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# Digital Relationality and Emotional Well-Being: An Integrative Review on Empathy, Ghosting, Narcissism, Loneliness, and Emotional Regulation in Online Interactions (2015–2025)

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## ABSTRACT

This integrative review examines how digitally mediated relational practices shape emotional well-being in contemporary societies, synthesizing research published between 2015 and 2025. Focusing on six interrelated constructs—digital empathy, narcissism, loneliness, ghosting, online friendship dynamics, and emotion regulation—the review draws on a final corpus of 100 peer-reviewed studies indexed in Scopus and Web of Science. The evidence shows that digital platforms are not neutral communication tools but complex sociotechnical environments actively configure how individuals form, sustain, and dissolve emotional bonds. Digitally mediated interactions can foster empathic understanding, emotional support, and relational continuity, yet they also intensify self-presentation pressures, social comparison, and emotional misattunement, particularly among users with narcissistic vulnerabilities. Loneliness emerges not simply from reduced social contact but from discrepancies between relational expectations and the affordances of online communication, especially within digitally mediated friendship networks. Practices such as ghosting constitute a distinct form of relational withdrawal, generating emotional uncertainty, relational disruption, and prolonged ambiguity. Across all themes, emotion regulation plays a central role in shaping how individuals navigate connection, disconnection, and identity in digital contexts. To integrate these findings, the review proposes a three-level model—technological, relational, and normative-cultural—that explains how digital environments recursively shape emotional well-being and friendship dynamics. The article concludes by outlining implications for theory development, digital practices, and future interdisciplinary research.

## 1 | Introduction

Over the past decade, digitally mediated environments have profoundly transformed the ways in which individuals initiate, maintain, and disengage from interpersonal relationships, thereby reshaping the emotional foundations of social life. Social media platforms, messaging applications, online learning

ecosystems, and algorithmically curated interaction spaces now function as primary arenas for emotional expression, relational negotiation, and identity construction, extending far beyond their original communicative purposes. Scholars increasingly conceptualize these environments as “new relational ecologies,” in which emotional experience emerges through continuous interaction between technological affordances, social practices,

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and cultural norms [1, 2]. Recent critical analyses further highlight how emerging AI-mediated systems actively reshape emotional experience and relational expectations at a societal level [3]. Within these ecologies, emotional well-being is no longer governed solely by individual dispositions or face-to-face dynamics but is co-constructed through complex socio-technical processes that remain insufficiently integrated at the theoretical level.

In this review, digital relationality is defined as the ensemble of affective, interactional, and meaning-making processes through which individuals establish, sustain, interpret, and dissolve social bonds in technologically mediated environments. Unlike adjacent constructs such as computer-mediated communication or online sociality, which primarily emphasize communicative channels or interaction frequency, digital relationality foregrounds the emotional, psychological, and normative dimensions of mediated relationships, highlighting how empathy, vulnerability, self-presentation, withdrawal, and emotional regulation are dynamically configured by platform architectures and cultural expectations. This conceptual framing allows for a more integrative understanding of how emotional well-being is produced, strained, or destabilized within digital contexts, extending beyond descriptive accounts of online behavior. One prominent strand of research has examined digital empathy, understood as the capacity to recognize, resonate with, and respond to emotional states through technologically mediated interaction. Evidence suggests that digital empathy constitutes a multidimensional competence integrating emotional sensitivity, communicative adaptability, and technological fluency, rather than a simple extension of offline empathic skills [4–6]. In applied domains such as healthcare, education, and organizational contexts, digitally mediated empathy has been shown to enhance emotional regulation, social presence, trust, and relational continuity, supporting psychological well-being in distributed environments [7]. However, scholars also warn that structural features of digital platforms—including reduced nonverbal cues, textual ambiguity, asynchronous interaction, and algorithmic content filtering—may compromise empathic accuracy, amplify misinterpretation, and foster forms of emotional disinhibition [8, 9]. This duality positions digital empathy as both a protective and fragile resource, deeply contingent on socio-technical conditions.

Parallel to this literature, growing attention has been directed toward ghosting, defined as the abrupt and unexplained termination of communication. Empirical research consistently documents its association with heightened anxiety, cognitive rumination, diminished self-worth, emotional distress, and prolonged relational ambiguity across romantic, friendship, and professional domains [10–12]. Scholars emphasize that ghosting is facilitated by platform affordances that lower interpersonal accountability, enable avoidance, and reduce social sanctions, including anonymity, asynchronous messaging, and perceived relational abundance [13, 14]. Increasingly, ghosting is conceptualized as a distinct digital-relational stressor capable of destabilizing emotional regulation and activating latent psychological vulnerabilities, particularly among individuals with anxious attachment patterns or fragile self-esteem [15, 16]. Yet, despite its prevalence, ghosting research remains theoretically and empirically fragmented, limiting cumulative understanding of its broader emotional consequences.

Friendship dynamics in digital environments further illustrate the ambivalent emotional architecture of contemporary relational life. While online tools may sustain intimacy, continuity, and emotional support across spatial and temporal boundaries [17, 18], they simultaneously introduce pressures of constant availability, relational surveillance, and heightened sensitivity to ambiguous social signals, intensifying emotional volatility [8, 19]. As friendships increasingly unfold through hybrid online–offline interactions, they often oscillate between emotional closeness and relational fragility, producing fluctuating experiences of belonging, validation, and psychological safety that challenge classical models of social support [7].

At the individual level, digital environments intersect profoundly with narcissistic vulnerabilities, particularly in their affective and relational dimensions. Platforms structured around visibility, self-presentation, comparison, and feedback loops can amplify narcissistic traits or interact with pre-existing vulnerabilities, intensifying sensitivity to rejection, invisibility, and social evaluation [20]. Empirical evidence linking ghosting, rumination, emotional distress, and vulnerable narcissism suggests that digitally mediated relational ruptures may reinforce maladaptive emotion-regulation strategies and self-referential cognitive cycles, contributing to emotional instability and interpersonal withdrawal [16]. These findings underscore that narcissism in digital contexts operates not merely as a personality trait but as a dynamic psychosocial process shaped by platform architectures and relational contingencies [21].

Research on loneliness adds further complexity to this landscape. While digital connectivity can mitigate loneliness by expanding social networks and facilitating emotional support [22], a substantial body of evidence indicates that superficial interactions, intermittent engagement, and fragile digital ties may exacerbate feelings of isolation, emotional exhaustion, and social pain [19, 23]. Loneliness arising from digital relational instability—marked by inconsistent responsiveness, unreciprocated emotional investment, and abrupt relational rupture—appears to constitute a qualitatively distinct psychosocial experience inadequately captured by traditional loneliness frameworks.

Across these interrelated domains, emotional regulation consistently emerges as both a central mediator and a key outcome of digital relational processes. Navigating ambiguous cues, delayed feedback, rapid emotional exchanges, and curated affective displays imposes novel regulatory demands, increasing susceptibility to rumination, avoidance, emotional suppression, and impulsivity. Conversely, empathic communication and relational support may foster adaptive regulatory strategies, resilience, and psychological stability [7, 15]. Emotional well-being in digital contexts thus appears to emerge from a continuous negotiation between socio-technical affordances and individual regulatory capacities.

