

Notification Dependence and Everyday Psychological Experiences Among Smartphone Users

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Abstract:

Smartphone notifications have increasingly shaped how users manage attention, social relationships, and daily routines. This study aims to explore notification dependence and everyday psychological experiences among smartphone users. Using a qualitative case study design, data were collected through in-depth interviews, direct observation of daily activities, and documentation of digital traces such as screen time records, notification logs, and app usage summaries. The findings reveal three dominant patterns. First, social expectations encouraged rapid responses, especially to work-related and close-relationship messages. Second, notifications repeatedly interrupted ongoing activities, causing fragmented attention and delayed task re-engagement. Third, documentation showed repeated checking as a habitual daily behavior reflected in frequent phone pickups and multiple short usage sessions. These findings suggest that notification dependence operates as an everyday psychological experience shaped by social pressure, attentional disruption, and habitual behavioral regulation. This study highlights the importance of digital self-regulation and structured notification management to support psychological well-being.

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INTRODUCTION

The rapid growth of smartphones has transformed how people communicate, work, study, and maintain social relationships in everyday life. Alongside these benefits, notifications have become important psychological cues that shape attention, emotional responses, and behavioral regulation among smartphone users (Vesco et al., 2021; Yang et al., 2021). In many daily situations, notifications are perceived as signals requiring immediate responses, creating feelings of urgency, pressure, and discomfort when ignored or delayed. These repeated interruptions may fragment attention, encourage compulsive checking habits, and affect interpersonal relationships, productivity, and psychological well-being (Becker, 2022; Pittman et al., 2020). Although



previous studies have discussed digital behavior patterns, limited research has explored the everyday psychological experiences associated with notification dependence. Therefore, this study examines notification dependence among smartphone users to better understand its psychological implications in contemporary daily life.

In everyday life, many smartphone users struggle to control their responses to continuously incoming notifications. Real-world observations show that users often interrupt important activities, such as working, studying, or face-to-face interactions, simply to open notifications that are not actually urgent (Kanter et al., 2024; Lo, 2021). Some users even feel anxious when notifications do not appear for a certain period, which leads to repeated screen-checking behaviors. This condition creates practical problems, including reduced concentration, increased mental fatigue, and disruptions in daily routines. In addition, notifications can generate social pressure because users feel obligated to reply quickly in order to avoid being perceived as ignoring others (dos et al., 2025; Kartika et al., 2020). This phenomenon reflects a shift in control: rather than users managing their devices, devices increasingly manage users' behavior patterns. Such dependence has become a common yet underexplored experience in contemporary digital life.

Several previous studies have examined the relationship between smartphones, notifications, and user behavior. Lan et al. (2024) and Casselden et al. (2020) explained that frequent exposure to notifications can develop hard-to-break digital habits because it triggers psychological reward patterns. Hadi et al. (2024) and Mirete et al. (2023) emphasized that notifications function as a major distraction trigger in academic and workplace settings, especially among highly active user groups. Additionally, Ahmed et al. (2023), Osborn et al. (2020), Gunn et al. (2022) found that notifications may increase social anxiety due to pressure to respond quickly, while Ogilvie et al. (2022) and Blake et al. (2020) showed that notifications are linked to reduced sleep quality and increased stress levels. However, most prior studies have primarily focused on measurable outcomes, such as usage duration, and have not sufficiently explored users' subjective experiences. The main research gap lies in the limited understanding of how notification dependence is experienced and negotiated within everyday routines. Addressing this gap is crucial for advancing digital behavior research beyond purely quantitative indicators.

The novelty of this study lies in its focus on notification dependence as a lived experience that shapes smartphone users' everyday routines. Rather than viewing notifications only as distractions, this study conceptualizes them as a psychosocial phenomenon influencing how individuals manage attention, time, emotions, and social relationships (Chen et al., 2021; Kneale et al., 2021). This perspective is important because smartphone users do not experience notifications simply as information, but as social signals carrying specific meanings, such as demands for responsiveness, validation, or fear of exclusion. In the fast-paced context of modern life, notifications also function as "social reminders" that reinforce automatic behavioral patterns (Anderson et al., 2022; Bălan et al., 2020). By exploring notification dependence in depth, this research expands the state of the art in digital communication studies, technology psychology, and user behavior research, particularly by highlighting subjective experiences that are often overlooked in existing literature.

