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Artificial Companionship and Emotional Continuity in Geriatric Mental Health: A Conceptual Examination of Substitution and Wellbeing

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Abstract

This conceptual work examines how artificial companionship contributes to emotional steadiness in older adults through a structured framework that explains the processes involved in emotional substitution and relational interpretation. The analysis integrates perspectives from geriatric psychology, human machine interaction, and social communication theory to clarify how older adults make sense of artificial engagement when human contact becomes limited or irregular. The framework identifies three central conditions that shape emotional continuity. The first concerns the sense of presence created through familiar and consistent interaction. The second involves the interpretation of responsiveness as a form of mutual attention. The third relates to the manner in which artificial and human relationships are balanced within the broader emotional environment. Together, these conditions illustrate how artificial companionship can support comfort when users retain awareness of its limitations. Ethical considerations guide the interpretation of artificial behavior to ensure that human relationships remain central to psychological wellbeing. The work also highlights the need for empirical exploration that captures the lived experiences of older adults and the diverse ways they integrate artificial companionship into daily emotional routines. These insights can inform future design and clinical strategies that respect authenticity and relational clarity in geriatric care.

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Keywords

Artificial Companionship, Emotional Substitution, Geriatric Psychology, Relational Interpretation, Emotional Continuity, Human Machine Interaction, Digital Mental Health, Aging and Wellbeing

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1. Introduction

Patterns of population aging and increasingly solitary living arrangements have intensified attention on how older adults experience connection, emotional safety, and psychological comfort. Social isolation in later life is not merely a matter of reduced physical contact but is deeply linked to emotional loneliness, diminished reciprocal communication, and altered self-perceptions across time (Weiss, 1975). As mobility decreases and familiar social roles change, older adults often seek alternatives that can sustain emotional engagement and recognition. Against this backdrop, emerging technology-based companionship solutions are being introduced into homes and care settings as a way to support older adults' emotional and social needs (Berridge et al., 2023; Pirhonen et al., 2020). These digital or robotic companions provide predictable and available interaction, reducing reliance on inconsistent human contact. Although such interactions may appear helpful, the psychological

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experience they produce remains under-explored. Much of the existing research focuses on acceptance, ease of use, or satisfaction with devices (Kraus et al., 2021) rather than the deeper processes through which older adults interpret and internalize these inter-actions. Classical aging studies emphasize maintaining a coherent sense of self amid social change (Baltes & Baltes, 1993) thus the introduction of technologically mediated companionship invites fresh examination of how emotional continuity may be preserved, altered or undermined. The conceptual ambiguity arises because digital companions deliver responses that can resemble human attentiveness, despite lacking true consciousness or emotional reciprocity (De Graaf et al., 2015; Sharkey & Sharkey, 2012). This raises questions about authenticity and the meaning that older adults ascribe to interactions with non-human agents. In human-computer interaction research, people have been found to respond to machines using social frameworks typically applied to humans (Nass & Moon, 2000). Attachment theory Bowlby (1969) further suggests that individuals seek relational security in the face of changing social contexts; accordingly, older adults may interpret interactions with artificial agents as providing emotional stability when human relationships become fragmented. The interpretive process involves memory, routine, social expectation, and personal preference. However, few studies distinguish between adaptive reliance on digital companions and replacement of human ties, nor do they clarify how older adults negotiate the boundary between human and artificial sources of comfort (Broadbent et al., 2009; Koceska & Koceski, 2022). The conceptual gap remains in how older adults translate these experiences into emotional substitution or continuity. Contemporary empirical research in gerontology and HCI lends further complexity. A recent survey found that a large proportion of older adults did not believe companionship robots would reduce loneliness, and many expressed discomfort with the idea of being led to believe a machine is human (Berridge et al., 2023). This suggests that technological companionship alone is not a straightforward remedy for emotional isolation. Another systematic investigation of socially assistive robots found significant positive effects on depression and loneliness for older adults (Yen et al., 2024). The meta-analysis by Mehrabi and Ghezelbash (2025) summarized multiple trial studies, noting that effectiveness depends on interaction frequency, user autonomy and perceived agency of the device. Older work even from the early 2000s already indicated that robot pets produced mood improvements among institutionalized older adults (Wada et al., 2006). The mixed findings point to the importance of psychological processes, user interpretation and context. Emotional substitution via technology may support wellbeing when embedded in a framework that recognizes its limitations and complements human relationships rather than replacing them.