Despite this growing body of research, the literature remains highly fragmented and conceptually dispersed. Digital empathy, ghosting, friendship dynamics, narcissism, loneliness, and emotional regulation are typically examined in isolation within discipline-specific frameworks, limiting integrative understanding. As Snyder [24] notes, emerging interdisciplinary fields frequently suffer from conceptual fragmentation that inhibits cumulative synthesis, while Torracco [25] explicitly calls for integrative reviews capable of connecting dispersed empirical

and theoretical contributions into coherent explanatory frameworks. Although numerous primary studies across these domains advocate the need for cross-domain integration in their future research agendas, no prior review has systematically synthesized these constructs as interdependent processes shaping emotional well-being in digitally mediated environments. Addressing this critical gap, the present integrative review synthesizes empirical and theoretical evidence published between 2015 and 2025 to develop a comprehensive, cross-domain understanding of digital relationality and emotional well-being. Specifically, it aims to (1) integrate fragmented literature on digital empathy, ghosting, friendship dynamics, narcissistic vulnerabilities, loneliness, and emotional regulation; (2) identify shared psychosocial mechanisms and socio-technical pathways underlying these phenomena; and (3) propose a multilevel conceptual framework capturing how technological, relational, and normative processes jointly configure emotional experience online. By adopting an integrative methodological approach, this review responds directly to prior calls for interdisciplinary synthesis and seeks to provide a robust conceptual foundation for future theory development, empirical investigation, and applied intervention across mental health, education, healthcare, and digital design contexts.

## 2 | Methodology

This study adopts an integrative review design, a methodological approach widely recognized for synthesizing heterogeneous bodies of evidence and advancing conceptual development in complex and multidisciplinary fields [24–26]. Integrative reviews are particularly suitable when the objective is not the statistical aggregation of effect sizes but the systematic integration of empirical, theoretical, and conceptual insights to generate explanatory frameworks capable of capturing multifaceted psychosocial phenomena. Given that digital relationality encompasses clinical and social psychology, communication studies, education, and human–computer interaction, this approach was considered more appropriate than conventional systematic reviews.

Traditional systematic review protocols such as PRISMA emphasize methodological homogeneity, narrowly defined research questions, and standardized study designs. While well suited for intervention-focused or outcome-driven syntheses, such protocols are less aligned with the present study’s objective of integrating fragmented literature, reconciling conceptual diversity, and elucidating multidimensional socio-emotional processes across heterogeneous digital contexts. For this reason, PRISMA was not adopted as a formal reporting framework. Nevertheless, core PRISMA principles—systematic identification, transparent screening, explicit eligibility criteria, and traceable documentation of study selection—were rigorously applied throughout all phases of the review, in line with recommendations for enhancing rigor in integrative syntheses [24, 27]. This hybrid methodological positioning ensures conceptual flexibility while preserving procedural transparency, reproducibility, and methodological accountability.

The search strategy was designed to maximize inclusiveness and replicability. Two multidisciplinary databases with strong coverage in psychology, communication, education, and technology-oriented research—Scopus and Web of Science (WoS)—were

selected. Searches were conducted between July and September 2025. A structured Boolean strategy combined six thematic clusters central to the review: empathy, friendship dynamics, relational dissolution, personality traits, loneliness, and emotional regulation in digital environments. The core search string (adapted to database-specific syntax) was (“digital empathy” OR “online empathy” OR “computer-mediated empathy”) AND (“online friendship” OR “digital friendship” OR “peer relationships” OR “social bonding”) AND (“ghosting” OR “relationship dissolution” OR “interpersonal avoidance” OR “social withdrawal”) AND (“narcissism” OR “grandiose narcissism” OR “vulnerable narcissism”) AND (“loneliness” OR “social isolation” OR “perceived isolation”) AND (“emotional regulation” OR “emotion regulation” OR “affect regulation”) AND (online OR digital OR virtual OR “social media” OR platforms OR apps). Following established best practices for systematic searching, this strategy was applied to titles, abstracts, and author keywords (TITLE-ABS-KEY) to optimize retrieval sensitivity and ensure replicability.

The detailed search procedures, including databases, search fields, time frame, and Boolean query structures, are provided in Supporting Information B (Search Strategy), ensuring traceability and methodological transparency consistent with integrative review standards.

Searches were limited to peer-reviewed journal articles published between 2015 and 2025 and written in English. No disciplinary restrictions were imposed in order to preserve the integrative scope of the review and capture contributions from psychology, communication, education, and technology-oriented research. The initial search yielded 1230 records. After removing 126 duplicates using Zotero’s automated detection tools, the remaining articles were screened at the title and abstract level. Inclusion criteria required that studies: (a) addressed at least one of the focal constructs—digital empathy, online friendship dynamics, ghosting, narcissism, loneliness, or emotional regulation—in technologically mediated contexts; (b) contributed empirical, theoretical, or conceptual insights into psychological, emotional, or relational processes; and (c) represented original research or substantive theoretical work. Exclusion criteria comprised studies lacking a psychosocial focus, purely technical analyses, research restricted to offline interactions, and non-peer-reviewed materials.

A comprehensive specification of the inclusion and exclusion criteria applied during the screening process is presented in Supporting Information C (Inclusion and Exclusion Criteria), clarifying the conceptual and analytical boundaries of the review and reinforcing the rigor of study selection.

Full-text assessment was conducted using a structured analytic protocol inspired by integrative review standards [25, 26]. Each article was independently evaluated along two dimensions: (1) conceptual depth, defined as the clarity, coherence, and theoretical contribution of the study to understanding digital relational processes and (2) methodological adequacy, defined as internal consistency, transparency of design, and credibility of empirical or theoretical argumentation. Rather than privileging any specific methodological paradigm, studies were assessed based on their capacity to meaningfully inform the review’s integrative and explanatory objectives.

Ambiguities and disagreements regarding eligibility decisions were resolved through iterative comparative discussion among the authors, supported by analytic memo writing and systematic cross-checking against the inclusion criteria. This dialogical process enabled reflexive calibration of judgments and minimized disciplinary or theoretical bias. The final corpus of 100 articles was selected to ensure both thematic saturation and conceptual diversity, balancing analytical depth with comprehensive coverage of digital emotional life.

Data extraction focused on key constructs, theoretical orientations, methodological approaches, populations, digital contexts, and principal findings. Through iterative comparison, analytic memo writing, and cross-study synthesis, recurrent patterns and conceptual linkages were identified, facilitating the development of a multilevel framework connecting technological conditions, relational dynamics—including online friendship and relational rupture—and emotional regulation processes. Throughout this analytic process, reflexive awareness of the authors' disciplinary positioning in psychology, education, and communication sciences was maintained, recognizing that interpretive synthesis necessarily involves theoretically informed judgment. This strategy aligns with established guidance for integrative reviews aimed at theory construction and conceptual integration [25, 26, 28].

To enhance methodological transparency, auditability, and analytical rigor, additional materials are provided as Supporting Information (A–G). Supporting Information A (Studies Included in the Integrative Review) presents the full corpus and its thematic classification. Supporting Information B (Search Strategy) details the identification procedures. Supporting Information C (Inclusion and Exclusion Criteria) specifies the eligibility framework. Supporting Information D (Study Classification Framework) outlines the analytical structure used to organize the evidence. Supporting Information E (Mapping of Studies to the Multilevel Model) demonstrates how the empirical corpus informs the proposed framework. Supporting Information F (Conceptual Gaps and Evidence Density Analysis) identifies areas of concentration and underexplored domains. Finally, Supporting Information G (Reflexivity and Integrative Judgment Criteria) explicates the interpretive stance guiding the synthesis. Together, these materials document the full analytical process and strengthen the robustness and credibility of the integrative review.

The overall process of identification, screening, eligibility assessment, and inclusion is summarized in Figure 1. Although not a formal PRISMA flow diagram, the figure follows PRISMA-informed logic to document the systematic progression of study selection, reinforcing transparency, methodological coherence, and auditability.

