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Socio-Emotional Selectivity in Patients With Severe Chronic or Life-Threatening Conditions: A Systematic Review of Changes in Social Goals and Psychological Well-Being in Alzheimer's Disease and Cancer

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ABSTRACT

Theory of socio-emotional selectivity (SST) posits that social goals and emotional priorities shift when individuals perceive their remaining lifetime as limited. While well established in aging, its relevance in severely ill patients is underexplored. This systematic review focuses on Alzheimer's disease and cancer as conditions marked by a limited time perspective. Thirteen empirical studies were analyzed regarding (1) prioritization of emotionally meaningful relationships, (2) the role of disease progression in intensifying social selectivity, (3) links between social embedding and psychological adaptation, and (4) the role of perceived time horizon. Findings consistently support SST: patients prioritize close emotional bonds, with selectivity increasing as illness advances. Strong emotional networks are associated with greater psychological resilience and reduced distress. These results highlight the clinical value of fostering meaningful social connections in severely ill individuals. Future research should clarify causal mechanisms, particularly the mediating role of time perception, expand to other neurodegenerative conditions, and develop interventions suited to patients with cognitive or physical limitations.

1 | Introduction

1.1 | The Theory of Socio-Emotional Selectivity

A central assumption of lifespan psychology states that individuals actively shape their development from birth to old age [1, 2]. Socio-emotional selectivity theory (SST) [3] highlights the motivational consequences of time perception over the course of life. It posits that individuals with an open time horizon (e.g. during youth) strive for new experiences and knowledge expansion. In contrast, individuals with a time-limited horizon (e.g. older adults) are more motivated to maintain meaningful social connections and pursue emotional goals [4].

Another important insight of SST is that the shift in priorities is not solely age-related but can be amplified by situational factors such as health crisis, life changes, or external stressors. The theory highlights that the perception of time as a resource affects how individuals set goals and make decisions. Carstensen and colleagues have found that individuals with a limited future perspective tend to strive more for emotional meaning and social connectedness, while knowledge and exploration goals recede into the background [5]. The study examined various populations

including older adults and individuals with human immunodeficiency virus (HIV) to understand how perceptions of limited time influenced their social goals and emotional well-being. The study examined asymptomatic and symptomatic HIV-positive individuals as well as healthy controls. The findings showed that symptomatic patients who experienced their illness as life-threatening displayed socio-emotional preference patterns similar to those typically observed in older adults, whereas asymptomatic HIV-positive individuals and healthy controls showed a more future-oriented, knowledge-focused pattern. The shift in motivation was associated with greater psychological resilience and improved emotional well-being. This study provided strong empirical support for the idea that perceived temporal constraints, whether due to age or illness, play a crucial role in shaping human social behavior and emotional priorities.

SST is supported by various studies that illustrate its impact across different age and cultural contexts. Research has shown that older adults tend to invest more in close, emotionally meaningful relationships while reducing peripheral social contexts [6]. Additionally, SST postulates that a constrained time perspective influences cognitive and affective processing. For instance, older adults tend to exhibit a positivity bias, focusing more on and remembering positive rather negative information—a pattern that has been linked to enhanced emotional regulation [7].

Beyond its implications for aging, SST provides insights into how individuals cope with stressful and life-threatening situations. Studies indicate that younger individuals facing terminal illness or severe health conditions adopt social and emotional preferences similar to those of older adults [8]. This suggests that SST is not merely a function of chronological age but rather of the perceived temporal horizons.

1.2 | SST in the Context of Severely Ill Patients

The application of SST to severely ill patients is a promising approach to better understand their emotional and social needs. This is particularly relevant for patients diagnosed with cancer or Alzheimer's disease, who often face significant emotional and profound psychological burdens. The confrontation with the finiteness of life leads to a reprioritization of social and emotional goals. Studies indicate that patients in such situations increasingly seek emotional interactions and engage less in superficial interactions [9]. Research has shown that this patient group significantly experiences loneliness, depression, and restricted social participation [10]. Further studies suggest that emotional support and the development of social networks can significantly improve psychological resilience of severely ill individuals [11].

