How and where does “care” fit within seminal life-course approaches? A narrative review and critical analysis

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Abstract

Aims: To map the concepts of the caring life-course theory that are used in life-course approaches from different disciplines; establish whether there is a common recognition of, or language used, to describe care in those life-course approaches; and identify the role and contribution of care to the life-course literature.

Design: This discursive paper uses a narrative review process to explore points of convergence and divergence between life-course approaches and the caring life-course theory.

Methods: Categories for analysis were developed deductively and inductively, focusing on the constructs of fundamental care, capacity and capability, care network, care transition, care trajectory and care biography.

Results: We identified four disciplinary perspectives: (1) life-course sociology; (2) life-course epidemiology; (3) lifespan developmental psychology; and (4) life-course health development. While six core constructs of the caring life-course theory were described, either explicitly or implicitly, in existing life-course approaches, no single approach fully describes the role and contribution of care across the lifespan.

Conclusion: Life-course approaches have largely neglected the contribution and role of care in informing the life-course discourse. This review highlights the significance of care beyond traditional healthcare settings and recognizes it as a fundamental human need for well-being and development, which can contribute to existing life-course literature.

Implication for the Profession and/or Patient Care: There is a need to understand care as a complex system and embrace a whole-system, life-course approach to enable nurses and other healthcare professionals to provide high-quality, patient-centred care.

Impact: Incorporating care within a life-course approach provides opportunities to integrate and deliver care centred around the person, their life transitions, trajectories and care networks, including informal carers and healthcare professionals.

No Patient or Public Contribution: Patients or members of the public were not involved in this study as it is a discursive paper based on the relevant literature.
1 | INTRODUCTION

Addressing global challenges of changing disease patterns and demographics, as well as population-level health disparities, requires a comprehensive understanding of the mechanisms that ensure healthy lives and promote well-being at every age. Life-course approaches seek to understand the relationships between temporal factors and human experiences by describing how chronological age, social relationships, life transitions and the environment shape people’s lives, health status and health trajectories from birth to death (Elder, 1985; Hutchison, 2010; Settersten et al., 2020). Research on the life course has emerged over the last century, highlighting how complex developmental processes are influenced by a range of physiological, behavioural, social and environmental factors to dynamically shape pathways of long-term health development (Halfon et al., 2014; Halfon & Hochstein, 2002; Kuh & Ben-Shlomo, 2004). Life-course theories have significant implications for health and social care systems and the professionals who work in them. These theories advocate for a comprehensive approach that considers the individual, their family, the wider community as well as the policy and system context. They underscore the importance of early determinants of health, the integration of clinical services with community resources and the system factors influencing health and well-being (Cheng & Solomon, 2014; Halfon & Forrest, 2018). They can also help health and social care providers to develop tailored care interventions to support positive life-course trajectories (Kitson et al., 2022). This comprehensive approach has the potential to improve health outcomes and promote well-being for individuals and communities alike.

In epidemiology, a life-course approach has been used to study how exposure to physical and social stressors from gestation to midlife can affect chronic disease risk and health outcomes in later life and across generations (Ben-Shlomo et al., 2016). Life-course theories from various disciplines explore the role of plasticity, referring to the flexibility of health development phenotypes, which are both influenced by genetic factors, but also adaptable and modifiable by environmental factors and intervention (Halfon & Forrest, 2018). They also consider how mismatches between biological predispositions and environmental conditions interact to promote health development or produce disease. Life-course theories acknowledge the importance of factors such as early environmental enrichment, prenatal and perinatal care, dyadic family relationships (Roy & Settersten, 2022) and the capacity to acquire specific developmental capacities that enable health and well-being (Halfon & Forrest, 2018). However, the role of care, inclusive of self-care and caregiving, in enabling and promoting health development and preventing illness is inconsistently described, despite the documented associations between care activities and relationships, health status and health outcomes across the lifespan (Kaplan & Milstein, 2019).