Therefore, it becomes important to identify under which conditions artificial companionship contributes to emotional continuity without eroding human relational value. Emotional continuity refers to the feeling of emotional stability when one's sources of support change or reduce, yet the person retains a sense of self that extends through time and relational contexts (Charles & Carstensen, 2010; Perlman & Peplau, 1981). Baltes and Baltes (1993) observed that older adults strive to preserve a stable sense of self in the face of shifting roles and contexts. In scenarios where companionship is mediated by technology, older individuals may seek to integrate artificial agents into their emotional ecosystem while still valuing human connection. Artificial companions may extend emotional availability (Robinson et al., 2013), but they operate within programmed limits. Consequently, the emotional experience may reflect partial substitution rather than full relational transfer. A robust conceptual examination could therefore illuminate how older adults view and engage artificial companions as part of a broader emotional substrate, encompassing human and machine relational sources. The objective is to develop a structured theoretical account of how older adults interpret and experience artificial companionship in terms of emotional substitution and continuity. Rather than assessing functionality or task performance of devices, the focus is on the emotional meaning-making, perceived authenticity and relational self-perception of older adults when =ngaging digital companionship. The aim is to present a model that explains the psychological conditions under which artificial companionship becomes meaningful and how it interacts with ongoing human relational bonds. Drawing from attachment theory, geriatric psychology, and recent empirical work in human-robot interaction, the model seeks to explore emotional substitution not as mere imitation of human connection but as co-presence mediated by perception, memory, and interaction frequency. The

introduction lays the groundwork for conceptualizing how artificial companionship may contribute to wellbeing in later life without undermining the value of human connection (Waheed et al., 2025).

2. Literature Review

2.1. Emergence of Companionship Technologies in Later Life Mental Health

Research on aging has increasingly focused on the emotional and psychological conditions that support wellbeing in later life. Companionship technologies have gained attention because they offer regular interaction (Tost et al., 2024) when human contact becomes limited due to mobility issues, reduced social participation, or shifting family roles. Several investigations illustrate that these technologies can support social engagement and reduce loneliness by encouraging conversation, providing reminders, or offering a sense of presence (Khosravi et al., 2016). Although these findings appear promising, much of the empirical work emphasizes acceptance, feasibility, and basic engagement rather than exploring the emotional meaning older adults assign to these interactions. Earlier work in social psychology emphasized that emotional characteristics of interaction influence wellbeing more strongly than sheer contact frequency (Perlman & Peplau, 1981). This observation highlights the importance of evaluating how older adults interpret companionship delivered through artificial systems. Research on technology adoption in aging shows that meaning making, relational expectations, and personal history shape how individuals relate to non biological companions (Broadbent et al., 2009). Existing scholarship also notes that companionship technologies stimulate cognitive activity and reduce feelings of isolation, yet many accounts provide limited insight into the deeper psychological elements involved in emotional substitution (Waheed et al., 2016).

2.2. Emotional Connection, Social Bonding, and Attachment Mechanisms

A growing body of research suggests that emotional responses toward artificial systems can resemble human social bonding (Rachmad, 2025). Early observations on parasocial interaction showed that individuals often develop emotionally significant ties with media figures who appear familiar and consistently present (Horton & Richard, 1956). Human computer interaction research has expanded this concept, showing that individuals interpret machines as social partners when cues such as gaze, speech, or responsiveness are present (Nass & Moon, 2000). Such cues can be particularly meaningful in the context of aging, where reduced opportunities for social participation may lead individuals to seek alternative sources of emotional presence. Studies involving social robots and conversational agents show that these systems can evoke comfort and attentiveness, particularly among older users who value predictable responses (Berridge et al., 2023). Attachment theory highlights the importance of reliability, familiarity, and emotional security during periods of change (Bowlby, 1969). Artificial agents that behave in a consistent manner can be interpreted as stable companions even though their responses are generated through programmed routines. This interpretation reflects perceived empathy rather than actual empathic engagement, and it contributes to emotional continuity for some older adults (Waheed et al., 2021).

