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The association between phubbing in the workplace context, organizational behaviours and psychological outcomes: a systematic review and meta-analysis

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ABSTRACT

The topic of phubbing in the workplace context has garnered significant attention in academic studies since the early 2020s; however, due to its inherently interdisciplinary scope, research remains fragmented and lacks cohesion, resulting in unresolved questions. A systematic review and meta-analysis were conducted to examine the association between phubbing behaviours in the workplace and key organizational variables, and to explore their relationship with individuals' psychological outcomes. All studies using quantitative designs of phubbing in the workplace context were included. A total of 21 studies met the inclusion criteria ($n = 8485$ employees). The results of the systematic review employed two perspectives to analyse and integrate core concepts pertaining to workplace phubbing behaviours: perceived phubbing and its associated variables, as well as enacted phubbing and its related variables. Results from the random-effects meta-analysis indicated that the weighted average correlation between higher levels of perceived phubbing and organizational and psychological outcomes, such as positive leadership dimensions and engagement, was statistically significant. This approach provides a comprehensive analysis of the existing literature and sheds light on complexities inherent in fragmented theoretical frameworks regarding workplace phubbing. Furthermore, this study proposes a research agenda to advance inquiry in this field and discusses the practical implications.

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KEYWORDS

Digital ostracism; phubbing; systematic reviews; organizational behaviours; psychological outcomes

1. Introduction

In recent decades, there has been a significant increase in the use of technology, altering social dynamics and prompting scholars to investigate its potential negative effects. More precisely, new technologies have become integral to people's daily lives. Turel et al. (2019) coined the term "*dark side of digitalization*" to describe this phenomenon, which has blurred the boundaries of technology use in personal, social, and professional contexts. As of early 2025, 95.3% of the Internet users primarily accessed the World Wide Web through smartphones, dedicating an average of over five hours per day to these devices (Datareportal, 2025). This suggests that approximately 30% of waking hours are spent using mobile phones. Contemporary individuals increasingly engage in activities on their smartphones that were previously limited to specific times of the day. For example, employees might check work emails during their commute or join an online meeting while travelling between appointments. This shift has undeniably heightened reliance on smartphones (Al-Saggaf & MacCulloch, 2018).

This trend was further intensified by the COVID-19 pandemic, which reinforced the centrality of technology in

facilitating teleworking, marketing, education, and various other activities (Becerra-Astudillo et al., 2022; Bonfanti et al., 2023; DiStefano et al., 2023), while also generating significant implications for work relationships (Zhao et al., 2021). In this context, a notable phenomenon that has emerged in recent years due to the widespread use of technological devices is "phubbing" (Gupta et al., 2022).

1.1. Background and relevance of phubbing in the workplace

The term "phubbing" derived from the combination of "phone" and "snubbing," refers to the act of ignoring someone during a face-to-face interaction by looking at phone instead of engaging in the conversation (Chotpitayasunondh & Douglas, 2018). Studies have shown that most participants reported being victims of phubbing by others during their social and daily activities (Ranie & Zickuhr, 2015). The widespread emergence of this phenomenon has prompted numerous studies to examine its effects in diverse contexts, particularly within friendships and romantic relationships, showing its

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negative effects (Balta et al., 2020; Chotpitayasunondh & Douglas, 2016).

While considerable research has examined the effects of phubbing on interpersonal relationships, fewer studies have analysed this phenomenon within specific workplace settings, particularly they analysed the effects of workplace phubbing on factors like organizational climate and leadership dimension (Bracht et al., 2024; Hasan et al., 2024; Koçak, 2021; Nanda & Prihatsanti, 2023). Currently, it is shown that nine out of 10 employees spend an average of eight working hours per week on non-work-related activities on their devices (Eurostat, 2025). This potentially blurs the boundaries between work and personal life, compromising both work performance and individual well-being (Aronica et al., 2021; Zhen & Wen, 2022). Furthermore, individuals frequently engage with their smartphones in social settings, including during conversations. This behaviour can strain relationships between superiors and subordinates and between colleagues. Indeed, superiors engaging in phubbing may erode the trust their subordinates have in them (A. Y. Khan, 2023). Similarly, employees who engage in phubbing by interrupting face-to-face interactions with colleagues or superiors to use a smartphone risk undermining workplace communication and adversely impacting organizational dynamics, such as work engagement and performance (Bracht et al., 2024; Chakraborty et al., 2024; Tandon et al., 2022). Indeed, within the workplace, two distinct types of phubbing can be identified: one where individuals perceive phubbing (e.g., perpetrated by superiors) and another in which employees themselves engage in phubbing towards their superiors and/or colleagues.

1.2. Perceived phubbing and enacted phubbing: definitions and theoretical framework

Perceived phubbing in a workplace context refers to the experience of being ignored or disregarded by colleagues or superiors. The most prevalent of these behaviours in the workplace seems to be phubbing enacted by superiors (Saxena & Srivastava, 2023; Tandon et al., 2022; Xu et al., 2022; Yasin et al., 2023). Specifically, the phenomenon of “leader phubbing”, in which leaders direct phubbing behaviour towards their subordinates, has been recognized as particularly detrimental. Studies have shown that leader phubbing is associated with negative outcomes for subordinates, such as reduced performance and engagement, and increased social distancing and counterproductive behaviours, such as cyberloafing among employees (Saxena & Srivastava, 2023; Xu et al., 2022).

Phubbing in the workplace context, especially when practiced by a leader, can be explained through two complementary perspectives: *Self-Determination Theory* (SDT) (Ryan & Deci, 2000) and *Social Exchange Theory* (SET) (Blau, 1964). According to SDT, employees' motivation and well-being depend on the satisfaction of three basic psychological needs: autonomy, competence, and relatedness. For example, when leaders look at their phone during interactions, they communicate disinterest and distance, undermining these fundamental needs. As a result, employees experience lower motivation, greater psychological distress in the own workplace context, and reduced commitment and job satisfaction (Roberts & David, 2016, 2017), with possible long-term effects such as disengagement or the intention to leave the company (Ng & Feldman, 2014). SET, on the other hand, describes work relationships as reciprocal exchanges of attention, respect, and support. Following this perspective, a perceptive leader generates trust and commitment in his followers, whereas a distracted or discourteous leader, as in the case of a phubbing perpetrator, disrupts the balance of social exchange with his followers, conveying a perception of poor support and lack of respect. This leads employees to respond with less engagement and lower performance. In summary, SDT may help explain the internal psychological consequences of being phubbed, whereas SET elucidates the external relational dynamics that give rise to and exacerbate perceived phubbing. Both theories converge on the assumption that phubbing deteriorate the relational and motivational workplace climate, generating feelings of exclusion, demotivation, and powerlessness in employees, and reducing their well-being, commitment, and work performance.

Additionally, enacted phubbing behaviour constitutes a distinct type of self-imposed social exclusion, facilitated by the use of smartphones to access social media during interactions with colleagues in the workplace, and this use of smartphones may or may not be specifically intended to snub others (Chotpitayasunondh & Douglas, 2018). It may be particularly prevalent in certain work environments and has been found to have negative consequences for those who engage in it. For example, as highlighted by Siva and Jaimathisa (2024), the issue is particularly significant in the information technology sector, where smartphone dependency is already well-documented (Tarafdar et al., 2015). They found a strong association between nomophobia (the obsessive fear of being unreachable via smartphone) and phubbing in information technology professionals. Other constructs also appear to be related to enacted phubbing behaviour, such as fear of missing out (FoMO), social exclusion, work exhaustion and work incivility

(Tandon et al., 2022; Yasin et al., 2023). According to *Social Capital Theory* (SCT; Bourdieu, 1985), organizational and psychological resources derive from social relationships, trust, and support networks among individuals. When an employee engages in phubbing, this behaviour can have negative impacts on both individual and collective social capital. In fact, enacted phubbing behaviour reduces the quality of interactions between colleagues, as those who are ignored perceive social distance and a lack of involvement (Nanda & Prihatsanti, 2023). It can also undermine trust, reducing the willingness to cooperate or share resources. Finally, enacted phubbing behaviour may limit access to resources, as those who engage in phubbing risk social isolation because deteriorated relationships lead to decreased resource sharing (Liu et al., 2021).

To date, substantial evidence has demonstrated a relationship between phubbing behaviours and detrimental well-being, both in general populations (Nuñez & Radtke, 2024), but there is less evidence within workplace settings (Huang & Bartels, 2025; Perrigino et al., 2024). Specifically, a recent systematic meta-analytic review documented the negative impact of being phubbed on various mental health outcomes, including depression, relationship dissatisfaction, derogation of interlocutors, and smartphone addiction (Nuñez & Radtke, 2024). In organizational contexts, only two narrative reviews further emphasized associations between phubbing behaviour, turnover intention, and counterproductive work behaviours (Huang & Bartels, 2025; Perrigino et al., 2024). Collectively, these studies have highlighted the link between phubbing behaviour and diminished well-being in workplace contexts; however, they have relied solely on integrative review methods.

Notably, previous reviews have not conducted quantitative meta-analyses to estimate the average magnitude of these associations, nor have they differentiated between perceived and enacted phubbing behaviours in the workplace context. In addition, prior work has not simultaneously integrated organizational outcomes (e.g., productivity, leadership perceptions) and individual psychological outcomes (e.g., stress, job satisfaction), thereby constraining the theoretical and practical inferences that can be drawn. While earlier research has identified these relationships, the present study makes a distinctive contribution by combining a systematic review with meta-analytic synthesis, allowing for precise estimation of effect sizes and providing a comprehensive account of both the psychological and organizational consequences of workplace phubbing.

Given the recognition of phubbing as a pervasive phenomenon in workplace settings, advancing understanding

of its associations with organizational behaviours and individual psychological outcomes through rigorous quantitative synthesis constitutes a critical avenue for future research.

1.3. Research objectives

The present systematic review and meta-analysis synthesize the existing scientific literature on the phenomenon of phubbing and identify critical gaps in knowledge. The current study aims to provide a comprehensive framework for understanding the existing body of work on phubbing by systematically categorizing the findings into two distinct areas: perceived phubbing and enacted phubbing. By delineating these categories, this systematic review and meta-analysis aim to clarify the organizational and psychological outcomes associated with phubbing behaviours, with particular attention to the negative effects of phubbing on organizational outcomes (e.g., Chakraborty et al., 2024; Liu et al., 2021; Saxena & Srivastava, 2023; Tandon et al., 2022; Xu et al., 2022; Yasin et al., 2023) and thereby providing a descriptive framework for more focused investigations. Specifically, the study presented here aims to:

- understand the relationship between perceived phubbing behaviour in the workplace context (i.e., leader phubbing) and associated organizational and psychological outcomes;
- understand the relationship between enacted phubbing behaviour and its associated organizational and psychological outcomes;
- provide recommendations for researchers and HR managers on effective strategies to support individuals exposed to phubbing in the workplace context.

2. Methods

2.1. Search strategy and eligibility criteria

The systematic review and meta-analysis were conducted according to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) statement (Moher et al., 2015). The protocol was pre-registered in PROSPERO (CRD42022322532), URL: https://www.crd.york.ac.uk/prospero/display_record.php?RecordID=608513. All empirical studies examining phubbing behaviours in a workplace context were deemed eligible for inclusion, provided they met the following criteria: (1) they were quantitative studies (employed a cross-sectional, case-control, cohort, or mixed-methods study design), (2) original research articles, (3) written in English, and (4) specifically assessed

phubbing in the workplace (perceived phubbing and/or enacted phubbing behaviour). Studies were excluded if (1) they were qualitative studies, (2) they were not original research articles or grey literature (e.g., conference papers, proceedings, reviews, opinion pieces, dissertations, case series, or case reports), or (3) the context of investigation was not the workplace.