1.1 | The caring life-course theory

Kitson et al. (2022) have developed a unifying caring life-course theory (CLCT) to understand care and self-care across the lifespan. The conceptualization of care proposed in the CLCT draws on the Fundamentals of Care Framework (Feo et al., 2018; Kitson, 2018; Kitson et al., 2013). In the framework, fundamental care is defined as “the care required by all people for survival, health, welfare, maintenance, protection or peaceful death, regardless of the presence or type of clinical condition or the setting in which care is taking place” (Kitson et al., 2022, p. 3). Fundamental care is multidimensional and involves meeting people’s physical, psychosocial and relational care needs by developing trusting relationships with the person being cared for and their care partners within a supportive care context. This definition is consistent with the conceptualization of care as a universal element inherent in all human beings, forming the basis of human activity, interaction and cooperation (Kawamura, 2013).

Building on the empirical work of the Fundamentals of Care framework, Kitson et al. (2022) proposed 14 constructs that make up the CLCT, with fundamental care as the central construct. Life course in the context of the CLCT refers to the life stages and transitions, including positive or negative life events, that trigger changes in care needs throughout the lifespan. These transitions can be used to generate trajectories of longer-term patterns of stability and change to inform care provision. This information can provide an understanding of a person’s care needs in the context of their life experiences and personal histories. Implications of the CLCT identified by its developers in terms of life-course development are as follows: (1) care is vital for all aspects of life, not just health or well-being; (2) care is enabled and supported by relationships within care networks; (3) care experienced early in life impacts one’s ability to care for others, care for oneself and one’s health and well-being status; (4) care is affected by multiple, layered interdependencies at the micro (individual capacities and behaviours), meso (relationships and networks) and macro (socio-cultural and environmental) levels; and (5) the lack of conceptualization of care in maintaining health, and preventing and managing disease, limits the potential of life-course approaches to understanding a person’s care needs and the support they require from their care network and wider healthcare systems.

Incorporating care within a life-course approach provides opportunities to integrate and deliver care centred around the person, their life transitions, trajectories and care networks, including informal carers and healthcare professionals. The specific purpose of this review is to investigate commonalities and differences between the
CLCT and various theoretical perspectives to establish where and how care is conceptualized. This review contributes to refining the CLCT through evidence synthesis and empirical research to enhance its relevance and impact on health and well-being outcomes.

2 | DESIGN

Given the heterogeneity of the literature and our focus on description and critique, we adopted a narrative review and synthesis approach (Greenhalgh et al., 2018). We used an iterative approach that involved describing and comparing theoretical assumptions and propositions of the various life-course approaches and the CLCT. A specific aim was to identify care concepts described in the CLCT that might be explicitly or implicitly assumed within key theories, principles and constructs in life-course approaches. To formalize our approach, we used the four-stage narrative review process described by Mudd et al. (2020), which involves: (1) setting up; (2) scoping of the literature; (3) searching process; and (4) data extraction and synthesis (Figure 1). In line with the iterative narrative review methodology, we began with broad questions about life-course perspectives and literature and subsequently moved to more specific questions.

2.1 | Setting up

We established a multidisciplinary project team (nutrition and dietetics, nursing, psychology and philosophy) with expertise in early childhood health, fundamental nursing care, gerontology and knowledge translation. Three team members (ML, RG and AK) were authors of the first iteration of the CLCT. We scheduled weekly meetings over an 8-month period (June 2022–February 2023) to enable continual discussion and deliberation of the findings. The meetings offered rich discussions, which were digitally recorded and annotated in detail by the first two authors. We sought to include any source that described the life course in relation to human development, health and well-being (i.e. life-course theories). Based on these discussions, we developed our research question “how and where does care fit within seminal life-course theories?” Specific review questions were as follows:

1. What concepts of the CLCT are used or assumed in life-course approaches?
2. Is there a common recognition of or language used to describe care in those life-course approaches?
3. What contribution can care make to existing life-course literature?

