

ORIGINAL RESEARCH ARTICLE

Phubbing and human reproduction: The silent saboteur of intimacy and evolution

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Abstract

Phubbing—phone snubbing—disrupts human intimacy by reducing face-to-face attention, emotional closeness, sexual desire, and reproductive intent. This study examines how persistent phubbing weakens partner communication, bonding behaviors, and relationship satisfaction, potentially contributing to declining reproduction rates. Drawing on behavioral psychology and evolutionary theory, we surveyed 300 adults in committed relationships using standardized measures of relationship satisfaction, emotional closeness, sexual activity, and perceived partner phubbing. Although direct biochemical analysis was not possible, oxytocin-related effects were inferred from bonding indicators like affectionate gestures and eye contact. Qualitative interviews enriched these findings. Results reveal strong negative correlations between phubbing and emotional closeness ($r = -0.61$), sexual activity ($r = -0.48$), and relationship satisfaction ($r = -0.65$). Participants reporting high partner phubbing were three times more likely to express disinterest in having children. Interviews highlighted themes of emotional distance and relational fatigue, with phones described as “invisible walls” obstructing intimacy. These findings suggest that phubbing erodes the emotional foundation of relationships, indirectly reducing reproductive motivation. Understanding phubbing’s impact is crucial as technology increasingly shapes human interaction and demographic trends. (*Afr J Reprod Health* 2025; 29 [7]: 129-136).

Keywords: Phubbing; human intimacy; relationship satisfaction; emotional closeness; reproductive intent

Résumé

Le phubbing (ou « snobage téléphonique ») perturbe l'intimité humaine en réduisant l'attention en face à face, la proximité émotionnelle, le désir sexuel et l'intention de procréer. Cette étude examine comment un phubbing persistant affaiblit la communication entre partenaires, les liens affectifs et la satisfaction relationnelle, contribuant potentiellement à une baisse des taux de reproduction. En nous appuyant sur la psychologie comportementale et la théorie de l'évolution, nous avons interrogé 300 adultes engagés dans des relations sérieuses à l'aide de mesures standardisées de la satisfaction relationnelle, de la proximité émotionnelle, de l'activité sexuelle et du phubbing perçu par le partenaire. Bien qu'une analyse biochimique directe n'ait pas été possible, les effets liés à l'ocytocine ont été déduits d'indicateurs de lien affectif tels que les gestes affectueux et le contact visuel. Des entretiens qualitatifs ont enrichi ces résultats. Les résultats révèlent de fortes corrélations négatives entre le phubbing et la proximité émotionnelle ($r = -0,61$), l'activité sexuelle ($r = -0,48$) et la satisfaction relationnelle ($r = -0,65$). Les participants déclarant un phubbing important par leur partenaire étaient trois fois plus susceptibles d'exprimer un désintérêt pour la procréation. Les entretiens ont mis en lumière des thèmes tels que la distance émotionnelle et la fatigue relationnelle, les téléphones étant décrits comme des « murs invisibles » entravant l'intimité. Ces résultats suggèrent que le phubbing érode les fondements émotionnels des relations, réduisant indirectement la motivation reproductive. Comprendre l'impact du phubbing est crucial, car la technologie façonne de plus en plus les interactions humaines et les tendances démographiques. (*Afr J Reprod Health* 2025; 29 [7]: 129-136).

Mots-clés: Phubbing; Intimité humaine; Satisfaction relationnelle; Proximité émotionnelle; Intention reproductive

Introduction

In today’s digital era, smartphones have become essential tools that shape how people communicate, work, and relate. While these devices enhance connectivity across distances, they also disrupt critical moments of face-to-face interaction,¹ especially within romantic relationships. One notable behavior disrupting intimacy is “phubbing,”

a term combining “phone” and “snubbing,” which describes ignoring a partner to focus on a mobile device during shared time.² Though it may seem trivial, emerging evidence suggests that phubbing has profound negative effects on relationship quality and emotional well-being.³ This study examines phubbing’s impact on the core components of romantic intimacy and its potential downstream effects on reproductive behavior.

