mechanism of partner phubbing, in other words, the intermediaries between partner phubbing and its effects, manifests itself as follows. The effect of partner phubbing on depression was transmitted through a reduction in levels of relationship satisfaction, which in turn was negatively affected by increased smartphone conflicts and a reduction in satisfaction with life. Feelings of jealousy also explained the effect of partner phubbing on relationship satisfaction. As partner phubbing ignited feelings of jealousy, relationship satisfaction worsened. In addition, the effect of increased partner phubbing on the deterioration of relationship satisfaction resulted in intense feelings of exclusion, apparent poor partner responsiveness, and deficient feelings of intimacy. In terms of individuals' responses when phubbed by their partner, one study found a link between partner phubbing and social media intensity. It turned out that as phubbing heightened feelings of social exclusion, the phubbees' need for attention was activated, and to satisfy this need, the phubbee spent an extensive amount of time on social media.

Individual differences were key to how partner phubbing affected individuals. Highly anxious individuals engaged in conflicts about smartphone use more than less anxious individuals, suggesting individuals low on attachment anxiety were affected by partner phubbing less than those high on attachment anxiety. Likewise, partner phubbing heightened feelings of jealousy only for individuals who scored high on attachment anxiety. Partner phubbing did not provoke feelings of jealousy for individuals who scored low on attachment anxiety. Moreover, the effect of partner phubbing on relationship satisfaction was significant only for the participants who scored high on attachment anxiety. In terms of the effect of partner phubbing on relationship satisfaction, age was not found to be associated with either partner phubbing or relationship satisfaction, but one study found that as partners' age increased, their responsiveness and intimacy declined, and feelings of exclusion went up. That said, another study found age to be a distinguishing factor in the effect of partner phubbing on the quality of marriage. Partner phubbing had a much stronger effect on marriage quality for younger people than older people. Gender also moderated the effect of partner phubbing on the quality of marriage. The effect of partner phubbing on the quality of marriage was much stronger for females than for males. Marital status also split the results relating to phubbing and relationship satisfaction. One study found partner phubbing to be negatively associated with relationship satisfaction but only for married participants. For individuals in romantic relationships who were not married, relationship satisfaction was not affected by partner phubbing. Related to this, another study revealed that partner phubbing negatively affected relationship satisfaction but only for individuals with high levels of self-esteem. Partner phubbing did not harm the relationship satisfaction of individuals who reported low levels of self-esteem.

The reason given for phubbing can make a difference in how the partner perceives the phubbing. One study found that by providing an excuse for the phubbing or when the phubbed individuals reciprocated the phubbing, the effect of phubbing on well-being was diminished. Similarly, individuals phubbed by their partner during a

face-to-face conversation felt less excluded when given an important reason for the phubbing compared to those in a similar circumstance who were given a trivial reason. Shifting the gaze during a face-to-face communication towards a magazine was deemed justifiable. The magazine was believed to be important as it was considered educating, civilising, and helpful in developing one's ability to concentrate. However, the smartphone was thought to be an unimportant reason for shifting one's gaze. Heavy sharing of the smartphone not only can reduce conflicts with partners over the smartphone, but it can also weaken the effect of partner phubbing on relationship satisfaction or make it disappear altogether.

Five observations about the research on partner phubbing are worth noting. Most of the research studies reviewed for this chapter relied on Roberts and David's (2016) partner phubbing scale. Most of the research studies reported in this chapter were conducted in the United States, with a few in Europe and only one in China. It is difficult to speculate why there are few research studies from outside the United States and Europe. It may be because the concept of 'partner' is not used, if not disapproved of, in most Asian societies, especially Islamic societies, where marriage is the only acceptable path for romantic partners to live together. The study from Malaysia reviewed in this chapter recruited married adults but used Roberts and David's (2016) partner phubbing scale. The journals where these research studies were published were all high quality, especially *Computers and Human Behavior*, which published some of these studies. This provides evidence that the findings in this chapter are credible. Moreover, while most of the studies reviewed for this chapter used quantitative surveys, a few used unobtrusive observation and experiments involving video vignettes and confederates. Finally, while most of the studies reviewed in this chapter adopted a mediated moderated analysis, they were mainly data driven, that is, not theoretically driven. This regrettably limited the opportunities to offer deeper explanations for the findings.

A number of suggestions for future research are outlined. Latest research has cast doubt on the well-established finding that partner phubbing decreases relationship satisfaction. It may be that partner phubbing is starting to become a normalised activity or that these latest findings reflect unique characteristics of the samples studied. More research on the link between partner phubbing and relationship satisfaction is needed to resolve these discrepancies in the literature. The research on partner phubbing revealed that phubbing affected married couples differently than cohabiting couples. However, the partner phubbing scale used was the same for both groups. Married couples, especially in Asian and Islamic societies, may perceive the partner phubbing scale to be not fit for purpose, i.e. not applicable to their situations. For this reason, they may not answer the scale questions accurately. A scale specifically designed for married couples should be developed and tested. In fact, given two studies revealed that the effect of phubbing by males in established relationships differed from phubbing by females, perhaps new scales, for male's (and husband's) phubbing and for female's (and wife's) phubbing, should be developed and tested. Age of partners and the longevity of the relationship between partners moderated partner phubbing and relationship satisfaction, in at least two studies. Future research could build on these findings to further investigate the role of partners' age and the

duration of the relationship in moderating the relationship between partner phubbing and relationship satisfaction.

References

Abeele, M. M. P. V., & Postma-Nilsenova, M. (2018). More than just Gaze: An experimental vignette study examining how phone-gazing and newspaper-gazing and phubbing-while-speaking and phubbing-while-listening compare in their effect on affiliation. *Communication Research Reports, 35*(4), 303–313. https://doi.org/10.1080/08824096.2018.1492911

Aljasir, S. (2022). Present but absent in the digital age: Testing a conceptual model of phubbing and relationship satisfaction among married couples. *Human Behavior and Emerging Technologies, 2022*, 1–11. https://doi.org/10.1155/2022/1402751

Al-Saggaf, Y., & MacCulloch, R. (2019). Phubbing and social relationships: Results from an Australian sample. *Journal of Relationships Research, 10*. https://doi.org/10.1017/jrr.2019.9

Beukeboom, C. J., & Pollmann, M. (2021). Partner phubbing: Why using your phone during interactions with your partner can be detrimental for your relationship. *Computers in Human Behavior, 124*, 106932. https://doi.org/10.1016/J.CHB.2021.106932

Chmielik, M. M., & Błachnio, A. (2021). Till phone do us part: The role of phubbing in relationship satisfaction and self-esteem. *Journal for Perspectives of Economic Political and Social Integration*, *27*(2), 91–112. https://doi.org/10.18290/PEPSI-2021-0009

David, M. E., & Roberts, J. A. (2017). Phubbed and alone: Phone snubbing, social exclusion, and attachment to social media. *Journal of the Association for Consumer Research, 2*(2), 155–163. https://doi.org/10.1086/690940

David, M. E., & Roberts, J. A. (2020). Developing and testing a scale designed to measure perceived phubbing. *International Journal of Environmental Research and Public Health, 17*(21), 8152. https://doi.org/10.3390/IJERPH17218152

David, M. E., & Roberts, J. A. (2021). Investigating the impact of partner phubbing on romantic jealousy and relationship satisfaction: The moderating role of attachment anxiety. *Journal of Social and Personal Relationships, 38*(12), 3590–3609. https://doi.org/10.1177/0265407521996454

Frackowiak, M., Hilpert, P., & Russell, P. S. (2022). Partner's perception of phubbing is more relevant than the behavior itself: A daily diary study. *Computers in Human Behavior*, *134*. https://doi.org/10.1016/J.CHB.2022.107323

Gergen, K. J. (2009). The challenge of absent presence. In J. E. Katz & M. Aakhus (Eds.), *Perpetual contact: Mobile communication, private talk, public performance* (pp. 227–241). Cambridge University Press. https://doi.org/10.1017/cbo9780511489471.018

Ippolito, M. (2020). *Phubbing, Being Phubbed and Relationship Satisfaction.* In *PhD thesis.* Grand Canyon University

Khodabakhsh, S., & Le Ong, Y. (2021). The impact of partner phubbing on marital quality among married couples in Malaysia: Moderating effect of gender and age. *Aloma: Revista de Psicologia, Ciències de l'Educació i de l'Esport*, *39*(1), 9–16. https://doi.org/10.51698/ALOMA.2021.39.1.9-16

Mantere, E., Savela, N., & Oksanen, A. (2021). Phubbing and social intelligence: Role-playing experiment on bystander inaccessibility. *International Journal of Environmental Research and Public Health, 18*(19), 10035. https://doi.org/10.3390/IJERPH181910035

McDaniel, B. T., & Wesselmann, E. (2021). "You phubbed me for that?" Reason given for phubbing and perceptions of interactional quality and exclusion. *Human Behavior and Emerging Technologies, 3*(3), 413–422. https://doi.org/10.1002/HBE2.255

Ning, L. J. (2019). *Exploring an everyday phenomenon: Is phubbing analogous to ostracism?* In *Bachelor thesis.* National University of Singapore. https://scholarbank.nus.edu.sg/handle/10635/157682

Roberts, J. A., & David, M. E. (2016). My life has become a major distraction from my cell phone: Partner phubbing and relationship satisfaction among romantic partners. *Computers in Human Behavior, 54*, 134–141. https://doi.org/10.1016/j.chb.2015.07.058

Roberts, J. A., & David, M. E. (2022a). Partner phubbing as a social allergen: Support for a dual process model. *Human Behavior and Emerging Technologies, 2022*, 1–11. https://doi.org/10.1155/2022/6432445

Roberts, J. A., & David, M. E. (2022b). Partner phubbing and relationship satisfaction through the lens of social allergy theory. *Personality and Individual Differences, 195*, 111676. https://doi.org/10.1016/J.PAID.2022.111676

Turkle, S. (2012). *Alone together: Why we expect more from technology and less from each other*. Basic Books.

Vanden Abeele, M. M. P., Hendrickson, A. T., Pollmann, M. M. H., & Ling, R. (2019). Phubbing behavior in conversations and its relation to perceived conversation intimacy and distraction: An exploratory observation study. *Computers in Human Behavior, 100*, 35–47. https://doi.org/10.1016/J.CHB.2019.06.004

Wang, X., Zhao, F., & Lei, L. (2021). Partner phubbing and relationship satisfaction: Self-esteem and marital status as moderators. *Current Psychology, 40*(7), 3365–3375. https://doi.org/10.1007/S12144-019-00275-0/FIGURES/3

Wang, X., & Zhao, K. (2022). Partner phubbing and marital satisfaction: The mediating roles of marital interaction and marital conflict. *Social Science Computer Review, 0*(0). https://doi.org/10.1177/08944393211072231

Chapter 4
Boss Phubbing

When you have been meeting with your boss at the same time every week for a few years, it is not unusual for feelings of mutual respect to develop.

My friend would always rave about how great his boss was. In fact, it is his admiration for his boss that makes him stay in the office after work hours when most offices in the company building are empty and the meeting room is deserted. My friend is among the few in the company's 'Think Tank.' On Fridays at 7:00 pm, when all the lights in the building are out, my friend and a colleague of his would join their boss in the boss' office to go through the operational plan and talk about tactics to improve the business. Almost every time my friend and I met over coffee, my friend would say something that reflects his admiration for his boss, but recently he was uncharacteristically 'salty.' When I asked him what was up, he responded that his boss' smartphone habit had worsened. In the last meeting, his boss repeatedly gazed at his smartphone, which he held in his left hand and hid under his desk. My friend and the other colleague felt he was completely absent and communication with him was awkward. My friend felt that the respect he had for his boss' impressive leadership style had "taken a massive hit," so much so that he was unsure if the damage done would ever be restored.

Surprisingly, a loss of respect has never been linked to boss phubbing in the literature. It is the loss of employees' trust in the boss as a result of boss phubbing that is often cited in the literature. In addition to the loss of trust, boss phubbing has been linked with reducing job satisfaction, employee engagement, and employee performance. Boss phubbing strengthened feelings of social exclusion and threatened belonging needs, self-esteem needs, and meaningful existence needs. At a corporate level, boss phubbing has been linked with undermining organisation-based self-esteem. Before we discuss these negative effects in more detail, let us first address the question: how widespread is boss phubbing in the workplace?

Interestingly, there are no statistics that can shed light on the prevalence of boss phubbing in the workplace. However, a study conducted in the Netherlands revealed that the participants experienced a low level of boss phubbing (Lievaart, 2020). This accords with our 2018 study (Al-Saggaf & MacCulloch, 2018), which

Y. Al-Saggaf, *The Psychology of Phubbing*, SpringerBriefs
in Psychology, https://doi.org/10.1007/978-981-19-7045-0_4

showed that boss phubbing is less frequent than partner phubbing and parent phubbing. Our research participants reported phubbing their partner more frequently than they phubbed their close friends, friends, siblings, children, parents, acquaintances, strangers in the street, other relatives, colleagues, subordinates, grandparents, and work supervisors, managers, clients, and customers. From the above, it appears that colleagues, subordinates, and work supervisors, managers, clients, and customers were phubbed least frequently compared to the other people, who were phubbed more frequently. This suggests that our participants must have judged the behaviour of phubbing people at work as unprofessional. Drilling deeper into the data relating to phubbing across relationship groups, that is, people at work, friends, and family, revealed interesting findings. Our Australian participants (Al-Saggaf & MacCulloch, 2019) reported being significantly more likely to phub their friends and family and even strangers in the street than they would phub people at their workplace.

Looking at the data for phubbing within the same relationship group, that is, people at work: colleagues, supervisors, subordinates, etc., revealed that participants reported being significantly more likely to phub their subordinates than their clients and customers. They were more likely to phub their colleagues than their clients and customers. They were more likely to phub their subordinates than their supervisors, and they were more likely to phub their colleagues than their supervisors (Al-Saggaf & MacCulloch, 2019). It is clear from these findings that our study participants avoided phubbing their supervisors, clients, and customers, which highlights their strong sense of professionalism. Indeed, our participants' professional attitude towards using smartphones in the workplace is further demonstrated in noting that phubbing occurred more while socialising, enjoying downtime, and travelling and least during work-related meetings (Al-Saggaf & MacCulloch, 2018). However, participants' revelation that they would phub their subordinates more than they would phub their supervisors, clients, and customers suggests phubbing subordinates is not perceived as being equally unprofessional as phubbing supervisors, clients, and customers (Al-Saggaf & MacCulloch, 2019). It is important to note that most of our Australian participants were full-time employees, primarily females, who worked in professional roles in education and training and had a high education level. So, they were not widely representative of the larger population.

Trust-in-supervisor and employee engagement were among the first factors that were linked to boss phubbing. In their ground-breaking work in this area, Roberts and David (2017) first modified their widely used partner phubbing scale (Roberts & David, 2016) and then used it to investigate the effect of boss phubbing on employee engagement. Roberts and David (2017) conducted three studies to test their hypotheses. In the first study, they adapted their partner phubbing scale to create the boss phubbing scale using a sample of 200 United States adults recruited via Amazon's Mechanical Turk. They tested their initial hypotheses regarding the associations among boss phubbing, supervisory trust, psychological availability, psychological meaningfulness, and psychological safety. Psychological availability relates to the availability of resources to employees to complete their tasks. Psychological meaningfulness refers to the feeling associated with a behaviour that it is

worthwhile, valuable, or conducive to personal or professional growth. Psychological safety is about the employees' liberty to express themselves without fear. The authors found that boss phubbing was negatively associated with trust-in-supervisor; meaning higher levels of boss phubbing were associated with lower levels of trust-in-supervisor. A recent study by Koc and Caliskan's (2022), which involved graduate students in the thesis stage, confirmed this finding. Koc and Caliskan (2022) found that supervisors' phubbing lowered the student's trust in their supervisors. Back to Roberts and David (2017), the authors also found that boss phubbing had a significant indirect negative effect on employee engagement via trust-in-supervisor and then through affecting psychological availability and psychological meaningfulness. Psychological safety did not play a significant mediating role in the relationship between trust-in-supervisor and employee engagement. This means as boss phubbing lowered trust-in-supervisor, employee engagement suffered either because employees did not have access to the required resources to do their work or they felt that their work was not valuable.

Trust-in-supervisor and employee engagement were negatively affected by boss phubbing in Roberts and David's (2017) second study, which tested the robustness of the above findings using a different sample and a different explanation for the effect of boss phubbing on employee engagement. The authors recruited 95 United States adults via Amazon's Mechanical Turk and used the same measurements except for introducing supervisor incivility to see if it could make a difference in how the effect of boss phubbing played out. Their results again showed that boss phubbing was negatively associated with trust-in-supervisor, and it had a significant indirect effect on employee engagement via trust-in-supervisor and then via psychological meaningfulness and psychological availability. Supervisor incivility did not make a difference in how boss phubbing affected trust-in-supervisor and employee engagement; meaning the effects on trust-in-supervisor and employee engagement were specific to boss phubbing of employees and supervisor incivility had nothing to do with how the employees perceived their boss phubbing. In the third study, the authors recruited 118 United States adults via Amazon's Mechanical Turk and used the same scales as before except for boss phubbing, which the authors measured experimentally rather than using a scale, as in the previous two studies, and employee engagement for which they used a different scale. The results from the third study confirmed earlier findings that boss phubbing had a significant negative effect on trust-in-supervisor and a significant indirect negative effect on employee engagement via lowering trust-in-supervisor and then through affecting psychological availability and psychological meaningfulness with the difference this time being the significance of the mediating role of psychological safety in the relationship between trust-in-supervisor and employee engagement. The authors again performed the statistical analysis with and without incivility and found no difference in the results of the study.

Social exclusion, which both parent phubbing and partner phubbing worsened, also worsened because of boss phubbing. Yasin et al. (2020) were interested in the association between supervisor phubbing and employees' organisation-based self-esteem, which relates to how employees view their significance, worth, and capability in the workplace. Yasin et al. (2020) also wanted to know if rejection sensitivity,

the need to belong, and power distance moderated the relationship between supervisor phubbing and employees' organisation-based self-esteem. The authors asked 407 employees in the United States who they recruited via Amazon's Mechanical Turk to complete their online survey for a small fee. Social exclusion was measured by assessing four needs: sense of belonging, self-esteem, meaningful existence, and control. The authors found that boss phubbing negatively affected belonging, self-esteem, and meaningful existence needs. Thus, higher levels of boss phubbing resulted in a decrease in feelings of belonging, self-esteem, and meaningful existence. It appears that higher levels of boss phubbing led to stronger feelings of social exclusion. Boss phubbing negatively affected employees' organisation-based self-esteem through the mediating role of belonging needs and self-esteem needs. In addition, the authors found that the need to belong moderated the negative relationship between boss phubbing and belonging needs and boss phubbing and meaningful existence needs. Here is how this process played out. The negative effect of boss phubbing on belongingness needs and meaningful existence needs was lower for employees whose need to belong was high. The results revealed power distance also moderated the negative relationship between boss phubbing and social exclusion (belonging needs, self-esteem needs, meaningful existence needs, and control needs). The negative effect of boss phubbing on belonging, self-esteem, meaningful existence, and control needs was lower for employees' who scored low on power distance.

Work meaningfulness is similar to psychological meaningfulness, highlighted above in Roberts and David's (2017) study. Khan et al. (2021) investigated the effect of boss phubbing on work meaningfulness. In their study, work meaningfulness relates to employees' views of the value and worth of their work. The authors wanted to investigate the indirect effect of boss phubbing on work meaningfulness and employee phubbing through the mediating role of 'self-esteem threat.' To this end, they collected data from 178 head nurses in Pakistan in three time lags, with each lag spaced eight weeks apart. In the first round, the authors asked about boss phubbing behaviour, demographic information, and their rejection sensitivity level (to see if it played a role as a moderator); in the second round, they assessed self-esteem; and in the final round, the authors assessed work meaningfulness and employee phubbing. Their results indicated that boss phubbing was significantly negatively associated with work meaningfulness. Thus, higher levels of boss phubbing were associated with lower levels of work meaningfulness. The results also revealed that boss phubbing was significantly associated with employee phubbing, meaning the more the boss phubbed employees, the more the employees engaged in phubbing others. Boss phubbing also increased self-esteem threat, but self-esteem threat did not mediate the relationship between boss phubbing and work meaningfulness. However, self-esteem threat mediated the relationship between boss phubbing and employee phubbing. This means higher levels of boss phubbing increased self-esteem threat, which in turn increased employees' phubbing of other people.