FIGURE 1 Narrative review process.
2.2  Scoping of the literature

We undertook an initial scoping search of the life-course literature, drawing on the authors' knowledge of seminal texts to identify relevant life-course theories. Seminal texts were defined as those most cited and described in the literature as having a pivotal role in our understanding of health and development across the life course. In addition, we conducted database searching in December 2022 in Scopus using broad search terms of ("life-course" OR "lifespan") AND ("theor*" OR "framework*" OR "model"). This search yielded 31,160 results, of which 21,286 were published in the last 10 years. However, screening revealed that many records made only a passing mention of a life-course theory with minimal or no discussion of its content. Based on this initial scoping search, we concluded that database searching was not sufficiently specific and, accordingly, followed the guidance of Mays et al. (2005) and others (e.g. Mudd et al., 2020) to avoid systematic database searching and opted for a flexible and iterative approach.

2.3  Searching process

Our search was intended to be inclusive and comprehensive. We only excluded records that were not relevant to health contexts (i.e. not addressing how health and/or care develops over the lifespan) and records unavailable in English. We began by reading seminal reviews on life-course approaches, which provided an overview of widely cited existing life-course approaches that define the scope and general characteristics of the life-course concept. Following this, we searched three electronic databases (Scopus, CINAHL and PubMed) to identify the breadth and diversity of current and historical life-course approaches across different academic disciplines. Key texts included The Life-course and Human Development (Elder & Shanahan, 2006); New Directions in Life-course Research (Mayer, 2009); A Life-course Approach to Chronic Disease Epidemiology: Tracing the Origins of Ill-health from Early to Adult Life (Kuh & Ben-Shlomo, 2004); and The Emerging Theoretical Framework for Life-course Health Development (Halfon & Forrest, 2018). We undertook snowball searching of reference lists of included records to identify additional records.

2.4  Data extraction and synthesis

A standardized template was developed to facilitate data extraction. Data extraction began by focusing on the constructs of the CLCT (Table 1). Two authors (ML and MT) independently conducted data extraction. Using an iterative process, the whole team read and collectively discussed key constructs of the CLCT identified in the life-course approaches. Of the 14 CLCT constructs, 6 reflected greatest compatibility with the life-course literature and were identifiable, either implicitly or explicitly, in the life-course approaches: (1) fundamental care; (2) capacity and capability; (3) care network; (4) care transition; (5) care trajectory; and (6) care biography. We then deductively coded concepts and descriptions of each life-course approach to these constructs. To facilitate comparison between the different theories, we adapted the definitions of each CLCT construct to enable a binary response (i.e. presence or absence of a concept). The results are reported in accordance with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses Extension for Scoping Reviews (PRISMA-ScR) guidelines (Tricco et al., 2018), adapted for this narrative review (Supplementary File S1).

3  FINDINGS

An overview of the included theoretical approaches is included in Table 2. Four disciplinary perspectives (72 individual articles) on the life-course were identified: (1) life-course sociology; (2) lifespan developmental psychology; (3) life-course epidemiology; and (4) life-course health development. To address the three review questions, the results are structured in terms of the six main constructs used for analysis. Thereafter, the results are combined to allow discussion of the categories simultaneously.