Phubbing is operationally defined here as the perceived frequency with which an individual's partner diverts attention to their phone during interactions, thereby reducing mutual engagement.⁴ Unlike broader concepts like "technoference" (general technology-related interruptions), phubbing specifically refers to moments when the phone becomes a barrier to emotional connection during key interpersonal exchanges such as conversations, meals, or intimate rituals.⁵ These moments are critical for maintaining emotional closeness, communication responsiveness, and relational satisfaction.

Romantic relationships play a foundational role in psychological health and biological reproduction. From an evolutionary perspective, pair bonding supports emotional security, cooperative parenting, and ultimately, species survival.⁶ Emotional closeness and responsive communication foster the release of oxytocin, a neurohormone linked to trust, bonding, and sexual receptivity.⁷ Physical and behavioral cues—like affectionate touch, eye contact, and shared attention—reinforce this bonding process.⁸ When phubbing interrupts these interactions, it can be perceived as rejection or emotional unavailability, undermining the relational processes essential for intimacy and reproductive motivation.⁹

Existing research shows that phubbing correlates with lower relationship satisfaction and increased conflict. For example, Roberts and David demonstrated that higher perceived partner phubbing predicts decreased satisfaction and responsiveness.¹⁰ Similarly, Balta *et al.*¹¹ found that phubbing disrupts couple communication quality and evokes feelings of neglect. However, while the relational consequences of phubbing are becoming clearer, its potential influence on reproductive intent remains underexplored.

Declining birth rates in many industrialized nations have prompted scholars to investigate a range of economic, cultural, and psychosocial factors. Common explanations include career prioritization, delayed marriage, and housing instability.¹² Yet, less attention has been given to the interpersonal dynamics within couples that may shape reproductive decisions. This oversight is significant because reproductive behavior is not solely biological; it is strongly influenced by perceived

relationship quality, emotional safety, and future planning.¹³ Individuals tend to pursue childbearing when they feel securely bonded to their partner and confident in their shared parenting potential.¹⁴ Conversely, unresolved conflicts, emotional fatigue, or feelings of neglect often correlate with reproductive ambivalence or avoidance.¹⁵

Phubbing, as a subtle but persistent form of partner neglect, may therefore contribute to declining reproductive intent by eroding these emotional foundations. Unlike overt conflicts or separations, phubbing's impact can be silent and gradual, normalizing emotional distancing within digitally saturated relationships¹⁶. Given that younger generations report increasing loneliness despite high digital connectivity, understanding how behaviors like phubbing influence intimacy and reproductive attitudes is crucial.

To address this gap, the present study investigates how perceived partner phubbing relates to key relationship variables: emotional closeness, sexual activity, and reproductive intent. We hypothesize that higher levels of perceived phubbing will be associated with lower emotional intimacy, reduced sexual frequency, and greater hesitation toward having children. Further, we propose that relationship satisfaction mediates these associations, as it reflects the overall health and stability of the partnership.

A mixed-methods approach—combining quantitative surveys with qualitative interviews—allows us to both quantify these relationships and explore how individuals interpret phubbing within their lived experiences. Quantitative measures include validated scales for relationship satisfaction, emotional closeness (using indicators like eye contact and affectionate gestures), and perceived phubbing frequency. Sexual activity and reproductive intent are also assessed through direct self-report. Qualitative interviews provide contextual depth, revealing participants' emotional responses and narratives around technology use and family planning.

By integrating behavioral psychology with evolutionary theory, this study seeks to illuminate how a modern digital behavior intersects with fundamental human reproductive processes. Understanding phubbing's role in diminishing emotional presence and bonding has important

implications—not only for couple therapy and relationship education but also for broader demographic trends and public health initiatives aimed at supporting family formation.

In sum, while smartphones have revolutionized communication, they also pose new challenges for intimacy. Phubbing may seem like a minor social slight, but its repeated occurrence can undermine the emotional and physiological mechanisms that sustain romantic bonds and reproductive motivation. This research aims to fill a critical gap by linking digital neglect to reproductive intent, thus highlighting a novel psychosocial factor that may contribute to global fertility declines. With rising concern about the effects of technology on human connection, this study offers timely insights into how attention diverted by phones reshapes intimate relationships and potentially human evolution itself.