Following the methodological process summarized in Figure 1, the next section presents the results of the integrative synthesis. Given the diversity of the 100 studies reviewed, the findings are organized into higher-order thematic domains that capture recurring psychological and relational patterns in digital contexts. Rather than offering study-by-study summaries, the synthesis emphasizes conceptual convergence and divergence across the literature, providing an integrated account of how empathy, ghosting, narcissism, loneliness, and emotional regulation intersect in online interactions.

### 3 | Thematic Synthesis and Results

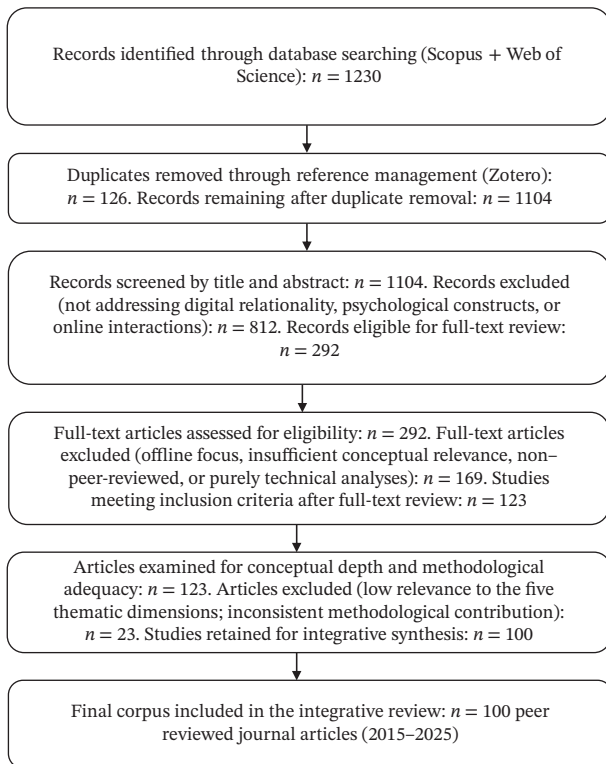
#### 3.1 | Digital Empathy and Friendship Dynamics in Online Interactions

The reviewed literature converges on the notion that digital empathy—defined as the capacity to perceive, interpret, and respond to others' emotions through technologically mediated communication—constitutes a foundational dimension of contemporary online relational life, particularly within digitally mediated friendship networks. Rather than representing a diminished or impoverished form of face-to-face empathy, digital empathy is conceptualized as a hybrid socio-technical competence, shaped by the interplay between platform affordances, communicative norms, and situated emotional practices [4, 6, 29–31]. Research on adolescents and young adults further indicates that online environments not only expand opportunities for social connection but actively restructure empathic development, peer bonding, and emotional learning during formative stages of identity construction [32].

From a descriptive standpoint, empirical studies consistently show that digital contexts can facilitate empathic engagement and friendship maintenance by lowering interactional barriers, enabling alternative forms of emotional expression, and supporting asynchronous reflection. Educational and professional interventions—including video-based instruction, immersive simulations, and structured online workshops—have demonstrated measurable improvements in perspective-taking, emotional awareness, and socio-emotional sensitivity [33–36]. Comparable benefits are reported in healthcare, mental-health, and community-based settings, where mediated environments may enhance emotional support and compassionate communication, particularly when users experience heightened psychological safety and relational trust [4, 37, 38].

At the same time, a substantial body of evidence highlights the structural constraints that digital platforms impose on empathic attunement and relational depth. Reduced access to embodied cues, heightened visibility, and intensified social comparison alter the texture of emotional exchange, often promoting reactive rather than reflective engagement styles. Platform architectures—through interface design, algorithmic prioritization, and expressive affordances—shape emotional dynamics by encouraging immediacy, exposure, and performativity [39, 40]. These conditions frequently generate discrepancies between intended and perceived emotional meanings, undermining interpretive depth, emotional reciprocity, and the stability of online friendships [5, 41].

Interpretively, individual differences emerge as critical moderators of these processes. A robust line of research documents the attenuating role of narcissistic traits, particularly self-enhancement, entitlement, and attention-seeking, in digital empathic functioning and peer-related interactions. These dispositions are associated with diminished empathic accuracy, heightened self-focus, and instrumental emotional expression, patterns that are reinforced by platforms privileging visibility, approval metrics, and strategic self-presentation [21, 42–48]. Complementary neurophysiological findings further suggest altered emotional responsivity to online social feedback among individuals high in narcissism, indicating potential dysregulation of reward and affective processing systems [49].



**FIGURE 1** | Flow of evidence identification and selection. *Note.* Figure 1 illustrates the evidence-selection process used in this integrative review. The flow is inspired by PRISMA logic but is not a formal PRISMA diagram. It summarizes the sequential steps of database identification, duplicate removal, title/abstract screening, full-text assessment, conceptual relevance evaluation, and final inclusion of 100 peer-reviewed articles.

Beyond personality traits, emotional vulnerability constitutes a second key axis shaping digital empathy and friendship dynamics. Individuals experiencing heightened stress, loneliness, or difficulties in emotional regulation frequently report challenges in decoding affective cues online, oscillating between emotional over-involvement and defensive withdrawal [50–53]. Nevertheless, digital environments may partially offset offline limitations by enabling access to support networks and relational continuity, especially among older adults and socially isolated populations [54–60]. Comparative evidence further suggests that while younger cohorts display greater emotional fluency in digital interactions, older users derive more stable empathic benefits when technological interfaces align with their communicative expectations and psychological needs.

Finally, research on digital emotion regulation underscores the ambivalent role of mediated strategies such as selective exposure, controlled self-disclosure, and online co-rumination in sustaining empathic bonds and peer intimacy. These practices may either strengthen mutual understanding or exacerbate emotional dysregulation, depending on individual coping styles and situational demands [61–65]. For adolescents and young adults in particular, digital platforms represent a primary arena for emotional negotiation, relational maintenance, and identity exploration, intensifying the psychological salience of online empathic exchanges and friendship formation [66, 67].

Overall, digital empathy emerges not as a stable trait but as a dynamic, context-dependent relational process embedded within digitally mediated friendship dynamics, configured through the interaction of individual dispositions, emotional regulation capacities, and socio-technical infrastructures. While digital platforms offer unprecedented opportunities for emotional connection and peer bonding, they simultaneously introduce new risks of misattunement, strategic emotional performance, and relational fragility—tensions that frame the relational disruptions examined in the subsequent sections.

### 3.2 | Narcissism and Emotional Vulnerability in Digital Interaction

From a descriptive standpoint, across the reviewed corpus, narcissism consistently emerges as a central dispositional factor shaping emotional engagement, regulation, and relational behavior in digitally mediated environments. Most studies rely on cross-sectional survey designs conducted among adolescents, university students, and young adults, with comparatively fewer investigations in older populations or organizational contexts. Research is predominantly situated within psychology and communication studies, with emerging contributions from education and health sciences.

Within this literature, a critical distinction is made between grandiose narcissism, characterized by overt self-enhancement, dominance, entitlement, and exhibitionism, and vulnerable narcissism, marked by emotional hypersensitivity, insecurity, social anxiety, and contingent self-worth [68]. Digital platforms—structured around visibility, performativity, and continuous social feedback—appear to amplify both forms, albeit through different emotional and relational mechanisms. Meta-analytic and large-scale studies consistently report positive associations between narcissism and attention-seeking, strategic self-presentation, and validation-oriented behaviors online [21, 42, 44, 46, 69]. While grandiose narcissism is more strongly linked to overt self-promotion and dominance-oriented interaction, vulnerable narcissism appears more closely associated with emotional dependence on social feedback, fear of rejection, and compulsive monitoring of online responses [68].