### Table 1 Caring life-course theory constructs used for analysis.

<table>
<thead>
<tr>
<th>Construct</th>
<th>Definition used for coding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fundamental care</td>
<td>Describes the importance of care for survival, health and well-being; highlights physical, psychosocial and relational care needs; describes how care needs are met by oneself or others; describes tasks performed by individuals to address their own care needs; describes how care is received from others and/or how care is provided to address another person's care needs</td>
</tr>
<tr>
<td>Capability and capacity</td>
<td>Describes physical, mental and/or psychosocial abilities to care for oneself and others; describes the amount of care available to oneself or others</td>
</tr>
<tr>
<td>Care network</td>
<td>Describes the social relationships and support mechanisms involved in addressing physical, psychosocial and relational care needs</td>
</tr>
<tr>
<td>Care transition</td>
<td>Describes events or life stages that trigger changes in a person's care needs</td>
</tr>
<tr>
<td>Care trajectory</td>
<td>Describes the potential impact a life event might have on a person's care needs</td>
</tr>
<tr>
<td>Care biography</td>
<td>Suggestive of a personal history of an individual's care needs and care provision</td>
</tr>
</tbody>
</table>
### TABLE 2 Summary of included life-course approaches.

<table>
<thead>
<tr>
<th>Life-course approach</th>
<th>Definition</th>
<th>Role of care</th>
<th>Year emerged</th>
<th>Seminal references</th>
</tr>
</thead>
</table>
| Life-course sociology                   | A multidisciplinary field that seeks to understand how various social factors and experiences impact individuals over the course of their lives. It draws on a range of disciplines including anthropology, demography and economics. | • The language of “care” is not used   
• Care and health outcomes are an implicit part of the broader-scale focus   
• Care is implicit in individual (micro), relational (meso) and structural (macro) mechanisms | 1914–1939    | Elder (1985), Mayer (2003, 2009), Wadsworth (1997)                                        |
| Lifespan developmental psychology      | A field of psychology that seeks to understand human development across the lifespan. It examines the physical, cognitive and psychosocial changes that occur as people grow and age. The field encompasses several sub-disciplines including developmental psychology, social psychology, cognitive psychology and healthy ageing. | • The language of “care” is seldom used   
• Explicit focuses on individual (cognitive resources) and relational (micro and meso social resources) as key determinants of psychological development and health outcomes   
• Care is implicitly about promoting functionality and well-being at individual (micro) and inner/outer social circle (meso) levels | 1950–1987    | Anstey (2014), Baltes (1987), Baltes and Baltes (1990), Erikson (1950)                     |
| Life-course epidemiology               | A branch of epidemiology that studies the long-term impact of biological, behavioural and social factors on health and disease risk over the course of a person’s life. It considers how exposure to risk factors at different stages of life can affect health outcomes later in life. | • The language of “care” is not used   
• Health and functioning are understood in an individual biological and social sense   
• Care is implicitly about promoting functionality and functional change at individual biological (micro) and structural (macro) levels | 1984–1997    | Ben-Shlomo and Kuh (2002), Ben-Shlomo et al. (2016), Kuh and Ben-Shlomo (2004) Kuh et al. (2003) |
| Life-course health development         | A theoretical framework that suggests that health is a complex, dynamic process that develops over the course of an individual’s life. The model proposes that health outcomes are the result of interactions between biological, behavioural and social factors that occur across multiple stages of development. | • The language of “care” is not used   
• Care needs are implicitly assumed in the principles of the model   
• Focus is primarily on adaptive and protective biological and behavioural capacities during early life (infancy and childhood) | 2002         | Halfon and Hochstein (2002), Halfon et al. (2014), Halfon and Forrest (2018)               |

### 3.1 Fundamental care

None of the included life-course perspectives explicitly addressed the concept of fundamental care as defined in the CLCT. Life-course sociology considers the “temporal embeddedness” of people’s lives within broader social structures; hence, the sociological study of the life course generally aims to describe, map and explain the “synchronous and diachronic distribution of individual persons into social positions across the lifetime” (Mayer, 2004, p. 163). Life-course epidemiology attempts to integrate biological and social risk factors and processes and therefore considers the importance of the social environment (e.g. kinship networks) in health and well-being across the lifespan, particularly at junctures where people are dependent on others for care (e.g. infancy and childhood). A priority for life-course epidemiology is to find ways to capture the care pathways and interactions between individuals and their experiences of care that can shape future functional trajectories (Ben-Shlomo et al., 2016; Davis et al., 2013). In lifespan developmental psychology, fundamental care is described implicitly in relation to promoting functionality and well-being at individual and inner/outer social circle levels. In comparison, the Life-Course Health Development (LCHD) framework seeks to explain how health develops over an
individual's lifetime (Halfon et al., 2014). Since the LCHD framework was developed, there has been increased attention on the influences on the early environment, including attentive caregiving, nurturing behaviours and family socio-economic status. Therefore, although the life-course theories we reviewed did not explicitly describe fundamental care according to the CLCT, they did indirectly reference elements and principles that are associated with this construct.