2.3. Psychological Depth of Emotional Substitution and Emotional Displacement

A central theme in the literature concerns the psychological depth of emotional substitution and its distinction from emotional displacement. Emotional substitution refers to the use of artificial companions to fill emotional roles traditionally held by humans (Dosso et al., 2022). Emotional displacement occurs when increasing reliance on artificial interaction reduces the motivation to maintain human relationships. Scholars have examined how familiarity, perceived effort, and responsiveness influence these relational processes. Lifespan approaches to socioemotional development suggest that older adults tend to prioritise emotionally meaningful interactions in later life (Carstensen et al., 1999). Artificial companionship may satisfy certain emotional expectations because

interaction with a machine involves fewer interpersonal demands and more predictable routines. Research on older adults' reactions to socially assistive robots highlights that emotional expectations influence whether individuals view these systems as supportive or inappropriate (Koceska & Koceski, 2022). Other work indicates that emotional reliance on artificial agents may provide reassurance without reducing the need for human intimacy unless users begin to view the artificial companion as their primary emotional source (De Graaf et al., 2015). Current literature continues to explore the conditions under which artificial companionship supports wellbeing and the conditions under which it contributes to relational withdrawal.

2.4. Cognitive Stimulation, Engagement, and Perceived Social Presence

Investigations into socially assistive technologies highlight their potential in stimulating attention, encouraging conversation, and improving emotional states. These interventions often focus on engagement patterns, participation in activities, and observable changes in mood (Yen et al., 2024). Yet engagement alone cannot explain the complexity of emotional responses reported by older adults. Perceived social presence plays a substantial role in shaping the experience of companionship. Communication research demonstrates that perceived presence is influenced by voice tone, response timing, memory of past interactions, and patterns of continuity (Lowenthal & Snelson, 2020). Artificial agents that show consistent and familiar behaviors may promote emotional reassurance, especially when predictability aligns with older adults' expectations. Cognitive aging research suggests that familiarity and structure support emotional stability (Charles & Carstensen, 2010). These insights help explain why some older adults respond positively to companionship technologies and interpret them as emotionally supportive (Ain et al., 2019).

Table 1. Conceptual Developments in Human Machine Emotional Interaction in Older Adults

Conceptual Focus	Key Findings	Representative Sources
Emotional substitution	Artificial companions fill emotional gaps created by reduced human contact. Interpretation influenced by personal history and expectations.	(Berridge et al., 2023; De Graaf et al., 2015)
Emotional displacement	Reliance on artificial systems may reduce interest in human relationships when artificial interaction feels more predictable.	(Carstensen et al., 1999; Koceska & Koceski, 2022)
Perceived social presence	Voice, responsiveness, and consistent patterns influence comfort and connection.	(Lowenthal & Snelson, 2020)
Attachment activation	Artificial entities can trigger attachment responses based on perceived reliability.	(Horton & Richard, 1956; Nass & Moon, 2000)
Cognitive stimulation	Artificial interaction encourages attention and reduces loneliness.	(Yen et al., 2024)

2.5. Memory Structures, Identity Continuity, and Interpretation of Artificial Agents

Understanding emotional connection with artificial companions requires attention to memory, identity, and personal narrative. Older adults interpret companionship in ways that reflect long standing expectations of interpersonal behaviour. Memory structures and familiarity play a significant role in shaping responses to artificial agents, especially when the system behaves in a stable and predictable manner. Theories of identity across the lifespan argue that emotional stability depends on maintaining

coherence between past experiences and present circumstances (Baltes & Baltes, 1993). Artificial companions that provide consistent routines may support this sense of continuity. Research on digital interaction and identity suggests that individuals often align their interpretations of interaction partners with existing relational expectations (Tay et al., 2014). When artificial companions behave in ways that match these expectations, older adults may view them as emotionally dependable. However, long term patterns of interpretation and the potential for increasing emotional reliance remain unclear. Current studies have not yet examined how prolonged exposure to artificial companionship influences evolving identity or relational orientation.