1.2.1 | Disease-Specific Pathways to Constrained Time Perception

The two focal conditions of this review—Alzheimer's disease and cancer—illustrate distinct pathways through which time perception becomes constrained and thereby activates the motivational shifts postulated by SST. In Alzheimer's disease, progressive cognitive decline affects key processes for constructing and maintaining a coherent sense of the future. Deficits in episodic memory, prospective thinking, and temporal sequencing shorten the subjective future horizon, fostering a more immediate, present-oriented focus [12, 13]. As the disease advances, individuals experience increasing difficulty in anticipating long-term outcomes, planning ahead, or maintaining chronological continuity. Consequently, emotional meaning and familiarity become central, while novel or knowledge-related pursuits lose salience—a pattern consistent with findings on positivity and motivational selectivity in aging [4, 7]. This gradual temporal compression provides a neurocognitive route toward the same motivational configuration that SST describes in later adulthood. In contrast, cancer typically involves an abrupt confrontation with mortality that reshapes patients' temporal outlook in a more sudden and existential way. Diagnosis, treatment, and the risk of recurrence punctuate the disease trajectory, continuously reminding patients of the finiteness and unpredictability of life. Such acute awareness of limited time has been shown to trigger a rapid reprioritization of goals, with greater emphasis on emotionally meaningful relationships, family bonds, and life review [14, 15]. While cognitive capacities remain largely intact, the experiential and prognostic constraints of cancer narrow perceived future time and elicit motivational patterns closely aligned with those found in older adults [5, 16]. Despite their divergent origins—neurological in Alzheimer's disease and existential—clinical in cancer—both trajectories converge on the central postulate of SST: that a limited perception of future time reorients motivation toward emotionally significant goals and relationships. Understanding these condition-specific dynamics clarifies why socio-emotional selectivity emerges not only as a function of chronological aging but also as an adaptive response to the subjective finiteness of life imposed by illness.

1.2.2 | Research Aim and Hypotheses

Given the extensive body of literature supporting SST in the context of aging, the primary goal of this review is to examine whether the motivational changes typically observed with aging also emerge among individuals who, independent of chronological age, experience a limited future time perspective due to severe illness. By comparing findings from studies on Alzheimer's disease and cancer, the review explores whether it is the perception of time limitation—rather than age itself—that drives socio-emotional selectivity. While previous studies primarily focused on aging populations, there remains a gap in understanding how social goals and social embedding evolve in individuals focusing on neurodegenerative or life-threatening diseases. This review focuses on Alzheimer's disease and cancer as two conditions that exemplify distinct but comparable trajectories of life-threatening illness. Both diagnoses are associated with a limited future time perspective and significant psychological burden. Their selection also reflects the existing state of research, but systematic integration is still lacking.

Thus, this review will systematically evaluate research articles that explore the perception of these diagnoses, particularly in relation to changes in social motivation and interpersonal relationships. The following hypotheses are proposed based on the existing literature:

> H1: Patients with Alzheimer's disease or cancer will display stronger socio-emotional selectivity—preferring emotionally meaningful over novel social interactions—than healthy, age-matched individuals or those perceiving an open-ended time horizon.

H2: The extent of social shifts will be influenced by disease progression and perceived time horizon, with more advanced stages correlating with stronger emotional selectivity.

H3: Although SST itself does not postulate that emotionally meaningful relationships directly cause well-being, exploring this association in clinical populations helps to clarify the adaptive implications of socio-emotional selectivity for psychological adjustment under life-threatening conditions.

H4: A constrained perception of remaining lifetime will mediate or moderate the association between disease severity and socio-emotional selectivity; patients who perceive less future time will prioritize emotionally meaningful relationships more strongly.

2 | Method

2.1 | Literature Search

The literature search was conducted systematically using four major academic databases: PubMed, PsycINFO, Google Scholar, and Scopus. Boolean operators were applied to refine the search strategy using the following keyword combination: "*Socio-emotional selectivity theory*" AND "*social goals*" OR "*social embedding*" AND "*Alzheimer's disease*" OR "*cancer patients*" OR "*Neurodegenerative disease*" AND "*psychological well-being*"; "*Time Perception*" AND "*Alzheimer's disease*" OR "*Cancer*" and "*Social Shift*" AND "*Alzheimer's disease*" OR "*Cancer*". For this initial search, 62 articles were selected for a more detailed review to assess their relevance to the hypotheses.