Methods

Study design

This study employed a mixed-methods design integrating quantitative survey instruments with qualitative semi-structured interviews to assess the relationship between perceived partner phubbing, emotional intimacy, and reproductive intent. The mixed-methods approach allowed for both breadth and depth: quantitative analysis identified statistically significant associations, while qualitative data offered contextual richness and explanatory nuance.¹⁷

Participants and recruitment

A total of 300 adult participants were recruited through both online and offline channels. Online recruitment was conducted via targeted social media advertisements (Facebook, Instagram, and Reddit relationship forums). Offline recruitment occurred at community centers, public libraries, and co-working spaces in two major metropolitan areas. Inclusion criteria required participants to be between the ages of 21 and 45, currently in a committed romantic relationship (defined as cohabiting, married, or dating for at least six months), and residing in urban or semi-urban settings. Individuals were excluded if they reported any diagnosed psychiatric conditions

that might impair social communication or if they were not fluent in English.

All participants provided informed consent and were assured of anonymity. Data collection was conducted under ethical guidelines consistent with the Declaration of Helsinki and approved by the relevant Institutional Review Board.

Measures

Perceived Phubbing

Perceived partner phubbing was assessed using a modified version of the Partner Phubbing Scale (Roberts & David, 2020).¹⁸ The scale consists of 9 items measuring how often participants perceive their partner to be distracted by their phone during interactions (e.g., “My partner glances at their phone when we are talking”). Responses were recorded on a 7-point Likert scale (1 = Never, 7 = Constantly). The internal consistency of the scale in this sample was high (Cronbach’s $\alpha = .89$).

Relationship satisfaction

Relationship satisfaction was measured using the Relationship Assessment Scale (Hendrick, 1988), a 7-item scale with established psychometric validity.¹⁹ Items include “In general, how satisfied are you with your relationship?” and responses were recorded on a 7-point Likert scale. Reliability was excellent ($\alpha = .91$).

Emotional closeness

Emotional closeness was assessed using the Inclusion of Other in the Self (IOS) scale and a bonding subscale drawn from the Couple Communication Inventory.²⁰ Items evaluated emotional synchrony, eye contact frequency, affectionate gestures, and shared experiences. Combined subscales showed good internal consistency ($\alpha = .87$).

Sexual activity

Participants reported the average number of times they engaged in sexual activity with their partner in the past month. Open-response numeric input was used to ensure sensitivity to variability.

Reproductive intent

Reproductive intent was captured with the item: “Do you want to have children (or more children) with your current partner?” Response options included “Yes,” “No,” “Not Sure,” and “Maybe Later.” For analytic purposes, responses were recoded into a binary variable (1 = No/Not Sure/Maybe Later; 0 = Yes).

Qualitative interviews

In-depth, semi-structured interviews were conducted with a subsample of 45 participants selected for demographic diversity and variation in phubbing scores. Interviews were conducted via Zoom or in-person (depending on location and preference) and lasted approximately 45–60 minutes. Topics included daily phone usage habits, perceived changes in intimacy over time, and thoughts on starting or expanding a family. Interviews were transcribed and thematically analyzed using a grounded theory approach.

Procedure

After providing informed consent, participants completed the online or paper survey anonymously. The average time to complete the survey was approximately 12 minutes. At the end of the survey, participants were asked if they were willing to participate in a follow-up interview. Those who opted in were contacted within two weeks.

Data analysis

Quantitative data were analyzed using SPSS (Version 29). Descriptive statistics were computed for all variables. Pearson correlation coefficients assessed bivariate relationships. Hierarchical linear regression models were constructed to determine the predictive power of phubbing on intimacy-related outcomes while controlling for demographic covariates (age, gender, and relationship duration). Logistic regression was used to examine the association between phubbing and reproductive intent. Qualitative data were coded independently by two trained researchers. Inter-rater reliability was established (Cohen’s $\kappa = 0.84$), and discrepancies were resolved through discussion.