2.6. Relational Balance, Emotional Co Regulation, and Ethical Considerations

A further consideration in the literature concerns relational balance between artificial and human companionship. Artificial systems may support emotional wellbeing when used as additional sources of comfort rather than dominant companions. Studies involving older adults show that positive outcomes arise when artificial interaction complements human contact and provides structure or predictability (Robinson et al., 2013). Research in geriatric psychology highlights the importance of varied emotional experiences, including shared history, human empathy, and cultural familiarity (Charles & Carstensen, 2010). Ethical discussions surrounding artificial companionship address concerns about authenticity, interpretation, and unintended emotional consequences (Sharkey & Sharkey, 2012). These issues intersect with psychological questions about whether artificial companionship is interpreted as reassurance, emotional stability, or relational replacement. Continued research is required to clarify how emotional co regulation occurs when artificial companions are introduced into mental health care for older adults.

3. Methodology

3.1. Conceptual Orientation and Analytical Positioning

The methodological orientation follows a conceptual synthesis approach that integrates perspectives from geriatric psychiatry, affective computing, and psychological theories of aging. This approach is appropriate for work that seeks to interpret how emotional substitution and perceived empathy operate within artificial companionship. Conceptual synthesis focuses on reviewing established theories and empirical contributions to construct a coherent explanation grounded in recognized academic traditions. Scholarship in conceptual integration highlights that theoretical comparison clarifies how constructs function across disciplines (Jaccard & Jacoby, 2019). Conceptual mapping techniques in social science also emphasize the importance of organizing constructs before interpreting their interconnections (Kahn & Fawcett, 1995). Drawing on these principles allows the analysis to explore how emotional constructs manifest in artificial companionship for older adults. By organizing insights from multiple fields, the synthesis can examine how emotional roles, perceived presence, and relational maintenance are interpreted in mental health contexts without relying on technological explanations alone.

3.2. Construction of Analytical Categories and Comparative Mapping

The conceptual synthesis begins with the identification and categorization of three central constructs: emotional substitution, perceived empathy, and relational stability. These constructs were selected because they recur across research in aging psychology, human machine interaction, and clinical gerontology. Emotional substitution relates to the manner in which older adults may assign emotional meaning to artificial agents (Dosso et al., 2022). Perceived empathy concerns the subjective experience of being emotionally acknowledged during interaction with non biological companions. Relational stability refers to how emotional continuity is maintained during periods that involve reduced human contact or changing social roles. After categorization, these constructs are examined through a comparative analytical approach that considers how each construct is defined, how it has

been applied, and how it interacts with others in conceptual frameworks. Comparative analysis in interdisciplinary research helps clarify conceptual overlaps and strengthens the interpretation of behavioral meaning (Whittemore & Knafl, 2005). This comparison enables a clearer understanding of how emotional and relational processes develop in settings where artificial companionship is introduced as a support mechanism.

3.3. Interpretative Focus and Theoretical Integration

The interpretative orientation emphasizes subjective meaning rather than technical capability. Artificial companionship involves programmed behavior, yet the psychological interpretation depends on personal history, emotional expectations, and perceived authenticity. Early psychological theories highlight the role of subjective interpretation in shaping emotional experiences (Bruner, 1990). Integrating such perspectives is essential when assessing responses to artificial agents in geriatric mental health contexts. The synthesis employs theoretical triangulation by placing the constructs in dialogue with frameworks from lifespan psychology, social presence theory, and research on artificial social interaction. Triangulation is used in qualitative mental health scholarship to build interpretative depth and validate conceptual reasoning (Carter et al., 2014). Through this integration, the analysis examines how older adults may relate to artificial companions in ways that sustain emotional wellbeing. This approach aligns ethical considerations with psychological interpretation by recognizing that artificial companionship must be viewed through human meaning making instead of functional performance alone. The conceptual synthesis thus provides a structured lens for understanding emotional processes associated with companionship technologies in geriatric mental health.

4. Results

4.1. Overview of the Emotional Continuity Framework (ECF)

The Emotional Continuity Framework presents a conceptual explanation of how older adults sustain emotional steadiness when interacting with artificial companions. The framework identifies emotional continuity as an adaptive condition shaped by three interconnected constructs: Perceived Presence, Psychological Reciprocity, and Social Rebalancing. These constructs reflect subjective experiences that develop when older adults interpret artificial companionship as supportive within their wider relational environment. The findings highlight the importance of reflective awareness, which allows individuals to differentiate artificial support from human relational engagement. Earlier work in digital transformation and healthcare suggests that emotional outcomes are influenced by user interpretation and the way technology integrates with existing social structures (Hameed et al., 2024). Research on conceptual modeling in geriatric care also indicates that integration of digital tools into everyday routines can influence feelings of security and continuity (Konopik & Blunck, 2023). The ECF builds on these foundations to explain how emotional roles may be extended without replacing the value of human contact. The results describe how each construct operates independently and as part of a broader adaptive equilibrium.