2.2 | Study Selection and Inclusion Criteria

Articles were screened in multiple stages. First, duplicates were removed, and the remaining articles were screened based on title and abstract. While the primary focus of this review lies on Alzheimer's disease and cancer, studies on other neurodegenerative conditions were included, where they addressed comparable psychological dynamics. Alzheimer's disease, as a prototypical neurodegenerative disorder, provides a conceptual bridge to related conditions in which socio-emotional selectivity may likewise play a central role. Studies that did not explicitly address socio-emotional selectivity, social goals, social embedding, or psychological well-being in the context of Alzheimer's disease or cancer were excluded. The full text of the remaining articles was then addressed for relevance. Inclusion criteria were (1) peer-reviewed empirical studies published in English or German, (2) studies that measured social goals, social embedding, time perception, or psychological well-being, (3) studies including patients with Alzheimer's disease or cancer, and (4) research articles published between 2014 and 2025. All included studies were published in peer-reviewed journals and followed ethical guidelines for human research. The timeframe was selected to ensure the inclusion of contemporary empirical research reflecting the most recent methodological and theoretical developments in the application of SST to health and illness contexts. Restricting the search to the past decade also enhanced conceptual comparability, as studies in this period increasingly examined time perception, social motivation, and psychological adaptation in clinical populations. In addition, two earlier empirical studies [13, 14] were included based on targeted citation tracking because they represent seminal applications of SST to cancer and Alzheimer's disease.

2.3 | Data Extraction and Analysis

Results from the selected articles were systematically extracted and categorized based on their relevance to the hypotheses. The extracted study characteristics included (author, year, journal), methodological details (sample size, population, study design), measurement instruments, key findings, and reported effect sizes. For each study, demographic data were extracted, including mean age, age range, and where available, standard deviation. These data are reported in Appendix (Table A1) to facilitate comparison across samples and to clarify potential age-related differences. Studies were then grouped according to their alignment with Hypotheses 1, 2, 3, and 4. In addition to variables related to social goals and well-being, indicators of time perception (e.g., subjective time awareness, future time perspective, or illness-related temporal appraisals) were extracted when reported. These variables were considered in relation to H4 to explore whether perceived temporal limitation mediates or moderates socio-emotional selectivity in the reviewed populations.

2.4 | Ethical Considerations

This systematic review is based solely on previously published, peer-reviewed research. No new data involving human participants were collected or analyzed by the authors. All included studies were conducted in accordance with established ethical standards and obtained informed consent from participants where applicable. To maintain participant anonymity and confidentiality, no identifying information is reported.

3 | Results

The following section presents the findings of the systematic review based on the selected studies supporting Hypothesis 1, Hypothesis 2, Hypothesis 3, and Hypothesis 4. The results are grouped according to their alignment with these hypotheses, highlighting key insights from each study. The synthesis focuses on the impact of socio-emotional selectivity on social goal prioritization, changes in social embedding, and psychological well-being among individuals diagnosed with Alzheimer's disease or cancer. A total of 13 studies were included in this systematic review following a structured selection process. The study identification and screening process are summarized in the PRISMA flow diagram (Figure 1), providing an overview of the inclusion and exclusion criteria applied. Additionally, an overview of the included studies can be found in Table A1 in the appendix.

3.1 | Hypothesis 1—Socio-Emotional Selectivity and Social Goal Prioritization

To examine Hypothesis 1, which suggests that individuals with Alzheimer's disease or cancer prioritize social goals more strongly than healthy control groups, multiple studies investigating social preferences and emotional significance in goal setting were analyzed.

Bohn et al. [18] compared individuals with Alzheimer's disease to younger, young–old, and old–old adults using a card-sorting

task to assess preferences for different social activities. Despite cognitive decline, patients with Alzheimer's disease showed a clear preference for emotionally meaningful activities. This preference was positively associated with subjective well-being, and the effect size for the preference for meaningful activities in Alzheimer's group was medium to large (Cohen's $d = 0.62$, 95% CI: 0.40–0.84, $p < 0.01$).

Pinquart and Silbereisen [14] examined social partner preferences in newly diagnosed cancer patients compared to healthy controls. Using structured interviews, they found that cancer patients more frequently prioritized contact with familiar and emotionally close social partners over new acquaintances. This pattern was most pronounced in young and middle-aged patients. Over a 6 month period, patients who perceived their treatment as more successful showed increased interest in expanding their social networks.

Sullivan-Singh et al. [15] investigated women with metastatic breast cancer and healthy controls across two studies. Women facing a limited future time horizon more strongly prioritized goals related to emotional closeness and meaningful engagement than controls. This goal structure was associated with better psychological adjustment over a 3 month follow-up.

Across the reviewed studies that included control groups, patients tended to show stronger socio-emotional selectivity than healthy age-matched or younger controls, consistent with the SST proposition that perceived future time—rather than chronological age per se—shapes emotional goal orientation.

3.2 | Hypothesis 2: Social-Emotional Selectivity and Social Embedding

Four studies addressed whether social embedding and the structure of social networks change as disease progresses or as future time is perceived as more limited.