Employee performance is vital for an organisation's survival and growth. The effect of boss phubbing on employee performance through trust-in-supervisor and job satisfaction was the focus of a recent study by Roberts and David (2020). The authors again recruited employees from the United States via Amazon's Mechanical Turk and

again conducted more than one study to ensure their findings were replicable. There were 151 participants in the first study and 181 in the second. The authors further confirmed the existence of a negative association between boss phubbing and trust-in-supervisor. Their findings also revealed that boss phubbing indirectly, and regrettably negatively, affected job performance via the mediating role of trust-in-supervisor and from there through job satisfaction (sequential mediation). It appears boss phubbing, which increased as age decreased, triggers a domino effect. Higher levels of boss phubbing led to a decrease in trust-in-supervisor, and this caused job satisfaction to fall, which consequently lowered employee performance. In the replication study, the authors tested the same hypotheses they tested in the first study but, in this study, they used an alternative measure of employee performance and included supervisor incivility to see if it had a significant indirect effect on employee performance via trust-in-supervisor and job satisfaction. The replication study concurred with the first study's findings even when an alternative measure of employee performance was used and incivility was included.

Employee performance and engagement were the focus of a recent cross-country comparison between the United States and Pakistan (Yousaf et al., 2022). Employee performance and engagement were looked at before as highlighted above in studies conducted by Roberts and David (2017, 2020), using research participants from the United States. Comparing how boss phubbing affects employee performance and employee engagement in the United States, an individualistic society, and Pakistan, a collectivistic society, should be interesting. Yousaf et al. (2022) conducted two studies. The first study recruited 370 employees from the service industry in Pakistan. In the second study, the authors recruited 352 United States participants via Prolific. The researchers' aim was to investigate the association between boss phubbing and key employee outcomes, specifically performance and engagement while looking at the role of intrinsic motivation in mediating the effect of boss phubbing on employee performance and employee engagement. Once data from both studies were analysed, the authors looked at the commonalities and differences between the United States and Pakistan. For the authors, employee engagement is about being enthusiastic, energetic, dedicated, and absorbed. Intrinsic motivation can be understood as the completion of a task for its own inherent sake. Boss phubbing was significantly negatively associated with employee engagement, employee performance, and intrinsic motivation in both Yousaf et al.'s (2022) studies. Likewise, both studies also revealed that intrinsic motivation explained the effect of boss phubbing on employee engagement and employee performance. That is, higher levels of boss phubbing resulted in lower levels of intrinsic motivation, and this negatively affected employee engagement and employee performance. The authors also observed in both studies that the effect of boss phubbing on employee engagement through intrinsic motivation was weaker when employees engaged in higher levels of enterprise social media use than at lower levels. The only difference was in the moderating role of enterprise social media use in the effect of boss phubbing on employee performance through intrinsic motivation. Whereas in the Pakistani sample, the effect of boss phubbing on employee performance through intrinsic motivation was weaker when employees engaged in higher levels of enterprise social media use than at lower levels, in the case of the

American sample, enterprise social media use did not play a role in the effect of boss phubbing on employee performance through intrinsic motivation. This may mean that in the United States sample, the effect of boss phubbing on employee performance through intrinsic motivation remained the same even if employees had good access to an enterprise social media platform over which they could communicate with each other.

Employee engagement's possible link to cyberloafing in response to boss phubbing was investigated by Lievaart (2020). Cyberloafing refers to employees' use of the internet at work for personal things. Lievaart's study found that cyberloafing was not worryingly common in Dutch workplaces. Importantly, the author was interested in the question: Do employees retaliate by engaging in cyberloafing when their job engagement declines as a result of boss phubbing? Lievaart surveyed 158 Dutch participants via Qualtrics who worked in organisations for a minimum of eight years. According to the findings of this study, boss phubbing was not significantly associated with job engagement, which means higher levels of boss phubbing did not correlate with a decrease in job engagement. However, boss phubbing was found to be significantly associated with cyberloafing; that is, the more the boss phubbed, the more the employees engaged in cyberloafing, potentially in retaliation for their boss' behaviour but not because the employees perceived boss phubbing as unfair, as justice was not found to be a significant moderator of the relationship between boss phubbing and cyberloafing. That said, employee engagement was significantly negatively associated with cyberloafing. This means employees with lower levels of job engagement were more likely to engage in cyberloafing than employees with higher levels of job engagement.

Cyberloafing's relationship with boss phubbing was also looked at while investigating the relationship between leader member exchange and work meaningfulness. Leader member exchange relates to the social exchanges between the boss and employees and is a measure of the strength, quality, and satisfaction of the relationship between the boss and employees. Khan's (2021) study aimed to understand the effect of leader member exchange on cyberloafing through the mediating role of work meaningfulness. Boss phubbing was included in the theoretical model as a moderator to see if the effect of leader member exchange on cyberloafing would depend on the level of boss phubbing. The study was conducted in Pakistan and involved 415 respondents who worked in the banking industry. Khan (2021) found that leader member exchange negatively affected employees' cyberloafing and positively affected work meaningfulness. But while work meaningfulness negatively affected employees' cyberloafing, work meaningfulness did not mediate the relationship between leader member exchange and employees' cyberloafing. More importantly, boss phubbing did not moderate the relationship between leader member exchange and work meaningfulness, which means boss phubbing did not change the nature of the relationship between leader member exchange and work meaningfulness.

To summarise the findings, boss phubbing is not as common as parent phubbing and partner phubbing. Individuals would rather phub their friends, family, or strangers than phub people with whom they work. But regrettably, individuals would more likely phub their subordinates than their supervisors, clients, or customers. Boss

phubbing negatively affected employees' trust in their supervisors. Boss phubbing also strengthened employees' feelings of social exclusion through decreasing feelings of belonging, self-esteem, and meaningful existence. Boss phubbing lowered employees' organisation-based self-esteem and feelings of work meaningfulness. It threatened employees' self-esteem, job performance, and intrinsic motivation. Boss phubbing caused employees to engage in cyberloafing and the phubbing of other employees.

The underlying psychological mechanism of boss phubbing transpired in the following way. Boss phubbing weakened employees' engagement by first lowering the trust in the boss and then either by arousing the feelings that there was a lack of access to the required resources to complete one's tasks or by arousing the feelings that employees' work was not appreciated. Boss phubbing indirectly affected employee engagement again by eroding employees' trust in their supervisors. The erosion of trust-in-supervisors, in turn, negatively affected employees' psychological meaningfulness and psychological availability. Employees' organisation-based self-esteem was negatively affected by boss phubbing through decreasing the feelings of belonging needs and self-esteem needs. Boss phubbing threatened employees' self-esteem. This, in turn, caused employees to engage in the phubbing of others. Boss phubbing's effect on decreasing trust-in-supervisor caused job satisfaction to decrease, and this further caused employee performance to drop. The negative effect of boss phubbing on employee engagement and performance was transmitted through decreased intrinsic motivation. An increase in boss phubbing decreased intrinsic motivation, and this caused employee engagement and employee performance to decline.

In terms of who was affected strongly by boss phubbing, the negative effect of boss phubbing on belongingness needs and meaningful existence needs was lower for employees with a higher need to belong. Similarly, the negative effect of boss phubbing on belonging, self-esteem, meaningful existence, and control needs was lower for employees who scored low on power distance. Boss phubbing's negative effect on employee performance via lowering intrinsic motivation was found to be weaker when employees utilised enterprise social media to a larger extent than a lesser extent. It was also found that cyberloafing was practised at higher levels among employees who had lower levels of work engagement than those with higher levels of work engagement.

Boss phubbing raises an ethical issue in the workplace. Is it right for a supervisor to phub employees? Boss phubbing is morally wrong for several reasons, including undermining employees' confidence and self-esteem, heightening their feelings of social exclusion, and conditioning them to phub fellow employees. Let us address the first reason why boss phubbing is morally wrong. Undermining an employee's confidence can threaten their social status and call into question their worth and value in the organisation. It can make them doubt their capability to satisfactorily perform their duties and cause other colleagues to lose respect for them. These potential negative effects can be costly to the organisation. For example, to organisations, it can mean a loss of productivity, and to employees, the toll on mental health can be severe. That said, there was no evidence in the literature that linked boss phubbing

with undermining employees' confidence. So, all these effects may never eventuate. However, boss phubbing was found to be strongly linked with decreasing employees' feelings of self-esteem, which in the above studies was investigated as a mediator. We know from the psychological literature (Nguyen et al., 2019) that decreasing feelings of self-esteem can negatively affect individuals' quality of life and place them at an increased risk of engaging in self-harming behaviours, including suicide. Likewise, social exclusion, which is the second effect linked to boss phubbing according to the evidence from the research reviewed above, can have significant harmful consequences. These can include ostracism, loneliness, depression, and anxiety, all of which are damaging to one's mental health and well-being. The third undesirable outcome of boss phubbing, listed above, is making employees themselves use their smartphone in social situations to snub fellow employees. If employees phub others, such as their children, partners, fellow employees, or subordinates, as a result of their supervisor's phubbing of them, then all the negative effects highlighted in the previous two chapters as well as those discussed in this chapter will eventuate and the list of victims of phubbing will grow, trapping employees in a vicious cycle. In the face of these grave consequences, boss phubbing is morally wrong.

Boss phubbing also raises a professionalism issue. Is it professional for a supervisor to phub employees? Boss phubbing constitutes an act of unprofessionalism because it diminishes employees' trust in their supervisors and lowers their organisation-based self-esteem and feelings of work meaningfulness. Boss phubbing comes with a huge price tag for organisations because it can reduce employees' engagement and job performance and drive them to engage in cyberloafing. All these outcomes negatively affect organisational productivity and profitability (Taylor, 2019). Boss phubbing violates several values of the Australian Computer Society Code of Professional Conduct. Under "The Primacy of the Public Interest" value, supervisors who phub fail to "place the interests of the public above those of personal, business or sectional interests." Engaging in behaviour that can decrease their employees' engagement in work and their job performance shows supervisors have not considered the interests of those impacted by their actions. In the same way, under "The Enhancement of Quality of Life" value, supervisors who phub fail to recognise and minimise the adverse effects of computing technology. Acting in a way that can cause employees to engage in cyberloafing shows supervisors have not recognised the role computing technology can play in enhancing the quality of life of people and have neglected to "protect and promote the health and safety of those affected" by their work.

In terms of strategies for combating boss phubbing in the workplace, Roberts and David (2017) made three recommendations. Companies should ensure their corporate culture does not pressure supervisors to respond immediately to emails from their supervisors higher up the chain so that they don't interrupt any face-to-face communication they may have with their subordinates. Subordinates can be allowed to confidentially rate their supervisors at the end of each year on their ability to listen to their staff without being distracted with their smartphones. If these cultural and administrative infrastructural changes fail, companies could consider establishing formal

policies that make it clear that supervisors' smartphone use should not undermine attentiveness to staff.

In terms of future research, with only a few articles dedicated to boss phubbing, there is a clear paucity of research in this area and an obvious gap in our understanding of this phenomenon. The research on boss phubbing focused on trust in the supervisor, feelings of social exclusion, work meaningfulness, employee performance, and employee engagement. There were no studies on loss of respect for the supervisor, which my friend, whose scenario was highlighted above, experienced, and the effect of that loss of respect on the employee-organisation sense of mutual enrichment. The effect of boss phubbing and phubbing by colleagues on employees' feelings of social exclusion should be investigated from a cultural perspective, considering workplaces these days tend to be relatively diverse. The direct effect of boss phubbing on employee self-confidence and the effect of this on employee productivity in the workplace were also not studied. There is also a disturbing absence of research on the impact of boss phubbing and phubbing among colleagues using qualitative research methods. This absence is also noticed in research on the impact of parents' phubbing and partner phubbing. Employees' perceptions of boss phubbing and phubbing by colleagues and the impact of this behaviour on their work and mental health can be comprehensively described through qualitative research. In-depth semi-structured interviews, for example, can offer rich accounts of the lived experience of employees who were phubbed by their supervisors or colleagues. But this paucity of research on boss phubbing is not surprising. COVID-19 has changed the nature of work, especially between 2020 and 2022. Restrictions imposed by governments worldwide have transformed workspaces, forcing most people to work from home and meet via Zoom. Since phubbing as a research topic is still relatively recent and scholars have only begun to pay attention to boss phubbing as a line of research, the lockdowns that have swept countries worldwide, forcing supervisors and employees to work from home, must have halted the boss phubbing research agenda. With staff now returning to their usual physical workplaces, it will be interesting to find out how common boss phubbing and phubbing by colleagues are in post-pandemic workplaces.

References

Al-Saggaf, Y., & MacCulloch, R. (2018). Phubbing: How frequent? Who is phubbed? In which situation? And using which apps? *International conference on information systems 2018, ICIS 2018*, *2018*, (pp. 1–9).

Al-Saggaf, Y., & MacCulloch, R. (2019). Phubbing and social relationships: Results from an Australian sample. *Journal of Relationships Research, 10*. https://doi.org/10.1017/jrr.2019.9

Khan, M. U. (2021). *Leader member exchange influence on employee cyber loafing via meaningful work: Supervisor phubbing as moderator*. In *Master thesis.* Capital University of Science and Technology

Khan, M. N., Shahzad, K., & Bartels, J. (2021). Examining boss phubbing and employee outcomes through the lens of affective events theory. *Aslib Journal of Information Management*, *75*(5), 877–900. https://doi.org/10.1108/AJIM-07-2021-0198

Koc, T., & Caliskan, K. (2022). Phubbing phenomenon in educational environments: examining the impact of supervisor phubbing on student outcomes. *Journal of Further and Higher Education*. https://doi.org/10.1080/0309877X.2022.2088270

Lievaart, L. (2020). *Supervisor phubbing: The moderating roles of organizational values and norms in predicting employees' engagement and behavior*. In *Master thesis*. Tilburg University

Nguyen, D. T., Wright, E. P., Dedding, C., Pham, T. T., & Bunders, J. (2019). Low self-esteem and its association with anxiety, depression, and suicidal ideation in Vietnamese secondary school students: A cross-sectional study. *Frontiers in Psychiatry*, *10*(SEP), (p. 698). https://doi.org/10.3389/FPSYT.2019.00698

Roberts, J. A., & David, M. E. (2016). My life has become a major distraction from my cell phone: Partner phubbing and relationship satisfaction among romantic partners. *Computers in Human Behavior, 54*, 134–141. https://doi.org/10.1016/j.chb.2015.07.058

Roberts, J. A., & David, M. E. (2017). Put down your phone and listen to me: How boss phubbing undermines the psychological conditions necessary for employee engagement. *Computers in Human Behavior, 75*, 206–217. https://doi.org/10.1016/j.chb.2017.05.021

Roberts, J. A., & David, M. E. (2020). Boss phubbing, trust, job satisfaction and employee performance. *Personality and Individual Differences, 155*, 109702. https://doi.org/10.1016/J.PAID.2019.109702

Taylor, C. Y. (2019). Strategies to improve employee engagement in the hospitality industry. In *PhD thesis*. Walden University.

Yasin, R. M., Bashir, S., Abeele, M. Vanden, & Bartels, J. (2020). Supervisor phubbing phenomenon in organizations: Determinants and impacts. *International Journal of Business Communication*. https://doi.org/10.1177/2329488420907120

Yousaf, S., Imran Rasheed, M., Kaur, P., Islam, N., & Dhir, A. (2022). The dark side of phubbing in the workplace: Investigating the role of intrinsic motivation and the use of enterprise social media (ESM) in a cross-cultural setting. *Journal of Business Research, 143*, 81–93. https://doi.org/10.1016/J.JBUSRES.2022.01.043

Chapter 5
Phubbing Family Members and Friends

Being ignored by a loved one can be excruciatingly frustrating, especially if the reason for which a person has been ignored, the smartphone, is trivial to them. The grandmother at the outdoor table in front of me knows this feeling too well. I was sitting inside a café on a bar stool with my coffee on a narrow wall-mounted bar table and my smartphone leaning against a floor-to-ceiling glass window overlooking the main city street. I noticed the lady as I shifted my attention from the Al Jazeera coverage of the war on my smartphone to the view outside in front of me where this lady walked past and sat down, having just paid for her order at the counter. I guessed she was in her mid-sixties and the chap who was already sitting on the chair opposite, presumably her grandson, was around 19 years old. Judging by his appearance, a long-sleeved beige collared shirt, long casual grey pants, belt, leather shoes, and number two all-over haircut, he was probably a Kapooka Army recruit. On their days off (local leave), Kapooka Army recruits go out and about in my city to socialise, have fun, and relax. As the lady talked excitedly to her grandson, the young man's eyes were glued to his smartphone, and his fingertips kept scrolling up his social media feed. I was waiting to see if he would at least nod his head or utter quick and short replies, but he appeared to be completely ignoring her. Even after she adjusted her sitting position, possibly to speak louder, he was still engrossed in his digital experience as if she was not there sitting in front of him. Only, when she gently placed her hand on his arm did she manage to attract his attention. He looked at her, smiled, and was seen talking to her non-stop, fully engaged as I left the café heading towards my car. While the story had a happy ending, even if momentarily, it was impossible not to think about how the lady must have felt. She would have known that recruits at the Kapooka Army Base are not given access to their smartphones, so they could only spend time with their smartphones when they were on leave, making their leave even more precious. But, such coldness from her grandson and deliberate lack of attention are likely to make the lady feel worthless. As an observing bystander encountering that scene briefly, I was admittedly awfully distressed. It was as cruel to watch as the war scenes on my smartphone screen. But, how rare is this scene?

Y. Al-Saggaf, *The Psychology of Phubbing*, SpringerBriefs
in Psychology, https://doi.org/10.1007/978-981-19-7045-0_5

The findings of a study on phubbing we conducted in 2018 (Al-Saggaf & MacCulloch, 2018) showed that phubbing was a familiar scene, especially among people who were closely related. This study showed that smartphone users reported phubbing their close friends more frequently than they phubbed less close friends, their siblings more frequently than their children, and their parents more frequently than their acquaintances and strangers in the street and even other relatives. Our participants also reported that they would phub their grandparents more frequently than their work supervisors, managers, clients, and customers. When phubbing frequency scores were compared for the grouped categories of 'friends' and 'family', the study found no statistically significant differences between friends and family, suggesting these two categories of close relationships were phubbed equally frequently, although the mean rank scores show the family category was phubbed more frequently, albeit only slightly. This could be because partners are phubbed more frequently than friends, but then friends are phubbed more frequently than siblings, children, and parents. Still, that participants are more likely to phub their friends and family than they would phub strangers in the street shows that phubbing hurts people in closer relationships more than people in distant relationships. Zooming in into the data relating to phubbing across friends/strangers relationship groups showed that our research participants would phub friends and close friends more frequently than they would phub strangers and acquaintances. They would also phub closer friends more frequently than they would phub less close friends. Within the same relationship group, the family group, our results showed that participants reported being significantly more likely to phub their relatives, parents, children, siblings, and partners than they would phub their grandparents. This finding, although not in line with the anecdotal evidence (story above), does reflect some sort of respect for grandparents. It is unclear why this is the case, but it could be cultural and should be investigated. Our participants also reported that they were also more likely to phub their partners than their parents. And they were more likely to phub their partners than their children. It is clear from these findings that whether people phubbed across relationship groups or within the same relationship group; people closest in the relationships were phubbed more frequently than people in more distant relationships.

The literature is disappointingly imbalanced regarding the coverage of those on the receiving end of phubbing behaviour other than children, partners, and to a lesser extent, employees. Only, a small number of studies focused on friend phubbing and very few on family phubbing. There was one study on phubbing grandparents, but there were no studies on phubbing siblings, or other relatives, or even strangers. A study on students phubbing their teachers and another study on customers phubbing service workers were identified. This chapter reviews these studies with the aim of looking at the effects of phubbing on these other people. But, a bird's eye view of this identified emerging literature shows that the negative effects encountered in the previous chapters feature prominently in the reviewed studies for this chapter. Phubbing family, friends, and other people caused depression, loneliness, anxiety, a loss of face, annoyance, and confrontations. Phubbing lowered levels of happiness, family connectedness, friendship satisfaction, job performance, and motivation. It

negatively affected satisfaction with life, the quality of friendships, communication skills, and interpersonal mattering.