A systematic and comprehensive search was conducted utilizing the following databases: PubMed/Medline, ISI Web of Science, PsychInfo, EMBASE, SCOPUS and Google Scholar. Moreover, Internet searches on preprint servers for unpublished papers were adopted. The searches were conducted without imposing any time restrictions, given that phubbing is a relatively recent phenomenon. All studies published up to 31 December 2024, were included in the present research. Search terms were selected based solely on the phenomenon of phubbing behaviours and organizational contexts, without including specific organizational behaviours or psychological outcomes. This strategy was adopted to avoid overly narrowing the search to particular organizational variables and thereby excluding potentially relevant studies. The approach aimed to maintain a broad and inclusive scope, given the limited number of studies on perceived phubbing in workplace contexts. Search terms employed were: (phubbing OR snubbing AND workplace OR work OR job OR organization OR organization OR Office OR Worksite OR "Work environment" OR "place of employment" OR employee OR "Job site" OR "Work setting" OR "Business premises" OR "Work location" OR "Work area" OR "Job environment").

2.2. Data extraction and evaluations

RCB and CG extracted data from the eligible studies into a customized Microsoft Excel spreadsheet. The following information from each study was extracted: authors, year of publication, country, type of workplace context, keywords, sample characteristics (sample size, mean age, gender, type of phubbing measure, type of organizational behaviours and/or psychological outcomes measure, and study results), and correlational data. In cases of missing data, authors of the included studies were contacted for additional information. At this stage, quality checks were iterative consultation of the data, meticulous cross-checking of the extracted information, and consensus-based decisions regarding the methodology. Firstly, a systematic review was conducted. It was structured around two main result sections to ensure a thorough and comprehensive analysis. The study adopted two distinct perspectives: (a) one examining the association between perceived phubbing behaviours and both

organizational and psychological outcomes, and (b) another focusing on the association between enacted phubbing behaviours and these same outcomes. This dual-perspective approach was used to systematically examine and synthesize key concepts related to the two distinct dynamics of phubbing behaviours identified within workplace contexts. This methodology improved the quality of the review by emphasizing the synthesis of core concepts within the literature, rather than simply summarizing individual study outcomes (Webster & Watson, 2002).

A subsequent meta-analysis was also conducted to assess the association between only perceived phubbing behaviours (i.e., leader phubbing) in the work environment and organizational behaviours, as well as their connection to individuals' psychological outcomes. It was not possible to conduct a meta-analysis of studies examining the association between enacted phubbing and associate workplace outcomes, as the small number of such studies did not allow for a meta-analytic investigation to be carried out. Pearson correlation coefficients (r) were extracted between perceived phubbing behaviours and the macro-categories of organizational and psychological outcomes identified through the systematic review (i.e., leadership dimension, dimensions of productivity and engagement, work-family dimension, workplace psychological outcomes, counterproductive workplace behaviours, problematic interpersonal dynamics, and general psychological outcomes), in order to estimate aggregated correlations with 95% confidence intervals (CIs). Only outcomes with data available from at least $k=3$ studies or samples were included in the meta-analysis. Between-study heterogeneity was tested with the χ^2 -test (Cochrane's Q) and quantified using I-squared (I^2) statistics, assuming 0%–25%, 25%–50%, and 50%–75% I^2 values corresponding to low, moderate, and high heterogeneity, respectively (Higgins et al., 2003). Publication bias was assessed via visual examination of the funnel plot, looking for asymmetry that might suggest specific omission of non-significant results. Moreover, Egger's regression intercept (Egger et al., 1997) was used to assess publication bias. No extreme outliers were identified and therefore no outcomes were excluded in this analysis. All analyses were performed using Jamovi software 2.3.26 and JASP (Version 0.17.2.1; 2023).

2.3. Quality assessment

A quality appraisal was carried out using a modified version (Al Maqbali et al., 2021) of the Newcastle-Ottawa Scale (Wells et al., 2014) for observational studies. The assessment comprises eight categories, each

Table 1. Quality assessment of included studies.

Author, date	1. Representativeness of the sample	2. Sample size	3. Non-respondents/Loss to follow up	4. Assessment of the exposure	5. Comparability/adjustment for conf	6. Assessment of the outcome	7. Statistical analyses	8. Follow up	Total score
Bracht et al. (2023)	0	0	1	1	1	1	1	1	6
Chakraborty et al. (2024)	1	0	1	1	1	1	1	0	6
Hasan et al. (2023)	0	0	1	1	0	1	1	0	4
M. N. Khan et al. (2022)	0	0	1	1	0	1	1	1	5
M. N. Khan et al. (2023)	0	0	1	1	1	1	1	1	6
A. Y. Khan (2023)	0	0	1	1	0	1	1	0	4
Koçak (2021)	0	0	1	1	0	1	1	1	5
Liu et al. (2021)	0	0	1	1	0	1	1	0	4
Nanda and Prihatsanti (2023)	0	0	0	1	0	1	1	0	3
Quiroz-González et al. (2023)	0	0	0	1	0	1	1	0	3
Roberts and David (2020)	0	0	0	1	1	1	1	0	4
Roberts and David (2017)	0	0	0	1	2	1	1	0	5
Saxena and Srivastava (2023)	0	0	1	1	1	1	1	1	6
Siva and Jaimathisa (2024)	0	0	0	1	0	1	1	0	3
Suryosukmono et al. (2023)	0	0	0	1	0	1	1	0	3
Tandon et al. (2022)	1	0	1	1	1	1	1	0	6
Xu et al. (2022)	0	0	0	1	1	1	1	1	5
Yao and Nie (2023)	0	1	1	1	1	1	1	1	7
Yasin et al. (2023)	0	1	1	1	0	1	1	0	5
Yousaf et al. (2022)	0	0	0	1	1	1	1	0	4
Zhen and Wen (2022)	0	0	0	1	0	1	1	0	3

Note: *Representativeness of the sample* refers to cases where the sample is not randomly selected, however, a sampling strategy is employed (e.g., quota sampling), and the sample reflects the population in terms of most, if not all, key demographic characteristics; *Sample size* refers to a sufficient sample substantiated by a power calculation; *Non-respondents* refers to a participation rate greater than 70%, or an adequately addressed difference between participants and non-participants; *Assessment of exposure* refers to a clearly defined measure of phubbing behaviour (e.g., single item or validated scale of phubbing behaviour); *Comparability* refers to the use of control variables: (1) controlling for basic demographic factors, such as gender, age, education, or ethnicity; and (2) controlling for additional demographic factors; *Assessment of the outcome* refers to a clearly defined outcome measure (e.g., the *Maslach Burnout Inventory* or an appropriate ad hoc tool, such as a single question on job satisfaction); *Statistical analyses* refer to the use of appropriate and comprehensive statistical tests, including both test statistics and corresponding *p*-values or 95% confidence intervals; *Follow-up* refers to a presence of a longitudinal evaluation of the data.

allocated a maximum of one point, except for comparability, which is allocated up to two points, yielding a maximum total score of nine (see Table 1 for a description of the domains of study quality). Studies were classified as low risk of bias if they scored between 7 and 9, moderate risk of bias if they scored 5 or 6, and high risk of bias if they scored 4 or lower (Al Maqbali et al., 2021). Quality assessment was conducted by RCB and CG. Any discrepancies between reviewers were discussed until an agreement was reached, if needed on the senior authors were consulted (LS, SR, and GG).

3. Results

Figure 1 provides the flow diagram of all articles retrieved and included in the systematic review. A total of 275 records were retrieved from databases. After excluding 22 duplicates, 253 titles and abstracts were screened, and 59 full-text articles were assessed for eligibility. Additionally, two articles were included from manual reference searches. The final set of articles that met the inclusion criteria for the systematic review comprised 21 studies.

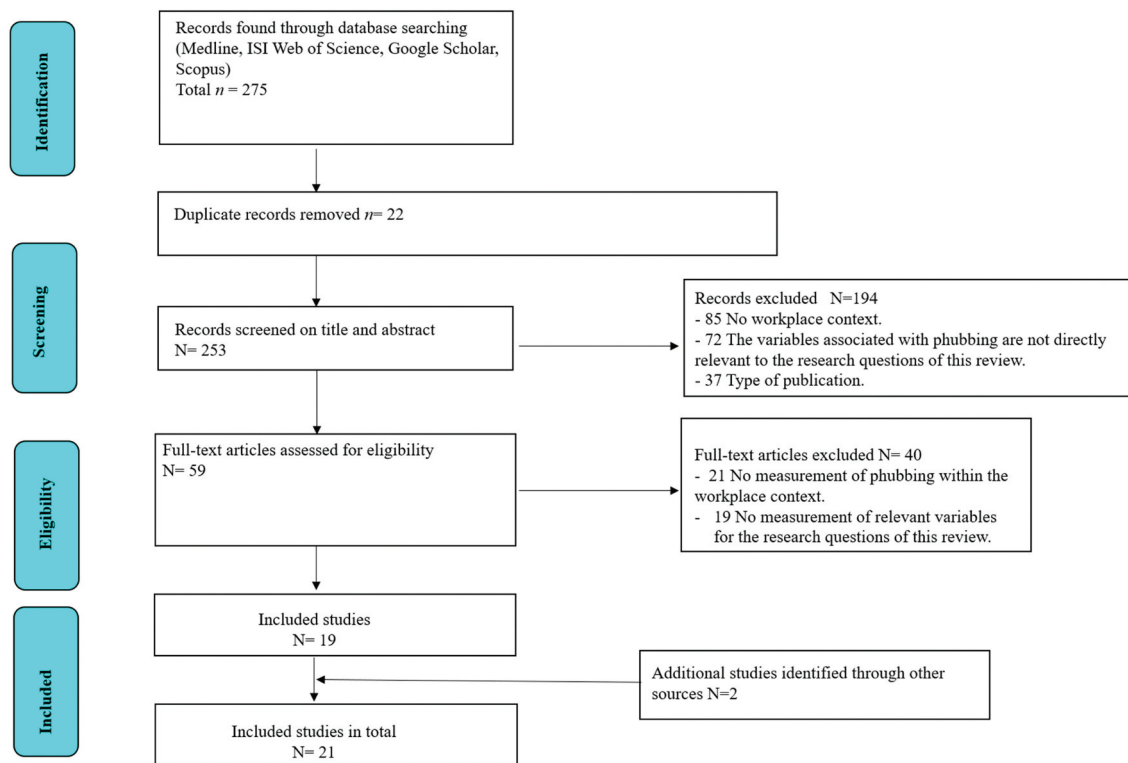


Figure 1. PRISMA flowchart of study selection.