Neurophysiological evidence further suggests differentiated emotional processing patterns. Individuals high in narcissism display attenuated affective arousal in response to online social approval, indicating altered reward sensitivity and emotional calibration in digitally mediated contexts [49]. Complementing these findings, studies on communal narcissism show that platforms rewarding moral signaling facilitate strategic displays of empathy and prosocial concern, often serving self-enhancement rather than genuine relational engagement [70]. A substantial body of research also demonstrates that narcissism intensifies emotional vulnerability to digital stressors, including social comparison, fluctuating visibility, perceived rejection, and algorithmic unpredictability. These experiences are associated with maladaptive regulatory strategies such as compulsive checking, excessive self-disclosure, emotional rumination, and problematic platform use [43, 71–75]. Notably, vulnerable narcissism shows particularly strong associations with emotional distress and dysregulated coping, whereas grandiose narcissism is more closely linked to defensive self-enhancement and interpersonal dominance.

Relationally, these patterns converge in demonstrating diminished empathic attunement, heightened interpersonal self-focus, and reduced emotional reciprocity, undermining relationship quality across digital friendships, romantic partnerships, and professional interactions [45]. Evidence from organizational and family settings further indicates that narcissistic traits are associated with lower well-being, impaired socio-emotional functioning, and increased relational conflict, extending the emotional consequences of digital self-presentation beyond social media into broader life domains [76–78]. Moreover, the interaction between narcissism, fear of missing out, and strategic self-disclosure illustrates how digital environments amplify contingent self-worth, envy, and emotional dependency on social validation [37, 47, 48].

Interpretively, taken together, these findings indicate that narcissism functions not merely as a personality correlate of online behavior but as a core mechanism restructuring emotional experience and relational dynamics in digital ecosystems. While grandiose narcissism tends to magnify performative self-expression and social dominance, vulnerable narcissism intensifies emotional fragility, regulatory dyscontrol, and relational anxiety, particularly under conditions of algorithmic uncertainty and social comparison.

Importantly, several studies conducted during and after the COVID-19 pandemic suggest temporal shifts in these dynamics, as prolonged digital reliance appears to have intensified emotional dependence on online validation and heightened vulnerability among individuals high in narcissistic traits [73, 74]. Although not systematically examined across all studies, this temporal pattern underscores the need for future longitudinal and pre–post pandemic comparisons to better capture the evolving emotional ecology of digital narcissism.

Finally, the synthesis reveals notable gaps in population coverage. Older adults, clinical populations, non-Western cultural contexts, and individuals from low-resource settings remain substantially underrepresented, limiting generalizability and highlighting the need for more culturally and socioeconomically diverse research. Overall, narcissism emerges as a critical amplifier of emotional volatility, relational instability, and regulatory strain in digitally mediated relationships, helping to explain why online environments may simultaneously facilitate self-expression while destabilizing emotional well-being—a dynamic that directly anticipates the relational disruptions examined in the following sections.

### 3.3 | Loneliness, Digital Belonging, and Online Friendship Dynamics

From a descriptive standpoint, the reviewed literature consistently identifies loneliness as one of the most persistent and structurally embedded emotional tensions within digital relationality, particularly in the context of online friendship formation, maintenance, and erosion. Across adolescents, university students, digital nomads, and older adults, online environments simultaneously offer opportunities for social connection and generate new forms of emotional disconnection when interactions lack reciprocity, depth, and relational continuity. Empirical studies among adolescents and young adults repeatedly document this ambivalence: While digital communication may enhance perceived belonging and peer availability,

it often fails to reproduce the emotional richness, stability, and embodied reassurance characteristic of close friendship bonds in face-to-face relationships [50, 52, 53, 79]. These patterns are particularly evident in survey-based and longitudinal designs, which show that intensified digital engagement is associated with fluctuating, rather than consistently reduced, loneliness levels.

Comparable dynamics emerge among older adults, although moderated by distinct structural and cognitive constraints. Digital platforms can alleviate social isolation by facilitating contact with family members, peers, and friendship networks, yet their benefits are often constrained by technological barriers, limited digital literacy, and emotionally “thin” communicative exchanges that restrict the development of sustained relational closeness [54, 55, 60]. Systematic reviews further indicate that technology-based interventions for loneliness yield heterogeneous outcomes, depending on how well platform functionalities align with users’ relational expectations, emotional needs, and cognitive capacities [58, 59]. For transparency, one study identified during the search process was subsequently retracted and therefore excluded from substantive interpretation [80]. Complementary qualitative evidence from emotionally sensitive contexts—such as online bereavement communities—highlights that digital environments can either buffer vulnerability through empathic resonance and peer support or intensify distress when emotional reciprocity and relational attunement remain limited [81].

Loneliness appears particularly pronounced in contexts of mobility and relational transience. Studies focusing on digital nomads and international students show that although online platforms enable sustained transnational contact and remote friendship maintenance, users frequently report persistent emotional disconnection due to fragmented interactions, cultural distance, and unstable relational networks [82, 83]. These findings underscore the structural dimensions of digital loneliness, where mobility, precarity, and digital mediation jointly erode opportunities for stable emotional bonding and enduring peer attachment.

Research on emotion regulation further clarifies how digital practices shape loneliness trajectories within friendship contexts. Adolescents and young adults increasingly rely on online platforms to seek reassurance, express distress, and regulate emotions during periods of stress or isolation, yet outcomes vary according to individual regulatory capacities, including self-compassion, cognitive reappraisal, and emotional awareness [84, 85]. During the COVID-19 pandemic, digital communication buffered isolation for some individuals while deepening emotional emptiness for others when relational expectations embedded in peer and friendship ties remained unmet [17, 22, 86]. Longitudinal evidence further suggests that intensive social media engagement is associated with heightened variability in loneliness over time, reflecting interactions between platform design, emotional reactivity, regulatory strategies, and the perceived quality of online friendships [66], as well as differential effects of digital versus face-to-face interpersonal regulation [87].

Digital behaviors themselves frequently function as indicators of latent loneliness within friendship ecologies. Subtle interactional patterns—including passive browsing, delayed responding, and compulsive monitoring—reflect underlying socio-emotional

vulnerability and unmet relational needs [88]. Survey and intervention studies further indicate that loneliness intensifies when digital engagement fuels social anxiety, emotional fatigue, or difficulties sustaining authentic peer connections [32, 80]. Finally, compensatory reliance on mediated interaction often produces short-term relief while reinforcing longer-term dissatisfaction when relational exchanges remain superficial, asymmetrical, or unstable [23, 89]. Technology-assisted interventions show promising effects, particularly in youth mental health and peer-support contexts, but their efficacy critically depends on guided emotional support and sustained relational engagement [56, 57].

Interpretively, these findings suggest that loneliness in digital environments cannot be reduced to mere exposure time or frequency of online interaction. Rather, it emerges from the dynamic interplay between relational quality, emotional expectations, regulatory capacities, and platform architectures embedded within online friendship systems. Digital communication mitigates isolation when it fosters emotional reciprocity, narrative continuity, and shared meaning among peers, yet intensifies loneliness when it reproduces fragmented, performative, or unstable relational patterns. Moreover, cross-disciplinary convergence highlights that loneliness trajectories differ across age groups and sociocultural contexts, while populations such as older adults, migrants, and digitally precarious communities remain systematically underrepresented in empirical research. Together, these dynamics position digital loneliness as a structurally embedded outcome of socio-technical friendship ecologies, directly anticipating the relational ruptures and affective consequences examined in the subsequent section on ghosting.