Interpersonal mattering within family relationships is of paramount importance. It relates to individuals' perceptions of being important to others who can depend upon them and give them the attention they deserve (Kadylak, 2019). Kadylak's study of United States older adults' experiences of being phubbed by family members, such as their grandchildren, is one of the few studies that focused on this group of people, which the above story highlighted. The results showed that the frequency of being phubbed by family members significantly negatively predicted interpersonal mattering. So, the more older adults were phubbed, the less they felt they mattered to others (their family members). Family phubbing expectancy violations were significantly positively associated with loneliness and depression and significantly negatively associated with life satisfaction—higher scores in family phubbing expectancy violations were associated with higher levels of loneliness and depression and lower satisfaction with life. A family phubbing expectancy violation arises when the phubbed family member perceives the phubbing as a violation of their expectation not to be ignored and not to be disrespected. It appears the expectancy violations that stemmed from the phubbing of older adults by their younger family members negatively affected these older adults' well-being. In addition, interpersonal mattering had a mediating effect on three relationships. Interpersonal mattering mediated the relationship between family phubbing expectancy violations and loneliness, family phubbing expectancy violations and depression, and family phubbing expectancy violations and life satisfaction. This means that the negative perception associated with the expectancy violations that originated from the young family members' phubbing lowered the older adults' feelings of their importance in their family, which, in turn, increased their levels of loneliness and depression and decreased their levels of satisfaction with life. Moreover, the frequency of family phubbing moderated the relationship between family phubbing expectancy violations and depression. The effect of family phubbing expectancy violations on depression was most severe for older adults who reported being phubbed by their younger family members during most of their face-to-face interactions compared to older adults who reported being phubbed by their younger family members sporadically.

Social connectedness is known for its strong link to loneliness (Maclean et al., 2020). What is not known is its link to phubbing. Ang et al.'s (2019) mixed method study of Malaysian high school students used Karadağ et al.'s (2015) phubbing scale, which several other authors also used, including Błachnio et al. (2021), Blanca and Bendayan (2018), and Błachnio and Przepiorka (2018), whose studies were reviewed for this book. Karadağ et al.'s (2015) phubbing scale consists of two dimensions: (1) the communication disturbance dimension and (2) the phone obsession dimension. Ang et al. (2019) found that the communication disturbance dimension of phubbing was significantly negatively associated with connectedness to family. The communication disturbance dimension of phubbing also mediated the relationship between the phone obsession dimension of phubbing and connectedness to family. The combined effect is that as phubbing increased, connectedness to family decreased. Several participants in this study, who were often phubbed, reported that phubbing disturbed

their communication with family members and that they hated communicating with these phubbing family members because they had to repeat a message to them several times before they paid attention. Other participants argued that phubbing was rude because it stopped interaction. Some participants in this study reported feeling lonely and sad when their family members regularly phubbed them. From a phubber's perspective, phubbing participants said they just wanted to be left alone with their smartphones, and they felt disturbed when their parents asked them to stop looking at their smartphones during dinner time.

Friendship satisfaction is necessary for maintaining relationships with friends. Does friend phubbing threaten friendship satisfaction? Sun and Samp's (2021) study of United States university students revealed that friend phubbing significantly negatively predicted friendship satisfaction. But, this is the phubber's view of friendship satisfaction, not the phubbee's view. That is, individuals who regularly phubbed their friends did so because they were less satisfied with their friendship. It would have been better if phubbees were also asked about their satisfaction with the friendship after their friends phubbed them. This finding, however, suggests individuals regularly phub their friends to escape their unsatisfactory friendships. Interestingly, both depression and social anxiety significantly positively predicted friend phubbing. So, individuals who scored high on depression and social anxiety tended to phub their friends more frequently. Sun and Samp (2021) also found that agreeableness significantly negatively predicted friend phubbing and neuroticism (see Chap. 6) significantly positively predicted friend phubbing. Therefore, while highly agreeable persons phubbed their friends less frequently, those who scored high on neuroticism phubbed their friends more frequently. The results also showed that depression and social anxiety directly negatively affected friendship satisfaction and indirectly affected friendship satisfaction through the partial mediating role of friend phubbing. The results also showed that agreeableness directly positively affected friendship satisfaction and indirectly affected friendship satisfaction through the partial mediating role of friend phubbing. Lastly, the results also showed that neuroticism directly negatively affected friendship satisfaction and indirectly affected friendship satisfaction through the partial mediating role of friend phubbing. Together these findings suggest that friend phubbing explains part of the effect of depression, social anxiety, agreeableness, and neuroticism on friendship satisfaction with the rest of the effect coming directly from these negative emotions and personality traits.

Attention seeking and selfie liking are often associated with narcissistic traits. While Sun and Samp's (2021) study offered insights into friend phubbing from a phubber's perspective, Hao et al.'s (2021) study of Chinese university students shed light on friend phubbing from a phubbee's perspective. Hao et al. found that peer phubbing significantly positively predicted attention-seeking and selfie-liking behaviours. So, the more individuals were phubbed by their peers, the more these peers entertained their attention-seeking needs and the more selfies they took and liked. The study also found that attention seeking mediated the relationship between peer phubbing and selfie liking. It appears the effect of phubbing on peers' taking and liking of selfies is explained by the phubbed peers' need to seek attention. This implies that as individuals are phubbed by their peers, these individuals' need to

seek attention was awakened, and to satisfy this need, they took and liked selfies. The authors explained that since peer phubbing threatened self-esteem and sense of belonging, phubbed individuals reacted by taking and liking selfies to boost their threatened self-esteem and sense of belonging. But, individuals' reactions to seek attention when phubbed can be interpreted from a different angle. Given phubbing denies the phubbed individuals the attention they desired, it makes sense that in response they would seek the lost attention elsewhere. Taking and liking selfies satisfied the need for attention. Besides, taking and liking selfies can serve as an escape or a distraction that allows the phubbed individuals to avoid an unpleasant situation (Hao et al., 2021). Gender played a moderating role in that the effect of peer phubbing on selfie liking via attention seeking was stronger for men than for women at high levels of peer phubbing. So, men, more than women, reacted by taking and liking selfies to fulfil their attention-seeking needs when phubbed by their peers.

A loss of face can rattle even the most self-confident people. Kelly et al. (2019) studied the relationship between friend phubbing and face threats through the lens of politeness theory. It is one of the few studies that couched the research findings within a theoretical framework. This is in addition, of course, to the Kadylak (2019) study above, which studied interpersonal mattering from the vantage point of expectancy violation theory. Kelly et al.'s (2019) study of United States university students, primarily female and white, revealed that participants perceived their friends' actions of repeatedly looking at the smartphone and playing a game alone as face threatening. Contacting the boss by phone or texting a family member were, on the other hand, counted as the least face threatening. In terms of how the participants would react to being phubbed by a friend, either they would say or do nothing or access their own smartphones, so their friends don't feel bad. The open-ended responses further clarified the responses from the close-ended responses. Overall, most participants did not view friend phubbing as face threatening although a good number of participants did, evoking a myriad of negative emotions. Again, continuously checking the smartphone or playing a game alone on the smartphone was rated as the most face threatening, but most participants elected to do nothing about the face threat.

Annoyance is not as harmless as it might seem. It can instigate intense emotions. Mantere et al.'s (2021) study of Finnish university students explained the response to being phubbed with a smartphone by drawing comparisons with being ignored using a magazine. The study participants disclosed that being phubbed with a smartphone was more annoying than being phubbed with a magazine. The magazine was judged favourably, as educational, civilising, and good for improving concentration. The smartphone, on the other hand, was blamed for destroying individuals' ability to focus and maintain attention. The participants in the study described the lack of response from the smartphone phubber as generally insulting because the participants believed that it was not unintentional. The quantitative data backed up the qualitative data. The study found that phubbing significantly negatively predicted social intelligence. Accordingly, higher levels of phubbing were associated with lower levels of social intelligence. Social intelligence is about an individual's ability to understand others and succeed in social situations. It appears the study participants

linked phubbing via the smartphone with lower levels of social intelligence. Overall, the participants in the study reported that phubbing with a smartphone was more annoying than phubbing with a magazine and that the reason the magazine was seen as less annoying was that the magazine was seen as more cultivating, whereas the smartphone was used way too much, often for useless undertakings. The omnipresence of phubbing in society, according to the authors, evokes collective nostalgia for better times in the past when life was much simpler. An earlier study by O'Flaherty (2019) reported similar findings to Mantere et al.'s (2021) findings above, especially regarding feeling annoyed when phubbed. O'Flaherty's (2019) study of Irish university students provided qualitative insights into the experiences of those phubbed. The participants in the study reported feeling 'ignored', 'annoyed', and 'invisible' after being phubbed. But, other participants, the author noted, regarded phubbing as normal because the phubbers were unaware that they were doing it, and all they cared about was their smartphone. They were not interested in the ongoing conversation. That phubbers' lack of awareness regarding their phubbing perpetration could be linked to the association between phubbing and lower scores in social intelligence that Mantere et al. (2021) reported above, although in Mantere et al.'s study, the participants felt phubbing with a smartphone was deliberate. Interestingly, when phubbers in the O'Flaherty (2019) study were asked what they thought their phubbing's effect on others would be, they seemed to know precisely how phubbees would react to being phubbed. The phubbing participants thought phubbees felt 'annoyed', 'ignored', and 'unimportant.'

Anxiety and mood changes are part of everyday life. But, to what extent does the experience of being phubbed exacerbate these emotions? Marynowski's (2021) experimental study of United States university students provided important clues. Marynowski measured anxiety (distress anxiety and anxious arousal) and mood (happy, sad, and anxious) before and after the experiment and for both the phubbing and control conditions. The author found that happiness levels dropped in the phubbing condition compared to the control condition. The author also noticed that the threat bias scores, which are linked to distress anxiety and refer to inflated sensitivity towards threat-related emotional stimuli, climbed in the phubbing condition and fell in the control condition, indicating that phubbing was perceived as emotionally threatening. The author also observed that the effect of phubbing on threat bias and the difficulty of disengaging from the threatening emotion was stronger for those whose feelings of sadness increased as a result of being phubbed. It appears phubbing reduced happiness and increased sadness, and the experience was emotionally threatening. Chu et al.'s (2021) study, which will be touched upon again briefly in Chap. 7, also pointed to a link between peer phubbing and social anxiety. Chu et al. discovered that higher levels of peer phubbing were associated with higher levels of social anxiety. The authors also noticed that the effect of peer phubbing on social anxiety was stronger for participants whose families faced serious financial difficulties. In addition, social anxiety passed on some of the effects of peer phubbing to social media addiction. As peer phubbing increased, social anxiety followed suit. To bring the high levels of social anxiety down, the phubbed individuals spent more time on social media to the extent that they became addicted. Participants whose

families faced serious financial difficulties bore the brunt of this indirect effect of peer phubbing on social media addiction via social anxiety.

Rude behaviour can be particularly distressing if it involves an unequal power relationship between two people, such as a customer and a service worker. Fellesson and Salomonson (2020) studied the effect of customers' phubbing on service workers' service orientation attitudes. Service orientation, in the context of service workers, relates to their ability to anticipate and aim to fulfil customers' interests, goals, and needs. Fellesson and Salomonson studied Swedish retail service workers and found that service workers who scored high on service orientation were more likely to concede and accept customers' uncivil behaviour and were, therefore, less likely to employ confrontational strategies when dealing with customers' incivility. The confrontational strategies were 'confrontationally call for attention', 'confrontationally wait', and 'confrontationally interrupt'. On the other hand, service workers who experienced intense negative emotions were less likely to employ concessive handling strategies (ignore) and more likely to adopt confrontational strategies when faced with a rude customer. In this sense, even if customer incivility elicited a strong negative emotion, service orientation could decrease its effect allowing a concessive handling strategy to be adopted instead of a confrontational one. The key message from this research is that service workers see customers' phubbing as rude.

Job performance and motivation are vital not only for lecturers but also for students. When job performance and motivation fall behind, students' learning experience suffers. Nazir (2020) surveyed students and interviewed academicians in Turkey to gauge the effect of students' phubbing on academicians' job performance and motivation. His mixed method study revealed that the reason students phubbed their lecturers was because they felt bored; they were unable to understand the content; the lecturer had problems communicating effectively, or they were addicted to the smartphone. Unfortunately, young lecturers (30–40 years of age) took students' phubbing personally. Students' phubbing led young lecturers to feel low emotionally and evaluate their performance negatively. It led them to doubt their teaching abilities and strategies and link their inability to attract students' attention during lectures to incompetence. As a result, their motivation to work harder, regrettably, dropped. They stopped preparing well for their lectures because no matter how well prepared they were, their lectures would not be interesting enough. To make matters worse, these 30–40-year-old lecturers reacted to students' phubbing by being hostile and aggressive to the phubbing students. This ranged from issuing strict warnings to asking the students to leave the classroom. Students' phubbing was generally different for lecturers aged over 40 years, who viewed phubbing as a generational thing and were of the view that their students, unlike them, could multitask, so they never took the phubbing personally or let it undermine their confidence in their performance. In terms of their reaction to students' phubbing, while they considered it disrespectful, they ignored it.

In summary, younger family members' phubbing of older adults was interpreted to mean they were not significant in their younger family members' lives and not deserving of their attention. Family phubbing expectancy violations increased loneliness and depression and decreased satisfaction with life. Family phubbing also

decreased connectedness to family. Depression and social anxiety increased levels of friend phubbing, and friend phubbing decreased friendship satisfaction. Peer phubbing increased levels of attention-seeking and selfie-liking behaviours. Individuals repeatedly phubbed by their friends construed the phubbing behaviour as face threatening. Using the smartphone during a face-to-face conversation was found to be more annoying than being ignored through reading a magazine. In one study, participants who were often phubbed attributed the higher levels of phubbing to the phubber's lower levels of social intelligence. In another study, participants shared that being phubbed made them feel 'ignored', 'annoyed', and 'invisible'. There was also evidence to suggest that phubbing reduced happiness and increased sadness and made it difficult for the phubbed individuals to disengage from the threatening stimuli. Finally, service workers perceived customers' phubbing as rude, and students' phubbing of early career academics negatively affected the academics' performance and motivation and undermined their confidence in their teaching abilities.

Several factors explained the underlying psychological mechanism of the effect of phubbing. Interpersonal mattering explained the effect of family phubbing expectancy violations on loneliness, depression, and life satisfaction. The transgression of family norms from being phubbed by family members communicated to the phubbed individuals a message they were not as important as they thought. This, in turn, increased their loneliness and depression and decreased their satisfaction with life. The communication disturbance dimension of phubbing explained the effect of the smartphone obsession dimension on connectedness to family. This means addiction to the smartphone led to higher levels of interruption of communication through the smartphone, and this resulted in lower levels of family connectedness. Equally, peer phubbing heightened the phubbed individuals' need to seek attention, which they satisfied by taking and liking selfies. Likewise, peer phubbing intensified feelings of social anxiety, and this compelled the phubbed individuals to use social media excessively.

In terms of the role of moderators, a sense of professionalism assisted service workers in dealing with customers' rude behaviour. When customers' phubbing stirred service workers' negative emotions, they were less likely to employ concessive handling strategies, but those service workers who scored high on service orientation were more likely to adopt concessive handling strategies when handling customers' rudeness. The frequency of phubbing was also an important factor in the relationship between family phubbing expectancy violations and depression. The effect on depression was strongest for older adults who were phubbed regularly by their younger family members. The effect of family phubbing expectancy violations on depression levels was weaker for older adults who were phubbed by their younger family members less frequently. Women took and liked selfies less than men, as peer phubbing did not stimulate their attention-seeking needs as it did for men. Finally, peer phubbing provoked social anxiety, and this drove individuals to become addicted to social media. Individuals whose family's financial position was precarious were affected to a greater extent by peer phubbing than those whose family's financial position was more stable.

A note on Karadağ et al.'s (2015) and Chotpitayasunondh and Douglas's (2018) phubbing scales is necessary. As stated above, Karadağ et al.'s (2015) scale consists of two factors: communication disturbance and phone obsession. One issue with this scale that was gleaned from the reviewed studies that used it was that it was difficult to talk about phubbing as a single behaviour, that is, the act of ignoring someone in a social setting with the smartphone. The researchers had to report their findings in terms of the two dimensions that make up the phubbing scale. If only one dimension of phubbing is found to be statistically significant, then drawing conclusive findings from the study becomes difficult. Another issue with this scale was apparent when phubbing was treated as a communication disturbance alone, with phone obsession as the predictor of this dimension of phubbing. This can lead to inaccurate results if smartphone addiction is also considered because phone obsession and smartphone addiction more or less measure the same thing. The study design in this case becomes highly questionable. With respect to Chotpitayasunondh and Douglas's (2018) Generic Scale of Phubbing, a number of researchers adopted this scale in a single study to measure phubbing from both perspectives, a phubber perspective, investigating what predicts this behaviour, and from a phubbee perspective, looking at the effect of being phubbed on phubbed individuals. The problem with this is that the Generic Scale of Phubbing does not measure the effect of being phubbed; it measures the act of phubbing. Chotpitayasunondh and Douglas's (2018) Generic Scale of Being Phubbed measures the effect of being phubbed. These studies that used the Generic Scale of Phubbing to measure phubbing as both an outcome variable and a predictor did not take into consideration the two different contexts in which phubbing operated.

There are several questions for future research on family and friends phubbing. What are the effects of family members' phubbing of grandparents, siblings, and other relatives, especially on psychological well-being? What are the effects of friends' phubbing on the phubbed friends' psychological well-being? To what extent does perceived relationship closeness matter (as a moderator) in the effect of being phubbed by a family member or a friend? How family and friends phubbing affect the phubbed individuals' social connectedness and feelings of loneliness? What mediates the relationship between family and friends' phubbing and psychological well-being? To what extent do relationship satisfaction and friendship satisfaction play a mediating role? What moderates the relationship between family and friends' phubbing and psychological well-being? To what extent do self-esteem and attachment anxiety play a moderating role? Finally, how family and friends phubbing impacts loss of face from a cultural perspective? This last question can be best addressed using a qualitative approach. Family and friends phubbing are neglected areas of research, hence these many questions.

References

Al-Saggaf, Y., & MacCulloch, R. (2018). Phubbing: How frequent? Who is phubbed? In which situation? And using which apps? In *International Conference on Information Systems 2018, ICIS 2018*, *2018*, 1–9.