3.2 | Capacity and capability

Three of the four life-course approaches described the importance of capacity or capability to enact health- and care-related activities oriented towards the self (self-care) or others (care for others). In life-course epidemiology, “capability” is described as the ability to undertake the physical and cognitive tasks of everyday living (Ben-Shlomo et al., 2016). Life-course epidemiology also describes the notion of “resilience”, defined as the dynamic process of positive adaptation in the face of adversity (Kuh et al., 2003). Lifespan developmental psychology describes age-related changes in “adaptive capacity”, which encompasses psychological functions (e.g. self-regulation and working memory) and structures (e.g. personality traits and knowledge systems) (Staudinger & Lindenberger, 2003). Age-related changes in adaptive capacity involve both processes of growth (e.g. maintenance and transformation) and decline. Specific theories and models have been developed to describe human development and ageing. Baltes and Baltes (1990) selective optimization with compensation (SOC) model describes age-related losses in physical and psychosocial domains and focuses on people's actualization of existing strengths and resources. More recent theories such as the cognitive health and environment life-course model (CHELM; Anstey, 2014) have been developed to explain the endogenous and exogenous factors that contribute to cognitive development and age-related cognitive decline. The LCHD framework conceptualizes health as a set of individual attributes that individuals mobilize to pursue goal-directed behaviour (Forrest, 2014; Halfon & Forrest, 2018). These attributes can be thought of as “assets” that are acquired, optimized and maintained over the life course, enabling growth, survival and adaptation to changing environments. Drawing on Baltes’ lifespan theory (Baltes et al., 2006), the LCHD framework states that the early years of life are dedicated to the acquisition, maturation and optimization of health-specific capacities. The later functional phases (middle and later years) are dedicated to maintaining health development capacities in the face of change and adapting to functional decline (Halfon & Forrest, 2018).

Life-course theories have embraced notions of care capacity and care capability, as defined in the CLCT. This might not be a surprising finding as capacity and capability coalesce around cognitive, behavioural, social and attitudinal attributes of the individual and their care-related agency. What was noteworthy was the focus on the individual’s capability and capacity without significant acknowledgement of relationships or interdependencies.

3.3 | Care network

All four theoretical perspectives described the role of social relationships and networks in human development and health behaviours. Life-course epidemiology recognizes the importance of an individual’s social environment, inclusive of family, friends, neighbourhood, occupation, schools, workplace and healthcare in how they respond to adversity (Ben-Shlomo et al., 2016). The location of the individual in time and place (context) is also described, where “place” refers to both geographical location and social group membership (Kuh et al., 2003). In life-course sociology, methods such as event modelling have been used to examine the determinants of behavioural patterns, including how un/employment, education, household environment, family history and family and friendship networks influence life transitions (Heinz, 2003; Settersten, 2003). Lifespan developmental psychology describes normative age-graded (ontogenetic) influences, defined as the biological and environmental determinants that typically have a strong association with chronological age and tend to occur in similar ways for all individuals in a given culture or subculture (Baltes & Baltes, 1980). Examples of age-graded socialization events include family relationships and changes, education and occupation. The LCHD framework states that health development arises from transactions between the organism and its internal (e.g. genes, organ systems and physiologic networks) and external environments, including family, social, cultural and physical environments (Halfon & Forrest, 2018).