### 3.4 | Ghosting and Emotional Rupture Online

From a descriptive standpoint, the reviewed literature consistently identifies ghosting as one of the most salient and psychologically consequential forms of relational rupture in digitally mediated interaction. Ghosting refers to the abrupt and unilateral cessation of communication without explanation and has become widespread across romantic, friendship, professional, and peer relationships. Far from constituting a neutral communicative choice, empirical and conceptual studies converge in framing ghosting as a socio-emotional event embedded within digital cultures characterized by hypervisibility, diminished accountability, and platform-enabled avoidance [10, 12, 14, 90, 91]. Qualitative and survey-based evidence indicates that individuals interpret ghosting not merely as disengagement but as a symbolic act of rejection, ambiguity, and emotional invalidation.

Ghosting is particularly prevalent among emerging adults navigating dense, fluid, and rapidly shifting digital networks. Dating applications, social media platforms, and instant messaging systems reduce the interpersonal costs of withdrawal while expanding access to alternative relational opportunities, thereby normalizing abrupt disengagement [12, 13, 92]. Across predominantly cross-sectional designs, platform affordances such as blocking, muting, or algorithmic redirection facilitate silent withdrawal, weakening relational accountability and reinforcing interactional disposability. Comparative findings suggest that while ghosting occurs across age groups, its emotional salience is strongest among adolescents and young adults, for whom digitally mediated relationships represent a central arena of identity

development and emotional regulation. Recent conceptual contributions emphasize that ghosting is not a homogeneous phenomenon. Distinct forms range from gradual relational fading to sudden and disruptive disappearance, with emotional consequences shaped by contextual factors such as relational depth, communicative history, and perceived intentionality [93]. Empirical evidence further indicates that individuals' interpretations—whether ghosting is perceived as avoidance, indifference, punishment, or self-protection—critically determine its psychological impact [14, 90]. In emotionally meaningful relationships, ghosting is more likely to activate distress, rumination, and relational uncertainty, whereas in low-investment interactions its effects appear more attenuated.

Across multiple disciplinary contexts, individuals who are ghosted commonly report confusion, shame, diminished self-worth, and persistent cognitive preoccupation, particularly when pre-existing vulnerability or emotional dependence is present [11, 15, 16, 91]. Quantitative and longitudinal findings reveal elevated stress markers and impaired emotional regulation following ghosting experiences, suggesting parallels with mechanisms of social pain and ambiguous loss [53, 66]. During the COVID-19 pandemic, digital reliance intensified relational expectations, and preliminary evidence indicates that ghosting-related distress may have been amplified in contexts of prolonged social isolation, emotional uncertainty, and constrained offline alternatives—an issue warranting targeted future investigation.

Personality traits significantly modulate these dynamics. Distinguishing between vulnerable narcissism, characterized by emotional sensitivity, insecurity, and heightened rejection reactivity, and grandiose narcissism, marked by dominance, entitlement, and strategic self-enhancement, offers important interpretive clarity. Vulnerable narcissism is consistently associated with intensified distress when being ghosted, as well as greater rumination, emotional dysregulation, and withdrawal, whereas grandiose narcissism is more strongly linked to the instrumental use of ghosting as a strategy of relational control, impression management, or emotional detachment [16, 42–46, 69, 71, 73]. These findings converge across psychological, communication, and behavioral studies, highlighting how dispositional vulnerabilities interact with platform affordances to shape relational rupture.

Beyond individual differences, ghosting is embedded within broader digital norms that privilege speed, efficiency, and emotional minimalism. Practices such as breadcrumbing—maintaining minimal intermittent contact without genuine relational commitment—further destabilize expectations and intensify emotional ambiguity [13, 15]. Similar patterns are observed among adolescents and young adults, where digitally mediated interaction amplifies relational volatility, conflict escalation, and emotional unpredictability [8, 41, 94]. Notably, populations such as older adults, individuals with disabilities, and culturally marginalized groups remain underrepresented in ghosting research, limiting cross-cultural and lifespan generalization.

Emerging evidence further suggests that ghosting extends beyond intimate and peer relationships into organizational and professional contexts, where it undermines trust, communication norms, and perceived procedural fairness [95]. These

findings highlight the expanding socio-institutional consequences of digitally normalized relational withdrawal. Interpretively, ghosting crystallizes the tensions inherent in contemporary digital relationality: The collision between heightened emotional expectations and platform architectures that prioritize convenience, efficiency, and disposability. By activating processes of ambiguous loss, emotional dysregulation, and identity threat—particularly among individuals characterized by loneliness, affective vulnerability, or narcissistic sensitivity—ghosting emerges as a critical indicator of socio-technical relational instability. Its diffusion across intimate, peer, and professional domains underscores its broader cultural significance, positioning ghosting not merely as interpersonal misconduct but as a structural feature of digitally mediated emotional life. These dynamics provide a crucial bridge toward understanding the regulatory processes and emotional adaptations examined in the following section.

### 3.5 | Inequality and Culture in Digital Emotional Life

From a descriptive standpoint, the reviewed literature converges in demonstrating that digital emotional experiences do not unfold in neutral environments but are deeply embedded within structural inequalities and socio-cultural frameworks. Across disciplines, age groups, and geographic contexts, empathy, loneliness, friendship, ghosting, and emotion regulation appear systematically conditioned by differential access to resources, digital competencies, cultural norms, and institutional support. Empirical studies consistently show that digital relationality often reproduces—and in certain contexts amplifies—pre-existing social disparities linked to age, socioeconomic status, geography, and digital literacy [50, 55, 58, 59, 86]. Comparative analyses across youth, working adults, and older populations reveal convergent patterns: while online platforms expand relational opportunities, their emotional benefits remain unevenly distributed, privileging users with greater technological fluency, social capital, and cultural alignment with dominant digital norms.

Age-related inequalities emerge as particularly salient. Among older adults, digital communication frequently reduces social isolation and facilitates intergenerational contact, yet its emotional efficacy is constrained by limited digital literacy, reduced technological confidence, and interactions perceived as emotionally “thin” relative to established offline rituals [54, 55, 60]. Evidence from pre- and post-COVID contexts further suggests that insufficient technological competence can transform digital engagement into a source of frustration, emotional fatigue, and perceived inadequacy, rather than relational support [50, 59, 96]. In contrast, adolescents and young adults typically display higher technical proficiency but experience intensified emotional volatility, co-rumination, and social comparison, indicating that digital advantage in access does not necessarily translate into emotional well-being [7, 8, 61]. This divergence underscores how age intersects with emotional regulation capacities and platform affordances to produce distinct vulnerability profiles.

Cultural and transnational dynamics further shape digital emotional life. Research on international students and cross-cultural educational settings demonstrates that online friendships simultaneously facilitate connection and exacerbate

feelings of alienation when communicative norms, emotional expressivity, and relational expectations fail to align across cultural boundaries [33, 34, 67, 83]. These studies converge in showing that empathy, emotional disclosure, and regulation are culturally learned practices rather than universal digital competencies, resulting in asymmetric relational expectations that may intensify loneliness, misunderstanding, and emotional withdrawal. Comparative evidence across Asian, European, and Latin American contexts highlights systematic variation in conflict avoidance, emotional restraint, and norms of reciprocity, further complicating digitally mediated bonding processes.

Structural inequalities also intersect with identity-based vulnerabilities and community belonging. Marginalized and queer populations frequently rely on digital platforms to access intimacy, emotional validation, and peer support otherwise constrained in offline environments, yet these same spaces expose users to relational instability, inconsistent recognition, and heightened emotional risk [97]. Similarly, digital nomads and remote workers experience fluctuating emotional well-being contingent on the availability of meaningful online ties and supportive organizational cultures, revealing how labor conditions and mobility shape emotional connectivity [82]. Notably, both populations remain underrepresented in quantitative longitudinal designs, pointing to a significant empirical gap regarding sustained emotional trajectories in digitally mediated transnational lifestyles.