Based on social realities and gaps in previous research, this study addresses the main issue of how smartphone users experience notification dependence in their daily lives. Notification dependence is not only related to usage intensity, but also involves emotional, social, and habitual dimensions that become embedded in everyday routines. Therefore, this study formulates the following research questions: how do smartphone users experience responding to notifications, how do notifications shape repeated checking habits, and how do users interpret the pressure to remain constantly connected. In addition, this study examines how such dependence affects productivity, interpersonal relationship quality, and psychological well-being. Through these questions, the research aims to provide a comprehensive understanding of notification dependence as a real phenomenon experienced directly by smartphone users. This problem formulation supports a deeper investigation into the mechanisms and meanings behind everyday digital behavior.

This study argues that notification dependence is not merely a technological issue, but a form of psychosocial interaction that makes users feel constantly alert and required to remain responsive. A preliminary answer to the research problem suggests that notifications create a repetitive attention cycle: users receive a signal, respond, experience satisfaction or anxiety, and then repeat the behavior. The originality of this study lies in its effort to describe notification dependence through users' everyday experiences, including the emotions involved, self-control strategies, and conflicts between productivity demands and social expectations. The contribution of this research is significant because it enriches the literature on digital behavior by offering a subjective perspective, while also providing practical implications for digital literacy education, healthier notification feature design, and adaptive smartphone use management strategies. Ultimately, this study supports a deeper understanding of how modern individuals negotiate attention and connectivity in daily life.

RESEARCH METHOD

This study employs a qualitative design with a case study approach, as its focus is to gain an in-depth understanding of smartphone users' subjective experiences regarding notification dependence in everyday life. A case study was chosen because the phenomenon of notification dependence cannot be explained solely through numbers or usage frequency; instead, it must be understood through daily-life context, personal meaning, and response patterns shaped by users' real experiences (Kekeya, 2023). Through this design, the study is able to explore how notifications shape routines, trigger emotional reactions, and influence users' behavioral decisions in social situations as well as productive activities.

The research setting was purposively determined within a social environment that represents intensive and routine smartphone use, namely a community of active smartphone users located in an urban area with high connectivity. This setting was selected based on the consideration that users in such an environment tend to have busy daily activities, high levels of digital interaction, and intensive use of communication and social media applications, making the phenomenon of notification dependence more likely to be found in real-life conditions. In addition, this setting

enables the researcher to recruit a variety of informants from diverse backgrounds, enriching perspectives and deepening understanding of experiences of notification dependence in everyday contexts.

Informants in this study were selected using purposive sampling with the following main criteria: (1) active smartphone users who use their devices for at least 5 hours per day, (2) receive notifications from several major applications (e.g., WhatsApp, Instagram, email, and work-related applications), (3) report frequently feeling compelled to immediately open notifications, and (4) are willing to share their personal experiences in depth. The selection also considered variations in educational and occupational backgrounds in order to obtain a broader picture of how notification dependence is experienced by individuals in different life situations. A total of 10 informants were included, as this number was considered sufficient to achieve data depth and identify recurring patterns of experience (saturation).

Table 1. Table of Research Informants

Educational Background	Main Characteristics	Reason for Selection
Senior High School	Active social media user	Represents users who intensively receive social notifications
Diploma (D3)	Administrative staff	Frequently receives work-related and internal communication notifications
Bachelor's (S1)	University student	High use of chat and academic applications
Bachelor's (S1)	Private-sector employee	Has job demands requiring rapid responses
Master's (S2)	Government/institution staff	Experiences pressure from formal notifications and work group chats
Bachelor's (S1)	Freelancer	Notification dependence related to clients and projects
Bachelor's (S1)	Content creator	High exposure to engagement-driven social notifications
Senior High School	General user	Represents experiences of non-professional users
Bachelor's (S1)	Teacher	Notifications affect focus and time management
Master's (S2)	Professional	Provides perspective of users with high workload demands
Varied	Varied	To obtain diverse experiences and recurring patterns

Data collection was conducted through semi-structured in-depth interviews, light observation of smartphone usage habits, and supporting documentation (Cole, 2024). Interviews were carried out to explore informants' personal experiences, including how they respond to notifications, the feelings that arise when notifications appear, and the impact on daily activities. Observation was conducted in a limited manner to identify real behavioral patterns such as the frequency of screen checking, spontaneous reactions when notifications appear, and social situations disrupted by notifications. Documentation included brief daily logs from informants, screenshots of notification settings, and information about the types of applications that most frequently generate notifications, while maintaining privacy and research ethics.