Ang, C.-S., Teo, K.-M., Ong, Y.-L., & Siak, S.-L. (2019). Investigation of a Preliminary mixed method of phubbing and social connectedness in adolescents. *Addiction & Health*, *11*(1). https://doi.org/10.22122/ahj.v11i1.539

Błachnio, A., & Przepiorka, A. (2018). Be aware! If you start using Facebook problematically you will feel lonely: Phubbing, Loneliness, self-esteem, and Facebook intrusion. *A Cross-Sectional Study: Social Science Computer Review, 37*(2), 270–278. https://doi.org/10.1177/0894439318754490

Błachnio, A., Przepiórka, A., Gorbaniuk, O., Bendayan, R., McNeill, M., Angeluci, A., Abreu, A. M., Ben-Ezra, M., Benvenuti, M., Blanca, M. J., Brkljacic, T., Babić, N. Č, Gorbaniuk, J., Holdoš, J., Ivanova, A., Karadağ, E., Malik, S., Mazzoni, E., Milanovic, A., & Yu, S. (2021). Measurement invariance of the Phubbing scale across 20 countries. *International Journal of Psychology, 56*(6), 885–894. https://doi.org/10.1002/IJOP.12790

Blanca, M. J., & Bendayan, R. (2018). Spanish version of the Phubbing scale: Internet addiction, Facebook intrusion, and fear of missing out as correlates. *Psicothema, 30*(4), 449–454. https://doi.org/10.7334/PSICOTHEMA2018.153

Chotpitayasunondh, V., & Douglas, K. M. (2018). Measuring phone snubbing behavior: Development and validation of the generic scale of phubbing (GSP) and the generic scale of being phubbed (GSBP). *Computers in Human Behavior, 88*, 5–17. https://doi.org/10.1016/J.CHB.2018.06.020

Chu, X., Ji, S., Wang, X., Yu, J., Chen, Y., & Lei, L. (2021). Phubbing while phoning: An instrumental multiple-case study of college students' smartphone use. *Frontiers in Psychology, 12*, 670065. https://doi.org/10.3389/FPSYG.2021.670065

Fellesson, M., & Salomonson, N. (2020). It takes two to interact—Service orientation, negative emotions and customer phubbing in retail service work. *Journal of Retailing and Consumer Services, 54*, 102050. https://doi.org/10.1016/J.JRETCONSER.2020.102050

Hao, L., Liu, D., Yin, J., Lin, B., Zhang, X., & Jiang, Q. (2021). Peer phubbing and selfie liking: The roles of attention seeking and gender. *Social Behavior and Personality: an International Journal, 49*(7), 1–13. https://doi.org/10.2224/sbp.10468

Kadylak, T. (2019). An investigation of perceived family phubbing expectancy violations and well-being among U.S. older adults. *Mobile Media & Communication*, *8*(2), 247–267. https://doi.org/10.1177/2050157919872238

Karadağ, E., Tosuntaş, ŞB., Erzen, E., Duru, P., Bostan, N., Şahin, B. M., Çulha, İ, & Babadağ, B. (2015). Determinants of phubbing, which is the sum of many virtual addictions: A structural equation model. *Journal of Behavioral Addictions, 4*(2), 60–74. https://doi.org/10.1556/2006.4.2015.005

Kelly, L., Miller-Ott, A. E., & Duran, R. L. (2019). Phubbing friends: Understanding face threats from, and responses to, friends' cell phone usage through the lens of politeness theory. *Communication Quarterly, 67*(5), 540–559. https://doi.org/10.1080/01463373.2019.1668443

Maclean, J., Al-Saggaf, Y., & Hogg, R. (2020). Instagram photo sharing and its relationships with social rewards and well-being. *Human Behavior and Emerging Technologies, 2*(3), 242–250. https://doi.org/10.1002/HBE2.207

Mantere, E., Savela, N., & Oksanen, A. (2021). Phubbing and social intelligence: Role-playing experiment on bystander inaccessibility. *International Journal of Environmental Research and Public Health, 18*(19), 10035. https://doi.org/10.3390/IJERPH181910035

Marynowski, K. (2021). *Effectiveness of a novel paradigm examining the impact of phubbing on attention and mood.* In *Master thesis.* City University of New York

Nazir, T. (2020). Impact of classroom phubbing on teachers who face phubbing during lectures. *Psychology Research on Education and Social Sciences*, *1*(1), 41–47. https://dergipark.org.tr/en/pub/press/issue/54258/705524

O'Flaherty, R. (2019). *Connected by technology, empathetically disconnected: A correlational study into phubbing behaviour in Ireland.* In *Master thesis*. Institute of Art, Design and Technology. http://research.thea.ie/handle/20.500.12065/3805

Sun, J., & Samp, J. A. (2021). 'Phubbing is happening to you': Examining predictors and effects of phubbing behaviour in friendships. *Behaviour and Information Technology*, 1–14. https://doi.org/10.1080/0144929X.2021.1943711

Chapter 6
Psychological Predictors

Several predictors for phubbing have been proposed in the literature. The fact that several factors are involved in triggering phubbing and that a single factor cannot fully explain this behaviour, shows that phubbing is a complex and multifaceted phenomenon (Hunter-Brown, 2021). One reason I became interested in understanding what triggers phubbing behaviour was because I was phubbed by my best friend and close relative many years ago, before the advent of smartphones.

It happened on a clear night in late winter of 1997 in Jeddah, Saudi Arabia, where I had just returned from overseas to visit family. As I parked my car next to my best friend's house to visit his family, he picked me up straight away in his latest BMW and drove me to a nearby fancy Shawarma restaurant. At that time, phones were dumb. They could mainly call or text. As we sat at a table against a spotless floor-to-ceiling glass window overlooking a busy city street, my best friend took his phone from his thobe's pocket and placed it on the table. After a few bites of our sandwiches and sips from our Pepsi drinks, the moment could not have been more perfect for that occasional engaging, deep and meaningful conversation about our individual plans for the future. Instead, and to my utter disappointment, my friend began fiddling with his phone, sending messages, chatting to me as he waited for the replies, smiling, giggling, and laughing as he read the arriving replies with his gaze directed towards the small phone screen. Seeing our conversation being constantly interrupted made me feel agitated, and he only stopped when I threw a tantrum.

Of course, my friend apologised for his phone snubbing, giving a convincing reason and I accepted his apology, but the experience was imprinted in my mind—although it never developed into a grudge. While my personal phubbing experience was one of the reasons I became interested in researching this topic, it is not the main reason. I became earnestly interested in researching phone snubbing during face-to-face conversations after I studied loneliness on Facebook (Al-Saggaf & Nielsen, 2014) and started observing loneliness in coffee shops among university students who sat around the same table, but each one was on their smartphone.

Indeed, every time I entered a café in my hometown, I would see young adults sitting around a coffee table, but instead of talking to each other, I would see them

Y. Al-Saggaf, *The Psychology of Phubbing*, SpringerBriefs
in Psychology, https://doi.org/10.1007/978-981-19-7045-0_6

sitting quietly with both hands holding their smartphones. I have always wondered why young adults would sit together but ignore each other. Why would they bother with arranging their social 'get togethers' if they would sit alone together (Turkle, 2012), traversing online worlds mediated by their smartphones when they could be living in the moment, fully immersed in face-to-face conversations with their offline friends? Could it be that the conversations with their offline friends were not as exciting as the contents in their Instagram feed or the interactions with their online connections or, indeed, their digital friends? Could the reason young adults were still keen to meet with their face-to-face friends be because they wanted to feel the warmth of the shoulders of their friends? Is it possible that they wanted to be in the company of others (i.e. in the flesh with people with whom they are familiar), so they were not alone, but at the same time, they wanted their minds, attention, and presence to go elsewhere? I found their behaviour perplexing, but in a way, similar to being in a library where people are together in person sharing the same physical space with others (strangers), but their minds are on the books in their hands or the computer screens in front of them. The difference is that in the coffee shop example, we are talking about friends. In the library example, we are talking about strangers.

These observations and thoughts inspired our first investigation of the factors predicting phubbing behaviour. My thought that face-to-face conversations with close friends may no longer be as stimulating as the online interactions facilitated via the smartphone or the exciting contents in the TikTok, Instagram, and Snapchat feeds led me to search for literature that linked phubbing to boredom. My observation that young adults sit alone together because they don't want to feel lonely (Karadağ et al., 2015), led me to search for literature that linked phubbing to loneliness. Interestingly, only, a few studies linked phubbing to boredom and loneliness. But, the literature is rich with accounts relating to what predicts phubbing behaviour. In fact, I located dozens of studies dedicated to this topic. The studies were conducted in serval countries, which not only highlights the particular attention that this topic enjoys internationally but also allows us, the consumers of the research, the opportunity to see patterns in the findings from these studies and the ability to cross-check the credibility of these findings.

Boredom's link to phubbing was first hinted at in Oduor et al.'s (2016) study. Then, a study by Al-Saggaf et al. (2019) confirmed that boredom proneness was a significant predictor of phubbing behaviour, but the predicting strength of this factor was relatively small. A possible reason for this was because the authors measured phubbing frequency instead of phubbing behaviour and measured boredom proneness, which is the chronic type of boredom experience, instead of the more fleeting form of boredom (state boredom). Indeed, when I conducted another study in which I adopted the state boredom scale instead of the trait one and measured phubbing along both the time dimension and behavioural dimension, which took into consideration the fleeting characteristic of phubbing and the psychological properties of this momentary behaviour (Al-Saggaf & O'Donnell, 2019), the effect of state boredom on state phubbing was stronger. In addition to the direct effect of state boredom on state phubbing, this study also revealed that state fear of missing out partially mediated the effect of state boredom on state phubbing. This means that part of the effect of state

boredom on state phubbing was via the fear of missing out that smartphone users experience regularly. One way to interpret this finding was to view fear of missing out as the excuse those who experience state boredom use to phub their in-person conversationalists. Similarly, in a study conducted in Turkey that involved university students, Yam and Kumcagiz (2020) found that boredom tendency significantly predicted phubbing behaviour alongside two other significant predictors, namely smartphone addiction and fear of missing out. As levels of boredom, fear of missing out, and smartphone addiction increased, phubbing behaviour increased. It should be noted that, while the boredom tendency effect size was relatively large, smartphone addiction had a stronger explanatory effect on phubbing than boredom tendency and fear of missing out. Finally, in another study conducted in the United States, Hunter-Brown (2021) qualitatively studied university students' perceptions of what triggered their phubbing behaviour. Boredom featured prominently in the narrative about the participants' decision to phub. According to the results of this study, participants decided to phub when they felt bored, wanted to avoid the conversation, when there was a stalemate in the conversation, the conversation was not serious, they lost interest in the conversation, or wanted to escape the situation. All these behavioural tendencies are associated with boredom, and these findings make sense. Individuals who score high on trait boredom suffer from an inability to effectively engage their attention to satisfy their needs and desires (Struk et al., 2017). For this reason, they may turn to smartphone apps to engage their attention, in ways that will excite them, and as a result, they may find it increasingly difficult to focus their attention on one thing such as a face-to-face conversation. COVID-19 restrictions increased the reliance on smartphones (Zhao et al., 2022). According to Zhao's et al. (2022) recent study, boredom proneness partially mediated the relationship between parents' phubbing of children and children's addiction to their smartphones. As parents' phubbing increased during COVID-19 lockdowns, children became bored. To alleviate their boredom, children turned to their smartphones, which led them to become addicted to their smartphones.

Loneliness' role as a predictor of phubbing was not given the attention it deserves. This was either because when considered, its association with phubbing was found to be weak or not significant, such as in Al-Saggaf and O'Donnell's (2019) study, or possibly because loneliness is difficult to measure. Nevertheless, a few studies considered its role in predicting phubbing. A study by Błachnio and Przepiorka (2018) conducted in Poland revealed that only one dimension of phubbing, namely communication disturbance, was positively associated with loneliness. The association between loneliness and the second factor (phone obsession), in Karadağ et al.'s (2015) phubbing scale, was not significant. But, Ang et al.'s (2019) study found that loneliness among Malaysian undergraduate students predicted phubbing behaviour. The lonelier the participants felt, the more likely they would engage in phubbing behaviour. However, Ang et al. found that fear of missing out was a stronger predictor of phubbing than loneliness. Yaseen et al.'s (2021) findings of a study conducted in Pakistan drawn from a sample of millennials are similar to Ang et al.'s (2019) findings. Yaseen et al. (2021) found loneliness and fear of missing out both predicted phubbing behaviour, but the effect of fear of missing out was slightly stronger than

the effect of loneliness. These findings lend credence to the idea above that the association between loneliness and phubbing is either not significant or, at best, a weak association. The above studies tested loneliness as a predictor of phubbing behaviour. None of these studies examined loneliness as a mediator explaining the relationship between phubbing and what stimulates this behaviour. P. Wang, Hu's, et al. (2022) recent study included loneliness as a mediator, but in the relationship between father phubbing and social networking sites addiction, not between a candidate predictor and phubbing as an outcome. A study by Tulane et al. (2018) found that participants pretended to text (SMS) in social settings to avoid feeling lonely or appearing lonely. A strong predictor, such as fear of missing out, may trigger an individual to phub, but it is possible that the real reason why the individual phubbed in a social situation was to avoid loneliness or escape a moment of aloneness. Including loneliness as a mediator in the relationship between phubbing and what predicts this behaviour is a question for future research.

Addiction was the focus of many studies on the predictors of phubbing. Chatterjee's (2020) study involving Indian participants found that addiction to instant messaging, video games, and the internet (technological addictions) as well as stress, loneliness, and anxiety (psychological factors) all led to smartphone addiction, which in turn caused phubbing. A study by Lai et al. (2022) found smartphone addiction to be significantly positively correlated with phubbing behaviour. This finding was also confirmed by Han's et al. (2022) recent study. Han et al. (2022) found that while smartphone addiction predicted phubbing behaviour, the effect of media multitasking motivation on phubbing, as a predictor, was stronger, and the effect of interpersonal competence was strongest albeit in the negative direction (i.e. individuals who lacked social skills phubbed others more than those who possessed good social skills). Smartphone addiction was also a significant mediator between the three technological addictions and the three psychological factors on phubbing behaviour. So, smartphone addiction carried the effect of these technological addictions and psychological factors onto phubbing. Similarly, Verma et al.'s (2020) study of millennials in India revealed that addiction to WhatsApp, online gaming, and social networking apps predicted phubbing behaviour with WhatsApp addiction being the stronger predictor. Similarly, Chi's et al. (2022) study revealed that social media addiction was a strong predictor of phubbing. In fact, social media addiction was the strongest predictor compared to fear of missing out and the personality attributes of extraversion, agreeableness, conscientiousness, emotional stability, and openness to experience. In addition, Guazzini et al.'s (2021) study of Italian adults further confirmed the existence of a strong association between smartphone addiction and phubbing behaviour. In Guazzini et al.'s study, both smartphone addiction and phubbing behaviour decreased as age increased. Gender wise, females displayed higher levels of obsession with the smartphone than males and scored higher on the addiction to smartphone scale than their male counterparts, making them at a higher risk than males of developing problematic smartphone use.

Fear of missing out is arguably the second strongest predictor of phubbing behaviour after addiction. Franchina et al.'s (2018) study of Flemish high school

students[1] revealed that fear of missing out significantly positively predicted phubbing behaviour, but that the effect of fear of missing out on phubbing was also mediated by problematic smartphone use such that teens who score higher in their levels of fear of missing out were more likely to use social media compulsively and this, in turn, led them to phub their face-to-face conversationalists. A surprising finding from Franchina et al.'s (2018) study is that the fear of missing out as a predictor of the use of social media was found to be stronger for platforms that are private or closed, such as Facebook, Snapchat, and Instagram, compared to platforms that are more open or public such as Twitter. Balta et al.'s (2020) study conducted in Turkey employed high school students alongside university students. The findings indicated that females scored higher, compared to males, in levels of phubbing, Instagram problematic use, trait fear of missing out, neuroticism, and trait anxiety. State fear of missing out and Instagram problematic use directly predicted phubbing. State fear of missing out indirectly predicted phubbing through Instagram problematic use. Trait fear of missing out indirectly predicted phubbing through the mediating role of state fear of missing out and through the path of state fear of missing out and Instagram problematic use. Neuroticism indirectly predicted phubbing through the mediating role of Instagram problematic use. Trait anxiety did not directly or indirectly predict phubbing. Al-Saggaf and O'Donnell's (2019) findings, discussed above, are consistent with Balta et al.'s (2020) findings in relation to the mediating role of state of fear of missing out in predicting phubbing. In Al-Saggaf and O'Donnell's study, state fear of missing out, not the trait condition, played a key role in predicting phubbing. This suggests that when studying phubbing the focus should not only be on predictors with trait characteristics but also on predictors with state characteristics because, as alluded to above, phubbing possesses both temporal and behavioural characteristics. Butt and Arshad's (2021) study of university students with problematic smartphone use investigated the relationship between phubbing and basic psychological needs with fear of missing out as a mediator. Psychological needs refer to competence, autonomy, and relatedness, which are measured using the need satisfaction and need frustration scale. Butt and Arshad's (2021) study showed that fear of missing out and psychological needs predicted phubbing. As expected, the authors found that fear of missing out mediated the relationship between psychological needs and phubbing. Individuals with low levels of need satisfaction or high levels of need frustration will turn to their smartphones even when interacting face-to-face to check their likes, comments, shares, messages, interactions, etc. The fear of missing out in this sense will allow them to meet the need satisfaction or avoid the need frustration. Finally, a study by Blanca and Bendayan (2018), in which the authors adapted Karadağ et al.'s (2015) phubbing scale to create a Spanish version of the phubbing scale, found that internet addiction, Facebook intrusion, also known as Facebook addiction (Blanca & Bendayan, 2018), and fear of missing out (the trait type) all independently predicted the communication disturbance and the phone obsession dimensions of the phubbing scale. In addition, a time-lagged two waves study involving United States-based

[1] Adolescents or teens.

employees offered unique insights into how fear of missing out activation of phubbing during work hours could result in unfortunate consequences for the workplace. Tandon et al.'s (2022) study revealed that fear of missing out predicted phubbing and, in turn, phubbing led to work exhaustion and work incivility. Fear of missing out significantly negatively affected creativity at work. The study found that phubbing also played a mediating role in the relationship between fear of missing out and these work-related outcomes. Phubbing partially mediated the relationship between fear of missing out and work incivility and fully mediated the relationship between fear of missing out and creativity and work exhaustion. As fear of missing out drives phubbing in the workplace, employees will become preoccupied with the updates from their social media feeds, which will overburden their mental abilities and lead to work exhaustion. Similarly, the authors also warned that fear of missing out might drive employees to focus on updates from their social media circles rather than work activities.

Personality traits' relationship to phubbing has attracted the attention of a number of scholars in recent times. Erzen et al.'s (2019) study of Turkish university students discovered that, of the Big Five personality traits, conscientiousness (ability to control impulses) significantly negatively predicted phubbing, whereas neuroticism (tendency to be consumed with negative emotions) significantly positively predicted phubbing. The authors explained that while neurotic individuals may not have the willpower needed to control their impulses, for example, to refrain from phubbing in social circumstances, conscientious individuals don't face this problem. Parmaksiz's (2021) findings from another study of Turkish adults were consistent with Erzen et al.'s (2019) findings. Parmaksiz's study showed that while conscientiousness significantly negatively predicted phubbing, neuroticism significantly positively predicted phubbing. The main difference between the Erzen et al. (2019) and Parmaksiz (2021) studies was that the Parmaksiz study found that, in addition to conscientiousness and neuroticism, agreeableness was a significant negative predictor, whereas openness was a significant positive predictor. T'ng et al.'s (2018) study of Malaysian university students also focused on the relationship between the Big Five personality traits and phubbing, but the authors also included internet addiction to see if it could mediate the relationship between the Big Five personality traits and phubbing. The results revealed that internet addiction, negative emotionality, and open-mindedness predicted phubbing behaviour, but that internet addiction was the strongest predictor among these three. This finding lends credence to Blanca and Bendayan's (2018) finding, highlighted above, about internet addiction being a predictor of phubbing. The significant finding relating to negative emotionality in T'ng et al.'s (2018) study backs up Erzen et al.'s (2019) finding about the effect of neuroticism on phubbing. T'ng et al. noted that individuals with negative emotionality tend to avoid face-to-face interactions. They may prefer to focus on their smartphones to avoid the unpleasant feelings associated with face-to-face contact. Erzen et al. (2019) echoed a similar sentiment with regard to neuroticism. The authors argued that neurotic individuals often feel depressed, and since depressed individuals tend to remain alone, they may choose to occupy themselves with their smartphones to escape the unpleasant lonely feeling. A welcome study from Australia investigated

the association between narcissism and phubbing. Grieve and March's (2020) study of Australian adults looked at both types of narcissism: grandiose and vulnerable narcissism. Grieve and March distinguished between the two types by noting that people who rate higher on grandiose narcissism can filter out the negative characteristics associated with their personalities and as a result exhibit an exaggerated self-image of themselves, while people who rate higher on vulnerable narcissism often lack self-esteem and can experience feelings of emptiness, shame, and helplessness. (For a detailed account of grandiose and vulnerable narcissism see Grieve and March (2020).) The authors found that although the effect size was small, vulnerable narcissism significantly and positively predicted phubbing; so, as levels of vulnerable narcissism increased, phubbing increased. Grandiose narcissism was not found to be significant. The authors explain that individuals who are high on vulnerable narcissism tend to be sensitive to new information about them in social media and are invested in satisfying their self-esteem needs. For this reason, they may need to check their smartphones regularly to receive these updates. Grieve et al.'s (2021) findings from their more recent study supported the findings from their earlier study. In this latest study, the authors found that vulnerable narcissism predicted phubbing, but they also found that preference for online social interaction partially mediated the relationship between vulnerable narcissism and phubbing. This means that the preference for communicating online, instead of the less controllable face-to-face communication, explained a good percentage of the effect of vulnerable narcissism on phubbing. Phubbing in this context enables individuals with a high level of vulnerable narcissism to satisfy their self-esteem needs, which they can easily derive from the more controllable online communication (Grieve et al., 2021). Can assertiveness and passiveness predict phubbing? Parmaksiz's (2019) study of Turkish high school students showed that assertiveness and passiveness both significantly predicted phubbing. While assertiveness had a significant negative relationship with phubbing, passiveness had a positive relationship with phubbing. Parmaksiz (2019) argues that individuals who are low on assertiveness prefer to communicate more online, rather than face-to-face. For this reason, they engage more in phubbing behaviour. The opposite is true for individuals who are low on passiveness. These individuals can express themselves and communicate effectively, so don't shy away from face-to-face communication.