The degree to which family and environmental influences (e.g. parent education and reading to a child) affect gene expression and health developmental processes depends on the strength (or dose), timing and reinforcement of those influences (Halfon et al., 2014).

Care networks describe the social relationships and support mechanisms involved in addressing physical, psychosocial and relational care needs and there was consistency towards this construct across the life-course literature. While the specific term “care network” was not used, there were strong inferences that relationships are based on care-related dispositions and practices.

3.4 | Care transition

Events, states and transitions were described in the four theoretical perspectives. In life-course sociology, life changes (changes in personal circumstances, and transitions between states) are studied over extended periods of time – from childhood to old age (Mayer, 2009). There is also an assumption that prior life history impacts later life outcomes. In life-course sociology, an event is defined as “a qualitative change that can be situated in time” (Allison, 2014, p. 2). Events mark a sharp disjunction between what precedes and what follows. Life-course epidemiology describes transitions as short-term and embedded in trajectories, signifying a change in social, psychological or physiological states (Kuh et al., 2003). A pronounced change in direction is often referred to as a “turning point”. Lifespan developmental psychology describes how an individual passes through a series of
developmental stages, each associated with unique conflicts and challenges (or "crises") that they must try to resolve to develop successfully (Erikson, 1950; Levinson, 1986). Those conflicts arise due to complex interactions between an individual's biological and psychological needs, and the nature of their social relationships with significant others. In comparison, the LCHD framework proposes that time-specific transitions and turning points arise from socially structured pathways that link experiences and exposures in "time-influenced ways that create recursive and mutually reinforcing patterns of risk, protection, and promotion" (Halfon & Forrest, 2018, p. 33). These socially structured pathways have both period-specific (episodic) and time-dependent (cumulative) characteristics. In the LCHD framework, the concept of care transitions is encapsulated by the principle of "timing," which states that (health) development is sensitive to the timing and social structuring of environmental exposures and experiences. Overall, the life-course literature provides rich and detailed descriptions of transitions.

3.5 | Care trajectory

All four life-course approaches discussed trajectories or pathways associated with developmental or ageing processes. Life-course sociology explains that transitions are embedded in trajectories, which can be seen as pathways "defined by the ageing process or by movement across the age structure" (Elder, 1985, p. 31). The sociological perspective often differentiates between different "life domains" (also called "social spheres"), such as education, work, intimate relationships and living arrangements (Giele & Elder, 1998). Lifespan developmental psychology focuses on both intra-individual development (or ontogenesis) and inter-individual differences in developmental trajectories (Baltes, 1997; Baltes & Baltes, 1980). A core assumption of the lifespan developmental perspective is that development is multidimensional and involves an interplay of intrinsic and extrinsic factors influencing development across multiple domains of functioning. Development is also seen as multidirectional – developmental trajectories can involve increments, decrements or periods of stability in functioning – and plastic – individuals can manifest multiple developmental possibilities. In life-course epidemiology, a trajectory provides a long-term view of a given dimension of an individual's life over time (Kuh et al., 2003). These dimensions could include psychological states (e.g. depression), physiological states (e.g. lung, cognitive or muscle function) or social states (e.g. marriage, work and socioeconomic status). In ageing research, the ability to detect early markers of suboptimal development and/or an accelerated trajectory of functional decline before it manifests clinically is critical because it can delay the rate of decline or offset functional impairment via tailored preventive strategies (Ben-Shlomo et al., 2016).

The LCHD framework similarly posits that health development can be represented by health development trajectories (Halfon et al., 2014). At an individual level, health development cannot be understood by isolating the biological function or dysfunction of an organ system or specific behaviours, although it is important to note that these subsystems have their own unique developmental trajectories that need to be considered. The life-course literature offers significant insight into trajectories, whether they are developmental, age related or linked to psychological or social attributes.