Ashworth [12] conducted a qualitative study involving individuals diagnosed with Alzheimer's disease at different stages of progression. As the disease advanced, participants increasingly focused on the present moment, emphasized emotionally close relationships, and reduced long-term planning and engagement with peripheral contacts.

Giuliani et al. [19] presented a metasynthesis of qualitative studies in palliative care. Across studies, patients reported changes in their perception of time (e.g., "suspended time") and a re-evaluation of social priorities near the end of life. Many described a narrowing of their social world to a smaller circle of emotionally important relationships.

Mark [13] provided an analysis of the applicability of SST to individuals living with Alzheimer's disease. The author argued that despite cognitive impairments, individuals with Alzheimer's continue to prioritize positive emotional experiences and close interpersonal bonds, while more superficial or instrumental social contacts become less central.

van der Goot et al. [20] conducted an experimental study comparing younger and older adults' preferences for emotionally meaningful versus knowledge-oriented communication appeals in health-related contexts. Older adults, particularly those with health concerns, showed a stronger preference for emotionally meaningful content. Although this study did not exclusively focus on patients, it indicates that health vulnerability and a more limited future perspective are associated with greater emotional selectivity in social and communicative preferences.

3.3 | Hypothesis 3: Socio-Emotional Selectivity and Psychological Well-Being

Six studies examined associations between social relationships, social support, and indices of psychological well-being in patients with chronic or life-threatening illness.

Aksoy et al. [21] analyzed data from individuals with and without chronic illness in the context of the COVID-19 pandemic. Higher levels of perceived emotional and instrumental social support were associated with better mental well-being among participants with chronic conditions.

Badana et al. [22] investigated the psychological impact of socio-emotional factors on cancer patients undergoing treatment. Their study examined 250 participants and found that higher levels of social support and emotional closeness significantly reduced symptoms of anxiety and depression ($\beta = -0.38$, 95% CI: -0.52–-0.24, $p < 0.001$). Social resources appeared to buffer the negative impact of symptom burden on psychological outcomes.

Biswas et al. [23] investigated the impact of perceived social support on the mental health status of 115 patients with advanced cancer receiving palliative care in Bangladesh. The results showed that higher levels of perceived social support were significantly associated with reduced symptoms of depression, anxiety, and stress.

Brajković et al. [24] explored the predictors of subjective well-being in cancer patients and identified perceived social support as a central factor. In their cross-sectional analysis, emotional support was found to be positively associated with greater psychological well-being and lower emotional distress.

Yang et al. [25] conducted a cross-sectional analysis of 220 patients with advanced lung cancer. The study aimed to describe the fear of progression (FoP) among these patients and explore its associations with symptom experience, family support, and health literacy. Findings revealed that 31.8% of participants experienced dysfunctional FoP. Better symptom experience, higher family support, and greater health literacy were directly correlated with lower FoP. Additionally, higher health literacy was indirectly associated with reduced FoP through improved symptom experience. The authors concluded that strengthening symptom management, building robust family support systems, and enhancing patients' health literacy may be effective strategies to reduce FoP in this population. This study underscores the multifaceted nature of psychological well-being in advanced lung cancer patients.

Zhu et al. [26] examined factors influencing psychosocial adaptation in cancer patients, focusing particularly on the role of social support. Their findings indicated that patients who reported strong emotional and family support demonstrated significantly better psychological adjustment and lower distress levels.