Emotional support from social media and its effect on increasing levels of depression and worsening quality of life inspired Fang et al.'s (2020) interest in studying its effect on phubbing behaviour. Their study of Chinese university students also investigated the mediating role of fear of missing out and problematic social media use in the relationship between emotional support and phubbing. Before I summarise the results of this study, let me mention in passing other results that I encountered in this article that provide further evidence for the credibility of earlier findings. Fear of missing out was significantly positively associated with problematic social media use and phubbing behaviour, and problematic social media use was significantly positively associated with phubbing behaviour. The results of this study showed that emotional support from social media was significantly positively associated with fear of missing out, problematic social media use, and phubbing behaviour. The

mediation analysis revealed that fear of missing out partially mediated the relationship between emotional support from social media and phubbing behaviour. Since fear of missing out directly affected phubbing, only some of the effect of emotional support from social media on phubbing was transported through fear of missing out. On the other hand, problematic social media use fully mediated the relationship between emotional support from social media and phubbing. Fear of missing out and problematic social media use sequentially mediated, i.e. in a cascading manner, the relationship between emotional support from social media and phubbing. While face-to-face emotional support can have a positive effect on well-being, emotional support from social media can heighten feelings of fear of missing out, which can lead to social media addiction causing smartphone users seeking emotional support to engage in excessive phubbing.

Attention is at the heart of the act of phubbing, yet the research on whether attentional difficulties predict phubbing is scarce. Hadar et al. (2017) found that heavy smartphone usage is associated with impaired attention. Smartphone apps are intentionally designed to encourage smartphone users to return to them again and again. Users can use their smartphone apps to do most things, many of which do not require sustained attention, thus making them irresistible and making face-to-face conversations interruptible. David and Roberts (2017) argued that people may phub others because of difficulties focusing their attention on one thing (e.g. a face-to-face conversation with a close friend). Considering the notifications that smartphone apps push are deliberately designed to attract users' attention, it is not surprising that smartphone users often experience a 'divided attention' problem (Halpern & Katz, 2017). Since attention is a condition for a satisfactory relationship, it is important to find out if attentional difficulties predict phubbing. Sansevere and Ward's (2021) study contributes to filling this gap in the literature. Sansevere and Ward recruited a large sample from Amazon's Mechanical Turk and requested their participants to rate themselves on a number of scales relating to attentional failures. The authors found that difficulties with attentional shifting and distractibility, lapses in attention, spontaneous and deliberate mind wandering, and attention-related cognitive errors all significantly positively predicted phubbing behaviour with attention-related cognitive errors being the strongest predictor. Media multitasking also predicted phubbing, but it only accounted for 2% of the variance compared to the 61% of the variance in phubbing explained by attentional failures. These findings make attentional abilities a stronger predictor than even personality traits. The authors point out that individuals who are impulsive, lack self-regulation, and who are less connected to others are more likely to engage in phubbing behaviour.

Relative deprivation's possible link to phubbing sounds unusual, so it was surprising that Wu and Yang (2021) investigated it as a predictor of phubbing. Individuals experience relative deprivation when they compare themselves to others, such as their friends, and believe they don't have what they deserve, which can make them angry and resentful (Smith et al., 2012). Wu and Yang's (2021) study of university students found that relative deprivation significantly positively predicted phubbing. This indicates that individuals who experience relative deprivation are at a higher risk of engaging in phubbing than those with lower levels of relative deprivation. The

study also showed that fear of missing out fully mediated the relationship between relative deprivation and phubbing. Relative deprivation's triggering of fear of missing makes sense since individuals need to find out what their friends are up to, so they can compare themselves with their friends. As fear of missing out levels increase, phubbing levels increase. In a study by H. Wang and Lei (2022), which showed that parental phubbing was positively associated with teens' addiction to short-form videos (i.e. TikTok), the authors found that relative deprivation played a mediating role in this relationship. Parents' phubbing made children feel rejected and excluded, and this deprivation led children to become addicted to short-form videos.

To summarise, scholars identified several predictors for phubbing behaviour. Addictions, including social media, the Internet, playing games, and especially smartphones, were the strongest predictors of phubbing behaviour. Fear of missing out came in second spot, followed by personality traits, such as conscientiousness, neuroticism, agreeableness, openness, narcissism, assertiveness, and passiveness. On the other hand, boredom, loneliness, emotional support, attentional failures, and relative deprivation also predicted phubbing, but the evidence supporting these predictors is not as overwhelming as the first three predictors mentioned above. The evidence for the first three predictors is not only robust, but the findings from several studies, some reviewed in this chapter, others excluded due to concerns about quality, agreed with each other.

The underlying psychological mechanism associated with the predictors played out as follows. State fear of missing out partially mediated the relationship between state boredom and state phubbing. Problematic smartphone use mediated the relationship between fear of missing out and phubbing. Fear of missing out mediated the relationship between psychological needs (measured using need satisfaction and need frustration) and phubbing. Some of the effect of fear of missing out on work incivility was transmitted through phubbing, and all the effect of fear of missing out on creativity and work exhaustion was diffused through phubbing. Some of the effect of vulnerable narcissism on phubbing was explained by a preference for online social interaction. Moreover, some of the effect of emotional support from social media on phubbing behaviour was carried through fear of missing out. In contrast, all of the effect of emotional support from social media on phubbing was explained by problematic social media use. Fear of missing out fully mediated even the relationship between relative deprivation and phubbing. As can be seen from these various analyses of mediation, fear of missing out is by far the most common mediator in the relationships between these predictors and phubbing. This speaks volumes about the robustness of fear of missing out as a predictor in its own right and, more importantly, as the excuse people unconsciously use to implicitly justify phubbing others in face-to face social interactions.

As far as future research is concerned, the literature is so rich with accounts relating to what predicts phubbing behaviour that few stones remain unturned. Some of the recent findings relating to age and gender, especially with these two demographic variables as moderators, appear to be conflicting with earlier findings. It is not clear why this is the case, but the latest findings may reflect the studied samples' change in attitudes towards phubbing. This is an area for future research. Addiction accounted

for the lion's share of the predictive power for phubbing and the evidence is mounting for fear of missing out as the next strongest predictor; as for personality traits, they may be best included in the analyses models as moderators. Loneliness and boredom were never found to be strong predictors of phubbing, but there is evidence in the literature that suggests they may serve as good mediators. This is for researchers of future studies to consider. Finally, given the dearth of research studies that employed qualitative research methods, a future study could ask participants for the reasons behind phubbing using qualitative interviews, so the factors that trigger phubbing are understood in depth.

References

Al-Saggaf, Y., MacCulloch, R., & Wiener, K. (2019). Trait boredom is a predictor of phubbing frequency. *Journal of Technology in Behavioral Science, 4*(3), 245–252. https://doi.org/10.1007/s41347-018-0080-4

Al-Saggaf, Y., & Nielsen, S. (2014). Self-disclosure on Facebook among female users and its relationship to feelings of loneliness. *Computers in Human Behavior*, *36*, 460–468. http://www.sciencedirect.com/science/article/pii/S0747563214002234

Al-Saggaf, Y., & O'Donnell, S. B. (2019). The role of state boredom, state of fear of missing out and state loneliness in state phubbing. In *Australasian Conference on Information Systems*, pp. 214–221.

Ang, M. P., Chong, Y. X., & Lau, P. J. (2019). *The impact of loneliness and fear of missing out in predicting phubbing behaviour among undergraduates in Malaysia.* In *Honours thesis*. UTAR.

Balta, S., Emirtekin, E., Kircaburun, K., & Griffiths, M. D. (2020). Neuroticism, trait fear of missing out, and phubbing: The mediating role of state fear of missing out and problematic Instagram use. *International Journal of Mental Health and Addiction, 18*(3), 628–639. https://doi.org/10.1007/S11469-018-9959-8/TABLES/4

Błachnio, A., & Przepiorka, A. (2018). Be aware! If you start using Facebook problematically you will feel lonely: phubbing, loneliness, self-esteem, and Facebook intrusion. *A Cross-Sectional Study: Social Science Computer Review, 37*(2), 270–278. https://doi.org/10.1177/0894439318754490

Blanca, M. J., & Bendayan, R. (2018). Spanish version of the phubbing scale: Internet addiction, Facebook intrusion, and fear of missing out as correlates. *Psicothema, 30*(4), 449–454. https://doi.org/10.7334/PSICOTHEMA2018.153

Butt, A. K., & Arshad, T. (2021). The relationship between basic psychological needs and phubbing: Fear of missing out as the mediator. *PsyCh Journal, 10*(6), 916–925. https://doi.org/10.1002/PCHJ.483

Chatterjee, S. (2020). Antecedents of phubbing: from technological and psychological perspectives. *Journal of Systems and Information Technology*, *22*(2), 161–178. https://www.emerald.com/insight/1328-7265.htm

Chi, L. C., Tang, T. C., & Tang, E. (2022). The phubbing phenomenon: A cross-sectional study on the relationships among social media addiction, fear of missing out, personality traits, and phubbing behavior. *Current Psychology, 1*, 1–12. https://doi.org/10.1007/S12144-021-02468-Y/TABLES/5

David, M. E., & Roberts, J. A. (2017). Phubbed and alone: Phone snubbing, social exclusion, and attachment to social media. *Journal of the Association for Consumer Research, 2*(2), 155–163. https://doi.org/10.1086/690940

Erzen, E., Odaci, H., & Yeniçeri, İ. (2019). Phubbing: Which personality traits are prone to phubbing? *Social Science Computer Review*, *39*(1), 56–69. https://doi.org/10.1177/0894439319847415

Fang, J., Wang, X., Wen, Z., & Zhou, J. (2020). Fear of missing out and problematic social media use as mediators between emotional support from social media and phubbing behavior. *Addictive Behaviors, 107*, 106430. https://doi.org/10.1016/J.ADDBEH.2020.106430

Franchina, V., Abeele, M. V., van Rooij, A. J., Lo Coco, G., & De Marez, L. (2018). Fear of missing out as a predictor of problematic social media use and phubbing behavior among Flemish adolescents. *International Journal of Environmental Research and Public Health, 15*(10), 2319. https://doi.org/10.3390/IJERPH15102319

Grieve, R., Lang, C. P., & March, E. (2021). More than a preference for online social interaction: Vulnerable narcissism and phubbing. *Personality and Individual Differences, 175*, 110715. https://doi.org/10.1016/J.PAID.2021.110715

Grieve, R., & March, E. (2020). 'Just checking': Vulnerable and grandiose narcissism subtypes as predictors of phubbing: *Mobile Media & Communication*, *9*(2), 195–209. https://doi.org/10.1177/2050157920942276

Guazzini, A., Raimondi, T., Biagini, B., Bagnoli, F., Duradoni, M., & Bodrunova, S. (2021). Phubber's emotional activations: The association between PANAS and phubbing behavior. *Future Internet, 13*(12), 311. https://doi.org/10.3390/FI13120311

Hadar, A., Hadas, I., Lazarovits, A., Alyagon, U., Eliraz, D., & Zangen, A. (2017). Answering the missed call: Initial exploration of cognitive and electrophysiological changes associated with smartphone use and abuse. *PLoS ONE*, *12*(7). https://doi.org/10.1371/journal.pone.0180094

Han, J. H., Park, S.-J., & Kim, Y. (2022). Phubbing as a millennials' new addiction and relating factors among nursing students. *Psychiatry Investigation*, *19*(2), 135–145. https://doi.org/10.30773/PI.2021.0163

Hunter-Brown, C. (2021). *Phubbing while phoning: An instrumental multiple-case study of college students' smartphone use*. In *PhD thesis.* Capella University.

Karadağ, E., Tosuntaş, ŞB., Erzen, E., Duru, P., Bostan, N., Şahin, B. M., Çulha, İ, & Babadağ, B. (2015). Determinants of phubbing, which is the sum of many virtual addictions: A structural equation model. *Journal of Behavioral Addictions, 4*(2), 60–74. https://doi.org/10.1556/2006.4.2015.005

Lai, X., Hu, C., Ying, L., Xu, H., Zhao, C., Yang, X., Yu, X., & Zhang, G. (2022). Risk and protective factors associated with smartphone addiction and phubbing behavior among college students in China. *Psychological Reports, 2022*, 1–18. https://doi.org/10.1177/00332941221084905

Oduor, E., Neustaedter, C., Odom, W., Tang, A., Moallem, N., Tory, M., & Irani, P. (2016). The frustrations and benefits of mobile device usage in the home when co-present with family members. In *Proceedings of the 2016 ACM Conference on Designing Interactive Systems—DIS '16*, pp. 1315–1327. https://doi.org/10.1145/2901790.2901809

Parmaksiz, İ. (2019). Relationship of phubbing, a behavioral problem, with assertiveness and passiveness: A study on adolescents. *International Online Journal of Educational Sciences*, *11*(3), 34–45. https://doi.org/10.15345/iojes.2019.03.003

Parmaksiz, İ. (2021). Relationships between phubbing and the five factor personality traits. *Kastamonu Education Journal*, *29*(4), 32–42. https://doi.org/10.24106/KEFDERGI.795620

Sansevere, K. S., & Ward, N. (2021). Linking phubbing behavior to self-reported attentional failures and media multitasking. *Future Internet, 13*(4), 100. https://doi.org/10.3390/FI13040100

Smith, H. J., Pettigrew, T. F., Pippin, G. M., & Bialosiewicz, S. (2012). Relative deprivation: A theoretical and meta-analytic review. *Personality and Social Psychology Review, 16*(3), 203–232. https://doi.org/10.1177/1088868311430825

Struk, A. A., Carriere, J. S. A., Cheyne, J. A., & Danckert, J. (2017). A short boredom proneness scale: development and psychometric properties. *Assessment, 24*(3), 346–359. https://doi.org/10.1177/1073191115609996

T'ng, S. T., Ho, K. H., & Low, S. K. (2018). Are you "phubbing" me? The determinants of phubbing behavior and assessment of measurement invariance across sex differences. *International and*

Multidisciplinary Journal of Social Sciences, *7*(2), 159–190. https://doi.org/10.17583/RIMCIS.2018.3318

Tandon, A., Dhir, A., Talwar, S., Kaur, P., & Mäntymäki, M. (2022). Social media induced fear of missing out (FoMO) and phubbing: Behavioural, relational and psychological outcomes. *Technological Forecasting and Social Change, 174*, 121149. https://doi.org/10.1016/J.TECHFORE.2021.121149

Tulane, S., Vaterlaus, J., & Beckert, T. (2018). A mixed methods examination of adolescents' reasons for pretending to text. *Journal of Adolescence*, *69*, 175–179. https://www.sciencedirect.com/science/article/pii/S0140197118301866

Turkle, S. (2012). *Alone together: Why we expect more from technology and less from each other*. Basic Books.

Verma, S., Kumar, R. K., & Yadav, S. K. (2020). The Determinants of phubbing behaviour: A millennials perspective. *Article in International Journal of Innovative Technology and Exploring Engineering*, *8*(12S), 2278–3075. https://doi.org/10.35940/ijitee.L1184.10812S19

Wang, H., & Lei, L. (2022). The relationship between parental phubbing and short-form videos addiction among Chinese adolescents. *Journal of Research on Adolescence.* https://doi.org/10.1111/JORA.12744

Wang, P., Hu, H., Mo, P. K. H., Ouyang, M., Geng, J., Zeng, P., & Mao, N. (2022). How is father phubbing associated with adolescents' social networking sites addiction? Roles of narcissism, need to belong, and loneliness. *The Journal of Psychology, 156*(5), 331–348. https://doi.org/10.1080/00223980.2022.2034726

Wu, Y., & Yang, X. (2021). Relative deprivation and phubbing: Fear of missing out as a mediator. *Social Behavior and Personality*, *49*(7). https://doi.org/10.2224/SBP.10503

Yam, F. C., & Kumcagiz, H. (2020). Adaptation of general phubbing scale to Turkish Culture and investigation of phubbing levels of university students in terms of various variables. *ADDICTA: The Turkish Journal on Addictions*, *7*(1), 48–60. https://doi.org/10.5152/addicta.2020.19061

Yaseen, B., Zia, S., Fahd, S., & Kanwal, F. (2021). Impact of loneliness and fear of missing out on phubbing behavior among millennials. *Psychology and Education Journal*, *58*(4), 4096–4100. http://psychologyandeducation.net/pae/index.php/pae/article/view/5610

Zhao, J., Ye, B., Luo, L., & Yu, L. (2022). The effect of parent phubbing on Chinese adolescents' smartphone addiction during COVID-19 pandemic: Testing a moderated mediation model. *Psychology Research and Behavior Management, 15*, 569–579. https://doi.org/10.2147/PRBM.S349105

Chapter 7
Psychological Effects

The persistent, consistent, and incessant interaction by young people, particularly children, with their smartphones, especially while alone, is a worldwide phenomenon. Parents' sharing of their concerns about their children's smartphone addictive behaviours is so common that the media no longer talks about them. But, parents tell me they remain helpless about what to do with this disruptive technology that invaded their children's lives and, in the process, disturbed their family lives. Matt, the tradie who fixed things around our house a few months ago, is one of those parents who are extremely worried about their children's excessive smartphone use. I encountered him unexpectedly several weeks ago outside a café. When I asked him about his children, as we waited for our takeaway coffees, he answered with sad eyes and after a deep sigh: "I don't see my children anymore. They are teenagers. They stay in their rooms all the time." I replied in a bitter tone with a dry smile: "My teenage son is like that too." My son shuns everyone and everything around him to be 'left alone' with his smartphone. He spends all his time locked in his room and comes out only to go to the bathroom or toilet, get something to eat, snack or drink, or charge his smartphone. Even while waiting for his smartphone to charge, he will be on his laptop or gaming console. He will walk to the fridge with his eyes looking at the smartphone, eat his breakfast glued to its screen, and be 'fiddling' with it during the car trip to and from school. If I ask him what he is up to, he will respond without turning his face towards me because he is playing a game on the laptop, as a YouTube video runs in the background, and the smartphone is within close reach of the left hand, so the smartphone notifications are greeted with a tap within a split second of their arrival.

In being always fully immersed in his digital world, he is not only phubbing his parents, sibling, grandparents, and 'face-to-face only[1]' friends, but he is also phubbing everything else he could have been doing, such as reading a 'printed' book, going for a walk, exercising, watching TV with family members, or cultivating a hobby like drawing, painting, or gardening, which he used to love before he became

[1] Friends who are encountered face-to-face or in-person only; that is, friends who are not encountered also online.

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hooked on TikTok. It is true, at other times, he could be reading an online book on his smartphone or listening to an audiobook, or travelling to a place without leaving his room, like visiting Antarctica virtually, or watching TV online, drawing online using Adobe Illustrator, painting using Clip Studio Paint Pro, or having an online conversation with his friends via WhatsApp, but is the online conversation the same as the face-to-face conversation? Face-to-face conversations are difficult, awkward, spontaneous, unscripted, messy, and as they happen in real time, one has no control over what to say (Turkle, 2012). In the face of a better alternative, it should not be surprising that people try to avoid face-to-face conversations (Turkle, 2012), even if only momentarily (while phubbing). This chapter focuses on the broader effects of phubbing behaviour.

The literature indicates that phubbing is responsible for numerous harmful effects, including ostracism, loneliness, anxiety, depression, lower levels of satisfaction with life (see, for example, Polat and Karasu (2022)), smartphone addiction, cyberbullying perpetration, withdrawal, aggression, lower self-evaluation, academic procrastination (see, for example, Rachman (2019)), and poor academic performance (see, for example, Uceda et al. (2020)). Phubbing can also increase smartphone-related conflicts, lower evaluations of relationship quality, and heighten feelings of jealousy. However, the fact that several of the studies reviewed for this chapter focused on the effect of phubbing on depression suggests this effect is potentially the most worrying.