Data analysis followed an interactive analysis model consisting of data condensation (data reduction), data display, and verification and conclusion drawing (Lee et al., 2024). In the data condensation stage, the researcher selected, focused, and simplified interview results and field notes by grouping the data into initial themes such

as the urge to open notifications, anxiety when being offline, activity distraction, and social pressure to respond quickly. Next, in the data display stage, findings were presented in the form of thematic matrices, structured narratives, and key quotations from informants to clarify emerging patterns of experience. The final stage was data verification, in which the researcher reviewed the consistency of findings, compared data across informants, and ensured that the conclusions were strongly supported by field data.

To ensure data trustworthiness, this study applied several validation techniques, namely source triangulation, method triangulation, member checking, and an audit trail (Fadli, 2021; Soesana et al., 2023). Source triangulation was conducted by comparing responses across informants with different backgrounds, while method triangulation was conducted by comparing interview, observation, and documentation data. Member checking was performed by asking informants to review interview summaries to ensure the researcher did not misinterpret their experiences. In addition, an audit trail was carried out by documenting the research process in detail, including informant selection, interview guidelines, the analysis process, and thematic grouping decisions, so that the study can be academically accountable.

RESULT AND DISCUSSION

Result

This research findings section presents three key sub-findings that illustrate how notification dependency shapes smartphone users' daily lives. The first finding highlights the social pressures that drive rapid response. The second finding demonstrates how notifications trigger distraction and break focus through observed behaviors. The third finding explains the habit of repeatedly checking, as evidenced by digital documentation.

Social pressure amplifies users' quick responses

In this study, social pressure is operationally defined as the external drive felt by smartphone users to respond immediately to notifications, especially those coming from direct messages, group chats, or work-related communication, due to social expectations of constant availability and responsiveness. In the field, this pressure appears as fear of being perceived as ignoring others, worry about being judged as impolite, and anxiety when replying late. Social pressure is also shaped by unwritten norms of digital communication, such as the belief that messages marked as "seen" should be replied to quickly, or that fast responses represent care and respect. As a result, users often prioritize responding to notifications over the primary activity they are engaged in. This sub-finding indicates that notifications are not purely technical alerts, but social signals that consistently influence users' everyday behavioral decisions.

Interview data show that several participants experienced strong social pressure when notifications came from specific people or were tied to important contexts. One participant stated, "If a message from my boss or a work group comes in, I feel like I have to reply fast, even if I'm eating or resting." Another participant added, "Sometimes

I haven't even read it carefully, but I still open it first so they won't think I'm avoiding them." The researcher interprets these statements as evidence that rapid responses are not driven solely by informational needs, but by social self-protection to avoid being labeled irresponsible. In this context, notifications function as social cues that trigger immediate prioritization and alertness. Participants' responses were often shaped more by fear of negative judgment than by the actual urgency of the message content.

Social pressure was also evident in friendships and personal relationships, especially when participants believed slow replies could lead to conflict or misunderstanding. One participant explained, "If I reply late, people might say I'm arrogant or don't care, so I try to respond quickly." Another participant said, "Sometimes I'm exhausted, but I still reply first because I'm afraid they'll feel hurt." The researcher interprets these accounts as showing that notifications generate emotional demands, because users feel responsible for maintaining social relationships through response speed. This situation often pushes users to prioritize incoming messages even when they are engaged in important tasks. The pattern suggests that notification dependence is not merely a technical habit, but is deeply rooted in the need for social acceptance and impression management. Therefore, rapid responding becomes a strategy to prevent social tension and protect relational stability.

Observation results indicate that participants tended to respond rapidly when notifications arrived during social situations, such as talking with others or participating in group activities. The researcher observed several participants immediately lowering their gaze to the screen, opening the notification, and typing a short reply even though the main activity was not finished. In some cases, participants appeared restless when notifications arrived repeatedly, frequently checking the screen even without fully opening it. The researcher interprets this behavior as an adaptation to digital social norms, where delayed responses are perceived as social risks. Restating the finding, users respond quickly not because every message is important, but because social pressure is embedded in notifications. The dominant pattern shows that instant responses are strongest for work-related messages, close relationships, and situations where users fear being judged negatively or misunderstood.