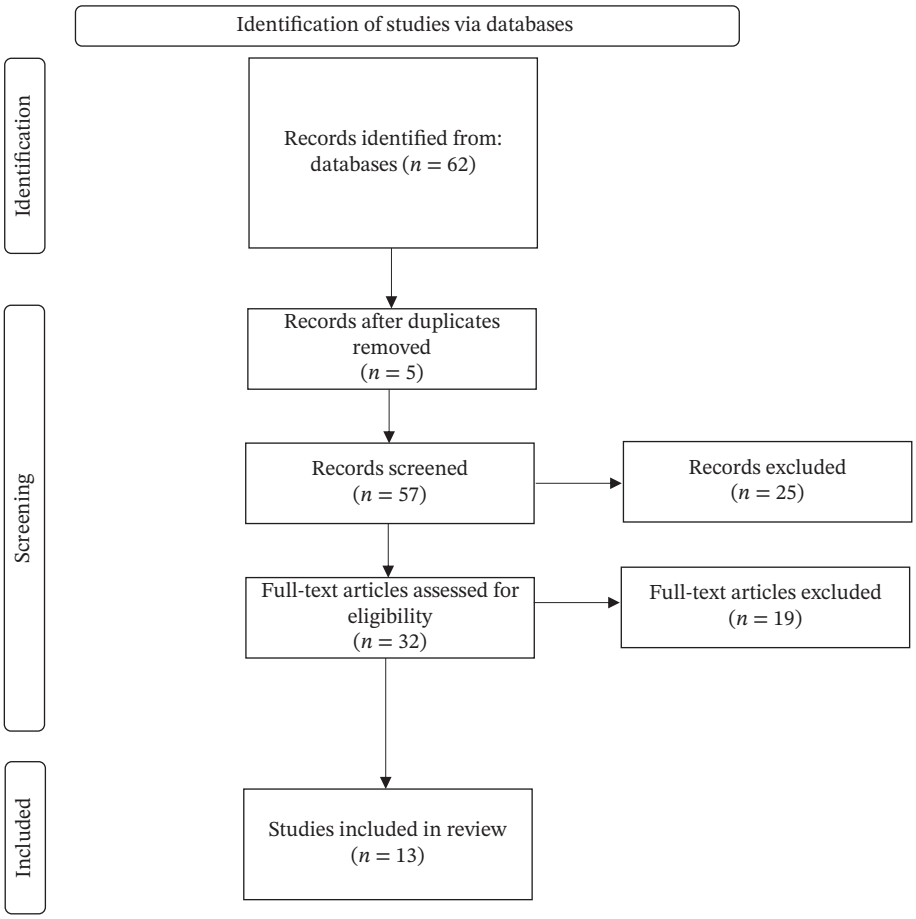

FIGURE 1 | PRISMA 2020 flow diagram for new systematic reviews. Note. Retrieved from: [17].

3.4 | Hypothesis 4: Time Perception and Socio-Emotional Selectivity

Several studies indirectly addressed the role of time perception in socio-emotional selectivity. For example, Sullivan-Singh et al. [15] found that women with metastatic breast cancer who perceived their future as limited prioritized emotionally meaningful goals more strongly than healthy controls. Similarly, Donev et al. [27] reported that cancer patients with faster subjective time perception showed heightened anxiety and urgency in interpersonal engagement, suggesting that altered temporal awareness may influence emotional selectivity. Although none of the reviewed studies directly tested time perception as a mediator, these findings support the central SST assumption that perceived temporal limitation is a key mechanism linking illness severity and socio-emotional motivation.

4 | Risk of Bias (RoB) Assessment

To assess the methodological quality of the included studies, an RoB [28] assessment was conducted using appropriate tools based on study design. Given that most studies were observational, cross-sectional, or qualitative, the ROBINS-I tool (Risk of Bias in Non-Randomized Studies of Interventions; for observational studies and qualitative research appraisal frameworks for qualitative studies) (ROBINS-I *Tool* [29]) was applied. These tools evaluate bias across key domains, including selection bias, performance bias, detection bias, attrition bias, reporting bias, and confounding factors. The results of this assessment are summarized in Table A2 in the appendix.

The RoB varied across studies. Studies such as Aksoy et al. [21], Badana et al. [22], Yang et al. [25], and Zhu et al. [26] demonstrated low to moderate risk and employed sound methodologies, including validated instruments and clearly defined sampling strategies. These studies provide relatively strong evidence for the hypotheses.

Studies such as Ashworth [12], Bohn et al. [18], Biswas et al. [23], Brajković et al. [24], Giuliani et al. [19], Mark [13], Pinquart and Silbereisen [14], Sullivan-Singh et al. [15], and van der Goot et al. [20] were rated as moderate to higher risk due to limitations such as small or nonrepresentative samples, limited control for confounding variables, lack of randomization, and, in some cases, reliance on qualitative or theoretical frameworks. While these studies provide valuable insights, their findings should be interpreted with appropriate caution.

Overall, despite some methodological limitations, the included studies offer a coherent and meaningful synthesis. To enhance future evidence quality, research should strive for larger, more diverse samples, use of longitudinal designs, and more robust strategies for controlling potential sources of bias.

5 | Discussion

This systematic review examined whether the motivational shifts described by SST in the context of aging also emerge in patients facing severe chronic or life-threatening conditions, specifically Alzheimer's disease and cancer [3, 4, 6]. Across the 13 included studies, a consistent pattern emerged: patients prioritized emotionally meaningful relationships; these preferences intensified with advancing disease or more constrained time horizons, and stronger social embedding was linked to better psychological adaptation. Evidence regarding time perception as an underlying mechanism was more indirect but pointed in a convergent direction.