4.2. Perceived Presence: Experience of Emotional Attention

Perceived Presence refers to the sense of emotional attention experienced by older adults when interacting with artificial companions. This construct is not based on the technical accuracy of the system but on the user's interpretation of verbal responses, interaction rhythm, and behavioral cues. Older adults who seek companionship often interpret attentiveness through stability of interaction, regularity of contact, and conversational familiarity. The framework notes that Perceived Presence develops when artificial agents deliver responses that appear attentive or responsive to emotional needs. Work in communication psychology has shown that perceived attention can shape emotional safety even when the source is not human low (Lowenthal & Snelson, 2020). In geriatric settings, predictability plays an important role in shaping emotional appraisal. Older adults often prefer steady

and familiar forms of interaction, which artificial agents can provide through programmed routines. While this presence does not reflect genuine empathy, it is interpreted as emotionally supportive when framed as complementary to human contact.

Table 2. Conceptual Structure of Perceived Presence in Artificial Companionship

Component	Description	Supporting Sources
Interaction familiarity	Recognition of patterns that feel stable and emotionally accessible	(Lowenthal & Snelson, 2020)
Response consistency	Expectation of regular responses that reduce uncertainty	(Hameed et al., 2024)
Emotional attentiveness	Interpretation of system behavior as emotionally available	(Berridge et al., 2023)

4.3. Psychological Reciprocity: Interpretation of Mutual Attention

Psychological Reciprocity refers to the subjective interpretation that the artificial companion provides focused attention and responds in ways that feel personally relevant. The concept expands on work in human computer interaction that shows individuals often respond socially to machines that display conversational or behavioral cues similar to human interaction (Nass & Moon, 2000). The findings indicate that reciprocity develops not from actual emotional understanding but from the user's interpretation of responsiveness. In geriatric mental health contexts, reciprocity can emerge when artificial agents are used regularly and exhibit consistent patterns that suggest acknowledgement of user preferences or conversational themes. Early theories of relational interpretation emphasize that the sense of being understood can arise even when the partner has limited expressive capacity (Bruner, 1990). Within the ECF, reciprocity functions as an internal mechanism that supports feelings of emotional steadiness. When older adults perceive artificial interaction as responsive, they may experience reduced emotional isolation and greater comfort, especially during periods with limited human engagement.

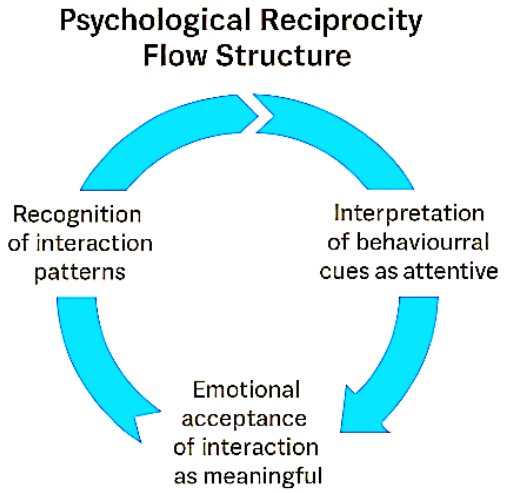

Figure 1. Psychological Reciprocity Flow Structure

A circular chart illustrates the development of Psychological Reciprocity. The first segment represents recognition of interaction patterns. The second segment reflects interpretation of behavioral cues as attentive. The third segment shows emotional acceptance of the interaction as meaningful. The final segment links these experiences to perceived continuity.