Depression can have profound impacts on physical and mental health and well-being. Davey et al.'s (2018) study is one of the first studies that drew a connection between phubbing and depression. The time-lagged two waves study, which involved a random sample of Indian college students between the ages of 15 and 29 years, revealed that phubbing affected social well-being, relationship satisfaction, self-flourishing, depression, and distress, but that the associations between phubbing and depression and phubbing and distress were strongest. Ivanova et al.'s (2020) study of Ukrainian university students showed that phubbing was closely associated with depression, so as phubbing increased, depression levels increased. The authors also found that phubbing served as a mediator between smartphone addiction and depression. Smartphone addiction caused users to phub more, and this increase in phubbing led to an increase in depressive symptoms. For males who suffered from higher levels of loneliness, the effect of smartphone addiction worsened symptoms of depression but only through one aspect of phubbing behaviour (phone obsession). For females who suffered from higher levels of loneliness, the mediating effect disappeared. Evidence from a study of high school students in China supports the above findings about the association between phubbing and depression. Bai et al.'s (2020) study revealed that parents' phubbing and children's phubbing behaviour predicted depressive symptoms, so as phubbing increased, depressive symptoms increased. Parents' phubbing and children's phubbing behaviour were significantly correlated. It appears children imitate their parents' phubbing behaviour. Wang (2022b) study of Chinese high school students revealed that parents' phubbing significantly positively predicted these high school students' depressive symptoms. Parent–child communication mediated this relationship. So, as parents' phubbing

increased, parents' responsiveness to their children worsened, which in turn worsened children's depressive symptoms as they failed to attract their parents' attention. Another study from China also linked phubbing to depression. Liu et al., (2021a, 2021b) study of primary and secondary school teachers revealed that phubbing was not only significantly positively associated with depression, but that phubbing was also significantly positively associated with job burnout and rumination. Moreover, job burnout partially mediated the relationship between phubbing and depression, postulating that job burnout explained some of the depression caused by phubbing. In addition, a study from Turkey pointed to further evidence linking phubbing to depression. Parmaksız's (2021) study of a large group of Turkish adults revealed that phubbing negatively affected life satisfaction and depression. That said, demographic variables and personality traits also influenced depression. Married participants scored lower on the depression test than single participants. Similarly, participants with anxious personality characteristics reported feeling more depressed than those with other personality characteristics. Last, participants with lower education levels, such as high school, were associated with higher levels of depression than those with higher education levels, who scored lower on the depression scale. However, a study by Bitar et al. (2021) paints a different picture about the association between phubbing and depression. Rather than seeing phubbing as a predictor of depression, as the above findings showed, Bitar et al. investigated the role of depression in predicting phubbing behaviour. Their study of Lebanese adults (community-dwelling participants) showed that depressive temperament significantly positively predicted phubbing, whereas self-esteem significantly negatively predicted phubbing behaviour. Self-esteem also partially mediated the relationship between depressive temperament and phubbing. Interestingly, while emotional intelligence was significantly negatively associated with phubbing, it neither predicted this behaviour nor did it mediate the relationship between depressive temperament and phubbing. Upon a closer look, the discovery that phubbing predicts depression is not at odds with the discovery that depression predicts phubbing, so Bitar et al.'s (2021) findings are not inconsistent with the above findings. Being phubbed by someone, especially if the person is a close relation, is bound to evoke feelings of depression. At the same time, when someone is feeling depressed during a social setting, the easiest way to alleviate this feeling is to turn to the smartphone and phub the co-present person.

Aggression is often the result of anger, but phubbing has also been found to lead to aggression. Wang (2021b) study surveyed one of the parents, i.e. either the mother or the father, from a large sample of Chinese families. The authors found that a parent's phubbing was significantly positively associated with children's social withdrawal and aggression and that positive parenting (i.e. listening and understanding) and negative parenting (i.e. commands, threats, and deprivations) partially mediated the relationships between a parent's phubbing and children's social withdrawal and between a parent's phubbing and children's aggression. In sum, as a parent's phubbing increased, children's social withdrawal and aggression also increased. But, there is a partial mediating effect through parenting behaviours. Higher levels of a parent's phubbing reduced the effect of positive parenting, and this, in turn, invited children's social withdrawal and aggression to increase. The effect of negative

parental behaviour differed from that of positive parental behaviour. Higher levels of a parent's phubbing amplified the effect of negative parenting, which, in turn, increased children's social withdrawal and aggression. One other difference here is that the direct effect of parental phubbing on children's social withdrawal disappeared when negative parenting was included as a mediator, making negative parenting a full mediator of the effect of a parent's phubbing on children's social withdrawal. The direct effect of parental phubbing on children's aggression remained significant when negative parenting was included as a mediator. Gender moderated the relationship between negative parenting and children's social withdrawal. A father's phubbing was more likely to lead to children's social withdrawal via negative parenting than a mother's phubbing. Mothers' confiscating their children's smartphones had a lower effect on children's social withdrawal than if the fathers did this to the children. The above findings are the opposite of Parmaksız and Kılıçarslan's (2021) findings. The above findings show that phubbing can lead to aggression, but Parmaksız and Kılıçarslan's (2021) study of a large sample of Turkish adults suggests that aggression can predict phubbing. Indeed, Parmaksız and Kılıçarslan found that aggression, specifically physical aggression, verbal aggression, hostility, and anger, all significantly predicted phubbing behaviour. The authors also found that emotional intelligence negatively predicted phubbing. This finding is not in line with Bitar et al.'s (2021) study, which found that while emotional intelligence was negatively associated with phubbing, it did not predict it. Emotional intelligence is the ability to understand and organise one's own and other's emotions to improve one's social life. According to Parmaksız and Kılıçarslan's (2021) study, higher levels of emotional intelligence were associated with lower levels of phubbing behaviour. Thus, users who scored high on emotional intelligence would be better positioned to regulate their phubbing behaviour than those who scored low on emotional intelligence. As an aside, the phubbing scores for the married participants in both the Parmaksız and Kılıçarslan (2021) and Bitar et al. (2021) studies were lower than those who were single. It is unclear why single individuals phubbed more than married people, but this marital status difference should be examined in the future. Upon reflection, Wang et al., (2021a, 2021b) findings and Parmaksız and Kılıçarslan's (2021) findings can be reconciled. When a parent phubs their child, it is not surprising that in anger that child may resort to aggression. When an adult is faced with an aggressive behaviour, it makes sense that the victim will engage in phubbing to escape the aggression.

Cyberbullying is related to aggression. A study by Wang et al. (2020) found that phubbing significantly positively predicted high school students' engagement in cyberbullying practices. Higher levels of parental phubbing resulted in the phubbees committing cyberbullying of others. The authors also found that moral disengagement mediated the relationship between parents' phubbing and high school students' cyberbullying behaviour. The authors explained that parents' phubbing sent a strong message to the high school students that the smartphone was more important to their parents than they were. This phubbing then pushed the high school students to disengage from their moral principles and, as a consequence, resorted to cyberbullying. High school students, who scored high on online disinhibition (a lack of concern for the consequences of one's actions), cyberbullied others more as a result of their

parents' phubbing and the subsequent moral disengagement than those with low scores on online disinhibition. Qu et al.'s (2020) research of Chinese high school students also found a link between parents' phubbing, specifically mother phubbing, and cyberbullying. Qu et al.'s findings revealed that mother phubbing significantly negatively predicted perceived mother acceptance, which, in turn, significantly negatively predicted cyberbullying. This means that perceived mother acceptance mediated the relationship between mother phubbing and cyberbullying. As mother phubbing increased, perceived mother acceptance dropped, and, in response, children's cyberbullying behaviour increased. Emotional stability moderated the relationship between mother phubbing and perceived mother acceptance and between mother phubbing and cyberbullying. Emotional stability is one of the Big Five personality traits that relate to one's ability to control one's emotions and urges. The effect of mother phubbing on perceived mother acceptance was less severe for those with low emotional stability (a higher level of neuroticism) than those who scored high on emotional stability. While this may sound strange, it should not. Perceived mother acceptance is less likely to be impacted by mother phubbing for individuals who score high on neuroticism because mother acceptance is already perceived as low for neurotic individuals. On the other hand, the effect of mother phubbing on cyberbullying was stronger for children who scored low on emotional stability.

Loneliness was looked at, in the previous chapter, as a predictor of phubbing behaviour. This chapter will look at loneliness as a possible effect of phubbing behaviour. Ergün et al.'s (2020) series of small-scale studies of mostly Turkish university students revealed that phubbing (the phubber's perspective) significantly negatively predicted loneliness, which is a surprising finding because it suggests that as phubbing increased, the phubber's feelings of loneliness decreased. If one has a face-to-face conversation with someone, it does not mean one is not lonely; one's loneliness can decrease even if one connects with one's online friends. But, it should be noted that the effect size of the decrease in loneliness was small. Moreover, being phubbed significantly negatively predicted loneliness and life satisfaction. It appears the more a person is phubbed, the lonelier that person would feel and the worse their satisfaction with their life would be. Geng et al.'s (2021) findings support this conclusion about the effect of phubbing on loneliness. Geng et al.'s time-lagged two waves study of Chinese high school students revealed that parents' phubbing predicted high school students' problematic smartphone use and that loneliness mediated the relationship between parents' phubbing and problematic smartphone use. Parents' phubbing of their children evoked feelings of rejection and distress, making them feel lonely. To relieve their feelings of loneliness, these high school students turned to their smartphones, developing a smartphone dependence, which they initially detested. The authors also noticed that father phubbing, not mother phubbing, directly predicted problematic smartphone use. This supports the idea that children develop problematic smartphone use by watching their fathers use the smartphone problematically, rather than their mothers (Liu et al., 2022). This finding might be culture specific. It would be worthwhile replicating this study in a Western country, like Australia, to see if this finding applies outside China. Phubbing can also heighten feelings of loneliness through a perceived lack of parents' acceptance.

Wang et al., (2021a, 2021b) study of Chinese high school students focused specifically on the effect of mother phubbing on loneliness. It found that mother phubbing significantly positively predicted loneliness in children. The study also showed that mother–child communication and mother–child acceptance both partially mediated the relationship between mother phubbing and children loneliness. Mothers' phubbing intensified the feelings of neglect or exclusion that children perceived either through impairing the mother–child communication or aggravating the mother–child acceptance or both. This perception of the parent's neglect or exclusion caused the children to feel lonely. Related to loneliness is social exclusion or ostracism. Chotpitayasunondh and Douglas's (2018) study of British university students adopted a three-minute animation depicting a conversation between two individuals. Before responding to the survey questions, participants first watched the animation. The results of the study showed that being phubbed threatened the fundamental needs of belongingness, meaningful existence, self-esteem, and control. The authors counted phubbing as a form of ostracism because it threatened these four fundamental needs. Wang et al. (2020) also shared Chotpitayasunondh and Douglas's view that phubbing engenders social exclusion.

Anxiety was found to be a predictor of phubbing behaviour, along with stress and household crowding index, in the case of Bitar's et al. (2022) study. Chatterjee (2020), whose study was briefly mentioned in the previous chapter, also found stress to be a predictor of phubbing. This chapter will look at anxiety as a possible effect of phubbing behaviour. Ergün et al.'s (2020) research revealed that phubbing (the phubber's perspective) significantly positively predicted anxiety, depression, negative self, somatisation (the bodily expression of stress), and hostility. Equally, being phubbed significantly positively predicted anxiety, depression, negative self, somatisation, and hostility. Guazzini et al.'s (2019) study of Italian social media users also found a strong positive link between phubbing and trait anxiety and social interaction anxiety. Similarly, Zhang et al.'s (2021) study of Chinese high students found that parents' phubbing significantly positively predicted social anxiety (the fear of embarrassment in social situations) and smartphone addiction and significantly negatively predicted core self-evaluations (people's self-assessment of their personalities in terms of self-esteem, emotional stability, locus of control, and self-efficacy). Social anxiety and core self-evaluations partially and serially (in sequence) mediated the relationship between phubbing and smartphone addiction. Likewise, Chu et al.'s (2021) findings also support Zhang et al.'s (2021) findings above about the mediating role of social anxiety in the relationship between phubbing and addiction. Chu et al. (2021) found that peer phubbing significantly positively predicted social anxiety and social media addiction, but that social anxiety partially mediated the relationship between peer phubbing and social media addiction. Likewise, a recent study by Wang et al., (2022a, 2022b) revealed that father phubbing was significantly positively associated with social media addiction and that loneliness played a mediating role in the relationship between father phubbing and social media addiction. As father phubbing increased, children's loneliness levels increased, and as a result, social media addiction levels increased. Similarly, Liu et al., (2021a, 2021b) findings from a study of Chinese high school students support Zhang et al.'s (2021)

above findings about the relationship between phubbing and core self-evaluations. Liu et al., (2021a, 2021b) findings revealed that parent phubbing significantly negatively predicted core self-evaluations. Parent phubbing also significantly negatively predicted relationship satisfaction; parents' phubbing worsened children's relationship satisfaction with parents and children's core self-evaluations. In addition, Liu's et al. (2021a, 2021b) study also revealed that relationship satisfaction fully mediated the relationship between phubbing and core self-evaluations. That is, higher levels of parental phubbing decreased children's relationship satisfaction with their parents, and this, in turn, lowered children's core self-evaluations (i.e. children's evaluation of their worthiness, competence, and capabilities). Internal attribution moderated the relationship between parents' phubbing and relationship satisfaction and between parents' phubbing and core self-evaluations. The negative effect of parents' phubbing on relationship satisfaction and core self-evaluation was stronger for children who blamed themselves for their parents' phubbing. Liu et al., (2021a, 2021b) interpreted phubbing in light of its negative effect on relationship satisfaction and core self-evaluations, as a form of rejection, disinterest, and inaccessibility.

Boredom in the previous chapter predicted phubbing behaviour. But, in this chapter, boredom will be considered as an effect of phubbing. A study of university students in China found that peer phubbing had a direct effect on boredom proneness. When the authors included boredom as a mediator in the relationship between phubbing and smartphone addiction, i.e. not as a predictor of phubbing behaviour, Zhao et al. (2021) found that boredom proneness partially mediated the relationship between peer phubbing and smartphone addiction. This means boredom proneness explained some of the effect of phubbing on smartphone addiction. It looks like as smartphone users phubbed others, they became bored. To relieve this unpleasant emotion, boredom, they phubbed more, which made them become addicted to the smartphone because they continuously phubbed to alleviate negative emotions. Similarly, Zhao et al. (2021) investigated the relationship between phubbing and addiction in the reverse order, i.e. the effect of phubbing on addiction, rather than the effect of addiction on phubbing, which was highlighted in the previous chapter. Their study of university students in China revealed that peer phubbing predicted smartphone addiction directly and, as mentioned above, through the mediating role of boredom proneness. The authors also found that refusal self-efficacy, which refers to the ability to resist temptation, moderated the relationship between peer phubbing and smartphone addiction. Peer phubbing had a stronger effect on smartphone addiction for university students who scored higher in refusal self-efficacy. Similar to Zhao et al. (2021), Argan et al. (2019) studied phubbing as a predictor of addiction, but unlike the Zhao et al. (2021) study, which involved university students, the Argan et al.'s (2019) study involved bodybuilders. Argan et al. tested if phubbing was associated with social media addiction. Their findings showed that phubbing indeed predicted social media addiction and that social media addiction, in turn, predicted narcissism. Thus, higher levels of phubbing among Turkish bodybuilders led to increased social media addiction levels, and this subsequently caused these bodybuilders to exhibit narcissistic traits such as self-obsession, egotism, and always seeking attention.

The communication skills of smartphone users are adversely affected by both phubbing and smartphone addiction. Ayar and Gürkan's (2021) study of Turkish nursing students looked at the effect of phubbing on the phubber, not the phubbee, which shows that phubbing affects not only the phubbee but also the phubber. This study found that both phubbing and smartphone addiction significantly negatively predicted the worsening of the nursing students' communication skills. Of course, this finding makes sense. As smartphone users engage in higher levels of phubbing behaviour and, in turn, become addicted to their smartphones, their face-to-face communication skills weaken. As they phub their co-present person, they are not looking at the person, observing their body language, leveraging their facial expressions, interpreting body language and facial expressions, maintaining eye contact, or actively listening to the person.

Psychological distress's association with phubbing was examined across 20 countries (Błachnio et al., 2021). The authors wanted to know if culture, as well as other country indicators, played a role in how psychological distress was experienced as a result of phubbing. Psychological distress is the emotional suffering that often accompanies the inability to cope with an experience. The study involved 7,315 smartphone users from 20 countries. The authors found that in almost all countries, the higher the levels of smartphone obsession and communication disturbance, the higher the psychological distress. Moreover, the phubbing dimension of communication disturbance led to an increase in psychological distress in almost every country, but in countries with a lower Gender Gap Index, Opportunity, and Basic Human Needs, such as India and Pakistan, the consequences were more severe; and phubbing affected social relationships more negatively. Similarly, smartphone obsession caused psychological distress in almost every country, but in countries with higher a Gender Gap Index, Social Progress Index, Opportunity, and Basic Human Needs, such as Spain and Portugal, phone obsession was associated with stronger levels of psychological distress, possibly because those societies are not strongly dependent on their smartphones and value social interactions greatly. The authors concluded that the association between phubbing and psychological distress is 'culturally universal'. The findings of two individual studies, one conducted in India, and the other in Pakistan, provide further evidence for the credibility of Błachnio et al.'s (2021) findings above. Tekkam et al.'s (2020) study of university students in India found that phubbing was significantly positively associated with psychological distress. The higher the levels of phubbing, the higher the levels of psychological distress. Likewise, Shahbaz et al.'s (2020) study of community adults in Pakistan showed that phubbing significantly positively predicted psychological distress.

In summary, phubbing led to depression or worsened existing symptoms of depression. Phubbing caused distress and withdrawal and led to aggression and cyberbullying. Phubbing triggered feelings of loneliness, boredom, and narcissism. It weakened communication skills, decreased responsiveness, and diminished feelings of acceptance. It worsened relationship satisfaction, life satisfaction, and a person's own self-assessment of personality traits. Phubbing also negatively affected individuals' emotional stability and increased their levels of neuroticism. It gave rise to moral disengagement and resulted in job burnout, procrastination, and poor academic

performance. Phubbing also engendered smartphone addiction and social media addiction and exacerbated feelings of trait anxiety and social interaction anxiety.

Some mediators explained the underlying psychological mechanism in the relationship between phubbing and its effects. Job burnout explained the effect of phubbing on depression and a lack of responsiveness from parents due to their engagement with their smartphones caused children to develop depressive symptoms. But, phubbing itself was a mediator between smartphone addiction and depression. As smartphone addiction triggered smartphone users to phub without control, depressive symptoms deepened. Both positive and negative parenting explained the effect of parents' phubbing on children's social withdrawal and aggression. Excessive parents' phubbing cancelled the outcome of positive parenting, and, as a consequence, children avoided social interaction, favoured social withdrawal, and participated in aggressive actions. On the other hand, limitless parents' phubbing amplified the effect of negative parenting, leading children to favour social withdrawal and take part in aggressive activities. Similarly, parents' phubbing, which the children perceived as a form of rejection, nudged the children to morally disengage from their held standards, which drove them to cyberbully their peers. Perceived mother acceptance played a similar role to moral disengagement in that children who interpreted their mother's phubbing as a sign of rejection retaliated by cyberbullying their peers. In addition, phubbing forced individuals to develop a dependence on the smartphone because whenever they were phubbed, their feelings of loneliness increased, so to alleviate these negative feelings, they accessed their smartphones. Similarly, lack of responsiveness from parents and lack of acceptance both explained why phubbing elevated children's feelings of loneliness. Equally, social anxiety, a negative subjective assessment of one's personality, and boredom proneness all drove phubbed individuals to develop a smartphone addiction. Moreover, when phubbing resulted in a deterioration in the relationship satisfaction, this deterioration brought about a decline in a person's self-esteem, emotional stability, locus of control, and self-efficacy. Finally, as already established, increased rates of phubbing led to an increase in rates of social media addiction. This then caused individuals' narcissistic traits to become more intense.