5.1 | Theoretical Implications for SST

The findings for Hypothesis 1 indicate that patients with Alzheimer's disease or cancer exhibit patterns of socio-emotional selectivity that are at least as pronounced as those observed in older adults without severe illness [14, 15, 18]. Across studies with comparison groups, patients more often preferred emotionally close social partners and meaningful activities over novel contacts or knowledge-oriented pursuits [14, 18]. This supports the central SST claim that perceived future time, rather than chronological age alone, shape's social goal structures [3, 4, 6, 9].

Hypothesis 2 focused on changes in social embedding and the structure of social networks as illness progresses. Qualitative, theoretical, and experimental work converged on the conclusion that advanced stages of illness are associated with a narrowing of the social world and a stronger focus on emotionally significant relationships [12, 13, 19, 20]. At the same time, the reviewed literature highlights important differences between Alzheimer's disease and cancer. In Alzheimer's disease, gradual cognitive decline and increasing difficulties in future-oriented thinking contribute to a more present-focused, emotionally anchored form of social engagement [12, 13]. In cancer, by contrast, diagnosis, treatment, and risk of recurrence often induce an abrupt confrontation with mortality and more rapid shifts in social priorities [19, 30, 31]. These distinct trajectories nonetheless lead to a similar motivational configuration that is well captured by SST, which posits that perceptions of limited future time increase the salience of emotionally meaningful goals and relationships [4, 7].

The evidence related to Hypothesis 3 extends SST from a primarily descriptive and explanatory framework to its adaptive implications in clinical populations. Although SST does not claim that emotionally meaningful relationships directly cause better well-being [5, 9], the reviewed studies consistently showed that patients who felt more emotionally supported and embedded in close relationships reported lower levels of depression, anxiety, stress, and fear of progression, as well as better overall psychological adjustment [21–26]. This pattern is compatible with SST's assumption that emotionally meaningful relationships serve as a key resource when future time is experienced as limited [3, 4]. It also suggests that socio-emotional selectivity may have beneficial consequences for coping and resilience under conditions of severe illness [24–26].

Hypothesis 4 addressed time perception as a potential mechanism linking illness severity and socio-emotional selectivity. The available evidence remains preliminary but points in a coherent direction. Studies with cancer patients showed that more limited future time perspectives and altered subjective time perception were associated with stronger emotional goal orientation and increased urgency in interpersonal engagement [15, 27, 32]. Work on Alzheimer's disease similarly suggests that cognitive changes that shorten subjective future horizons are accompanied by a shift toward present-focused, emotionally salient interactions [12, 13]. Together, these findings support the idea that constrained time perception—whether driven by neurocognitive decline or existential threat—constitutes a central mechanism that connects severe illness with the motivational shifts described by SST [4, 7]. However, because time perception was rarely measured with standardized instruments or tested as a formal mediator, its role remains an important target for future research [15, 32].

Finally, the comparative perspective on Alzheimer's disease and cancer clarifies why it is theoretically meaningful to examine these two conditions together. Both diagnoses substantially restrict perceived future time and expose individuals to profound psychological burden, yet they do so via different pathways—gradual neurodegeneration versus abrupt life-threatening diagnosis with often preserved cognition [12, 13, 19, 30, 31]. The convergence of socio-emotional selectivity patterns across these distinct disease trajectories strengthens the argument that SST captures a general motivational response to perceived finiteness of life, rather than a phenomenon limited to normative aging [5, 9].

5.2 | Practical Implications

The findings of this review underscore the relevance of SST for clinical contexts beyond aging, particularly in patients facing life-threatening conditions such as Alzheimer's disease or cancer. Across the reviewed studies, emotionally meaningful relationships emerged as central to social motivation, emotional resilience, and psychological well-being in severely ill individuals. These insights provide concrete directions for enhancing patient-centered care in neurology, oncology, intensive care, and palliative care settings.

For individuals with Alzheimer's disease, maintaining access to emotionally meaningful relationships may be particularly important, as familiar emotional contexts can help sustain a sense of identity, reduce disorientation, and buffer behavioral and psychological symptoms of dementia. Because cognitive decline and impaired verbal communication limit patients' ability to initiate or maintain such interactions independently, healthcare providers should proactively facilitate social connectedness. This can include involving close caregivers in routine care, using reminiscence-based approaches, and supporting nonverbal forms of emotional communication [33, 34].