4.4. Social Rebalancing: Integration of Artificial and Human Relational Sources

Social Rebalancing refers to the adaptive process in which older adults incorporate artificial companionship into their relational environment while maintaining the importance of human connections. The construct explains how individuals manage emotional roles across multiple relational sources. Research in aging psychology indicates that older adults priorities emotionally meaningful contact, which influences how they interpret new forms of companionship (Carstensen et al., 1999). The findings show that Social Rebalancing supports emotional continuity when artificial companions are understood as additional supports that assist rather than replace interpersonal relationships. When integrated in this way, artificial companionship can offer regularity without reducing appreciation for human empathy or shared history. Literature in rehabilitation and assistive technologies demonstrates that older adults often prefer technologies that complement established social networks (Dosso et al., 2022). Through such integration, emotional steadiness is supported by a relational structure that includes both human and artificial sources.

Table 3. Interaction of Constructs Within the Emotional Continuity Framework

Construct	Role in Emotional Continuity	Conceptual Outcome
Perceived Presence	Provides stability of interaction and emotional reassurance	Sense of being accompanied
Psychological Reciprocity	Encourages interpretation of mutual attention	Perception of shared engagement
Social Rebalancing	Integrates artificial and human connections	Balanced emotional environment

4.5. Reflective Awareness as a Moderating Condition

Across the constructs, reflective awareness acts as a moderating condition that influences whether artificial companionship strengthens emotional continuity. Reflective awareness refers to the user's understanding that the artificial companion does not replace human relational depth. Work on ethical technology use highlights that awareness of artificiality is important for maintaining relational clarity (Sharkey & Sharkey, 2012). Findings show that emotional substitution supports wellbeing when individuals retain a realistic understanding of what the artificial companion can provide. When reflective awareness is present, older adults interpret artificial companionship as reliable in specific ways but still value human relationships for emotional complexity. This awareness reduces the risk of relational displacement, which occurs when artificial interaction becomes the primary emotional reference. Through reflective awareness, emotional continuity becomes a transitional coping resource rather than a transfer of emotional expectations to artificial systems.

4.6. Overall Interpretation of the Emotional Continuity Framework

The findings show that emotional continuity emerges when Perceived Presence, Psychological Reciprocity, and Social Rebalancing function in alignment, guided by reflective awareness. This adaptive condition helps older adults sustain emotional steadiness during periods of limited social contact. The framework explains how artificial companionship contributes to this process by offering familiarity, responsiveness, and structural support without replacing human relationships. The ECF clarifies the psychological processes involved in interpreting artificial agents as emotionally relevant, offering a structured conceptual explanation of how emotional wellbeing may be supported in later life digital care environments.

5. Discussion

The emergence of artificial companionship in geriatric mental health raises significant questions

about how emotional authenticity is understood in technologically supported care environments. Emotional authenticity traditionally relies on reciprocity, unpredictability, and shared human experience. Artificial agents, however, generate responses through programmed routines that provide consistency but lack personal history, intention, or emotional depth. The conceptual concern arises when older adults interpret these responses as emotionally genuine, even though the system cannot experience or express emotion in a human sense. Psychological models of emotion in aging note that individuals often priorities stability and emotional comfort (Carstensen et al., 1999), which may influence how artificial companionship is perceived. The discussion underscores that consistency provided by artificial agents can be interpreted as attentive, yet this consistency may reduce exposure to emotional variation, which is a core component of authentic relational experience. The development of meaningful therapeutic interventions must consider whether emotional needs are being met through interpretation rather than genuine empathy. Digital empathy refers to behaviors that simulate attentiveness or understanding through scripted responses. While these behaviors can help older adults feel acknowledged, there is a conceptual risk that emotional communication becomes overly standardized. Artificial agents do not vary their emotive responses in the way humans do, which can lead to an interaction environment marked by predictability and limited emotional range. Earlier work in social communication suggested that variability in emotional expression contributes to growth, resilience, and adaptation (Bruner, 1990). When emotional range is narrowed by consistent technological responses, older adults may experience fewer opportunities for emotional challenge or interpersonal negotiation. The discussion highlights the need for care professionals to monitor how older adults interpret digital empathy. Some individuals may rely on the artificial companion as a primary emotional reference, which can lessen exposure to the richness of human interaction. Clinicians and caregivers therefore carry an important responsibility in shaping expectations around what artificial companions can and cannot provide.