3.1. Quality appraisal

Table 1 presents the quality ratings of included studies. In total, 4% ($n = 1$) of the studies fully met the criteria for robustness. Forty-eight percent were assessed as having a medium risk of bias ($n = 10$), and 48% were categorized as having a high risk of bias ($n = 10$). Sixty-seven percent of the studies employed a cross-sectional design ($n = 14$), 24% provided longitudinal data ($n = 5$), and 9% utilized an experimental design ($n = 2$). Most studies reported a high selection bias, with 90% of the studies using inadequate recruitment strategies (e.g., snowballing recruitment), and 90% reporting unjustified and unsatisfactory sample size. All the studies used a validated measure of phubbing behaviours (both perceived and enacted), such as the *Nine-item boss phubbing* scale by Roberts and David (2017) or the *Generic Scale of Phubbing* (GSP; Chotpitayasunondh & Douglas, 2018); and all studies utilized standardized instruments to assess the associated variables, such as the *Utrecht Work Engagement Scale* (Schaufeli et al., 2006) (see Table 2). All the studies provided complete information on the statistical analyses used (e.g., statistical tests and 95% CI or p value). Fifty-seven percent of the studies reported the participation rate or sufficiently addressed the differences between participants and non-participants ($n = 12$). Forty-three percent controlled the analysis for basic socio-demographic variables ($n = 9$)

and only one study for additional potential confounders (i.e., supervisor incivility).

3.2. Characteristics of the studies

The final set of 21 articles that met the inclusion criteria for the systematic review consisted of 14 cross-sectional studies, 5 longitudinal studies, and 2 experimental method studies. The characteristics of included studies are presented in Table 2. Results are divided into two sections, according to type of phubbing (i.e., (a) studies examining association between perceived phubbing and organizational behaviours and/or psychological outcomes, followed by (b) studies examining association between enacted phubbing and organizational behaviours and/or psychological outcomes). Fifteen studies on experienced phubbing reported its association with organizational behaviours and psychological outcomes. Six studies on enacted phubbing reported its association with organizational behaviours and psychological outcomes. The total number of participants was 8485 employees from various sectors, with 52.9% of males and a mean age of 32.35 (ranging from 26 to 35 years old). Twelve studies did not report the sample's mean age. Five studies (23.8%) utilized samples of workers from organizations in unspecified sectors, while four studies (19.1%) focused on workers from industrial

Table 2. Characteristics of included studies.

Authors and year of publication	Aim of the study	Keywords	Size and type of sample	%Male	Mean age (SD)	Country	Phubbing measure	Type of organizational behaviours or psychological outcomes	Workplace context	Main results
Bracht et al. (2023)	To gain a deeper understanding of potential negative effects of smartphone use at work.	Leader phubbing, Leader support, Work engagement, Work performance.	Leaders (n = 93) and their followers (n = 454)	58.60	32.83 (9.39)	China	Nine-item boss phubbing scale by Roberts and David (2017).	Follower work engagement; Follower performance; Perceived leader support.	Organizations (not specified)	Leader phubbing negatively relates to follower work engagement and performance through less perceived leader support. The relationship between leader phubbing and perceived leader support was negative for male leaders only.
Chakraborty et al. (2024)	To investigate the dynamics of counterproductive behaviours like phubbing and cyberloafing among employees working from home, focusing on social networking needs, perceptions of others' online behaviour, and the pandemic's influence.	Cyberloafing, Pandemic, Perception, Phubbing, Social networking need, Work from home.	Remote employees (n = 222)	N.R.	35.60	Oman	N.R.	Cyberloafing	Organizations (not specified)	There is a positive relationship between social networking need, perceptions of others' online behaviour, pandemic influence, and phubbing. Moreover, the study reveals the moderating effect of work from home on these relationships.
Hasan et al. (2023)	To explore the impact of supervisor phubbing on workplace incivility and workplace presenteeism and analyzes the mediating role of self-esteem and the moderating role of power distance.	Supervisor phubbing, Workplace incivility, Workplace presenteeism, Employee self-esteem, Power distance.	Employees belonging to IT sector (n = 200)	65.10	N.R.	Pakistan	Nine-item boss phubbing scale by Roberts and David (2017).	Workplace incivility; Workplace presenteeism; Self-esteem.	IT industry	Supervisor phubbing exerts a significant influence on self-esteem, workplace incivility, and workplace presenteeism. The findings highlight the mediating role of self-esteem in the relationship between supervisor phubbing and workplace presenteeism. However, the hypothesized moderating effect of power distance on the link between supervisor phubbing and self-esteem was not supported.

(Continued)

Table 2. (Continued).

Authors and year of publication	Aim of the study	Keywords	Size and type of sample	%Male	M age (SD)	Country	Phubbing measure	Type of organizational behaviours or psychological outcomes	Workplace context	Main results
Khan et al. (2021)	To investigate the impact of boss phubbing on important employees' outcomes (i.e., work meaningfulness and employee phubbing behaviour, through mediating role of self-esteem threat).	Boss phubbing, Employee phubbing behaviour, Rejection sensitivity, Self-esteem threat, Work meaningfulness.	Medical professionals (n = 178)	73.50	35	Pakistan	Nine-item boss phubbing scale by Roberts and David (2017).	Sense of work meaningfulness; Employee phubbing behaviour; Self-esteem threat.	Hospitals	Boss phubbing is negatively associated with employees' sense of work meaningfulness. Additionally, it demonstrates both a direct positive relationship and an indirect positive relationship with employees' phubbing behaviour, mediated by threats to self-esteem.
M. N. Khan et al. (2023)	To examine the relationship between a supervisor's phubbing behaviour and subordinates' supervisor identification with the mediating role of subordinates' psychological distress while testing the moderating role of subordinates' self-control.	Supervisor phubbing, Psychological distress, Self-control, Subordinates' supervisor identification.	Frontline bank workers (n = 283)	67	N.R.	Pakistan	Nine-item boss phubbing scale by Roberts and David (2017).	Identification with the supervisor; Psychological distress.	Private bank	Supervisor phubbing diminishes subordinates' identification with their supervisor both directly and indirectly via the mediating effect of psychological distress. Furthermore, high levels of self-control among subordinates mitigate the negative impact of supervisor phubbing on their identification with the supervisor.
A. Y. Khan (2023)	To examine the relationship between supervisor phubbing and employee withdrawal behaviour, with a particular focus on the mediating role of employees' trust in their supervisor.	Nurses, Supervisor phubbing, Trust in supervisor, Withdrawal behaviour.	Nurses working in public and private sector hospitals (n = 235)	13	N.R.	Pakistan	Nine-item boss phubbing scale by Roberts and David (2017).	Employee trust in supervisor; Withdrawal behaviour.	Hospitals	The findings revealed that phubbing leads to reduction in trust in supervisor which ultimately leads to increased withdrawal behaviour. Trust proves to be a partial mediator between supervisor phubbing and withdrawal behaviour.

(Continued)

Table 2. (Continued).

Authors and year of publication	Aim of the study	Keywords	Size and type of sample	%Male	Age (SD)	Country	Phubbing measure	Type of organizational behaviours or psychological outcomes	Workplace context	Main results
Koçak (2021)	<p>Study 1: To introduce and validate a new measure of being phubbed in the workplace</p> <p>Study 2: To present empirical evidence on whether being phubbed daily is detrimental for the day-to-day work engagement of employees.</p>	Phubbing, Smartphone use, Work engagement, Organizational culture, Daily diary.	<p>Study 1: full-time and part-time job holders (n = 793)</p> <p>Study 2: workers belonging to IT, banking, FMCG, and textile industries (n = 105)</p>	<p>Study 1: 47</p> <p>Study 2: 47</p>	<p>Study 1: 30.8</p> <p>Study 2: 30.80</p>	<p>Study 1: Turkey</p> <p>Study 2: Turkey</p>	Nine-item boss phubbing scale by Roberts and David (2017); Four-item scale of being phubbed (Koçak, 2021).	High-quality connections; Negative emotions at work; Work-related negative affect.	<p>Study 1: Mixed banking, FMCG, and textile industries</p>	<p>Study 1: Suffered workplace phubbing is associated with lower relationship quality and heightened negative emotions at work, which may theoretically represent the direct consequences of experiencing phubbing.</p> <p>Study 2: Employees are more vulnerable to being phubbed if they work in an organization where a clan culture is common.</p>
Liu et al. (2021)	To investigate the influence of phubbing on the phubbers and its influencing mechanism.	Phubbing, Depression, Job burnout, Rumination, School teachers.	Primary and secondary school teachers (n = 907)	47.60	N.R.	China	Generic Scale of Phubbing (GSP; Chotpitayasunondh & Douglas, 2018)	Job burnout; Depression; Rumination.	School	Phubbing is significantly positively associated with depression among primary and secondary school teachers. Job burnout partially mediates the relationship between phubbing and depression. Moreover, a moderated mediation analysis reveals that rumination moderates the relationship between job burnout and depression, with job burnout serving as a stronger predictor of depression among individuals with low levels of rumination compared to those with high levels.
Nanda and Prihatsanti (2023)	To conduct a comprehensive investigation for the impact of phubbing on negative employee outcomes, such as reduced work engagement.	Phubbing; Work Engagement; Employees.	Employees (n = 221)	39.80	26.90 (3.35)	Indonesia	Generic Scale of Phubbing Isrofin (2020).	Employees' work engagement.	Industries	This study found that phubbing had a significant effect on work engagement. Phubbing in workplace negatively impact work engagement on employee.
Quiroz-González et al. (2023)	To analyse the role of tech dependence in technostress and tech addiction in workers.	Technology addiction, Stress, Internet, Technology, Mental health, Job satisfaction.	Workers (n = 1137)	52	N.R.	Colombia and Mexico	Item ad hoc.	Excessive use of technologies; Compulsive use of technologies.	Mixed	Compulsive cell phone use, phubbing, and cell phone use while driving are positively associated with excessive technology use and exert a direct influence on its compulsive consumption.

(Continued)

Table 2. (Continued).

Authors and year of publication	Aim of the study	Keywords	Size and type of sample	%Male	Mean age (SD)	Country	Phubbing measure	Type of organizational behaviours or psychological outcomes	Workplace context	Main results
Roberts and David (2020)	To investigate how boss phubbing impact on employee outcomes.	Phubbing, Smartphones, Trust in supervisor, Job performance, Boss phubbing, Trust, Job Satisfaction, Employee Performance.	Adults working in a range of industries (Study 1: n = 156, Study 2: n = 181)	Study 1: 54, Study 2: 53	Study 1: 35.69 (10.56), Study 2: N.R.	USA	Nine-item boss phubbing scale by Roberts and David (2017).	Employee's job performance; Supervisory trust; Job satisfaction.	Industry	Boss phubbing has a negative association with employee's job performance through supervisory trust and job satisfaction.
Roberts and David (2017)	To investigate the impact of supervisors, phubbing and examine its impact on supervisory trust and the psychological conditions necessary for employee engagement.	Phubbing, Supervisory trust, Psychological conditions, Employee engagement.	Workers (n = 413)	Study 1: 48, Study 2: 54, Study 3: 56	Study 1: 35, Study 2: N.R., Study 3: N.R.	USA	Nine-item boss phubbing scale by Roberts and David (2017).	Psychological availability; Psychological meaningfulness; Trust-in-supervisor; Psychological safety.	Industry	Boss phubbing has a negative indirect effect on employee engagement. Specifically, boss phubbing diminishes employee engagement by eroding trust in the supervisor, which subsequently reduces engagement through the psychological conditions of meaningfulness and availability.
Saxena and Srivastava (2023)	To explore the impact of supervisor phubbing on cyberloafing, taking workplace ostracism as a mediator and psychological detachment as a moderator.	Supervisor phubbing, Workplace ostracism, Cyberloafing, Psychological detachment, Social exchange theory, Expectancy violations theory.	Employees working in varied industries (n = 267)	54	N.R.	India	Nine-item boss phubbing scale by Roberts and David (2017).	Cyberloafing; Psychological Detachment; Workplace Ostracism.	Industry	Supervisor phubbing leads subordinates to feel ostracized, which subsequently contributes to increased cyberloafing. The study also explored the moderating role of psychological detachment, finding that it impedes the relationship between workplace ostracism and cyberloafing. Additionally, psychological detachment emerged as a significant moderator in this context.
Siva and Jaimathisa (2024)	To examine the relationship between nomophobia and phubbing among IT employees.	Nomophobia; Phubbing; Information Technology Employees; Relationship.	Workers belonging to information technology companies (n = 200)	64	26.08	India	Phubbing scale PS; Karadağ et al. (2015)	Nomophobia.	Information technology companies	The results revealed that nomophobia was significantly and positively related to phubbing.