In oncology, intensive care, and palliative care settings, where patients face acute physical limitations, SST-informed strategies may help mitigate distress. Examples include ensuring access to trusted family members or emotionally important caregivers whenever possible, even under restrictive care protocols, and deliberately structuring clinical encounters so that emotionally significant others can be present at critical decision points. Digital tools—such as video calls, adaptive communication aids, or eye-tracking-based interfaces—can support patients with

cognitive or physical limitations in maintaining contact with their core social network [35–37].

Psychosocial care protocols should routinely assess patients' emotional needs and perceived social support. Interventions that systematically strengthen emotionally meaningful relationships—such as family-centered rounds, structured family meetings, narrative or life-review interventions, and emotionally focused counseling—may foster psychological adaptation and resilience. At the same time, clinical staff should receive training to recognize shifts in patients' social goals and relational sensitivities as disease progresses. In progressive conditions like Alzheimer's disease, relational presence and emotional familiarity can significantly enhance patient experience even when verbal communication is severely restricted [12, 13, 33].

5.3 | Conclusion and Future Research

This systematic review provides converging evidence that the core assumptions of SST generalize to patients with severe chronic or life-threatening conditions. Across the included studies, individuals with Alzheimer's disease and cancer prioritized emotionally meaningful relationships, especially when their perceived future time was limited or their disease had progressed. Emotional closeness and social embedding were consistently associated with better psychological outcomes, supporting the notion that socio-emotional selectivity is not only a descriptive pattern of motivation but also an adaptive response in the context of serious illness.

At the same time, several gaps remain. First, the mechanisms linking time perception, social goal reprioritization, and psychological adaptation require more rigorous empirical testing. Future studies should include standardized measures of future time perspective, subjective time perception, and illness-related temporal appraisals and examine their mediating or moderating role in larger samples. Second, Alzheimer's disease is underrepresented in the current evidence base compared to cancer, despite its high prevalence and characteristic alterations in cognition and communication. Third, most available studies are cross-sectional; longitudinal and multimethod designs are needed to capture how social motivation and emotional selectivity evolve across different stages of illness and treatment.

There is also a need for intervention studies that explicitly build on SST by targeting emotionally meaningful relationships and constrained time perception. Such interventions could test whether strengthening core social bonds, reframing time horizons, or supporting present-focused emotional engagement improves emotional outcomes and quality of life. Finally, future research should systematically address cross-cultural differences in socio-emotional selectivity under conditions of severe illness, as cultural norms and healthcare structures likely influence both perceived time and social goal priorities.

5.4 | Limitations

Despite the overall coherence of the reviewed findings, this systematic review has several limitations. The included studies varied widely in design, methodology, sample size, and clinical populations, introducing heterogeneity that limits direct comparability and generalizability. Many studies used cross-sectional designs, which preclude causal inferences about the relationships between time perception, social motivation, and emotional outcomes. In addition, not all studies explicitly tested SST assumptions or employed standardized measures of key constructs such as time perception, social goal prioritization, or emotional selectivity. Some works were included primarily for their conceptual relevance rather than their empirical rigor.

The evidence base on Alzheimer's disease was notably smaller than that on cancer, reflecting a broader imbalance in the literature. Most studies were conducted in Western, high-income countries, with limited representation of non-Western or low- and middle-income contexts. Because cultural values, family structures, and healthcare systems shape perceptions of time, social roles, and emotional priorities, the current findings may not fully capture global diversity in patient experiences. Addressing these limitations through more diverse, methodologically robust research will be essential to refine SST as a framework for understanding socio-emotional processes in severe illness and to translate it into clinically meaningful applications.

Author Contributions

Christina Ingwald: conceptualization, methodology, formal analysis, writing–original draft, and supervision.

Mara Mussehl: review and editing.

Robert Gaschler: supervision, methodology, validation, and writing–review and editing.

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All authors have read and approved the final manuscript and agree to be accountable for all aspects of the work. No third-party services or unlisted individuals were involved in the research or manuscript preparation. All contributions have been appropriately acknowledged.

Ethics Statement

This review includes only previously published studies that received ethical approval from their respective institutions. No new data were collected or analyzed by the authors.

Consent

This systematic review is based solely on previously published studies and does not involve any new data collection from human participants.

No participants were recruited or involved in this review.

No individual data or identifiable information are included in this manuscript.

Conflicts of Interest

The authors declare no conflicts of interest.

Data Availability Statement

No new data were generated or analyzed in this study. All data are derived from previously published sources.

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Appendix

TABLE A1 | Studies included in the review listed by hypothesis.