Balanced emotional engagement refers to the maintenance of relationships that draw on both human and artificial sources without reducing the value placed on human connection. Achieving balance requires intentional guidance from caregivers and mental health professionals. Older adults who interact frequently with artificial agents may develop a preference for the predictability of technological companionship. Research on geriatric mental health has shown that comfort, predictability, and familiarity influence relational choices in later life (Charles & Carstensen, 2010). This pattern can support emotional steadiness but may also encourage withdrawal from unpredictable human contact if not managed appropriately. The discussion identifies the importance of structured intervention, in which caregivers support users in integrating artificial companionship as a supplement. When relational support is framed in this manner, artificial companions provide emotional regularity while human relationships continue to offer depth, shared history, and variability. This deliberate balancing process encourages older adults to navigate emotional experiences across multiple relational contexts. Guided relational mediation refers to a structured approach in which caregivers frame artificial companionship as one component of a broader social environment. This concept emphasizes the role of intentional guidance to help older adults interpret the artificial companion as a supportive addition rather than a substitute for human interaction. Studies in assistive technology for older adults show that meaningful integration occurs when technological support coexists with interpersonal guidance (Dosso et al., 2022). Guided relational mediation also acknowledges the therapist's task of helping individuals understand the artificial companion's limitations. Clarifying these limitations supports emotional safety, as older adults maintain an accurate sense of relational boundaries. When mediation is applied consistently, users gain reassurance from artificial agents without reassigning key relational roles away from human caregivers or family members. The approach supports ethical care practices by promoting transparency and emotional differentiation, which are essential when integrating socially responsive technologies into mental health contexts.

The ethical concerns raised by artificial companionship extend beyond emotional authenticity to include issues of emotional influence, interpretive vulnerability, and relational boundary management. Artificial agents may subtly shape emotional responses through tone, phrasing, and interaction

frequency. This influence is unidirectional because the artificial companion does not possess emotional intention. Ethical discussions in digital care stress the importance of user awareness and informed relational interpretation (Sharkey & Sharkey, 2012). Emotional co regulation refers to the process through which individuals manage their emotional states in response to perceived engagement. In human interaction, co regulation involves shared intention and mutual adjustment. In artificial interaction, co regulation is based on the user's interpretation of consistent behavioral cues. The discussion identifies that although artificial agents can support emotional steadiness, they lack mutual emotional participation. For this reason, co regulation must be supported by caregivers who help users distinguish emotional reassurance from emotional dependency. The overall discussion highlights the need to reframe artificial companionship as an emotionally supportive tool rather than a relational substitute. Conceptual reframing encourages clinicians and caregivers to help users understand the benefits of steady artificial interaction while preserving the importance of human relationships. The reframing process strengthens wellbeing through conscious engagement with artificial and human sources of support. When interpreted appropriately, artificial companions contribute to a stable emotional environment that complements the richness of human contact. This conceptual lens helps mental health practitioners and social care professionals develop ethically sound strategies for integrating artificial companionship into geriatric care in ways that protect emotional authenticity and relational diversity.

6. Implications

6.1. Theoretical Implications

The Emotional Continuity Framework offers a theoretical foundation for understanding how older adults interpret artificial companionship in relation to emotional stability and relational meaning. This framework aligns with established psychological perspectives which highlight that emotional priorities shift toward stability and meaningful engagement in later life (Carstensen et al., 1999). The framework expands this perspective by clarifying how consistent artificial interaction can be interpreted as emotionally supportive when familiarity, predictability, and perceived attentiveness are present. Earlier work on mediated social interaction demonstrated that individuals can experience a sense of connection through consistent behavioral cues, even in the absence of human presence (Horton & Richard, 1956). By integrating these theoretical principles, the framework demonstrates that emotional continuity in technologically supported environments emerges from interpretation rather than genuine reciprocal emotion. The theoretical contribution also extends to understanding perceived reciprocity in artificial companionship. Research on human machine interaction shows that individuals often respond socially to machines when behavioral cues resemble interpersonal communication (Nass & Moon, 2000). The present framework applies this principle to geriatric care by explaining how artificial companions may help older adults sustain emotional steadiness during periods of reduced human contact. Recent empirical discussions on emotionally aligned social robots support the relevance of perceived responsiveness for emotional reassurance (Dosso et al., 2022). These insights strengthen the theoretical relevance of interpreting artificial engagement as part of a broader emotional environment rather than a replacement for human presence.