Notifications trigger distraction and break focus

In this study, distraction and fragmented focus are operationally defined as observable interruptions in ongoing activities caused by incoming smartphone notifications, resulting in shifts of attention away from the primary task. In the field, this sub-finding is identified through visible behaviors such as pausing work or study, stopping conversations, unlocking the phone immediately after a notification sound or vibration, and repeatedly glancing at the screen during task engagement. Fragmented focus is also reflected in shortened attention spans, incomplete task sequences, and frequent switching between the phone and the original activity. This definition emphasizes that distraction is not only a cognitive condition but also a behavioral pattern that can be directly observed in everyday routines. The sub-finding highlights how notifications act as external triggers that repeatedly break users' concentration, creating a cycle of interruption that shapes how individuals manage attention and productivity in daily life.

Table 2. Observation of notifications triggers distraction and breaks focus

Observation	Indicator
Participants stopped writing or typing when notifications appeared	Immediate task interruption
Participants unlocked the phone within seconds of receiving notifications	Rapid attention shift
Participants checked the screen repeatedly even without opening apps	Monitoring behavior
Participants switched between tasks and phone multiple times	Fragmented task engagement
Participants delayed returning to the main task after checking notifications	Prolonged distraction
Participants continued using the phone after the notification was addressed	Escalation into extended use
Participants checked notifications during face-to-face interactions	Social attention disruption
Participants showed restlessness when notifications appeared repeatedly	Reduced self-regulation

The observation data indicate that notifications consistently functioned as interruption triggers, disrupting participants' focus regardless of the urgency of their activities. Participants often paused tasks instantly, showing that the notification itself had enough power to redirect attention. Restating the finding, distraction occurred not only when participants opened the notification, but also when they merely noticed its presence, such as glancing at the screen or unlocking the phone. This suggests that notifications created a state of attentional vulnerability, where participants remained partially oriented toward the device even while attempting to continue the main activity. The researcher interprets these behaviors as evidence that notification exposure leads to fragmented focus through repeated switching and delayed re-engagement with tasks. In several situations, participants did not return to the original activity immediately after checking notifications, indicating that the interruption often expanded into longer digital engagement and further weakened concentration.

A clear pattern emerged across observations: notifications produced the strongest distraction when participants were engaged in cognitively demanding tasks such as studying, reading, writing, or completing work-related assignments. Another pattern was that distraction often escalated in stages, beginning with a quick glance, followed by unlocking the phone, and ending in extended scrolling or app switching. Participants also showed repeated micro-interruptions, where even a short notification led to multiple follow-up checks within a short period. In social contexts, notifications frequently disrupted shared attention, as participants shifted their gaze to the screen during conversations. Overall, the data show that distraction was not a single event but a repetitive cycle, where notifications repeatedly broke focus and reduced the continuity of activities. This pattern suggests that notifications shape everyday attention management by normalizing constant interruption as part of routine behavior.

Repeated checking forms a daily compulsive habit

In this study, repeated checking is operationally defined as a daily behavioral pattern in which smartphone users open their devices or specific applications repeatedly in short intervals, even when there is no urgent need or meaningful new information. This behavior becomes compulsive when users feel an automatic urge to

check the screen, experience discomfort when they resist, and return to checking despite recognizing it disrupts their activities. In the field, this sub-finding is identified through documented digital traces such as screen time records, app usage frequency, notification logs, and repeated unlocking patterns. The operational definition emphasizes that compulsive checking is not only reported as a feeling, but can also be supported through visible documentation that shows consistent repetition over time. Therefore, the documentation data provide concrete evidence that repeated checking has shifted from intentional use into an automatic daily habit embedded in users' routines.