Educational settings further illustrate how institutional resources and cultural norms condition emotional experience online. In hybrid and fully digital learning environments, teachers and students report both enhanced accessibility and increased relational strain linked to platform fatigue, technological asymmetries, and infrastructural disparities [98]. Adolescents in under-resourced contexts appear particularly vulnerable, relying more heavily on digital emotion regulation and peer support, thereby increasing exposure to cyberbullying, emotional overload, and maladaptive co-rumination [7, 8, 61]. These findings converge across educational levels, suggesting that institutional inequality constitutes a central determinant of digital emotional risk.

Global crises, most notably the COVID-19 pandemic, further magnified these disparities. While digital communication buffered loneliness and psychological distress for individuals with stable housing, economic security, and robust support networks, it proved significantly less effective for those experiencing financial strain, caregiving burdens, and relational precarity [22, 56–58, 86]. Comparative pre- and postpandemic evidence highlights emerging temporal discontinuities in digital emotional life, underscoring the need for longitudinal designs capable of capturing evolving vulnerability patterns.

Finally, socio-cultural norms deeply influence how digital behaviors are enacted and interpreted. Practices such as ghosting vary systematically according to culturally embedded expectations surrounding emotional accountability and conflict avoidance [91], while expressions of digital empathy and narcissistic self-presentation reflect broader cultural scripts concerning visibility, self-promotion, and emotional expressiveness [4, 6, 21, 29, 47, 69]. Cross-disciplinary comparisons reveal both convergence and divergence: while the normalization of performative emotionality appears globally widespread, its

psychological consequences differ substantially across collectivist and individualist cultural frameworks.

Interpretively, this body of evidence demonstrates that digital emotional well-being cannot be meaningfully understood outside its structural and cultural embedding. Rather than constituting a neutral communicative layer, digital environments function as amplifiers of pre-existing inequalities, redistributing emotional risks and resources along socio-economic, generational, cultural, and institutional lines. Underrepresented populations—particularly older adults with low digital literacy, marginalized identity groups, and highly mobile transnational workers—emerge as critical blind spots in current research. These asymmetries highlight the necessity of adopting multilevel analytical frameworks that integrate individual dispositions, relational processes, and socio-material contexts. Such an integrative perspective provides the conceptual foundation for the multilevel model developed in the following section, which seeks to capture the dynamic interplay between structural constraints, cultural scripts, and emotional vulnerability in digitally mediated relationships.

### 3.6 | A Multilevel Model of Digital Emotional Life

Building on the preceding analysis of structural and cultural inequalities, the synthesis of the 100 reviewed studies indicates that emotional well-being in digital environments emerges from the dynamic interaction of three interdependent domains: digital infrastructures and affordances, online relational dynamics, and normative-cultural conditions (Figure 2). Rather than operating as discrete layers, these domains form a recursive system in which technological design structures relational possibilities, relational patterns activate emotional processes, and cultural-ethical frameworks shape how digital experiences are interpreted, evaluated, and internalized across different populations and contexts.

At the first level, digital infrastructures and interaction affordances define the emotional architecture of online life. Features such as visibility, anonymity, asynchronicity, persistence, and selective self-presentation condition how individuals regulate emotions [46, 65], seek or avoid emotional support [54], and engage in compensatory or maladaptive practices, including compulsive checking, emotional overdisclosure, and reassurance-seeking [37, 73]. These affordances also enable relational withdrawal strategies such as ghosting and breadcrumbing, which systematically reshape expectations of relational accountability and emotional closure [10, 13, 14, 92]. Within this technological layer, processes of digital empathy [4, 30, 31, 33], technology-mediated loneliness interventions [56, 57, 86], and digitally supported emotion-regulation strategies [62, 64] are enacted and simultaneously constrained, highlighting convergent patterns across educational, clinical, and everyday communication contexts.

These infrastructural conditions shape the second level, online relational dynamics and affective exchanges, where emotional connection, support, conflict, and withdrawal are actively negotiated. Digital friendships and peer interactions often diverge from offline relational scripts, displaying greater fluidity, weaker normative regulation, and heightened emotional volatility [7, 94, 99]. Across age groups, these dynamics are strongly moderated by loneliness, emotional vulnerability, and perceived social support, producing both compensatory and maladaptive

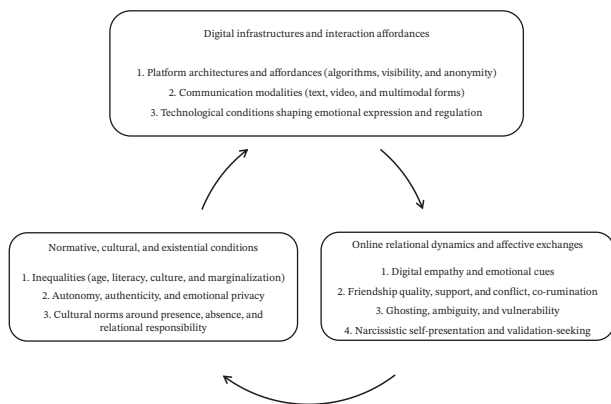
trajectories [50, 52, 53, 55]. Algorithmic curation, constant social visibility, and intensified social comparison further amplify emotional exposure and self-evaluative pressure, particularly among adolescents and young adults [69, 83, 89]. At the same time, relational disruptions such as ghosting generate confusion, emotional distress, and relational insecurity, with convergent findings across dating, friendship, and peer-support contexts [11, 15, 90, 91]. Personality-related dynamics—including narcissistic self-presentation, validation-seeking, and emotion dysregulation—further intensify relational instability and emotional reactivity, particularly among younger cohorts [21, 44–46, 71]. Importantly, the literature differentiates between grandiose narcissism, characterized by overt self-promotion, dominance, and social exhibitionism, and vulnerable narcissism, marked by hypersensitivity, emotional fragility, and defensive withdrawal, both of which manifest distinct but converging patterns of digital emotional dysregulation and relational conflict.

The third level, encompassing normative, cultural, and existential conditions, provides the interpretive framework through which digital emotional experiences acquire meaning. Cultural norms regulate expectations regarding responsiveness, emotional expressivity, availability, and relational responsibility, thereby shaping how digital behaviors are perceived and evaluated across societies [20, 100]. Institutional contexts, particularly in education and healthcare, further mediate emotional experience by structuring how digital tools supplement, mediate, or partially replace human care, with significant implications for emotional trust, engagement, and perceived authenticity [33, 58, 59, 101]. Ethical tensions surrounding privacy, autonomy, emotional surveillance, and algorithmic mediation emerge prominently in studies of digital empathy and AI-based emotional support, raising concerns about emotional commodification and relational depersonalization [1, 6, 9, 40, 102–104]. Existential dimensions—including emotional invisibility, disembodiment, ambiguous loss, and unresolved relational endings—are especially salient in research on ghosting and digitally mediated absence [12, 16, 93], connecting digital emotional life to broader debates on meaning, identity, and psychological flourishing [105, 106].

Taken together, this multilevel synthesis demonstrates that digital emotional well-being cannot be reduced to isolated technological affordances or individual psychological traits. Instead, it emerges from the continuous interaction between platform architectures, relational practices, and socio-cultural norms, producing complex patterns of emotional vulnerability and resilience across populations and contexts. Underrepresented groups—including older adults with low digital literacy, marginalized identity communities, and highly mobile transnational populations—remain insufficiently examined within longitudinal and cross-cultural designs, representing a critical empirical gap. This integrative framework thus offers a coherent conceptual lens for organizing the reviewed evidence and provides a robust foundation for understanding why digital emotional life is simultaneously technologically scaffolded, relationally enacted, and normatively interpreted.