(Continued)

Table 2. (Continued).

Authors and year of publication	Aim of the study	Keywords	Size and type of sample	%Male	M age (SD)	Country	Phubbing measure	Type of organizational behaviours or psychological outcomes	Workplace context	Main results
Suryosukmono et al. (2023)	To measure the role of toxic leadership which is reinforced by boss phubbing behaviour as a moderating variable which negatively influences employee behaviour and triggers the employee's desire to leave an organization.	Toxic Leadership, Boss Phubbing, Job Stress, Leader Integrity, Perspective, Meaningful Work, Turnover Intention.	Employees of private companies (n = 305)	39.01	N.R.	Indonesia	Nine-item boss phubbing scale by Roberts and David (2017).	Toxic leadership; Job stress; Perceived leader integrity; Meaningful work.	Service companies	Toxic leadership exerted a significant direct effect on job stress, perceived leader integrity, and meaningful work, with all three variables significantly influencing turnover intention. Additionally, boss phubbing moderated the relationship between toxic leadership and job stress, perceived leader integrity, and meaningful work. The results indicate that fear of missing out is positively associated with phubbing, which in turn is positively linked to both psychological and relational responses. Additionally, promotion focus moderates the relationship between phubbing and creativity. Leader phubbing causes employees' poorer job performance, and this association was mediated by social distance and in turn, low trust. The negative effects of leader phubbing were stronger for employees with a higher need for social approval.
Tandon et al. (2022)	To examine the association of fear of missing out and phubbing with both psychological (i.e., work exhaustion and creativity) and relational (i.e., workplace incivility) employee outcomes.	Social media, Fear of missing out, Dark side of social media, Employees, Fear of Missing Out, Phubbing, Work outcomes.	Working professionals in school (n = 243)	58.80	N.R.	USA	Adapted Phubbing scale (Al-Saggaf & MacCulloch, 2018; Roberts & David, 2017)	FOMO; Work exhaustion; Work incivility; Creativity.	Scholars	The results indicate that fear of missing out is positively associated with phubbing, which in turn is positively linked to both psychological and relational responses. Additionally, promotion focus moderates the relationship between phubbing and creativity. Leader phubbing causes employees' poorer job performance, and this association was mediated by social distance and in turn, low trust. The negative effects of leader phubbing were stronger for employees with a higher need for social approval.
Xu et al. (2022)	To test whether the social distance caused by leader's phubbing might reduce trust, with a negative impact on job performance.	Leader phubbing, Social distance, Trust, Job performance, Need for social approval.	Full-time employees (n = 246)	51.63	35.07 (8.62)	China	Nine-item boss phubbing scale by Roberts and David (2017).	Job performance; Social distance; Trust; Need for Social Approval.	Companies	Leader phubbing causes employees' poorer job performance, and this association was mediated by social distance and in turn, low trust. The negative effects of leader phubbing were stronger for employees with a higher need for social approval.

(Continued)

Table 2. (Continued).

Authors and year of publication	Aim of the study	Keywords	Size and type of sample	%Male	Age (SD)	Country	Phubbing measure	Type of organizational behaviours or psychological outcomes	Workplace context	Main results
Yao and Nie (2023)	To investigate the impact mechanisms and boundary conditions of supervisor phubbing on employee psychological withdrawal behavior.	Supervisor phubbing; Work alienation; Psychological withdrawal behaviour; Interpersonal sensitivity.	Employees without any supervisory functions ($n = 302$)	53	N.R.	China	Nine-item boss phubbing scale by Roberts and David (2017).	Psychological withdrawal behaviour; Work alienation; Interpersonal sensitivity.	Companies	As the perception of supervisor phubbing increases, employees are more likely to engage in psychological withdrawal behaviours, as subordinates may perceive supervisor phubbing as a stressor. Supervisor phubbing can therefore lead to psychological withdrawal among employees. Supervisor phubbing may indirectly contribute to psychological withdrawal through work alienation.
Yasin et al. (2023)	To explore the effects of supervisor phubbing on employees' organization-based self-esteem with a specific focus on subordinates' experience of social exclusion.	Supervisor phubbing, Social exclusion, Organization-based self-esteem, Rejection sensitivity, Need to belong, Power distance.	Individuals who were employed in organizations ($n = 407$)	59	34.75 (9.20)	USA	Modified version of nine-item boss phubbing scale by Roberts and David (2017).	Organization-based self-esteem; Need Threats; Need to belong; Power distance.	Organizations (not specified)	No direct relationship was found between perceived supervisor phubbing and organization-based self-esteem. However, employees who perceived their supervisor as using a phone more frequently during interpersonal interactions reported higher levels of social exclusion during these interactions, which subsequently predicted lower organization-based self-esteem. Additionally, power distance moderated the negative relationship between perceived supervisor phubbing and fundamental needs.

(Continued)

Table 2. (Continued).

Authors and year of publication	Aim of the study	Keywords	Size and type of sample	%Male	M age (SD)	Country	Phubbing measure	Type of organizational behaviours or psychological outcomes	Workplace context	Main results
Yousaf et al. (2022)	To investigate the relationships between supervisor phubbing and key employee outcomes.	Enterprise Social media, Intrinsic motivation, Job engagement, Job performance, Phubbing, Conservation of resources theory.	<p>Study 1: employees ($n = 370$)</p> <p>Study 2: employees working in various industries ($n = 352$)</p>	<p>Study 1: 54</p> <p>Study 2: 63</p>	<p>Study 1: N.R.</p> <p>Study 2: N.R.</p>	<p>Study 1: Pakistan</p> <p>Study 2: USA</p>	<p>Nine-item boss phubbing scale by Roberts and David (2017).</p>	<p>Followers' intrinsic motivation; Work engagement; Job performance.</p>	<p>Organizations (not specified)</p>	<p>Supervisor phubbing is negatively associated with followers' intrinsic motivation, work engagement, and job performance. Intrinsic motivation mediates the relationships between supervisor phubbing and work engagement and between supervisor phubbing and job performance.</p>
Zhen and Wen (2022)	To explore how the boss phubbing affects employees' performance.	Bphubbing, Psychological capital, Job performance, Work-family enrichment, Information management.	Employees ($n = 215$)	45.70	N.R.	China	Nine-item boss phubbing scale by Roberts and David (2017).	<p>Job performance; Psychological capital; Work-family enrichment</p>	<p>Organizations (not specified)</p>	<p>There is a negative correlation between boss phubbing and employees' job performance. Psychological capital fully mediates the relationship between boss phubbing and job performance among employees. Additionally, work-family enrichment exerts a negative moderating effect on the association between boss phubbing and employees' psychological capital, supporting the reverse stress-buffering model.</p>

Note: N.R. = Not reported.

sectors. Fewer studies ($n = 1$; 4.8%) examined samples from generic companies, hospitals, information technology firms, private banks, schools, and mixed-sector organizations. Five studies (23.8%) were conducted in China, four studies (19.1%) in Pakistan and the USA, respectively, two studies (9.5%) in India, Indonesia, and mixed-country settings, respectively, and one study (4.8%) each in Turkey and Oman.

3.3. Perceived phubbing in the workplace context and associated variables

3.3.1. Evidence from systematic review

Fifteen of the selected studies (71.4%) examined the relationship between leader phubbing and organizational behaviours and/or psychological outcomes, which we have grouped into the following macro-categories: leadership dimension, dimensions of productivity and engagement, work-family dimension, workplace psychological outcomes, counterproductive workplace behaviours, problematic interpersonal dynamics, and general psychological outcomes. All selected studies on perceived phubbing in a workplace context focus on a specific subtype of phubbing, specifically the one perpetrated by leaders towards their followers, named "leader phubbing". Leader phubbing, specifically, occurs when supervisors ignore or pay inadequate attention to their employees due to their use of technology. This behaviour has become increasingly prevalent in the workplace in the last few years.

Firstly, leader phubbing has been found to be associated with aspects of leadership dimension, that is related both to the perception of leadership and to the processes activated around the leader within the organization, such as identification. Specifically, it is negatively associated with perceived leader support (Bracht et al., 2024), employees' identification with their supervisor (M. N. Khan et al., 2023), and trust in the supervisor (A. Y. Khan, 2023; Xu et al., 2022). It is also positively associated with all the following aspects of leadership and organizational climate, including toxic leadership (Suryosukmono et al., 2023), perceived leader integrity (Suryosukmono et al., 2023), and power distance (Hasan et al., 2024; Yasin et al., 2023).

Furthermore, leader phubbing has been identified as being associated with dimensions of productivity and engagement. Precisely, it is negatively associated with employee job performance across various workplace contexts (Bracht et al., 2024; Roberts & David, 2020; Xu et al., 2022; Yousaf et al., 2022; Zhen & Wen, 2022), work engagement (Yousaf et al., 2022), the sense of work meaningfulness in hospital settings (Khan et al., 2022), followers' intrinsic motivation

(Yousaf et al., 2022), and the development of high-quality interpersonal connections (Koçak, 2021). Furthermore, phubbing enacted by leaders is positively associated with reduced perceptions of meaningful work (Suryosukmono et al., 2023) and increased work alienation (Yao & Nie, 2023).

Only one study examined the relationship between phubbing perpetrated by leader and work-family dimension, highlighting a negative association between perceived phubbing and work-family enrichment, which emphasizes the beneficial resources individuals gain from their family (Zhen & Wen, 2022).

Additionally, leader phubbing is linked to certain workplace psychological outcomes. It is negatively correlated with to psychological availability, psychological meaningfulness, psychological safety (Roberts & David, 2017) and psychological capital (i.e., a positive psychological state experienced by individuals during growth and development) (Zhen & Wen, 2022). Furthermore, leader phubbing is positively associated with work-related negative affect and stress (Koçak, 2021; Suryosukmono et al., 2023), as well as psychological detachment from work-related activities (Saxena & Srivastava, 2023).

Additionally, leader phubbing has been positively associated with counterproductive workplace behaviours, including employee phubbing behaviour (Khan et al., 2022), workplace incivility (Hasan et al., 2024), workplace presenteeism (Hasan et al., 2024), psychological withdrawal behaviour (A. Y. Khan, 2023; Yao & Nie, 2023), and cyberloafing (Saxena & Srivastava, 2023).

Lastly, phubbing perpetrated by leader is positively linked to problematic interpersonal dynamics within workplace settings, such as workplace ostracism (Saxena & Srivastava, 2023), increased social distance (Xu et al., 2022), and heightened employees' need to belong (Yasin et al., 2023).