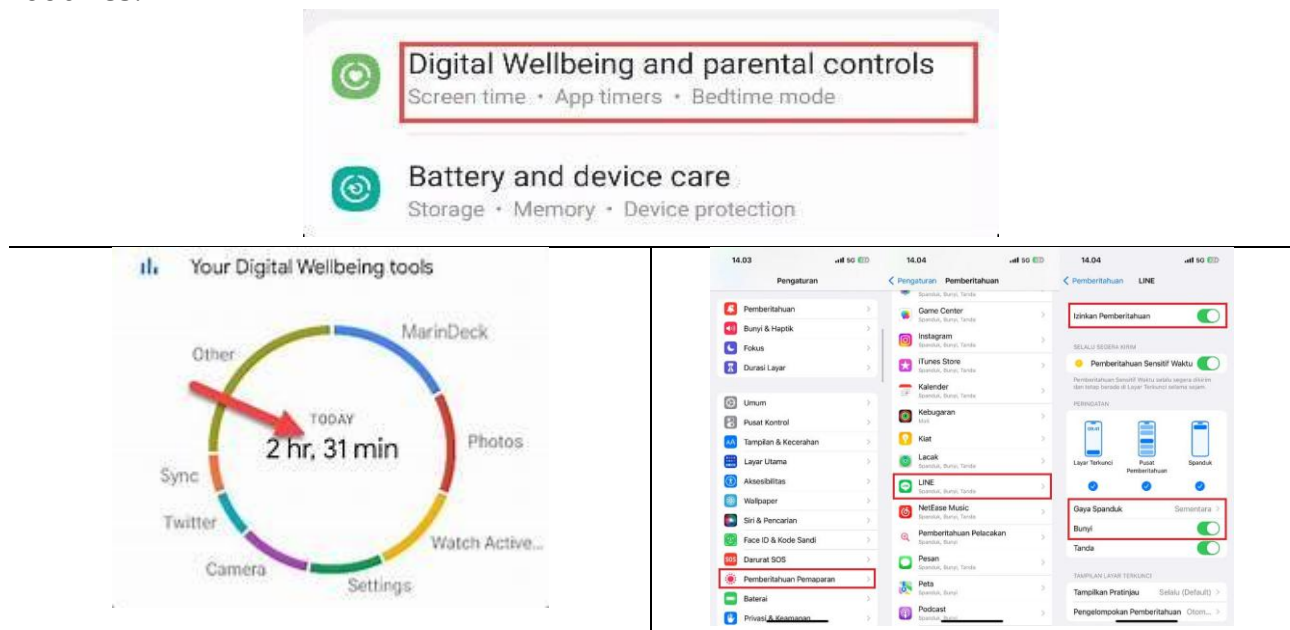


Figure 1. Visual documentation of smartphone usage activities (Screen Time, notifications, and application logs)

The documentation data show that repeated checking occurred throughout the day in small but frequent bursts. Screen time records displayed multiple short sessions rather than a single long session, indicating that participants interacted with their phones repeatedly within short intervals. App usage summaries also revealed that messaging and social media applications were opened most frequently, often for brief periods, suggesting a pattern of checking rather than purposeful engagement. Notification logs showed continuous incoming alerts from multiple applications, which created repeated triggers for unlocking the device. The researcher interprets these documented patterns as evidence that checking behavior was not driven by a single important message, but by a routine of constant monitoring. In several cases, documentation also indicated that participants' phones registered frequent pickups even during hours typically associated with work, study, or rest, reinforcing the presence of a daily compulsive checking habit.

The documented evidence suggests that repeated checking had become an automatic behavior rather than a conscious decision. Restating the finding, participants were not only responding to notifications, but were repeatedly opening their phones as part of a habitual cycle of reassurance and monitoring. The screen time and usage records demonstrate that the phone was accessed many times across the day, often

for short durations, which reflects compulsive checking rather than planned use. In other words, the phone functioned as a constant object of attention, where users repeatedly returned to it even without clear necessity. The researcher interprets this as a shift from functional smartphone use into a compulsive habit embedded in everyday routines. Documentation strengthens this interpretation because it provides visible traces of repeated behavior, making the pattern observable and measurable in a practical way without relying on verbal accounts.

A dominant pattern across the documentation was that repeated checking was concentrated around communication-based applications, particularly messaging platforms and social media. Another clear pattern was the presence of frequent phone pickups and short sessions spread evenly across the day, which indicates that checking behavior occurred repeatedly rather than at specific planned times. The data also showed that notification accumulation on the lock screen often led to multiple app openings in sequence, suggesting that one check easily escalated into broader browsing. Additionally, usage spikes appeared during transitional moments such as breaks, waiting periods, or before sleep, showing that checking behavior became integrated into routine daily rhythms. Overall, the documentation illustrates that compulsive checking was not an occasional event, but a consistent daily habit reinforced by frequent alerts and the availability of multiple apps. This pattern demonstrates how smartphone use becomes repetitive and self-sustaining through constant digital triggers.