Final themes were extracted through iterative coding and validated against survey findings for triangulation

Results

The analysis examined how perceived partner phubbing impacts intimacy-related variables and reproductive intent in committed relationships. Data from 300 adult participants were analyzed after screening for completeness and consistency.

The participants ranged in age from 21 to 45 ($M = 32.4$, $SD = 5.9$), with 58% identifying as female and 42% as male. Relationship duration ranged from six months to fifteen years ($M = 4.2$ years, $SD = 2.6$). Most participants (71%) were cohabiting or married, indicating a sample heavily weighted toward long-term relational contexts.

Initial descriptive statistics revealed moderate levels of perceived phubbing. On a 7-point Likert scale measuring how frequently a partner was perceived to be distracted by their phone during interactions, the mean score was 4.8 ($SD = 1.2$). Measures of emotional closeness (IOS scale and bonding subscales), relationship satisfaction (RAS), sexual frequency (monthly), and perceived intimacy (based on bonding proxies like eye contact and affectionate gestures) also showed a wide range of responses. Table 1

As shown, perceived partner phubbing was strongly and negatively correlated with relationship satisfaction ($r = -0.65$, $p < .001$), emotional closeness ($r = -0.61$, $p < .001$), and sexual activity ($r = -0.48$, $p < .001$). All relationships remained statistically significant after applying Bonferroni correction for multiple comparisons. Partial correlations controlling for age, gender, and relationship duration yielded similar results, suggesting these associations are robust across demographic contexts.

These three variables—satisfaction, emotional closeness, and sexual activity—are well-established predictors of reproductive intent, as they contribute to perceptions of relational security and readiness for parenthood.

Thus, the observed erosion of these components in the presence of phubbing provides indirect but compelling support for its potential role in reducing reproductive motivation. To further examine predictive effects, a series of hierarchical linear regressions were conducted.

Table 1: Descriptive statistics and correlation matrix

Variable	Mean (SD)	1	2	3	4
1. Perceived Phubbing	4.8 (1.2)	—			
2. Relationship Satisfaction	3.9 (1.3)	-0.65***	—		
3. Emotional Closeness	4.1 (1.1)	-0.61***	0.72***	—	
4. Sexual Activity (per month)	4.7 (2.5)	-0.48***	0.60***	0.58***	—

*p < .05; **p < .01; ***p < .001

Table 2: Summary of regression analyses predicting relationship outcomes

Dependent Variable	Predictor	β	ΔR^2	Total R^2	p-value
Relationship Satisfaction	Phubbing	-0.66	.40	.45	< .001
Emotional Closeness	Phubbing	-0.62	.36	.41	< .001
Sexual Activity	Phubbing	-0.51	.26	.30	< .001