Six studies explored the relationship between phubbing perpetrated by leader and general psychological outcomes that are not specifically work-related. These studies found that leader phubbing was negatively associated with self-esteem (Hasan et al., 2024), but positively linked to self-esteem threat, an emotional response to the perception of being negatively evaluated by others (Khan et al., 2022). Additionally, it was positively associated with general psychological distress (M. N. Khan et al., 2023) and two cognitive responses to interpersonal interactions, namely interpersonal sensitivity, defined as an individual's awareness and sensitivity to the feelings and behaviours of others (Yao & Nie, 2023), and rejection sensitivity, characterized by a heightened ability to detect and respond to social rejection signals (Yasin et al., 2023).

3.3.2. Findings from meta-analytic analysis

Following the systematic review of the association between perceived phubbing behaviours in the workplace context and associated variables, a meta-analysis was conducted that considered the results grouped by the macro-areas identified in the systematic review, namely the leadership dimension, dimensions of productivity and engagement, the work-family dimension, workplace psychological outcomes, counterproductive workplace behaviours, problematic interpersonal dynamics, and general psychological outcomes. Unfortunately, for the work-family dimension, the number of studies was insufficient to conduct a meta-analysis, so we do not report a meta-analysis for this association. To ensure that higher values consistently represented more negative outcomes (i.e., greater level of productivity and engagement), all effect sizes were aligned in the same theoretical direction. Accordingly, correlation coefficients were reversed when necessary.

With regard to the leadership dimension, we reoriented all effect sizes in the meta-analysis so that higher scores consistently reflected more positive leadership characteristics, ensuring a conceptually coherent interpretation of the results. Specifically, nine studies

investigated the relationship between perceived phubbing in the work environment and positive leadership dimensions (Figure 2), yielding $K = 9$ correlations ranging from $r = -.15$ to $-.52$. The random-effects model indicated a medium negative association, $r = -.329$ (95% CI = $-.418$; $-.241$), significantly different from zero ($z = -7.277$, $p < .001$; Table 3). Tests and visual inspection of the funnel plot suggested no publication bias (rank correlation: $p = .61$; regression: $p = .75$; Figure 3), though the plot deviated from the expected pyramidal shape. Significant heterogeneity was observed, $Q(8) = 53.975$, $p < .001$, $\tau^2 = 0.015$, $I^2 = 95.69\%$, with a 95% prediction interval from -0.585 to -0.073 (Table 3; Figure 3). Studentized residuals and Cook's distances indicated no outliers or influential studies.

Nine studies explored the relationship between perceived phubbing in the work environment and dimensions of productivity and engagement (Figure 4), yielding $K = 9$ correlations ranging from $r = -.12$ to $-.76$. The random-effects model indicated a medium negative association, $r = -.300$ (95% CI = $-.464$; $-.136$), significantly different from zero ($z = -3.589$, $p < .001$; Table 3). Tests and visual inspection of the funnel plot showed no evidence of publication bias (rank

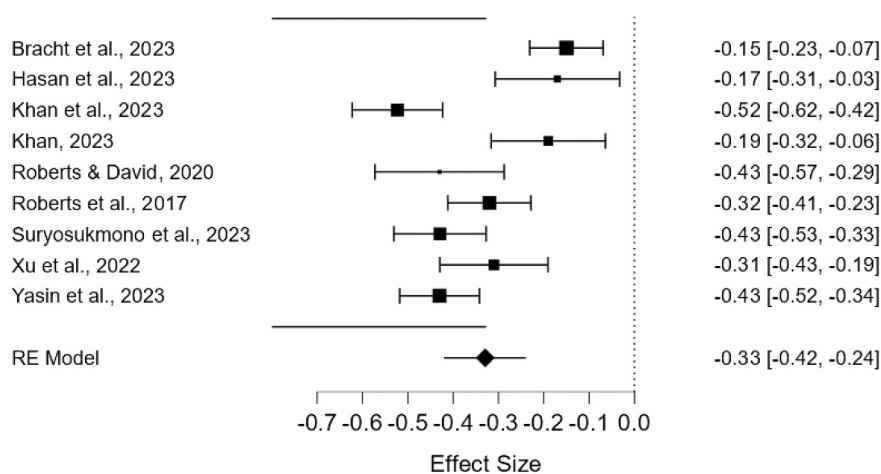


Figure 2. Forrest and funnel plot of association between perceived phubbing behaviors in the workplace context and positive leadership dimensions.

Table 3. Association between perceived phubbing behaviours in the workplace context and organizational and psychological outcomes.

Domain	K	ES (95% CI)	Outcome		
			p	Q (p)	I^2
Perceived phubbing behaviors and positive leadership dimensions	9	-0.329 (-0.418; -0.241)	<.001	(8) = 53.975 (<.001)	95.69%
Perceived phubbing behaviors and dimensions of productivity and engagement	9	-0.300 (-0.464; -0.136)	<.001	(8) = 236.013 (<.001)	96.01%
Perceived phubbing behaviors and adverse workplace psychological outcomes	8	0.257 (0.129; 0.385)	<.001	(7) = 95.156 (<.001)	92.21%
Perceived phubbing behaviors and counterproductive workplace behaviors	4	0.444 (0.258; 0.629)	<.001	(3) = 29.306 (<.001)	90.14%
Perceived phubbing behaviors and problematic interpersonal dynamics	3	0.414 (0.171; 0.657)	<.001	(2) = 38.549 (<.001)	94.15%
Perceived phubbing behaviors and negative general psychological outcomes	5	0.389 (0.220; 0.557)	<.001	(4) = 58.659 (<.001)	91.84%

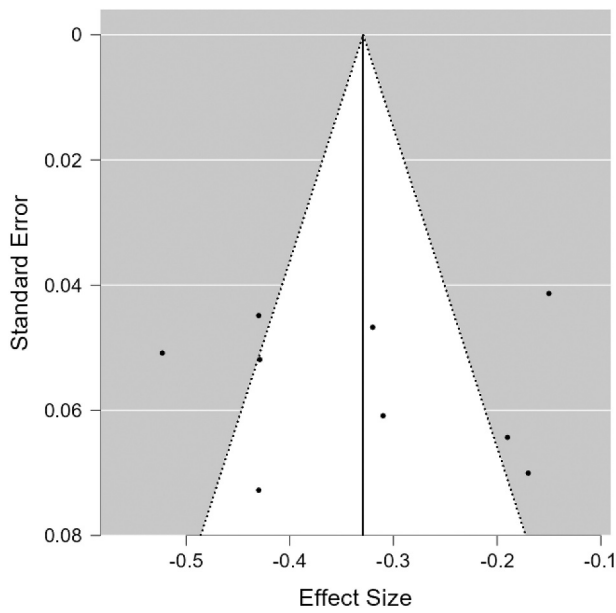


Figure 3. Forrest and funnel plot of association between perceived phubbing behaviors in the work place context and positive leadership dimensions.

correlation: $p = .61$; regression: $p = .52$; **Figure 5**), although the plot deviated from the expected pyramidal shape. Significant heterogeneity was observed, $Q(8) = 236.013$, $p < .001$, $\tau^2 = 0.060$, $I^2 = 96.01\%$, with a 95% prediction interval from -0.808 to 0.208 (**Table 3**; **Figure 5**). Studentized residuals and Cook’s distances indicated no outliers or influential studies.

With regard to workplace psychological outcomes, we reoriented all effect sizes in the meta-analysis so that higher scores consistently reflected adverse workplace psychological outcomes, ensuring a conceptually coherent interpretation of the results. Eight studies explored the relationship between perceived phubbing

in the work environment and adverse workplace psychological outcomes (**Figure 6**), yielding $K = 8$ correlations ranging from $r = .06$ to $.63$. The random-effects model indicated a small-to-moderate positive association, $r = .257$ (95% CI = $.129; .385$), significantly different from zero ($z = 3.943$, $p < .001$; **Table 3**). Tests and visual inspection of the funnel plot showed no evidence of publication bias (rank correlation: $p = .72$; regression: $p = .64$; **Figure 7**), although the plot deviated from the expected pyramidal shape. Significant heterogeneity was observed, $Q(3) = 95.156$, $p < .001$, $\tau^2 = 0.031$, $I^2 = 92.21\%$, with a 95% prediction interval from -0.112 to

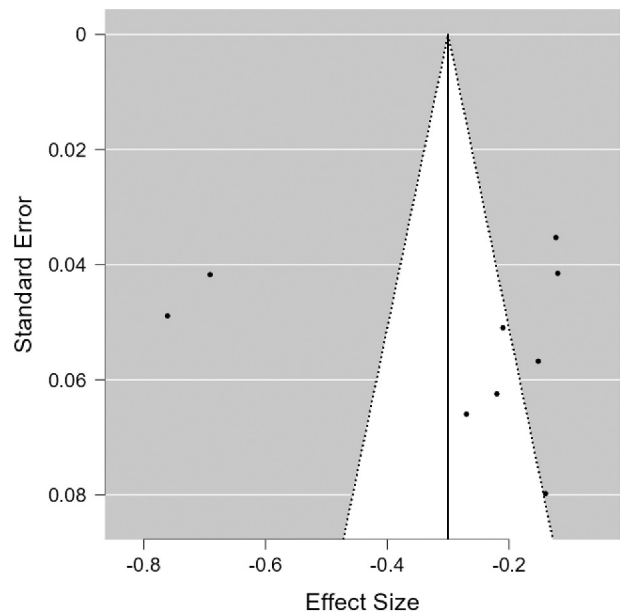


Figure 5. Forrest and funnel plot of association between perceived phubbing behaviors in the work place context and dimensions of productivity and engagement.

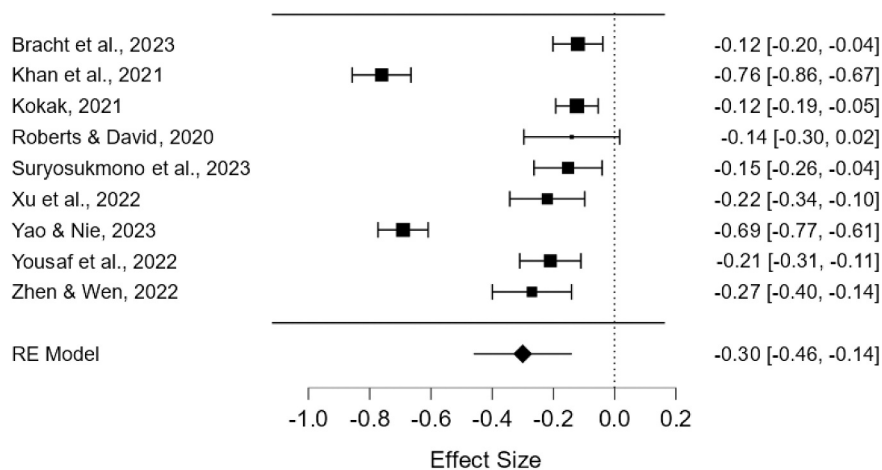


Figure 4. Forrest and funnel plot of association between perceived phubbing behaviors in the work place context and dimensions of productivity and engagement.

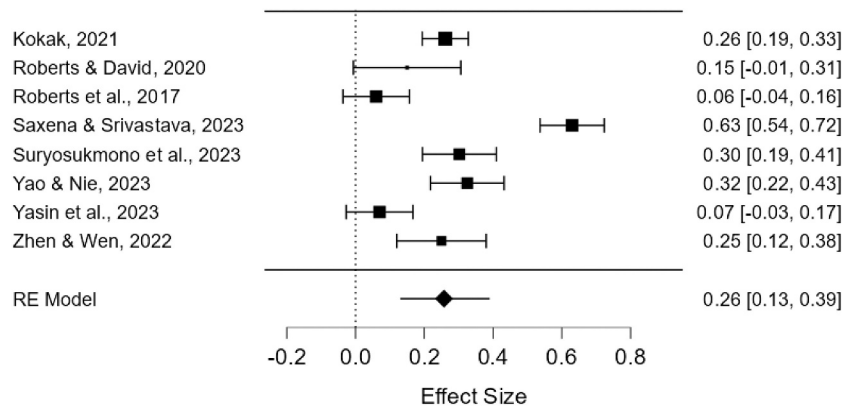


Figure 6. Forrest and funnel plot of association between perceived phubbing behaviors in the workplace context and adverse workplace psychological outcomes.