## 4 | Discussion

Addressing the objectives formulated in the introduction, this integrative review synthesized empirical and theoretical



**FIGURE 2** | Multilevel dynamics of digital emotional life: an integrative cyclical model. *Note.* Figure 2 depicts a multilevel model of digital–emotional dynamics in which emotional well-being emerges from the interaction of three interrelated domains. Platform architectures and affordances refer to the technological conditions that shape visibility, anonymity, and modes of communication. Relational processes and affective exchanges capture patterns of empathy, support, conflict, and withdrawal that occur within these conditions. Normative and meaning-making contexts encompass the cultural, ethical, and existential frameworks through which digital experiences are interpreted. The arrows indicate a cyclical relationship: technological affordances shape relational dynamics, relational experiences activate broader meanings, and these meanings feed back into how technologies are used and understood.

evidence on digital empathy, narcissistic vulnerabilities, loneliness, ghosting, friendship dynamics, and online emotion regulation to develop a comprehensive understanding of digital emotional life. Drawing on 100 studies published between 2015 and 2025, the findings demonstrate that emotional well-being in digital environments cannot be adequately explained through isolated psychological constructs or platform-specific mechanisms. Instead, emotional experience online emerges from the continuous interaction between socio-technical infrastructures; relational dynamics, including evolving online friendship ecologies; and normative-cultural meaning systems, confirming the need for integrative, cross-domain theoretical frameworks [50, 56, 65, 69].

From an interpretive standpoint, the synthesis reveals that digital platforms function as emotionally active environments rather than neutral communication channels. Platform affordances such as algorithmic visibility, asynchronous interaction, selective self-presentation, and perpetual connectivity significantly shape emotional exposure, regulation strategies, and relational expectations, particularly within digitally mediated friendship networks [37, 46, 65]. While these affordances can facilitate emotional support, social connection, and continuity of relationships—especially among socially isolated individuals and geographically dispersed peers [54, 57, 86]—they simultaneously lower interactional costs and accountability, thereby normalizing ambiguous relational practices such as ghosting [10, 13, 14, 92]. Empirical evidence consistently shows that these practices intensify emotional uncertainty, relational distress, and unresolved grief, particularly among adolescents and young adults navigating fragile online friendship ties [11, 15, 90, 91].

These findings support the contention that emotional outcomes in digital environments cannot be attributed solely to individual dispositions. Instead, they reflect the recursive interaction between personal vulnerabilities and socio-technical conditions embedded within online relational systems. Research on loneliness, narcissism, and emotional regulation illustrates how digital contexts amplify self-referential processing, social comparison, and emotional reactivity, while simultaneously offering compensatory relational resources within peer and friendship networks [44, 45, 50, 55, 69, 71]. In particular, studies differentiating grandiose narcissism—characterized by exhibitionism and dominance—from vulnerable narcissism—marked by hypersensitivity and emotional fragility—demonstrate that both profiles are associated with maladaptive digital emotional patterns, though through distinct affective pathways that directly shape online friendship dynamics and emotional reciprocity [21, 45, 46]. These convergent findings across psychological, educational, and communication research highlight the central role of platform-mediated feedback loops in shaping emotional self-regulation and relational expectations.

Beyond individual and relational processes, the review underscores the decisive influence of cultural, institutional, and ethical frameworks in configuring digital emotional life. Cross-cultural and transnational studies reveal that expectations regarding emotional expressivity, responsiveness, and relational responsibility vary substantially across socio-cultural contexts, thereby shaping how digital behaviors are interpreted and emotionally experienced within friendship and peer networks [33, 34, 67, 83]. Institutional environments, particularly education and healthcare, further mediate emotional experience by structuring opportunities for mediated care, support, and empathy, while simultaneously introducing new forms of emotional strain, relational fatigue, and digitally intensified friendship demands [58, 59, 98, 101]. Ethical tensions related to emotional surveillance, datafication, authenticity, and algorithmic mediation emerge prominently in research on digital empathy and AI-supported emotional interventions, raising concerns about emotional commodification and relational depersonalization [1, 6, 9, 102–104].

Taken together, these findings provide strong empirical support for the multilevel model proposed in this review, which conceptualizes digital emotional well-being as the emergent product of interactions between technological infrastructures, relational dynamics—including online friendship systems—and normative-cultural meaning systems. Compared to existing socio-technical or ecological models—which often emphasize either technological affordances or social contexts as relatively static layers—this framework foregrounds the dynamic, recursive, and mutually constitutive nature of these domains [20, 40, 65]. By explicitly integrating emotional processes, friendship practices, and cultural norms, the model advances beyond traditional well-being frameworks that conceptualize affect primarily as an intrapsychic phenomenon regulated through individual cognitive strategies [105, 106]. Instead, it positions emotional well-being online as a fundamentally relational, structurally conditioned, and normatively interpreted process.

Importantly, the synthesis also exposes persistent gaps in the literature. Despite growing interest in digital emotional

experiences, longitudinal, cross-cultural, and life-span studies remain scarce, with a strong concentration of research on adolescents and young adults in Western contexts [7, 50, 89]. Older adults, marginalized identity groups, individuals with limited digital literacy, and populations in low-resource settings remain underrepresented, limiting the generalizability of current models and obscuring critical variations in friendship formation and emotional support dynamics [54, 55, 97]. Furthermore, although several studies point to significant pre- and post-COVID differences in digital relational practices and emotional reliance on technology, systematic temporal analyses remain underdeveloped [22, 58, 86]. Addressing these gaps represents a critical direction for future empirical research.

By integrating fragmented bodies of evidence into a coherent multilevel framework, this review directly responds to calls for interdisciplinary synthesis and theoretical consolidation in the study of digital relationality. It demonstrates that emotional life online—and particularly within digitally mediated friendship ecologies—is not merely an extension of offline well-being but constitutes a distinct socio-emotional configuration shaped by technological mediation, relational contingency, and cultural meaning-making. This integrative perspective provides a robust conceptual foundation for future theory development, empirical investigation, and applied interventions across mental health, education, healthcare, and digital design, thereby contributing to a more nuanced and socially grounded understanding of emotional well-being in digitally mediated environments.

## 5 | Theoretical and Practical Implications

The findings of this integrative review indicate that emotional well-being in digital environments is best conceptualized as a relational, dynamic, and multilevel phenomenon rather than as the outcome of isolated psychological traits or discrete technological effects. The proposed multilevel model contributes theoretically by integrating fragmented literature on digital empathy, narcissistic vulnerability, loneliness, ghosting, online friendship dynamics, and emotion regulation within a unified socio-technical framework. In doing so, it advances current ecological and socio-technical approaches by explicitly articulating how technological affordances, relational dynamics, and normative-cultural meaning-making processes recursively shape emotional experience and friendship formation online.

This integrative perspective extends existing models of digital well-being by emphasizing that digital platforms do not merely mediate pre-existing emotional processes but actively structure emotional exposure, relational expectations, and affective regulation. By incorporating ethical, cultural, and existential dimensions, the model captures the normative tensions surrounding visibility, responsiveness, emotional responsibility, and authenticity that increasingly characterize digital interaction and digitally mediated friendships. This contribution responds directly to recent interdisciplinary calls for theoretical frameworks capable of addressing the complexity, ambivalence, and moral implications of contemporary digital relational life.

From an applied standpoint, these theoretical insights translate into several concrete implications for mental health practice, education, healthcare, and digital design. In clinical and counseling contexts, the findings highlight the importance of

explicitly addressing digitally mediated relational experiences—such as ghosting, emotional withdrawal, compulsive monitoring, fluctuating friendship ties, and online interpersonal conflict—as integral components of psychosocial assessment and intervention. Incorporating digital friendship dynamics into therapeutic formulations may enhance the identification of emotional vulnerability, relational insecurity, and maladaptive regulation strategies, particularly among adolescents and emerging adults for whom online interaction constitutes a primary arena of friendship development and maintenance.