Regarding the moderators, loneliness moderated the relationship between smartphone addiction and depression through the mediating role of phubbing. The impact of smartphone addiction reduced symptoms of depression through the phone obsession dimension of phubbing but only for males who reported higher levels of loneliness. Gender moderated the relationship between phubbing and social withdrawal through the mediating role of negative parenting. Paternal phubbing precipitated children's social withdrawal when accompanied by negative parenting. Maternal phubbing did not bring about this change. Relatedly, the impact of mother phubbing on feelings of acceptance by mothers was less severe for individuals who scored higher on neuroticism than those who scored lower on neuroticism. Additionally, the adverse impact of phubbing on satisfaction with the relationship with parents and on their own self-assessment of the nature of their personalities was greater for individuals who attributed the reason for their parents' phubbing to themselves. Lastly,

phubbing's impact on smartphone addiction was more extreme for individuals who were most capable of resisting temptation.

Five questions for future research are suggested. (1) To what extent have COVID-19 lockdowns increased the dependence on smartphones? (2) Is there a difference between phubbing intensity before and after the pandemic? (3) What are the long-term effects of being continuously phubbed by parents, children, partners, supervisors, colleagues, family members, and friends? (4) Considering there is a link between phubbing and mental health, is there a link between phubbing and suicide? (5) What will continuously phubbed children be like when they have become young adults? These questions have not been examined yet, so they are for future researchers to address.

References

Argan, M., Köse, H., Özgen, C., & Yalınkaya, B. (2019). Do sports, take photo and share: Phubbing, social media addiction and narcisism of body builders. *European Journal of Physical Education and Sport Science, 5*(9). https://doi.org/10.5281/zenodo.3242600

Ayar, D., & Gürkan, K. P. (2021). The effect of nursing students' smartphone addiction and phubbing behaviors on communication skill. *Computers, Informatics, Nursing*, *40*(4), 230–235. https://doi.org/10.1097/cin.0000000000000834

Bai, Q., Lei, L., Hsueh, F. H., Yu, X., Hu, H., Wang, X., & Wang, P. (2020). Parent-adolescent congruence in phubbing and adolescents' depressive symptoms: A moderated polynomial regression with response surface analyses. *Journal of Affective Disorders, 275*, 127–135. https://doi.org/10.1016/J.JAD.2020.03.156

Bitar, Z., Akel, M., Salameh, P., Obeid, S., & Hallit, S. (2022). Phubbing among Lebanese young adults: Scale validation and association with mental health (depression, anxiety, and stress). *Current Psychology, 1*, 1–12. https://doi.org/10.1007/S12144-022-03104-Z/TABLES/5

Bitar, Z., Hallit, S., Khansa, W., & Obeid, S. (2021). Phubbing and temperaments among young Lebanese adults: The mediating effect of self-esteem and emotional intelligence. *BMC Psychology, 9*(1), 1–9. https://doi.org/10.1186/S40359-021-00594-7/TABLES/4

Błachnio, A., Przepiórka, A., Gorbaniuk, O., McNeill, M., Bendayan, R., Durak, M., Senol-Durak, E., Ben-Ezra, M., Benvenuti, M., Angeluci, A., Abreu, A. M., Makita, M., Blanca, M. J., Brkljacic, T., Babič, N. Č., Gorbaniuk, J., Holdoš, J., Ivanova, A., Malik, S., Mazzoni, E., et al. (2021). Country indicators moderating the relationship between phubbing and psychological distress: A study in 20 Countries. *Frontiers in Psychology*, *12*. https://doi.org/10.3389/FPSYG.2021.588174

Chatterjee, S. (2020). Antecedents of phubbing: from technological and psychological perspectives. *Journal of Systems and Information Technology*, *22*(2), 161–178. https://www.emerald.com/insight/1328-7265.htm

Chotpitayasunondh, V., & Douglas, K. M. (2018). The effects of "phubbing" on social interaction. *Journal of Applied Social Psychology, 48*(6), 304–316. https://doi.org/10.1111/JASP.12506

Chu, X., Ji, S., Wang, X., Yu, J., Chen, Y., & Lei, L. (2021). Phubbing while phoning: An instrumental multiple-case study of college students' smartphone use. *Frontiers in Psychology, 12*, 670065. https://doi.org/10.3389/FPSYG.2021.670065

Davey, S., Davey, A., Raghav, S. K., Singh, J. V., Singh, N., Blachnio, A., & Przepiórkaa, A. (2018). Predictors and consequences of "phubbing" among adolescents and youth in India: An impact evaluation study. *Journal of Family & Community Medicine, 25*(1), 35–42. https://doi.org/10.4103/JFCM.JFCM_71_17

Ergün, N., Göksu, İ, & Sakız, H. (2020). Effects of phubbing: Relationships with psychodemographic variables. *Psychological Reports, 123*(5), 1578–1613. https://doi.org/10.1177/0033294119889581

Geng, J., Lei, L., Ouyang, M., Nie, J., & Wang, P. (2021). The influence of perceived parental phubbing on adolescents' problematic smartphone use: A two-wave multiple mediation model. *Addictive Behaviors, 121*, 106995. https://doi.org/10.1016/J.ADDBEH.2021.106995

Guazzini, A., Duradoni, M., Capelli, A., & Meringolo, P. (2019). An explorative model to assess individuals' phubbing risk. *Future Internet 2019, 11*(1), 21. https://doi.org/10.3390/FI11010021

Ivanova, A., Gorbaniuk, O., Błachnio, A., Przepiórka, A., Mraka, N., Polishchuk, V., & Gorbaniuk, J. (2020). Mobile phone addiction, phubbing, and depression among men and women: A moderated mediation analysis. *Psychiatric Quarterly, 91*(3), 1–14. https://doi.org/10.1007/s11126-020-09723-8

Liu, J., Wang, W., Hu, Q., Wang, P., Lei, L., & Jiang, S. (2021a). The relationship between phubbing and the depression of primary and secondary school teachers: A moderated mediation model of rumination and job burnout. *Journal of Affective Disorders, 295*, 498–504. https://doi.org/10.1016/J.JAD.2021.08.070

Liu, K., Chen, W., & Lei, L. (2021b). Linking parental phubbing to adolescent self-depreciation: The roles of internal attribution and relationship satisfaction. *The Journal of Early Adolescence, 41*(8), 1269–1283. https://doi.org/10.1177/0272431621989821

Liu, K., Wang, J., Wei, X., & Lei, L. (2022). Parental modeling and normative influence in shaping teenagers' phubbing: An exploratory study. *Youth & Society*. https://doi.org/10.1177/0044118X21093657

Parmaksız, İ. (2021). Predictive effect of phubbing and life satisfaction on depression symptoms in adults. *Journal of Dependence*, *22*(3), 236–247. https://doi.org/10.51982/BAGIMLI.888038

Parmaksız, İ., & Kılıçarslan, S. (2021). AGGRESSION and emotional intelligence as predictors of phubbing. *Psycho-Educational Research Reviews*, *10*(3). https://doi.org/10.52963/PERR_Biruni_V10.N3.12

Polat, F., & Karasu, F. (2022). Examining the correlation between phubbing and life satisfaction in adults during covid-19 pandemic. *Journal of Dependence*, *23*(2), 191–198. https://doi.org/10.51982/BAGIMLI.990471

Qu, J., Lei, L., Wang, X., Xie, X., & Wang, P. (2022). Mother Phubbing and Adolescent Cyberbullying: The Mediating Role of Perceived Mother Acceptance and the Moderating Role of Emotional Stability. *Journal of Interpersonal Violence, 37*(11–12), NP9591–NP9612. https://doi.org/10.1177/0886260520983905

Rachman, A. (2019). Effect of phubbing behavior on student academic procrastination. *Journal Bimbingan Dan Konseling*, *8*(1), 1–5. https://doi.org/10.12928/psikopedagogia.v8i1.17895

Shahbaz, K., Rasul, F., Khan, A., Saba, A., Saeed, M., Nida, A., & Gulzar, A. (2020). Phubbing positively predicts psychological distress and poor quality of life in community adults. *International Journal of Management*, *11*(11), 2229–2240. https://doi.org/10.34218/IJM.11.11.2020.207

Tekkam, S., Bala, S., & Pandve, H. (2020). Consequence of phubbing on psychological distress among the youth of Hyderabad. *Medical Journal of Dr. D.Y. Patil Vidyapeeth*, *13*(6), 642. https://doi.org/10.4103/MJDRDYPU.MJDRDYPU_315_19

Turkle, S. (2012). *Alone together: Why we expect more from technology and less from each other*. Basic Books.

Uceda, P., Bazán, L., & López, R. (2020). Current situation of COVID-19 and its impact on phubbing and student performance. *Smart Innovation, Systems and Technologies, 233*, 130–136. https://doi.org/10.1007/978-3-030-75680-2_16

Wang, P., Hu, H., Mo, P. K. H., Ouyang, M., Geng, J., Zeng, P., & Mao, N. (2022a). How is father phubbing associated with adolescents' social networking sites addiction? Roles of narcissism, need to belong, and loneliness. *The Journal of Psychology, 156*(5), 331–348. https://doi.org/10.1080/00223980.2022.2034726

Wang, P., Mao, N., Liu, C., Geng, J., Wei, X., Wang, W., Zeng, P., & Li, B. (2022b). Gender differences in the relationships between parental phubbing and adolescents' depressive symptoms:

The mediating role of parent-adolescent communication. *Journal of Affective Disorders, 302*, 194–203. https://doi.org/10.1016/J.JAD.2021.12.073

Wang, P., Zhao, M., Li, B., Wang, X., Xie, X., Geng, J., Nie, J., Zeng, P., & Mao, N. (2021a). Mother phubbing and adolescent loneliness: A mediation model of mother-adolescent communication and perceived mother acceptance. *Social Science Computer Review*. https://doi.org/10.1177/0894439211017263

Wang, X., Qiao, Y., Li, W., & Lei, L. (2021b). Parental phubbing and children's social withdrawal and aggression: A Moderated mediation model of parenting behaviors and parents' gender. *Journal of Interpersonal Violence*, 1–25. https://doi.org/10.1177/08862605211042807

Wang, X., Wang, W., Qiao, Y., Gao, L., Yang, J., & Wang, P. (2022). Parental Phubbing and Adolescents' Cyberbullying Perpetration: A Moderated Mediation Model of Moral Disengagement and Online Disinhibition. *Journal of Interpersonal Violence*, *37*(7–8), NP5344–NP5366. https://doi.org/10.1177/0886260520961877

Zhang, Y., Ding, Q., & Wang, Z. (2021). Why parental phubbing is at risk for adolescent mobile phone addiction: A serial mediating model. *Children and Youth Services Review, 121*, 105873. https://doi.org/10.1016/J.CHILDYOUTH.2020.105873

Zhao, J., Ye, B., & Yu, L. (2021). Peer phubbing and Chinese college students' smartphone addiction during COVID-19 pandemic: The mediating role of boredom proneness and the moderating role of refusal self-efficacy. *Psychology Research and Behavior Management, 14*, 1725. https://doi.org/10.2147/PRBM.S335407

Chapter 8
Social Norms

Pet phubbing never crossed my mind before I encountered it a few weeks ago while passing by my local off-leash dog park during my evening walk. If I had not been thinking about phubbing while I was walking, I probably would not have noticed it. I was born in a country where some people have not yet caught up with human rights, let alone animal rights; not that animal rights are inferior to human rights. I have never owned a dog or considered owning one because my favourite pets have always been pigeons. I have homed pigeons for years, and the trusting relationship that I was able to build with them, which my pigeons would exemplify to me by eating from my hand, is indescribable. But, having lived in Australia for more than 23 years, it is hard not to warm up to dogs and develop respect for them. The way my neighbour's dog sits in front of my neighbour's front door and lowers his ears with his puppy eyes gazing at me as I exit the car and head towards my front door always makes my heart melt. Back to the dog phubbing incident. The off-leash dog park is located in front of the walking track, intersecting the end of my street. The intersection directly faces the western horizon, and the view from there is breathtaking because I often catch up with the sun as it sinks into the horizon, creating that colourful sunset sky. Anyway, I joined the scene when the young lady, who was sitting on the covered built-in deck bench seat, threw the ball to the other end of the park. The dog ran excitedly to fetch it. When the dog quickly returned from his round-trip and stood in front of its owner jumping lightly up and down with the ball in his mouth, the young lady was seen fully immersed in a smartphone-related activity. When the dog gave up on attracting the lady's attention, it sat on the ground while maintaining a sad penetrating look, eagerly waiting for her screen tapping to end. It was then that I realised that people these days phub even their dogs. It was a confronting realisation. "But everyone is doing it," said my wife when I told her what happened at dinner. If everyone is doing it, then there must be 'something' wider that can explain why people phub at a higher level than the individual predictors that have been found to trigger phubbing behaviour, which were highlighted in Chap. 6. In addition to looking at the individual level (micro), we should also look at the societal level (macro). To what extent have

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the transformations introduced by the smartphone underpinned changing societal norms?

This sounds like we are trying to blame the change in societal norms introduced by the smartphone on technological determinism. We are not. All we are doing is simply interrogating broader concepts to see if they can shed light on why phubbing has become such a universal phenomenon. Technological determinism, in its extreme form, maintains that new technology changes society's social norms, values, and culture in a prescribed manner. As new technology is introduced and people adopt that technology, their attitudes and behaviour change, resulting in changes to their social norms, values, and culture. Accordingly, social change driven by technological advancement is inevitable. Critics of technological determinism argue that it assumes humans don't have freedom of choice. While it is true that the design of technology, the smartphone for instance, can constrain certain freedoms of choice, the user can still decide whether to use it in a certain situation. For example, while a smartphone user does not have the choice to switch off all the notifications and alerts for all installed apps with one tap, they still have the choice of ignoring the notifications and continuing with what they were doing before the notifications arrived. Of course, some may argue that the notifications are so tempting and compelling that it is unclear if one has much choice. Still, if they are too much, one can use a dumb phone or not use a phone at all. However, in some countries like Australia, COVID-19 laws mandated that everyone needed to check in to a location by scanning a QR code, thereby restricting these choices. Another criticism of technological determinism is that it assumes that technology is neutral, citing the commonly used phrase: "guns don't kill people, people kill people." The social change brought about by technology must be a function of human actions; technology can't be responsible for it. In this respect, one can't claim that "the smartphone made me phub." But, some disagree that technology is neutral, arguing that technology affords certain behaviours and discourages other behaviours. Technology affords certain behaviours by more than just encouraging the behaviour. It affords certain behaviours by making them easy or attractive, or easier or more attractive than alternative behaviours (Al-Saggaf et al., 2015). For example, certain smartphone features afford phubbing behaviour (Lyngs, 2017). The arrival of app notifications, which produces a dopamine-like effect, makes it easy for smartphone users to tune out from their face-to-face conversations to look at their smartphones (Oduor et al., 2016), thus interrupting those conversations. The mediation theory offers a middle ground: while technology is not considered neutral, it assumes we have a choice to make the most of the unavoidable impacts (Verbeek, 2015). According to this theory, a smartphone is more than an object because it organises how we perceive and experience the world and behave, bringing new norms and etiquettes. In this sense, the smartphone is not in the middle between us and the world we live in because it shapes what the world is to us (Verbeek, 2015). For example, the smartphone shapes how attentive we are to our conversation partner. Our relationship with the world and the world's relationship with us are mediated by the smartphone. With the above in mind, we now return to societal norms to see how they impact phubbing behaviour.

Social norms are unwritten standards for guiding human conduct that are understood by a community as acceptable behaviour. They not only define what is acceptable but also what is not considered permissible according to the standards of the community. While some rules motivate members to conform to those rules, other rules pressure community members to comply with the rules (Bandura, 1971). Social norms don't stay the same; they are constantly changing. Seven years ago, most women in Saudi Arabia covered their faces with a niqab when they ventured outside their homes. Today, most women no longer cover their faces when going out; in what was once a conservative gender-segregated society. Social norms also differ from one community to another within the same society and from one society to another across different countries. A Saudi Arabian YouNow broadcaster's live broadcasts, which involved interacting live with an American female broadcaster and included transgressions of Saudi cultural values, landed the broadcaster in serious trouble when people complained about the broadcasts. Social norms are so dynamic that they can even change during the same generational period. As Peter-Paul Verbeek argued in his explanation of the mediation theory,[1] new technologies not only challenged existing social norms but also introduced new ones. New technologies also blurred the boundaries between what is right and what is wrong. For example, when Periscope, a live streaming app, was introduced in 2015, hundreds of thousands of users worldwide quickly embraced it to share live experiences with large audiences. The number of viewers reflected the popularity of a broadcaster, which was translated to more subscriptions. Tapping on the screen as the broadcast aired enabled this smartphone app audience to send hearts to the creator of the live video to show their love or appreciation and encourage the broadcasters to 'keep going'. The number of current viewers and the number of hearts received were critical to the broadcaster. The number of viewers allowed broadcasters to grow their fanbase. The number of hearts boosted broadcasters' self-confidence and self-esteem. But, some women, in particular, found themselves in a precarious situation. In order to grow the number of viewers and keep them tuned in and keep receiving those hearts, these women were often observed submitting to demands from male viewers to either undress, or show certain parts of their bodies, or engage in sexualised acts. It was clear that behaving like that was not in harmony with these women's natures, and they would not have complied with these requests under normal circumstances. The smartphone app's functionality coerced them to appear compromised. In this context, the smartphone app mediated the relationship between the broadcaster and the audience.

There are two types of social norms: internalised and injunctive. Internalised social norms stem from what people individually believe to be permissible and what they consider as not permitted. On the other hand, injunctive social norms are based on the community members' shared understanding of what is acceptable and what is not acceptable (Hall et al., 2014). In certain social contexts, internalised social norms may not agree with injunctive social norms. For example, if X encounters Y in a distressing situation requiring immediate intervention, the injunctive social norm would dictate that X should call the police, or ambulance, or both. However,

[1] https://vimeo.com/221545135.

what often happens is that Y instead would film the incident to bring justice to the distressed individual through documenting evidence about the incident and sharing it on social media to bring it to the public's attention. Hall et al. (2014) studied the influence of partners' adherence to social norms, regarding smartphone use, on relationship quality. They found that self-adherence and partner adherence to internalised norms correlated with more liking for each other, more commitment to the relationship, and more relationship satisfaction. Critically, the authors found that smartphone relationship interference fully mediated the relationship between partner adherence to internalised social norms and relationship satisfaction. Partner adherence to internalised social norms reduced smartphone relationship interference, and this, in turn, improved relationship satisfaction. The Hall et al. study shows that when it comes to the influence of smartphone use on partners' relationship outcomes, only internalised social norms played a role. However, considering the limitations in the study that the authors acknowledged, the role of injunctive social norms should not be entirely dismissed. That internalised social norms played a role in the influence of smartphone use on relationship outcomes and injunctive social norms did not, supports the ethos of mediation theory that technological advancements bring new norms and etiquette. Yet, evidence from our 2018 study (Al-Saggaf & MacCulloch, 2019) suggests injunctive social norms are still relevant. Our findings showed that within the family relationship group, the Australian sample reported being significantly less likely to phub their grandparents than they would phub their relatives, parents, children, siblings, and partners; hence, relatives, parents, children, siblings, and partners, in this sequence of importance, all came before grandparents in the phubbing likelihood rankings. As indicated in Chap. 5, while it is not clear why this was the case, it does reflect the Australian sample's respect for grandparents, something only strongly held injunctive social norms can explain. In this social context, injunctive social norms may have played a role in deciding who was not acceptable to phub. That is, a young person can't go by his or her internalised norm about phubbing because a grandparent does not share this norm with them. On the contrary, the grandparent may, and rightly so, assume their young family member should show them some respect in accordance with their injunctive social norms. In the context of two classmates sitting together in a café waiting for their class to begin, if A zoned out, B could zone out because their internalised norms permit them to phub each other. Injunctive norms are also relevant in phubbing circumstances across different relationship groups. For example, injunctive norms may come into the picture if X stopped Y in the street asking for directions. X will not be able to ignore Y with the smartphone because it is strongly ingrained in our conscience that it is rude to phub a stranger seeking our help. Another study that examined the influence of social norms on smartphone use was Derks et al. (2015). The authors investigated the effect of social norms as a moderator in the relationship between smartphone use and work–home interference. Work–home interference relates to supervisors' expectations of employees to stay connected to work at all times. The findings of the study confirmed the hypothesis that daily smartphone use predicted daily work–home interference. The moderation analysis also confirmed the study hypothesis that the effect of the daily smartphone use on daily work–home interference was stronger

for employees whose supervisors' expectations regarding employees' availability after work hours were high. The authors cautioned that supervisors' 'always on' expectation is bound to create tension for employees in their role at home.