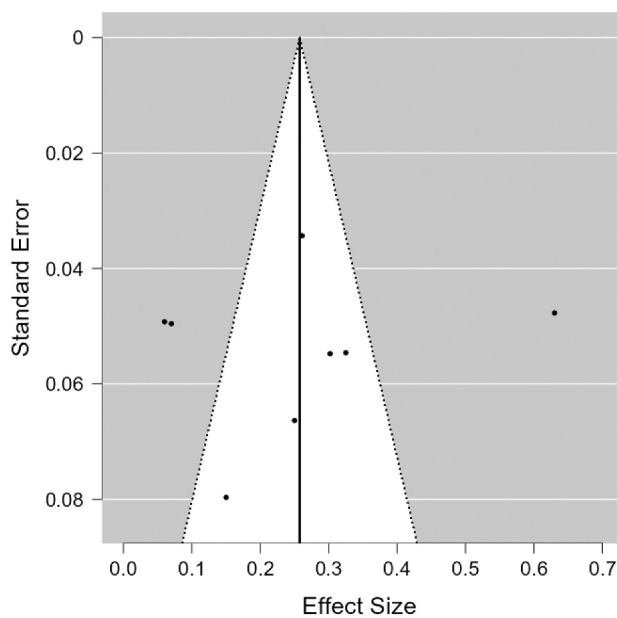


Figure 7. Forrest and funnel plot of association between perceived phubbing behaviors in the workplace context and adverse workplace psychological outcomes.

0.626 (Table 3; Figure 7). Analysis of the studentized residuals showed that one study (Saxena & Srivastava, 2023) reached a value of ± 3.656 , suggesting a potential

outlier in the model. However, the assessment using Cook’s distances indicated that no individual study exerted undue influence on the overall results.

Four studies explored the relationship between perceived phubbing in the work environment and counter-productive workplace behaviours (Figure 8), yielding $K = 4$ correlations ranging from $r = .21$ to $.64$. The random-effects model indicated a moderate-to-strong positive association, $r = .444$ (95% CI = $.258; .629$), significantly different from zero ($z = 4.683, p < .001$; Table 3). Tests and visual inspection of the funnel plot showed no evidence of publication bias (rank correlation: $p = .75$; regression: $p = .16$; Figure 9), although the plot deviated from the expected pyramidal shape. Significant heterogeneity was observed, $Q(3) = 29.306, p < .001, \tau^2 = 0.032, I^2 = 90.14\%$, with a 95% prediction interval from 0.046 to 0.842 (Table 3; Figure 9). Studentized residuals and Cook’s distances indicated no outliers or influential studies.

Three studies explored the relationship between perceived phubbing in the work environment and problematic interpersonal dynamics (Figure 10), yielding $K = 3$ correlations ranging from $r = .22$ to $.64$. The random-effects model indicated a moderate positive association, $r = .414$ (95% CI = $.171; .657$), significantly different from zero ($z = 4.683, p < .001$; Table 3). Tests and visual

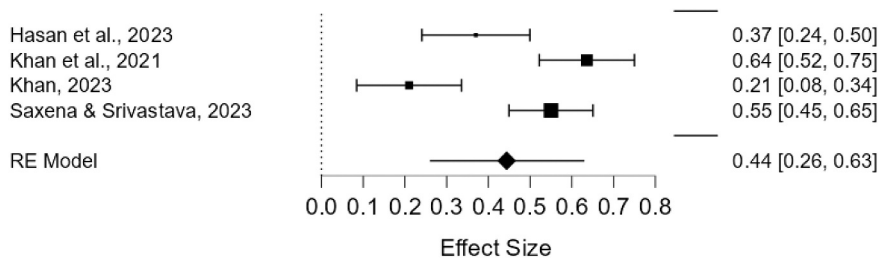


Figure 8. Forrest and funnel plot of association between perceived phubbing behaviors in the workplace context and counter-productive workplace behaviors.

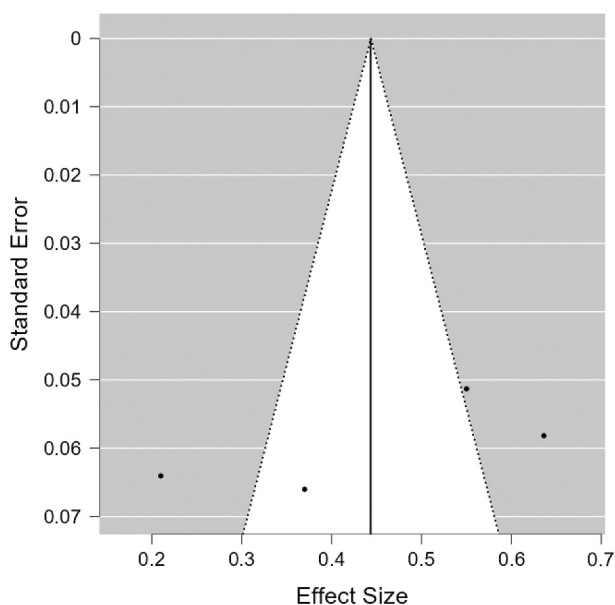


Figure 9. Forrest and funnel plot of association between perceived phubbing behaviors in the workplace context and counter productive workplace behaviors.

inspection of the funnel plot suggested potential publication bias (rank correlation: $p = .33$; regression: $p < .001$; Figure 11). Significant heterogeneity was observed, $Q(3) = 38.549$, $p < .001$, $\tau^2 = 0.043$, $I^2 = 94.154\%$, with a 95% prediction interval for the true effects ranged from -0.060 to 0.888 (Table 3; Figure 11). Analysis of the studentized residuals indicated that one study (Yasin et al., 2023) reached a value of ± 2.823 , suggesting a possible outlier. However, Cook's distances showed that no study exerted undue influence on the overall results.

With regard to general psychological outcomes, we reoriented all effect sizes in the meta-analysis so that lower scores consistently reflected more negative general psychological outcomes, ensuring a conceptually coherent interpretation of the results. Five studies explored the relationship between perceived phubbing in the work environment and negative general psychological outcomes (Figure 12), yielding $K = 5$ correlations ranging from $r = .24$ to $.68$. The random-effects model indicated a moderate positive association, $r = .389$ (95% CI = $.220$;

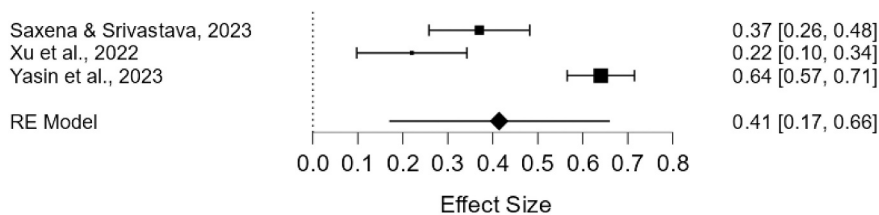


Figure 10. Forrest and funnel plot of association between perceived phubbing behaviors in the workplace context and problematic interpersonal dynamics.

$.557$), significantly different from zero ($z = 4.528$, $p < .001$; Table 3). Tests and visual inspection of the funnel plot showed no evidence of publication bias (rank correlation: $p = .7581$; regression: $p = .14$; Figure 13), although the plot deviated from the expected pyramidal shape. Significant heterogeneity was observed, $Q(3) = 58.659$, $p < .001$, $\tau^2 = 0.033$, $I^2 = 91.842\%$, with a 95% prediction interval for the true effects ranged from -0.005 to 0.783 (Table 3; Figure 13). Studentized residuals and Cook's distances indicated no outliers or influential studies.

3.4. Enacted phubbing behaviour within workplace contexts and its associated variables

Enacted phubbing behaviour within workplace contexts is a consequence of excessive smartphone usage among employees and poses significant risks to both individuals and organizations, as it undermines an individual's ability to concentrate on work and engage in social interactions (Buckle, 2016). Six

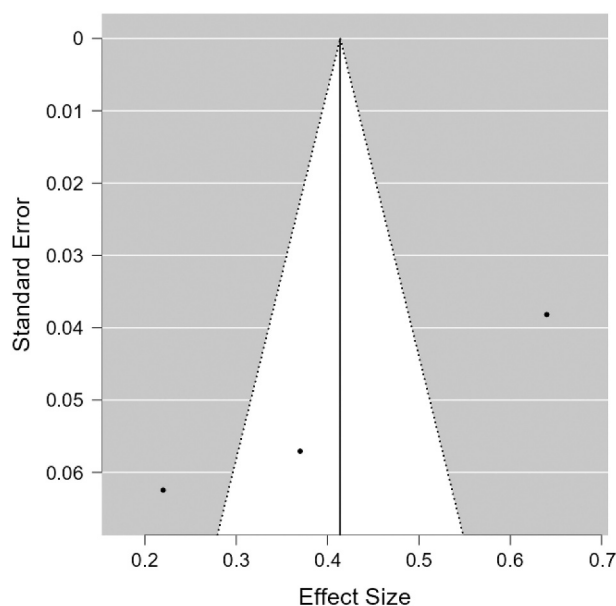


Figure 11. Forrest and funnel plot of association between perceived phubbing behaviors in the workplace context and problematic interpersonal dynamics.

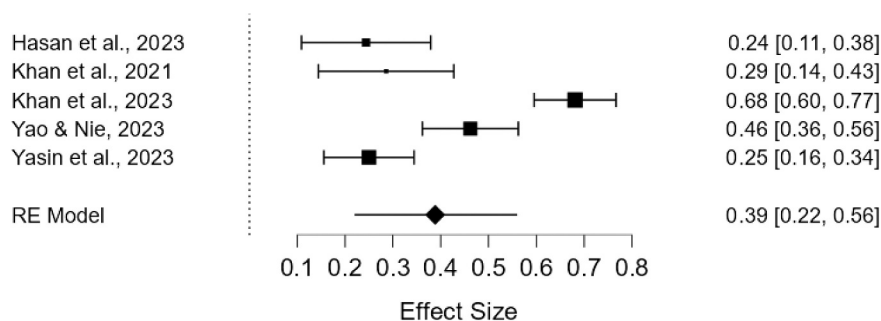


Figure 12. Forrest and funnel plot of association between perceived phubbing behaviors in the work environment and negative psychological outcomes.