Study	Author (year)	Design	Age ($M \pm$ SD/range)	Effect size	p value	Key finding
Hypothesis 1						
1	Bohn et al. [18]	Cross-Sectional	84.28 ± 4.12	$d = 0.62$	0.01	Age-related positivity effect in memory; time perspective did not moderate this effect
2	Pinquart & Silbereisen [14]	Observational	57.8 ± 14.9/18–83	NA	NA	Cancer patients preferred familiar over unfamiliar social partners; shift over time with perceived therapy success
3	Sullivan-Singh et al. [15]	Observational	57.46 ± 10.74	NA	NA	Metastatic cancer patients emphasized emotional goals over time; associated with better adjustment
Hypothesis 2						
4	Ashworth [12]	Qualitative focus group study	NA	NA	NA	Alzheimer's patients in later stages focus more on present-oriented, emotionally close relationships
5	Giuliani et al. [19]	Metasynthesis	NA	NA	NA	Palliative patients revise social priorities as time perception changes near end of life
6	Mark [13]	Theoretical analysis	NA	NA	NA	Argues that Alzheimer's patients exhibit emotional selectivity consistent with SST-related perception.
7	van der Goot et al. [20]	Experimental	Younger: 34.96 ± 5.55; Older: 71.04 ± 5.07	NA	< 0.05	Older adults prefer emotionally meaningful over knowledge-focused content, especially in health-related settings
Hypothesis 3						
8	Aksoy et al. [21]	Cross-Sectional Study	MCS: Age = 19: MSCP: >> 19	NA	< 0.001	Higher perceived social support predicted better mental well-being in chronically ill individuals
9	Badana et al. [22]	Cross-Sectional Study	56.04 ± 10.70	NA	< 0.001	Higher levels of patient symptoms were associated with poorer well-being across all indicators.
10	Biswas et al. [23]	Cross-Sectional Study	50.7 ± 14.4	NA	< 0.001	Higher social support associated with lower anxiety, depression, and stress in advanced cancer patients
11	Brajković et al. [24]	Cross-Sectional Study	42.5 ± 12.5/20–75	NA	< 0.001	Perceived emotional support predicted subjective well-being in cancer patients
12	Yang et al. [25]	Cross-Sectional study	53.75 ± 8.30	NA	NA	31.8% of patients exhibited dysfunctional fear of progression.
13	Zhu et al. [26]	Observational	NA	NA	NA	Social support positively associated with psychological adaptation in cancer

Note: M = mean.
Abbreviations: MCS, Millennium Cohort Study; MCSP, Millennium Cohort Study Parents; SD, standard deviation.

TABLE A2 | Risk of bias assessment using RoB 2.0 and ROBINS-I.

Study	Selection bias	Performance bias	Detection bias	Attrition bias	Reporting bias	Confounding factors	Justification
Aksoy et al. [21]	Low	Low	Low	Low	Low	Moderate	Large sample; validated instruments; limited detail on confounder control
Ashworth [12]	Moderate	Unclear	Moderate	Unclear	Low	High	Small qualitative sample; no systematic control for confounders
Badana et al. [22]	Moderate	Low	Moderate	Unclear	Unclear	High	Convenience sampling and self-report measures limit reliability.
Biswas et al. [23]	Moderate	Low	Moderate	Low	Low	Moderate	Regional focus; no randomization; basic confounder handling
Bohn et al. [18]	Moderate	Low	Moderate	Unclear	Unclear	High	Confounding and selection bias due to nonrandomized design.
Brajković et al. [24]	Moderate–High	Unclear	Moderate	Low	Low	High	Small sample; convenience sampling; self-report only
Giuliani et al. [19]	Moderate	Unclear	Moderate	Unclear	Moderate	High	Metasynthesis; selection and reporting criteria not fully transparent
Mark [13]	Unclear	Unclear	Unclear	Unclear	Unclear	High	Theoretical paper; no empirical data; conceptual relevance only
Pinquart & Silbereisen [14]	Moderate	Unclear	Moderate	Low	Low	Moderate–High	No randomization; limited statistical adjustment
Sullivan-Singh et al. [15]	Moderate	Low	Moderate	Low	Low	Moderate	Small sample; clear SST alignment; nonrandomized
van der Goot et al. [20]	Moderate	Moderate	Moderate	Low	Low	Moderate–High	Limited generalizability; unclear confounder control
Yang et al. [25]	Moderate	Low	Moderate	NA	Unclear	High	Convenience sampling and single-center study limit generalizability.
Zhu et al. [26]	Low–Moderate	Low	Low	Low	Low	Moderate	Observational; good structure; few reported controls