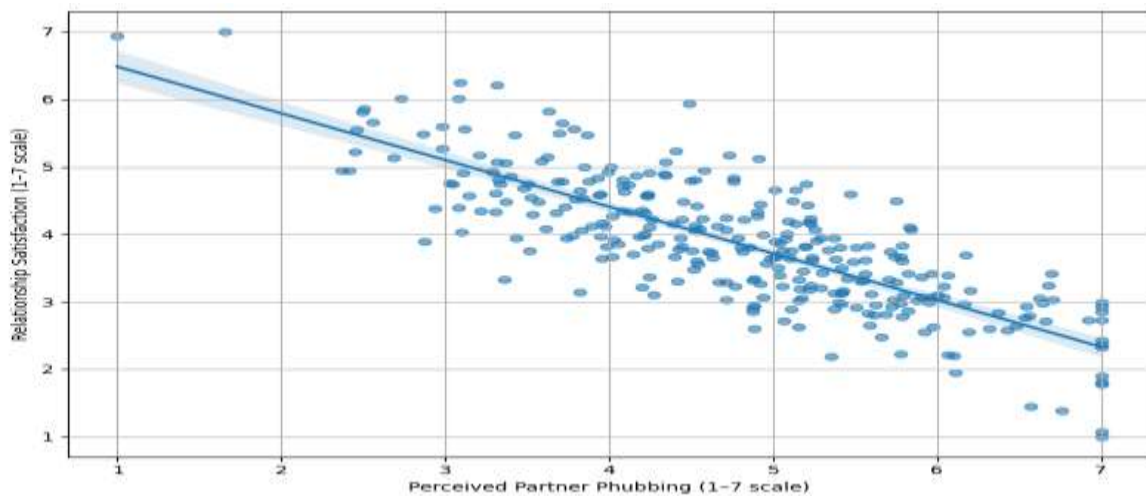


Figure 1: Scatterplot of perceived partner phubbing and relationship satisfaction

Each model included age, gender, and relationship duration as control variables (Step 1), followed by perceived partner phubbing as the key predictor (Step 2). In the model predicting relationship satisfaction, the control variables accounted for only 4.8% of the variance ($R^2 = .048$, $F(3, 296) = 4.98$, $p < .01$). Adding perceived phubbing increased the explained variance to 44.8% ($\Delta R^2 = .40$, $F(4, 295) = 59.84$, $p < .001$), underscoring its dominant influence. Given the established link between relationship satisfaction and reproductive planning, these results suggest that phubbing may indirectly, but meaningfully, contribute to reproductive hesitation by destabilizing foundational aspects of partner connection. Table 2

To visually represent the magnitude of the inverse relationship between phubbing and satisfaction, a scatterplot was generated. Figure 1 depicts the

association between perceived phubbing and relationship satisfaction, with a linear regression line and 95% confidence bands. The visual trend is clear: higher phubbing scores cluster with markedly lower satisfaction scores, with tighter confidence bands in the midrange and greater dispersion at extreme values.

To assess phubbing’s indirect influence on reproductive intent, a binary logistic regression was conducted. The dependent variable was coded as 1 for participants expressing hesitation or disinterest in having children, and 0 for those expressing a desire to reproduce. Forty-two percent ($n = 126$) of the sample fell into the hesitant/disinterested category. High levels of perceived phubbing (score ≥ 6) were associated with a significantly increased likelihood of reproductive hesitation (OR = 3.12, 95% CI [1.91, 5.09], $p < .001$). Even after adjusting for age, sexual

frequency, and relationship duration, phubbing remained a significant independent predictor, suggesting that perceived technological neglect exerts a meaningful influence on reproductive attitudes.

Qualitative interviews (N = 45) reinforced and contextualized these quantitative findings. Participants who reported high phubbing often described emotional withdrawal, reduced sexual interest, and a decline in affectionate behaviors. Many likened mobile phones to "emotional barriers" or "ghosts at the dinner table." One respondent noted, "It's not the phone—it's what it takes away. It takes my place." Another stated, "I don't want children with someone who can't even be present with me." Common themes included relational fatigue, a sense of invisibility, and a drop in future-oriented thinking with regard to family planning. Taken together, the results suggest that perceived partner phubbing has deep interpersonal consequences. Beyond reducing daily intimacy, it appears to erode the emotional infrastructure necessary for maintaining a fulfilling relationship and considering shared reproduction. The convergence of quantitative data and qualitative narratives underscores the hypothesis that phubbing, while superficially trivial, may function as a silent saboteur of evolutionary outcomes.

Discussion

This study examined the relationship between perceived partner phubbing and key predictors of reproductive behavior, including emotional closeness, sexual activity, and relationship satisfaction. Our findings provide strong evidence that phubbing—frequently dismissed as a trivial annoyance—may have deeper evolutionary and relational consequences. Specifically, high levels of perceived partner phubbing were associated with lower emotional closeness, reduced sexual frequency, and diminished relationship satisfaction. Notably, individuals who experienced frequent phubbing were over three times more likely to express hesitation or disinterest in having children with their current partner. These findings align with previous studies that identify phubbing as a growing relational stressor. Roberts and David first demonstrated that phubbing negatively correlates