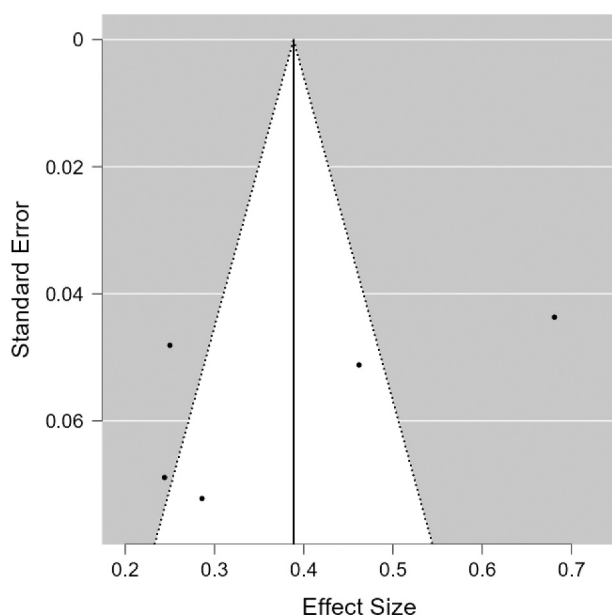


Figure 13. Forrest and funnel plot of association between perceived phubbing behaviors in the work environment and negative psychological outcomes.

studies (28.6%) have examined the relationship between enacted phubbing behaviour and organizational behaviours and/or psychological distress. The results concerning this relationship will be described only in terms of a systematic review, as the large amount of extracted data did not allow for a meta-analysis of these associations.

Regarding organizational behaviours, research has demonstrated a positive relationship between enacted phubbing and other negative employees' behaviours which are cyberloafing (Chakraborty et al., 2024), and work incivility (Tandon et al., 2022). Other studies ($n = 2$) have emphasized its association on employee workplace-related well-being, emphasizing its relationship with work exhaustion and job burnout (Liu et al., 2021; Tandon et al., 2022). Additionally, enacted phubbing

behaviour is positively associated with problematic technology usage, including excessive and compulsive technology use (Quiroz-González et al., 2023) and nomophobia (Siva & Jaimathisa, 2024) which refers to the anxiety that arises when individuals are separated from their smartphones, reflecting a more generalized concern about missing critical communications, professional updates, or social interactions (Bragazzi & Del Puente, 2014). In contrast, engaging in phubbing has been found to have a negative association with employees' work engagement (Nanda & Prihatsanti, 2023).

Finally, only two studies have explored the link between enacted phubbing behaviour and psychological outcomes that are not specifically work-related, with findings highlighting a positive association with depression (Liu et al., 2021), rumination (Liu et al., 2021), and fear of missing out (Tandon et al., 2022).

4. Discussion

The present systematic review and meta-analysis of 21 studies, with 8485 employees from various sectors, analysed the association between phubbing behaviours in the workplace context and organizational behaviours, as well as their connection to individuals' psychological outcomes. The review utilized two distinct perspectives to systematically explore and integrate key concepts related to perceived phubbing and its associated variables (for which we also conducted a meta-analysis), as well as enacted phubbing behaviour and its relevant related dimensions. The results revealed several associations between workplace phubbing and organizational behaviours, suggesting the potential for organizational dynamics that warrant further investigation. The current systematic review and meta-analysis is the first to estimate the mean associations between phubbing in the workplace context and organizational and psychological outcomes.

4.1. *Correlates of perceived phubbing in organizational and psychological domains*

The results showed small to strong associations between higher perceived phubbing in the workplace context and organizational and psychological outcomes. These findings are consistent with prior evidence showing that perceived phubbing in the workplace context is related to negative organizational behaviours (Huang & Bartels, 2025; Perrigino et al., 2024). Importantly, these associations are reported not as direct outcomes, but as indicators of construct validity, thereby reinforcing the conceptual distinction between perceived and enacted phubbing in the workplace context. Specifically, research shows an association with various organizational factors, particularly those related to leadership, with which it is negatively correlated. Leader phubbing exhibits a positive association with toxic leadership, perceived leader integrity, and power distance (Suryosukmono et al., 2023; Yasin et al., 2023), while it showed a negative association with perceived leader support, employees' identification with their supervisor, and trust in the supervisor (Bracht et al., 2024; A. Y. Khan, 2023; M. N. Khan et al., 2023; Xu et al., 2022). Moreover, our meta-analytic findings provide additional support for the negative relationship between higher levels of perceived phubbing in the workplace context and positive leadership dimensions. These findings, consistent with the frameworks of SET (Blau, 1964) and SDT (Ryan & Deci, 2000), underscore how perceived leader phubbing may undermine employees' relational dynamics with their supervisors. The prevalence of these related factors among employees could erode leaders' credibility in workplace context. Furthermore, these elements could be significant predictors of heightened turnover intention (Singh et al., 2014). Notably, leader phubbing may lead employees to perceive their supervisors as deviating from organizational values and ethical standards. This perceived misalignment with employees' own values can foster discomfort and dissatisfaction within the workplace environment.

Perceived phubbing has been also found to associated with dimensions of productivity and engagement, such as a negative relationship with employee job performance (Bracht et al., 2024) or a positive relationship with work alienation (Yao & Nie, 2023). From a theoretical perspective, these results are anchored in SET (mutual exchanges of attention and respect) (Blau, 1964), illustrating how leader phubbing can influence both individual reciprocal workplace behaviours. When supervisors are distracted by their smartphones during interactions with employees, such behaviour is perceived as a violation of employees' expectations

regarding supervisory attention and productivity, given that focused engagement is an implicit component of the social exchange. This perceived breach of mutual obligations may lead employees to experience feelings of being undervalued and unsupported, which in turn can diminish motivation, impair work performance, and foster disengagement from both assigned tasks and the supervisor – employee relationship. Additionally, the meta-analytic findings provide additional support for the negative relationship between higher levels of perceived phubbing in the workplace and the dimensions of productivity and engagement. According to SET (Blau, 1964), which posits that individuals tend to reciprocate respectful treatment with similar regard (Blau, 1964; Newman et al., 2016; Ruggieri et al., 2023), employees who perceive their leader as lacking commitment to the organization due to phubbing behaviour may implicitly mirror this attitude, resulting in decreased work performance. Failing to meet the expectation of productivity expectations directed at the leader can adversely affect job performance (Roberts & David, 2017). Given the critical role of productivity and engagement in organizational success, these findings may highlight a new supervisory characteristic that should be considered in studies of employee and organizational performance.

Perceived phubbing has also been found to be associated with adverse workplace psychological outcomes, including a diminished sense of psychological meaningfulness of work (Roberts & David, 2017) and a heightened sense of psychological detachment from work-related activities (Saxena & Srivastava, 2023), an association further confirmed by the results of the meta-analysis. It should be acknowledged that, from a recovery perspective (Sonnetag & Fritz, 2007, 2015), psychological detachment is not inherently detrimental and may constitute an adaptive strategy that enables employees to recover from work-related demands. However, within the context of perceived leader phubbing, psychological detachment is more likely to reflect a reactive and involuntary form of disengagement, precipitated by adverse interpersonal experiences rather than a deliberate and restorative recovery process (Saxena & Srivastava, 2023). Specifically, when employees seek interaction with their supervisor, but are met with distraction due to phone use, they may experience adverse psychological effects, leading to disengagement from work and a lack of concern for work-related matters when at home. Framing these outcomes within the context of SDT (Ryan & Deci, 2000) highlights the frustration of core psychological needs, particularly autonomy and relatedness, as employees experience a sense of powerlessness and social disconnection, which may subsequently contribute to psychological detachment

from the work environment. Furthermore, it was seen as employees who feel neglected may develop a fear of encountering negative experiences the following day, making it difficult for them to find psychological meaningfulness in their work (Sonnentag & Fritz, 2007).

Finally, perceived phubbing has also been found to be associated with problematic interpersonal and behavioural work dynamics, including a positive relationship with workplace incivility (Hasan et al., 2024) and with workplace social distance (Xu et al., 2022), an association further confirmed by the results of the meta-analysis. Specifically, when leader phubbing occurs, employees may perceive more negative dynamics, believing that their leaders are disinterested in them and unworthy of their attention. These heightened problematic interpersonal and behavioural dynamics can inhibit social interactions, leading to unpleasant exchanges between colleagues. Reciprocal influences are acknowledged here, as negative interactions may reinforce perceptions of phubbing, creating a feedback loop that exacerbates disengagement. Such dynamics may be also interpreted as signs of employee dissatisfaction and disapproval, which in turn can have a detrimental effect on employees' job performance.

In terms of psychological outcomes, perceived phubbing has been found to be linked to personality traits (e.g., self-esteem), general psychological distress (M. N. Khan et al., 2023), and cognitive responses to interpersonal interactions (Yao & Nie, 2023; Yasin et al., 2023). These findings indicate that perceived phubbing is associated not only with organizational aspects but also with more personal dimensions of the employee. Specifically, leader phubbing can lead employees to feel unappreciated, unimportant, and disrespected. Additionally, the meta-analytic findings provide additional support for the negative relationship between higher levels of perceived phubbing in the workplace and negative general psychological outcomes. In light of these results, it is crucial to acknowledge that psychological distress has a significant impact on employees' mental and physical well-being, stemming from various factors that affect their overall health and are associated with an increase in psychological disorders, including stress, anxiety, and depression (Rigotti et al., 2021). This distress may, consequently, lead to the emergence of maladaptive behaviours among employees (Liu et al., 2021).

These findings on leader phubbing emphasize that this phenomenon undermines leadership dynamics, diminishes productivity, and negatively affects interpersonal relationships within workplace contexts (David et al., 2017), while also adversely affecting the mental

health of employees (Roberts & David, 2016). According to SDT, when supervisors phub their employees, employees perceive social exclusion and feel powerless and a lack of control. This lack of control reflects a diminution of perceived autonomy, insofar as employees are unable to exert meaningful influence over, or participate substantively in, interactions with their supervisors. Concurrently, the need for relatedness is thwarted, as employees encounter social disconnection and perceive themselves as ignored or undervalued, thereby undermining their sense of belonging within the workplace. These feelings frustrate their needs for autonomy and relatedness, reducing motivation and leading workers to experience leadership as negative, be unproductive and disengaged in their work context. Furthermore, in line with SET, workers also view work relationships as mutual exchanges of attention, respect, and support. Specifically, a distracted or rude leader, as in the case of phubbing, breaks the balance of social exchange, making employees feel unsupported and disrespected. This leads employees to suffer psychological consequences. It is important to acknowledge that, given the cross-sectional nature of most studies, some of these associations may be reciprocal. In summary, this systematic review and meta-analysis enriches SDT and SET with empirical evidence on the link between psychological needs as well as mutual exchanges and employees' organizational dynamics and well-being at work. The significance of this phenomenon underscores the need for supervisors to recognize the impact of their phone use. By being aware of these effects, supervisors can better manage such behaviours and prevent them from fostering dissatisfaction and discomfort within the organization.