In preventive and psychoeducational interventions, the results support the development of structured programs aimed at fostering digital relational literacy, emotional self-regulation, and empathic communication within online friendship networks. Such programs may include training in managing relational ambiguity, tolerating delayed feedback, interpreting digital silence within peer relationships, and cultivating emotionally responsible online presence. Educational settings, especially secondary and higher education, represent particularly strategic contexts for embedding these competencies within broader social-emotional learning curricula, thereby strengthening resilience, mutual care, and sustainable friendship practices in digitally saturated environments.

In medical and health professions education, the growing reliance on telemedicine, digital triage systems, and AI-supported clinical tools underscores the need to integrate digital empathy, ethical awareness, and human-centered communication skills into professional training. Preparing future healthcare professionals to navigate emotionally sensitive interactions and relational continuity in technologically mediated environments is critical for preserving trust, therapeutic alliance, and emotionally supportive patient-provider relationships. The present findings offer a conceptual foundation for embedding these competencies within competency-based medical education frameworks.

At the level of technological design and regulation, the results support the adoption of affective safety-by-design principles. Platform architectures could be optimized to reduce communicative ambiguity, enhance transparency of relational intent, and promote emotionally sustainable friendship interactions, while discouraging design logics that amplify validation-seeking, emotional volatility, or abrupt relational disengagement. These considerations are especially relevant for the ethical development and governance of AI-driven affective technologies, where algorithmic mediation increasingly shapes emotional interaction, friendship maintenance, feedback loops, and vulnerability exposure.

Taken together, these implications underscore that promoting emotional well-being and healthy digital friendships requires coordinated, multilevel interventions spanning platform governance, educational systems, clinical practice, and psychosocial prevention. Such integrative strategies reflect the complex socio-technical ecology of digital emotional life identified in this review and provide actionable pathways for translating theoretical insights into meaningful social and relational impact.

## 6 | Limitations and Directions for Future Research

Several limitations of this integrative review warrant careful consideration. First, although the synthesis includes

100 peer-reviewed studies, substantial conceptual heterogeneity persists across key constructs, particularly in relation to digital empathy, ghosting, and online emotion regulation. Variations in operational definitions and measurement approaches limit direct comparability across studies and constrain cumulative knowledge development. This conceptual fragmentation highlights the need for greater theoretical convergence and shared definitional frameworks within the field.

Second, the exclusive focus on English-language articles indexed in Scopus and WoS may introduce publication and cultural bias, potentially overrepresenting Western digital norms, relational expectations, and emotional practices. As a result, the transferability of findings to non-Western cultural contexts and digitally marginalized populations remains limited. Expanding future reviews to include multilingual databases and regional indexing systems would enhance cross-cultural representativeness.

Third, the predominance of cross-sectional and self-report designs restricts causal inference and temporal understanding of digital emotional processes. Although several longitudinal and experimental studies were included, the overall evidence base remains insufficient to disentangle dynamic reciprocal relationships between platform affordances, relational behaviors, and emotional outcomes. This limitation directly motivates the need for longitudinal, experience-sampling, and experimental methodologies capable of capturing temporal sequencing and causal mechanisms.

Fourth, the rapid evolution of digital platforms and AI-mediated communication implies that some patterns identified in this review may be temporally contingent. In particular, the COVID-19 pandemic appears to represent a potential structural inflection point in digital emotional life. While several studies conducted during and after the pandemic suggest shifts in the intensity, emotional meaning, and functional role of digital communication—especially regarding loneliness, emotional support, and regulation—the heterogeneity of designs and lack of systematic pre-post comparative studies preclude firm conclusions. Future research should explicitly examine temporal differences across pre-pandemic, pandemic, and post-pandemic contexts to clarify how global crises reshape digital relational ecologies.

These limitations delineate several promising avenues for future research. First, greater conceptual clarification and theoretical integration are needed to strengthen construct validity and support cumulative knowledge building. Second, longitudinal and experimental studies should empirically test the recursive relationships proposed in the multilevel model, particularly the dynamic interplay between technological affordances, relational dynamics, and normative meaning-making. Third, cross-cultural comparative research is essential for examining how cultural norms, structural inequalities, and socio-economic conditions shape digital emotional experiences.

Finally, systematic empirical validation and refinement of the proposed multilevel framework represent a central priority. Testing this model across diverse populations, developmental stages, institutional contexts, and technological settings would not only enhance its explanatory robustness but also inform the design of targeted interventions and ethically grounded digital

policies. By linking conceptual development with empirical verification, future research can contribute to a more precise, culturally sensitive, and socially responsible science of digital emotional well-being.

## 7 | Conclusions

This integrative review demonstrates that digital relationality constitutes a distinctive socio-emotional context in which emotional well-being and friendship dynamics are continuously shaped and negotiated. Across the 100 studies reviewed, online interactions neither simply mirror offline relationships nor produce uniformly positive or negative effects. Instead, digitally mediated environments generate specific affective ecologies characterized by hybrid forms of empathy, relational contingency, intensified self-presentation, and evolving patterns of connection, belonging, and withdrawal.

By integrating findings across digital empathy, narcissistic vulnerabilities, loneliness, ghosting, online friendship dynamics, and emotion regulation, this review shows that emotional well-being online emerges from the recursive interplay between technological affordances, relational practices, and normative-cultural frameworks. Emotional outcomes cannot be explained by individual traits or platform features in isolation but are co-constructed within socio-technical systems that structure emotional exposure, relational expectations, and regulatory strategies.

The multilevel model proposed provides a robust theoretical lens to explain why identical digital environments may foster emotional connection and relational resilience for some users while amplifying vulnerability, uncertainty, and disconnection for others. Overall, the findings call for moving beyond reductive narratives of digital benefit or harm toward integrative, human-centered, and context-sensitive approaches capable of capturing the complexity of emotional life and friendship formation in digitally mediated environments.

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### Conflicts of Interest

The authors declare no conflicts of interest.

### Data Availability Statement

The data that supports the findings of this study are available in the supporting information of this article.

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### Supporting Information

Additional supporting information can be found online in the Supporting Information section. (*Supporting Information*)

The Supporting Information provides additional information related to the study. It includes: Supporting Information A: Studies included in the integrative review. Provides the complete list and thematic classification of the 100 studies included in the integrative review, enhancing transparency regarding the empirical and conceptual corpus underpinning the synthesis. Supporting Information B: Search strategy. Details the databases, search fields, time frame, and Boolean query structures used to identify relevant literature, ensuring traceability and methodological transparency consistent with integrative review standards. Supporting Information C: Inclusion and exclusion criteria. Outlines the explicit criteria applied during study selection, clarifying the conceptual and analytical boundaries of the review and supporting the rigor of the screening process. Supporting Information D: Study classification framework. Describes the analytical framework used to organize studies by core construct, level of analysis, and methodological orientation, facilitating systematic comparison across heterogeneous evidence. Supporting Information E: Mapping of studies to the multilevel model. Documents how individual studies were mapped onto the technological,

relational, and normative levels of the proposed model, demonstrating the empirical grounding of the integrative framework. Supporting Information F: Conceptual gaps and evidence density analysis. Presents an assessment of evidence concentration and underexplored areas across analytical levels, justifying the review’s theoretical contributions and future research agenda. Supporting Information G: Reflexivity and integrative judgment criteria. Explains the reflexive stance and interpretive criteria guiding synthesis decisions, reinforcing methodological transparency in the integration of diverse theoretical and empirical traditions.