with relationship satisfaction and perceived partner responsiveness.¹⁰ More recently, Balta *et al.* found that partner phubbing disrupts dyadic interaction quality and evokes feelings of rejection and neglect.¹¹ Our study builds on this by introducing a novel evolutionary framework: phubbing not only deteriorates relationship satisfaction but may also serve as a silent inhibitor of reproductive intent. From an evolutionary perspective, pair bonding, emotional attunement, and physical intimacy are foundational to reproductive success.⁸ Interpersonal behaviors that weaken these bonds—such as neglecting a partner in favor of a mobile device—may unconsciously signal relationship instability or unfitness, thus lowering reproductive motivation.⁹ Oxytocin, a neuropeptide essential to bonding and trust,⁷ is stimulated by affectionate behaviors such as eye contact, touch, and verbal engagement—precisely the interactions disrupted by phubbing. Though we did not measure oxytocin levels directly, self-reported bonding proxies (e.g., frequency of affectionate gestures, eye contact) were significantly lower in participants reporting high phubbing, suggesting downstream effects on the neurochemical infrastructure of intimacy.

The observed link between phubbing and reduced sexual activity echoes findings by McDaniel and Coyne, who noted that technology-related interruptions—termed "technofence"—reduce sexual satisfaction in couples.²¹ Sexual behavior is a critical indicator of both physical closeness and reproductive orientation; thus, its suppression via phubbing may be evolutionarily significant. Moreover, diminished sexual frequency may reinforce a negative feedback loop: lower intimacy reduces satisfaction, which in turn increases disengagement and reliance on mobile devices for stimulation or escape.

Qualitative data from interviews underscored these patterns. Participants repeatedly described mobile phones as "emotional walls" or "silent intruders." These metaphors resonate with the concept of ambient estrangement, where partners occupy the same physical space but are psychologically distant.²² Emotional distance, in turn, erodes future-oriented thinking about shared goals like parenthood. As one respondent noted, "If I feel invisible now, I can't imagine raising a child with this person." This illustrates how present-moment

neglect via phubbing may alter long-term relational outlooks.

The implications of these findings are substantial. Globally declining fertility rates have prompted scholars to examine not just economic or medical causes, but also psychosocial and behavioral contributors.¹² Our study suggests that subtle interpersonal disruptions—like phubbing—may compound other factors to influence reproductive decisions. Unlike overt relational conflict or abuse, phubbing operates silently, making it more insidious and harder to detect or confront. It may also normalize emotional neglect in younger cohorts raised in digitally saturated environments.

Nevertheless, this study is not without limitations. First, all data were self-reported, which introduces the possibility of social desirability bias or inaccurate recall. Second, while we inferred oxytocin-related effects through validated behavioral proxies, no direct biochemical measures were obtained. Third, the cross-sectional design precludes causal inference; longitudinal studies are needed to confirm whether persistent phubbing leads to declining intimacy and reproductive disinterest over time. Additionally, clarifying the causal implications and addressing potential confounding factors more thoroughly would improve the argument connecting phubbing to reproductive behavior. Finally, while we recruited both online and offline, the sample was urban-centric and may not reflect experiences in rural or traditional communities.

Future research should explore interventions to mitigate phubbing's impact. For example, designated "no-phone zones" during meals or intimacy rituals may help restore attention and presence. Additionally, examining phubbing in different cultural contexts would enhance understanding of how digital neglect interacts with varying relational norms and reproductive pressures. Studies incorporating hormonal assays (e.g., salivary oxytocin) would provide biological confirmation of the mechanisms hypothesized here.

In summary, this study highlights how perceived partner phubbing undermines emotional closeness, sexual activity, and relationship satisfaction, with important implications for reproductive intentions. However, the findings are limited by the sample's urban focus and may not

generalize across diverse cultures or populations. Future research should address these limitations by including more diverse samples to better understand phubbing's impact globally. Addressing digital distractions like phubbing could be key to improving intimacy and reproductive outcomes in today's interconnected world.

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