Discussion

The findings of this study align with and extend existing scholarship on digital communication, attention, and smartphone dependency by showing that notification dependence is not merely a matter of technology exposure, but a socially constructed experience. The first sub-finding, social pressure amplifying users' quick responses, is consistent with previous studies emphasizing the role of social expectations in shaping online responsiveness. Similar to Jamilah et al. (2025), the results indicate that notifications operate as social signals rather than neutral alerts, because users interpret them through interpersonal norms such as politeness, availability, and relational maintenance. In line with Rault et al. (2024) and Yao et al. (2021), rapid responding appears particularly strong in work and group communication contexts, where delayed replies may be associated with irresponsibility. However, this study adds nuance by showing that users often respond quickly even before reading the message carefully, suggesting that the act of responding functions as a protective social gesture rather than a rational response to content urgency.

The second sub-finding, notifications triggering distraction and breaking focus, supports and strengthens earlier evidence that smartphone notifications are major drivers of attention fragmentation. Prior research has widely discussed the disruptive effects of digital alerts on productivity and cognitive engagement, and this study confirms those effects through direct observation. Consistent with Tesema (2023) and Hunt et al. (2021), distraction was not limited to work or study settings but also appeared in face-to-face interactions, indicating that notification interruptions reshape

both individual concentration and shared social attention. A notable contribution of this study is its observation-based detail that distraction often occurs even without opening the notification, through behaviors such as screen-glancing, unlocking the phone, and brief monitoring (Bou et al., 2021; Williams et al., 2021). This finding suggests that notification dependence operates at the level of attentional orientation, meaning that the mere presence of an alert is enough to shift cognitive resources.

The third sub-finding, repeated checking forming a daily compulsive habit, is also consistent with earlier studies linking smartphone use to repetitive monitoring behavior, but this study provides stronger support through documentation-based evidence such as screen time, app frequency, and notification logs. Similar to Hoyos et al. (2022) and Miller (2023), the findings suggest that high notification volume contributes to constant device engagement, and that repeated checking becomes embedded in daily routines. At the same time, this study offers a distinct contribution by demonstrating that compulsive checking is characterized by multiple short sessions and frequent pickups distributed across the day, rather than simply long screen time duration (Almutawa et al., 2023; Salonen et al., 2021). The evidence suggests that notification dependence is reinforced through cycles of checking, reassurance, and escalation into broader browsing, creating a self-sustaining pattern of digital engagement.

Theoretically, these findings contribute to digital behavior and communication research by framing notification dependence as a psychosocial process shaped by norms, emotional regulation, and attention dynamics. Rather than treating notifications as external stimuli alone, the results show that users attach meanings to notifications that reflect social obligations, impression management, and relational security. This supports a broader theoretical interpretation that notification dependence emerges from the interaction between technological design and social expectations. The findings also suggest that attention fragmentation should be conceptualized as both a cognitive and behavioral phenomenon, because it can be triggered automatically through habitual monitoring. Additionally, the documented patterns of repeated checking strengthen theoretical discussions about habit formation, showing that compulsive smartphone behavior is reinforced not only by content rewards but also by the constant availability of digital cues and the social value of being responsive.

Practically, this study implies that reducing notification dependence requires more than simply telling users to “use smartphones less,” because the behavior is reinforced by social expectations and everyday communication demands. For individuals, the findings highlight the importance of developing self-regulation strategies such as setting notification schedules, using “do not disturb” modes during focused activities, and creating boundaries for response time expectations. For workplaces and educational environments, the findings suggest that institutions should encourage healthier communication norms, such as clarifying which messages are urgent and allowing delayed responses without negative judgment. For technology designers, the results indicate a need for notification systems that prioritize user well-being and offer tools that help users manage attention without social consequences. Overall, the study provides both theoretical insight and practical direction for building healthier digital habits in everyday smartphone use.

CONCLUSION

This study concludes that notification dependence is not merely a matter of smartphone overuse, but a psychosocial experience shaped by social expectations, attention disruption, and habitual digital routines. The most important finding is that users often respond quickly to notifications not because messages are objectively urgent, but because they fear negative judgment, misunderstanding, or social conflict, making notifications function as social signals that demand constant availability. The study also shows that notifications interrupt ongoing tasks and fragment attention even without being fully opened, while repeated checking gradually develops into a compulsive daily habit through frequent short sessions, constant pickups, and monitoring behaviors. The main academic contribution of this article lies in its integration of interview, observation, and documentation data to explain notification dependence as a lived experience rather than only a measurable screen-time behavior. By connecting subjective meaning, social norms, and behavioral traces, the study offers a richer understanding of how dependence develops and is maintained. However, the research is limited by a small participant group and purposive sampling. Future studies should involve broader populations, longitudinal designs, comparisons across demographic groups and platforms, and intervention-based approaches to support healthier notification management.

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