6.2. Practical Implications for Developers of Companionship Technologies

Developers can apply the framework to improve the design of artificial companionship systems used in geriatric care. Perceived presence is strengthened when interaction patterns are familiar and predictable, which suggests that systems should priorities stable conversational structure and consistent response timing. Findings from social presence research indicate that emotional reassurance is influenced by conversational flow and continuity (Lowenthal & Snelson, 2020). Design strategies may include adaptive conversational models that maintain familiarity while avoiding rigid standardization. Developers may also incorporate emotional reciprocity indicators that help users feel noticed within the interaction, without giving an impression of human emotional capacity. This aligns with ethical

expectations in assistive technology design, where clarity and transparency are essential for responsible use (Sharkey & Sharkey, 2012). Another important implication concerns relational balance. Artificial companions should be designed in ways that avoid encouraging isolation from human relationships. Developers may integrate features that remind users of human appointments, social commitments, or opportunities for in person connection. Recent discussions on social robots for older adults emphasize the value of systems that complement human social networks rather than replacing them (Berridge et al., 2023). Through such design approaches, artificial companionship can support emotional steadiness while preserving opportunities for interpersonal contact.

6.3. Clinical Implications for Mental Health Professionals and Care Teams

Clinicians and care practitioners can use the framework to evaluate emotional patterns among older adults who interact with artificial companions. Emotional interpretation varies across individuals based on their history, personality, and relational orientation. Mental health professionals may apply the framework to assess whether artificial companionship provides reassurance or whether it risks becoming a dominant emotional source. Clinical experience suggests that older adults benefit from structured guidance when integrating new relational tools into their care environments (Robinson et al., 2013). Using the framework, clinicians can support balanced engagement by encouraging older adults to maintain contact with human support networks while using artificial systems as secondary companions. The concept of guided relational mediation introduced in the framework is especially relevant for clinicians. Care teams may facilitate discussions that help older adults recognize the emotional limitations of artificial systems while still appreciating their supportive role. Guided mediation helps preserve emotional authenticity by ensuring that artificial companionship supplements, rather than replaces, human interaction. This supports ethical practice in mental health settings by promoting clarity, relational safety, and informed engagement.

6.4. Policy Implications for Ethical Technology Integration

Policymakers can apply the framework to support the ethical design and deployment of artificial companionship in geriatric settings. Policy directions may include establishing transparency standards to ensure that older adults understand the capabilities and limitations of artificial systems. Ethical guidelines developed in digital health research stress the importance of user awareness, informed consent, and emotional clarity when implementing socially responsive technologies (Sharkey & Sharkey, 2012). Training programs for practitioners can also be informed by the framework, promoting sensitivity to emotional interpretation, relational balance, and the psychological conditions under which artificial companionship contributes to wellbeing. Such policies support safe integration of artificial companionship without compromising the relational richness essential to mental health in older adults.

7. Conclusion

The conceptual work presented here offers a structured understanding of how emotional substitution operates within artificial companionship for older adults and explains why this process can support psychological steadiness when used with clarity and ethical awareness. By outlining emotional continuity as a condition shaped through interpreted presence, perceived reciprocity, and balanced relational engagement, the framework positions artificial companionship as an adaptive support rather than a replacement for human connection. This perspective contributes to ongoing discussions in geriatric mental health by illustrating how older adults interpret technological interaction in ways that can sustain emotional comfort during periods of reduced interpersonal contact. The conceptual approach clarifies that psychological benefit arises not from the system's emotional capacity but from the user's interpretation of stable and attentive interaction. The work also acknowledges its conceptual boundaries. The reliance on secondary theoretical material limits the capacity to describe how emotional substitution develops across diverse cultural settings or among individuals with different

cognitive profiles. Empirical exploration is needed to understand how emotional experiences change as artificial companionship becomes more integrated into daily routines. Longitudinal qualitative designs can contribute valuable insight by examining how older adults describe relational meaning over time. Future inquiry may also benefit from integrating personal narratives with analytical tools that capture patterns in emotional expression, which can help refine the framework for use in clinical decision making. Through such empirical extension, the framework can evolve into a practical guide for supporting emotionally aware and ethically grounded companionship technologies in geriatric care.

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