Smartphone norms relate to smartphone users' perceptions of the appropriateness of using the smartphone in co-present situations. Schneider and Hitzfeld (2019) were interested in finding out if phubbing would correlate negatively with smartphone norms. Their study of German social media users also looked at the association between phubbing and smartphone norms with fear of missing out and the notion of permanently online, permanently connected as moderators. The authors measured the permanently online, permanently connected variable using the German online vigilance scale. As expected, they found smartphone norms significantly negatively predicted phubbing. The weaker the adherence to smartphone norms, the more phubbing occurred. In line with the literature, as age increased, phubbing decreased. Fear of missing out and permanently online, permanently connected did not moderate this relationship, but both significantly positively predicted phubbing. The result relating to fear of missing out's ability to predict phubbing has been reported in several studies, some of which were reviewed in previous chapters. Likewise, Li et al. (2021) investigated the relationship between perceived social norms and phubbing with individual control and fear of missing out as mediators. Perceived social norms, as measured by Chotpitayasunondh and Douglas (2016), consisted of items representing descriptive norms (i.e. observations of others' behaviour without normatively evaluating the behaviour) and injunctive norms, which were defined above. Individual control is defined below and appeared elsewhere in this book but for more information, see Li et al. (2021). A scale item that typifies individual control scale items is as follows: "If I really want to do something, I can usually find a way to succeed." Li et al.'s (2021) study of Chinese university students revealed that perceived social norms significantly positively predicted phubbing. Participants who perceived phubbing as an acceptable behaviour by the group to which they belonged, phubbed their group members more frequently than those who thought their group did not approve of this behaviour. As seen throughout this book, fear of missing out significantly positively predicted phubbing. Individual control significantly negatively predicted fear of missing out and phubbing. Individuals who scored high on individual control could regulate their behaviour such that they reduced the effect of fear of missing out and cut down on their phubbing behaviour in accordance with the prevailing perceived social norms. Both individual control and fear of missing out partially mediated the relationship between perceived social norms and phubbing. Individual control and fear of missing out each directly explained some of the effect of perceived social norms on phubbing, i.e. (perceived social norms > individual control > phubbing) and (perceived social norms > fear of missing out > phubbing), and serially, first via individual control and from there via fear of missing out. An earlier study by Latifa et al. (2019) of Indonesian university students found a similar positive effect for perceived social norms on phubbing and a similar negative effect for individual control on phubbing.

The effect of injunctive norms and descriptive norms on perceptions of phubbing was investigated in dyadic and small group situations. Liu's et al. (2022) study of

Chinese teenagers revealed that the more parents phubbed their children, the more the children perceived phubbing as normal (descriptive norms), and as a result, they themselves engaged in the phubbing of others. In other words, children phubbed by their parents copied their parents' phubbing behaviour. Part of the effect of parents' phubbing on their children's engagement in phubbing was transmitted via children's descriptive norms, thus lending credence to Bandura's (1971) theory of Social Learning. In another Chinese study, being phubbed by friends led participants to phub others through the mediating role of psychological distress and problematic smartphone use (Li, 2022). Friends phubbing increased psychological distress and problematic smartphone use, and this led those phubbed to phub others more frequently (Li, 2022). Leuppert and Geber (2020) were interested in comparing the effect of the two norms in the two contexts (dyadic and small group). Their study of German university students revealed that the participants accepted that phubbing was more prevalent (descriptive norm) than socially accepted (injunctive norm) in both dyadic and small group settings. In terms of the differences in the acceptability of phubbing (normative claim), the studied smartphone users believed that phubbing was less accepted in dyadic settings than small group settings. Unexpectedly, phubbing was associated more with descriptive norms than injunctive norms in both dyadic and small group settings. The effect of injunctive norms was not significant. This means that while participants did not approve of phubbing in one-to-one social interactions or small group get together, holding this injunctive norm does not affect their attitude towards phubbing.

Subjective norms as a predictor of phubbing behaviour were studied from within the theory of planned behaviour (Büttner et al., 2021). According to the theory of planned behaviour, attitudes towards the behaviour, subjective norms, and perceived behavioural control shape a person's behaviour. Subjective norms are what a person believes others, such as family and friends, would like them to do in a given situation (Büttner et al., 2021). Perceived behavioural control is a person's assessment of their ability to perform the behaviour in that given situation (Liu et al., 2019). A person's attitude is a person's positive or negative evaluation of the behaviour in question (Liu et al., 2019). Büttner et al.'s (2021) study of Swiss university students found that individuals with a more positive attitude towards phubbing phubbed others more frequently than those with a more negative attitude towards phubbing. A more positive attitude towards phubbing also increased the frequency of being phubbed. Interestingly, the hypothesis relating to subjective norms was not supported. Those who strongly believed that phubbing was a socially acceptable behaviour did not phub more frequently than those who did not hold such strong views about the acceptability of phubbing behaviour. This shows only attitudes towards phubbing predicted phubbing behaviour. But, believing in the acceptability of phubbing behaviour, i.e. embracing subjective norms about phubbing, increased the level of co-present phone use, which the authors did not clearly differentiate from phubbing. Nevertheless, that finding prompted the authors to wonder if subjective norms were more adept at predicting the experience of being phubbed than the behaviour of phubbing itself.

Impression formation and self-presentation are subjected to social norms because they involve performative acts that are not meant to deviate from social norms

(Cook & Smith, 1975). Whereas impression management focuses on an individual's ability to manage other people's impressions of them, self-presentation is concerned with the tactics individuals employ to control how others think of them (Suwinyattichaiporn & Generous, 2019). Suwinyattichaiporn and Generous's (2019) study of United States university students investigated the associations among phubbing, online impression formation, and online self-presentation as well as self-absorption, which deals with individuals' obsession with their own interests, emotions, and situations. The study found that phubbing positively correlated with online impression management, online self-presentation, and self-absorption. Participants who scored higher in online impression management, online self-presentation, and self-absorption were more likely to engage in higher levels of phubbing behaviour. Women phubbed more than men in this study. This finding is inconsistent with most studies that found no difference in attitude to phubbing between men and women. A study by van der Schyff et al. (2022) found phubbing to be a significant mediator in the relationship between self-presentation and excessive Instagram use. The authors found that as self-presentation increased, specifically false self-presentation (i.e. presenting oneself in an excessively positive light to make a good impression (Bajnaid & Al-Saggaf, 2017)), phubbing behaviour increased, and as a result, Instagram use increased.

Much of the literature reviewed for this book was data driven. Few studies were theoretically driven. While the vast majority of the scholars whose research was consulted for this book designed their studies properly, applied the statistical techniques appropriately, and presented the findings competently, there was less theorising in the background sections and the discussion of the findings' sections. This created a gap in our understanding of how to interpret the findings beyond the discovered relationships among investigated constructs, which were determined through regression, mediation, and moderation. A few studies were an exception to the possibly harsh or imprecise generalisation above. Those few studies were driven mainly by the theory of planned behaviour (a study that adopted this theory was highlighted above), the politeness theory, and the expectancy violation theory. The theories make perfect sense to adopt as the theoretical lens because constantly looking at the smartphone while chatting to someone can be construed by some as deliberate and by others as a deviation from expected communication norms, and/or as impolite.

The expectancy violation theory initially focused on violations of personal space. Later, the theory was expanded to computer-mediated communication (Bevan et al., 2014). There are three main elements in the expectancy violation theory: expectancies, communication reward value, and violation valence (Miller-Ott & Kelly, 2015). Expectancies assume that behaviour does not always follow social norms. In a narrow two-way lane that permits only one car movement, if you let the other car pass before you, you expect the driver to whom you made way to show you a courtesy wave. If you are not shown the courtesy wave in appreciation of your road-side behaviour, your expectation is violated. In close relationships, individuals develop expectations relating to each other's communication based on their existing knowledge of each other and their previous communication experiences (Miller-Ott & Kelly, 2015).

Correspondingly, individuals assign either a positive or negative value to violations of expectations. Verdicts about the valence ensue from evaluating the behaviour (Miller-Ott & Kelly, 2015). Behaviours are judged as either positive or negative, but certain behaviours are difficult to evaluate. In these cases, the communicator reward value is used to assess the behaviour (Miller-Ott & Kelly, 2015). Perceptions about the communicator's physical attractiveness, status, or competence, determine their reward value with violations by a higher reward person perceived as more positive than if the same violation was committed by a lesser reward value person. The list of phubbing detrimental effects is long, as the research for this book has shown, but some of those ignored with a smartphone during a face-to-face conversation may still find it difficult to judge if the behaviour is positive or negative. The expectancy violation theory can be useful in research studies that focus on the perspective of the person being phubbed. As highlighted in Chap. 5, Kadylak (2019) used the expectancy violation theory to measure the negative effects of phubbing.

The politeness theory assumes that in co-present communications, individuals are governed by the tacit knowledge that their communication partner will not threaten their face (Morand & Ocker, 2003). The communication partner is meant to take actions that will consider the feelings of the other co-present person (Morand & Ocker, 2003). The key element in the politeness theory is the avoidance of face-threatening acts (Morand & Ocker, 2003). Politeness, therefore, is essential for saving the co-present's face (Miller-Ott & Kelly 2015). An action, such as zoning out during a face-to-face interaction, could give rise to a situation in which the co-present's face is threatened because it can signify a lack of attention. Therefore, this action should be avoided. As highlighted in Chap. 5, Kelly et al. (2019) integrated the politeness theory in the design of their study to empirically test the robustness of this theory. Another study that drew on the politeness theory, albeit in hindsight, was Bröning and Wartberg (2022), which focused on the impact of phubbing on romantic partners in long-term relationships, spanning more than 10 years. The German sample of heterosexual couples had an average relationship length of 22 years. The authors were interested in finding out how phubbing among this cohort impacted relationship satisfaction and affected perceptions about attachment anxiety (a partner's worry about being rejected or abandoned) and attachment avoidance (a partner's discomfort with closeness and preference for being self-reliant). Bröning and Wartberg (2022) found that for men, phubbing correlated with relationship satisfaction, attachment anxiety, and attachment avoidance, but for women, phubbing was not associated with anxiety avoidance or relationship satisfaction. However, a partner's attachment avoidance significantly positively predicted women's phubbing of their partners. That is, men who scored high on discomfort with closeness and preference for interdependence were phubbed more by their partners. Rather than use gender as a moderator, the authors conducted the analysis for each gender separately. This, unfortunately, made reading the results of this study a challenge. It was clear, though, that men who scored high on anxiety avoidance experienced more partner phubbing than men who scored lower on anxiety avoidance, and men who scored high on anxiety avoidance phubbed their partners more frequently than men who scored lower on anxiety avoidance. The authors note that social norms of politeness and the worry not to threaten a partner's

face should reduce the amount of phubbing among partners. However, partners who grew up with the smartphone in their hands may be so used to phubbing during face-to-face conversations that it no longer bothers them.

This chapter attempted to examine the role of theory in phubbing behaviour. It tried to see if technological determinism and mediation theory could serve as theoretical frameworks from within which phubbing could be better understood as a behaviour but realised that social norms could shed more light on people's motivation to engage in phubbing beyond the individual predictors that triggered the behaviour. It is hoped the discussion raises bigger questions in the readers' minds: if it all comes down to changing social norms, what will happen when phubbing becomes more normalised, and what should people worry about next in terms of inappropriate use of the smartphone?

Social norms in the reviewed studies were mostly couched in terms of their relevance to politeness theory, expectancy violation theory, and the theory of planned behaviour. Indeed, the few studies on social norms reviewed here[2] used the politeness theory, the expectancy violation theory, and the theory of planned behaviour as the theoretical lens. Importantly, the reviewed studies in this chapter showed that self-adherence and partner adherence to internalised norms improved the relationship satisfaction between partners. Another finding confirmed that only internalised social norms played a role in the relationship between smartphone use and partners' relationship outcomes. However, injunctive social norms should not be entirely written off; as in one study, participants reported they were more likely to phub their relatives, parents, children, siblings, and partners, in this order of priority, than they would phub their grandparents. This accords with the findings of another study that established that perceived social norms predicted phubbing. Accordingly, if participants judged phubbing as tolerable by their group, they would phub their group members more frequently than if they judged that their group members considered phubbing unacceptable. Incidentally, in another study, participants believed phubbing was less admissible in dyadic interactions than in small group interactions. In the end, participants who held an applauding attitude to phubbing phubbed others more frequently than those with a disapproving attitude to phubbing.

Future research on phubbing should be theoretically driven. With the exception of research on social norms, which was theoretically founded, numerous studies reviewed for this book, lacked adequate theorising. In these studies, the authors simply included a number of constructs, entered them in the analysis models and then tested them without offering a theoretical justification for their inclusion. This made it difficult to see why these constructs were included and not others. The lack of proper theorising also made it difficult to see how the findings extend beyond the current sample. There was a problem with the research on social norms too. Confusion over terminology impeded the understandability of findings. Some of the terms used were internalised, injunctive, descriptive, subjective, perceived, netiquette (Cebollero-Salinas et al., 2022), and normative to name a few. Future researchers

[2] See also Chap. 2 for a brief review of R. De Liu et al. (2019).

should use common terminology when researching social norms' association with phubbing.

References

Al-Saggaf, Y., Burmeister, O., & Weckert, J. (2015). Reasons behind unethical behaviour in the Australian ICT workplace. *Journal of Information, Communication and Ethics in Society, 13*(3/4), 235–255. https://doi.org/10.1108/JICES-12-2014-0060

Al-Saggaf, Y., & MacCulloch, R. (2019). Phubbing and social relationships: Results from an Australian sample. *Journal of Relationships Research, 10*. https://doi.org/10.1017/jrr.2019.9

Bajnaid, A., & Al-Saggaf, Y. (2017). Impression formation on matrimonial sites. In *ACM International Conference Proceeding Series*, *Part F1344*. https://doi.org/10.1145/3152771.3152780

Bandura, A. (1971). *Social learning theory*. General Learning Press.

Bevan, J. L., Ang, P. C., & Fearns, J. B. (2014). Being unfriended on Facebook: An application of expectancy violation theory. *Computers in Human Behavior, 33*, 171–178. https://doi.org/10.1016/J.CHB.2014.01.029

Bröning, S., & Wartberg, L. (2022). Attached to your smartphone? A dyadic perspective on perceived partner phubbing and attachment in long-term couple relationships. *Computers in Human Behavior, 126*, 106996. https://doi.org/10.1016/J.CHB.2021.106996

Büttner, C. M., Gloster, A. T., & Greifeneder, R. (2022). Your phone ruins our lunch: Attitudes, norms, and valuing the interaction predict phone use and phubbing in dyadic social interactions. *Mobile Media & Communication,10*(3), 387–405. https://doi.org/10.1177/20501579211059914

Cebollero-Salinas, A., Cano-Escoriaza, J., & Orejudo, S. (2022). Impact of online emotions and netiquette on phubbing from a gender perspective: educational challenges. *Journal of New Approaches in Educational Research, 11*(1), 64–78. https://doi.org/10.7821/NAER.2022.1.848

Chotpitayasunondh, V., & Douglas, K. M. (2016). How "phubbing" becomes the norm: The antecedents and consequences of snubbing via smartphone. *Computers in Human Behavior, 63*, 9–18. https://doi.org/10.1016/j.chb.2016.05.018

Cook, M., & Smith, J. M. C. (1975). The Role of Gaze in Impression Formation. *British Journal of Social and Clinical Psychology, 14*. https://doi.org/10.1111/j.2044-8260.1975.tb00144.x

Derks, D., van Duin, D., Tims, M., & Bakker, A. B. (2015). Smartphone use and work–home interference: The moderating role of social norms and employee work engagement. *Journal of Occupational and Organizational Psychology, 88*(1), 155–177. https://doi.org/10.1111/JOOP.12083

Hall, J. A., Baym, N. K., & Miltner, K. M. (2014). Put down that phone and talk to me: Understanding the roles of mobile phone norm adherence and similarity in relationships. *Mobile Media & Communication, 2*(2), 134–153. https://doi.org/10.1177/2050157913517684

Kadylak, T. (2019). An investigation of perceived family phubbing expectancy violations and well-being among U.S. older adults. *Mobile Media & Communication*, *8*(2), 247–267. https://doi.org/10.1177/2050157919872238

Kelly, L., Miller-Ott, A. E., & Duran, R. L. (2019). Phubbing friends: Understanding face threats from, and responses to, friends' cell phone usage through the lens of politeness theory. *Communication Quarterly, 67*(5), 540–559. https://doi.org/10.1080/01463373.2019.1668443

Latifa, R., Mumtaz, E. F., & Subchi, I. (2019). Psychological explanation of phubbing behavior: Smartphone addiction, empathy and self control. In *2019 7th International Conference on Cyber and IT Service Management, CITSM 2019*. https://doi.org/10.1109/CITSM47753.2019.8965376

Leuppert, R., & Geber, S. (2020). Commonly done but not socially accepted? Phubbing and social norms in dyadic and small group settings. *Communication Research Reports*, *37*(3), 55–64. https://doi.org/10.1080/08824096.2020.1756767

Li, Y. (2022). Validation and short-form development of the generic scale of being phubbed and phubbing and relationship between being phubbed and phubbing in Chinese adolescents. *Current Psychology, 1*, 1–11. https://doi.org/10.1007/S12144-022-03222-8/FIGURES/1

Li, Y. X., Zhang, Y. H., Yang, R., Lian, S. L., Yan, L., & Zhu, X. M. (2021). Relationship between perceived social norms and phubbing: individual control and fear of missing out as mediators. *International Journal of Mental Health and Addiction*, 1–16. https://doi.org/10.1007/S11469-021-00696-8/FIGURES/1

Liu, R. D., Wang, J., Gu, D., Ding, Y., Oei, T. P., Hong, W., Zhen, R., & Li, Y. M. (2019). The effect of parental phubbing on teenager's mobile phone dependency behaviors: The mediation role of subjective norm and dependency intention. *Psychology Research and Behavior Management, 12*, 1059. https://doi.org/10.2147/PRBM.S224133

Liu, K., Wang, J., Wei, X., & Lei, L. (2022). Parental modeling and normative influence in shaping teenagers' phubbing: An exploratory study: *Youth & Society*. https://doi.org/10.1177/0044118X221093657

Lyngs, U. (2017). "It's more fun with my phone": A replication study of cell phone presence and task performance. In *Proceedings of the 2017 CHI Conference Extended Abstracts on Human Factors in Computing Systems—CHI EA '17*, pp. 136–141. https://doi.org/10.1145/3027063.3048418

Miller-Ott, A., & Kelly, L. (2015). The presence of cell phones in romantic partner face-to-face interactions: An expectancy violation theory approach. *Southern Communication Journal, 80*(4), 253–270. https://doi.org/10.1080/1041794X.2015.1055371

Morand, D. A., & Ocker, R. J. (2003). Politeness theory and computer-mediated communication: A sociolinguistic approach to analyzing relational messages. In *Proceedings of the 36th Annual Hawaii International Conference on System Sciences, HICSS 2003.* https://doi.org/10.1109/HICSS.2003.1173660

Oduor, E., Neustaedter, C., Odom, W., Tang, A., Moallem, N., Tory, M., & Irani, P. (2016). The frustrations and benefits of mobile device usage in the home when co-present with family members. In *Proceedings of the 2016 ACM Conference on Designing Interactive Systems—DIS '16*, 1315–1327. https://doi.org/10.1145/2901790.2901809

Schneider, F. M., & Hitzfeld, S. (2019). I ought to put down that phone but I phub nevertheless: Examining the predictors of phubbing behaviour. *Social Science Computer Review*, *39*(6), 1075–1088. https://doi.org/10.1177/0894439319882365

Suwinyattichaiporn, T., & Generous, M. A. (2019). "Who's Doing the Phubbing?" Exploring individual factors that predict phubbing behaviors during interpersonal I. *Ohio Communication Journal, 57*, 105–114.

van der Schyff, K., Renaud, K., Townes, J. P., & Tshiqi, N. (2022). Investigating the mediating effects of phubbing on self-presentation and FoMO within the context of excessive Instagram use. *Cogent Psychology*, *9*(1). https://doi.org/10.1080/23311908.2022.2062879

Verbeek, P.-P. (2015). COVER STORY beyond interaction. *Interactions*, *22*(3), 26–31. https://doi.org/10.1145/2751314