4.2. Correlates of enacted phubbing in organizational and psychological domains

With regard to the relationship between enacted phubbing behaviour and its associated variables, enacted phubbing has been identified as being associated with various organizational factors, particularly those pertaining to employee behaviours. Specifically, research has demonstrated a positive relationship between workplace phubbing and cyberloafing (Chakraborty et al., 2024) as well as work incivility (Tandon et al., 2022). Conversely, it has been negatively associated with employees' work engagement (Nanda & Prihatsanti, 2023). It is plausible that enacted phubbing results in a diminished focus on work-related tasks, which can result in significant adverse outcomes, including weakened interpersonal relationships among colleagues and negative work-related effects, such as decreased

motivation and engagement. From the theoretical perspective of SCT (Bourdieu, 1985), enacted phubbing disrupts perceived social presence and diminishes trust and support networks, thereby undermining both individual and collective social capital. These associations may stem from the tendency of phubbing to reduce an individual's perceived social presence and awareness of others in the workplace. Furthermore, the psychological distancing resulting from enacted phubbing can disrupt the formation of cohesive workplace dynamics, eroding trust and collaboration among team members. According to SCT (Bourdieu, 1985), organizational and psychological resources derive from social relationships, trust, and support networks among individuals. Applying this perspective to enacted phubbing in the workplace, it is plausible to hypothesize that such behaviour may have negative effects on social capital at both the individual and collective levels. In fact, enacted phubbing reduces the quality of interactions among colleagues, as those who are ignored perceive social distance and lack of involvement. This can undermine mutual trust, reduce willingness to collaborate or share resources, and increase the risk of social isolation. In this way, phubbing could contribute to the weakening of team cohesion, impede the formation of positive relationships, and compromise engagement and motivation at work. This behaviour often signals a lack of attentiveness and respect, which can amplify feelings of dissatisfaction and alienation in colleagues. Over time, such disruptions may contribute to a broader organizational culture marked by disengagement and lower morale, potentially impairing overall productivity and efficiency. Additionally, the habitual use of digital devices during interpersonal interactions may condition individuals to prioritize digital communication over face-to-face engagement, further entrenching patterns of disengagement. In this regard, the findings highlighted a significant relationship between enacted phubbing and problematic technology usage, including excessive and compulsive use of digital devices (Quiroz-González et al., 2023) and nomophobia, defined as the fear of being without a mobile phone (Siva & Jaimathisa, 2024). Problematic technology use, particularly involving the Internet and mobile phones, is characterized by patterns of interaction marked by repetitive and uncontrolled engagement with these technologies, often resulting in detrimental health behaviours (Billieux, 2012). Such behaviours include difficulties in self-regulating mobile phone and Internet use, which can lead to a range of negative outcomes in daily life. The relationship between enacted phubbing and problematic technology use reflects an increasing dependence on technology, characterized by both psychological

reliance and behavioural attachment, which frequently disrupts an individual's capacity to sustain balanced social and emotional functioning. Additionally, the compulsive nature of this technology use is associated with various social, behavioural, and affective issues, such as strained interpersonal relationships, increased stress levels, and reduced capacity for face-to-face communication (Billieux, 2012). This dependency not only disrupts daily activities but also amplifies the likelihood of experiencing adverse emotional states, including anxiety, frustration, or guilt, when access to technology is restricted. Finally, enacted phubbing behaviour within the workplace context has been found to be associated with both employee workplace-related well-being and general psychological distress. Specifically, it has been positively associated with job burnout and FoMO (Tandon et al., 2022), depression, rumination and work exhaustion (Liu et al., 2021). Indeed, it has been well-established that the excessive use of mobile phones has been found to detrimentally affect workers' well-being, impair sleep quality, contribute to various health problems, and elevate anxiety levels, ultimately increasing the risk of depression (Gonçalves & Santos, 2022; Rai et al., 2019; Thomée, 2018). Moreover, when mobile phone use is prioritized over face-to-face communication, it compromises also the quality of interpersonal interactions, weakens relationships, and diminishes relationship satisfaction (Roberts & David, 2016). Enacted phubbing, in particular, has been identified as harmful to relationships and intimacy, as it can escalate conflicts among colleagues and increase the likelihood of depression and rumination (Wang et al., 2024). As with the findings on perceived phubbing, it is important to recognize that, in the case of enacted phubbing in the workplace, the predominantly cross-sectional design of most studies implies that some of these associations may be reciprocal.

4.3. Limitations

This systematic review and meta-analysis has several limitations. First, the selection of keywords and specific databases may have led to the exclusion of relevant studies, despite the intention to use sufficiently broad search terms. Second, the decision to include only articles published in peer-reviewed academic journals may have resulted in the omission of pertinent studies, such as those available in grey literature. Third, a high number of studies presented medium to high risk of bias, which limits the strength of the conclusions regarding the association between phubbing behaviour and organizational behaviours, as well as their link to psychological outcomes in the workplace context. Fourth, the review

was limited to articles published in English, which may have excluded studies published in other languages. Fifth, the number of studies addressing enacted phubbing was limited, preventing the quantitative synthesis from fully encompassing this dimension and its correlates. Sixth, most included studies employed cross-sectional or correlational designs, which restricts the ability to draw causal inferences; it is therefore not possible to determine whether higher levels of phubbing behaviours (both perceived and enacted) lead to negative organizational outcomes, or whether pre-existing organizational factors contribute to increased phubbing. Finally, the limited geographical diversity of the studies, with the majority conducted in American or Asian contexts, constrains the generalizability of the observed associations between phubbing behaviour and both organizational and psychological outcomes. Despite these limitations, this review provides the first comprehensive analysis of the existing literature on workplace phubbing behaviours.

4.4. Future research directions

Considering the results of this systematic review and meta-analysis, we emphasize the need for further research on the phenomenon of phubbing in workplace contexts, approached from multiple perspectives. Future studies should examine how phubbing is experienced by individuals, including employees, colleagues, and leaders, as well as how it is perpetrated, in order to capture the full spectrum of interpersonal dynamics and organizational impact. Moreover, there is a clear gap in the literature regarding the causal mechanisms underlying phubbing behaviours and their long-term consequences. Building on the methodological limitations identified in the limitations section, the adoption of experimental and longitudinal research designs is particularly warranted to disentangle these relationships and to provide robust evidence regarding the temporal ordering and directional effects of phubbing. Specifically, phubbing behaviours may operate both as a contributing factor to negative workplace outcomes (such as decreased job satisfaction, reduced productivity, and engagement) and as a response to pre-existing organizational stressors, including poor communication climates or negative leadership dimensions (such as toxic leadership). Understanding this bidirectional nature is crucial for developing effective interventions and organizational policies aimed at mitigating phubbing detrimental effects. Investigating moderators and mediators, such as personality traits, organizational culture, and communication aspects, could further clarify when and for whom phubbing behaviour is most harmful.

Additionally, future research should aim to reduce methodological limitations by prioritizing studies with low or medium risk of bias and by including samples from a broader range of languages and geographical contexts to enhance generalizability. In light of these considerations, it is crucial to prioritize rigorous research on phubbing in workplace contexts and to ensure that the findings are widely disseminated within the scientific community. Such efforts will not only advance theoretical understanding but also offer practical guidance for organizations striving to create healthier, more attentive, and collaborative work environments. These avenues for future research are suggested in light of the gaps and constraints identified in the current literature.

4.5. Practical implications

The results of the present review suggest that phubbing in the workplace context can have detrimental effects on employees' organizational behaviours and psychological outcomes, potentially undermining key organizational aspects, such as leadership dynamics, interpersonal relationship, and job performance. This section discusses several practical implications of these findings in relation to both perceived and enacted phubbing. Regarding phubbing perpetrated by leaders, it is essential for managers to be educated on what constitutes appropriate smartphone use in the presence of subordinates. This training is crucial, given that many current managers belong to tech-savvy generations, which may lead to a propensity for excessive smartphone use, even in situations where its use should be limited or avoided. Leaders must be able to put their smartphones away in order to engage in meaningful communication with their employees. Research consistently shows that using a smartphone while interacting with others can undermine the perceived trust, closeness, and connection between conversation partners, as well as diminish the overall quality of the conversation as the results of this review also confirmed. To prevent distractions and ensure effective communication, phones should be kept out of sight when engaging with employees (Przybylski & Weinstein, 2013). Another recommendation to encourage healthier smartphone use among leaders during direct interactions with employees is to enable automatic responses for incoming calls and messages. Automatic responses to calls, texts, and emails can inform the other party of when the manager will respond, without distracting him from the current face-to-face interaction. Additionally, also workers should be encouraged, and if necessary, mandated, to refrain from bringing their phones to meetings unless it is absolutely essential. If an employee must bring their phone to

a meeting and needs to respond to a message, the protocol should be for them to step out of the room to do so. Cultivating a culture of mutual respect is crucial, with an emphasis on storing smartphones out of sight and in silent mode during meetings. All employees should be expected to refrain from texting, scrolling through social media, or playing games while attending meetings. Leaders should be educated on the significant role that non-verbal cues, such as leader phubbing, play in impression management. Being fully present with colleagues communicates a clear message that their contributions are valued and that they are regarded as important members of the team. The use of smartphones during conversations reduces eye contact, which diminishes the likelihood of establishing an emotional connection and impairs the ability to positively influence the conversation partner. It is essential to implement programmes that help leaders develop these critical soft skills and understand how smartphones can undermine their effective use. Role-playing exercises serve as an effective tool for teaching supervisors about the impact of leader phubbing on employees. Many leaders may not fully appreciate the importance of providing undivided attention when interacting with their employees. Through well-designed role-playing scenarios, managers can be sensitized to the potentially negative effects of leader phubbing on employee-supervisor trust, job satisfaction, and performance. These exercises can enhance leaders' understanding of how their behaviour can shape workplace dynamics and the quality of their relationships with employees.

Regarding enacted phubbing, we recommend that managers consider implementing regulatory and supportive policies to help employees manage both personal and work-related communication during work hours. Such policies could assist employees in mitigating the experience of FoMO and addressing problematic smartphone use or phubbing behaviours. Additionally, we encourage managers to introduce communication workshops aimed at raising employees' awareness of technology communication etiquette in both personal and professional contexts. These workshops would provide an opportunity for employees to align on a shared understanding of behaviours, such as phubbing, that may be perceived as uncivil, damage interpersonal relationships, and potentially lead to negative consequences for organizational productivity. Furthermore, managers should consider setting specific daily time limits for employees' use of social media platforms, such as Facebook, in order to alleviate the potential impact of FoMO and the problematic technology use, while also fostering creativity and communication among employees. Once this time

limit is reached, organizations could explore the option of blocking access to social media platforms via the company Wi-Fi and IP address. It is plausible that such regulatory measures may not only mitigate FoMO, but also discourage employees from using social media through mobile Internet connections, thereby promoting more focused and productive work behaviours. Furthermore, this practice could encourage employees to ensure that their smartphone usage remains within acceptable limits during work hours, preventing it from escalating into cyberloafing. These measures would allow employees to utilize work-related digital resources in ways that enhance their creativity while also reducing the risk of burnout. Additionally, we encourage managers to promote a culture of peer support, where employees actively support colleagues who are over-engage in phubbing. Such peer support could help employees better regulate their own experiences with the negative aspects of digitization, and mitigate its detrimental effects on both their work behaviours and interpersonal relationships. We believe that these initiatives have the potential to raise societal awareness about the negative consequences of inappropriate use of technological devices and online platforms, fostering supportive mechanisms among working professionals to counteract these harmful effects. Moreover, these supportive practices may extend beyond the workplace, potentially influencing broader societal norms, particularly as employees become more aware of problematic social media and smartphone use within their own families. Such diffusion of awareness and support mechanisms could contribute to more responsible digital behaviours across both professional and personal spheres of individuals' lives.

5. Conclusions

This is the first systematic review and meta-analysis which provides a comprehensive analysis of the existing literature on workplace phubbing behaviours and its association with organizational behaviours, as well as to psychological outcomes. The findings indicate that phubbing within the workplace context can be categorized into perceived phubbing and enacted phubbing, and it can have detrimental effects on employees' organizational behaviours and psychological outcomes, potentially undermining key organizational aspects, such as leadership dynamics, interpersonal relationship, and job performance. Several practical implications of these findings in relation to both perceived and enacted phubbing are discussed in relation to the results of this review. Overall, these results underscore the need for

additional high-quality research to explore workplace phubbing behaviours and their associated factors.

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