The life-course literature again offers significant insight into trajectories, whether they are developmental, age related or linked to psychological or social attributes. Making explicit how care needs influence individual trajectories would seem a fruitful area of future exploration. From a CLCT perspective, care trajectory describes the potential impact a life event might have on a person's care needs over time.

3.6 | Care biography

Each of the life-course approaches discuss the concepts of personal life history, socially and normatively defined life events and stages and their biographical implications. In life-course sociology, the life-course is studied in terms of developmental processes, culturally and normatively constructed life stages and age roles, ageing processes and their associated biographical meanings (Mayer, 2009). Longitudinal studies in life-course sociology have used quantitative and qualitative methods to seek a better understanding of how emotions, motivations and behaviours are located within historical and biographical contexts (Brückner & Mayer, 1998; Elliott & Shepherd, 2006). "Embodiment" is a term used in social epidemiology and life-course epidemiology to describe how extrinsic factors experienced at different life stages are inscribed into an individual's body functions or structures (Kuh et al., 2003). This can occur through developmental processes associated with critical periods, learning, habituation, damage or repair. The term "biological embedding" has a similar meaning and has been applied in life-course epidemiology to neurobiological or psychobiological mediators of the early social environment on child development and health over their lifetime (Hertzman, 1995). The LCHD framework states that health development is a continuous process that begins at conception and is shaped by prior experiences and environmental interactions (Halfon & Forrest, 2018).

The life-course literature offers rich descriptions and perspectives on the importance of recording a personal life history. Through a CLCT lens, the findings suggest that systematic recording of a personal history of an individual's care needs and care provision could offer significant insights into curating personalized care plans that will help the individual, their care network and the wider care and health (and other) systems work together to achieve a more integrated care journey.

3.7 | Combined results

The CLCT is premised on the notion that understanding an individual's comprehensive care needs, their wider care networks and
personal histories and contexts can generate personalized and integrated models of care to enable better health, well-being and quality of life (Kitson et al., 2022). Each of the identified life-course approaches highlighted the importance of transitions and longer-term trajectories and how health- and care-related orientations and behaviours are located within temporal and social-relational contexts (Elder, 1985; Mayer, 2009). The approaches were implicative of the constructs of capacity and capability in terms of the abilities and resources that individuals acquire, optimize and mobilize during the life course to enable growth, adaptation and survival (Ben-Shlomo et al., 2016; Forrest, 2014; Halfon & Forrest, 2018). The concept of care was addressed implicitly in terms of associations between early life exposures and later-life health outcomes, including physical and cognitive health, morbidity and mortality (Kuh et al., 2003; Mayer, 2009). The influence of care abilities and care behaviours, both for oneself and others, was discussed in terms of socially patterned caregiving behaviours within kinship networks and their impact on health and well-being across generations. While the reviewed life-course approaches referenced care in relation to health events and healthcare provision, they did not explicitly focus on care capacity, capability or behaviours. The approaches primarily concentrated on the interplay among individual circumstances (including health variables), life events, social roles and larger socio-economic and historical developments that shape an individual’s life trajectory.

4 | DISCUSSION

Our review aimed to identify and synthesize existing life-course approaches to inform the development of the CLCT. We explored points of convergence and divergence between these approaches and the CLCT to better understand how the theory can draw from and inform the life-course literature. Existing life-course approaches describe the concepts of capacity and capability, social networks, transitions and trajectories, and how they unfold over the lifespan. These approaches acknowledge the essential human needs necessary for individuals to survive, thrive and reach their potential. However, we found that there is no common recognition or language used to describe care, which is defined in the CLCT as the care required by all people for survival, health, welfare, maintenance or protection regardless of the presence or type of clinical condition or the setting in which care is taking place (Kitson et al., 2022). Our review highlights the contribution that care can make to the existing life-course literature by expanding the scope of care beyond traditional healthcare settings and emphasizing the importance of care as a fundamental human need for well-being and development. The life-course approaches identified provide insight into the multiple, interacting factors that dynamically shape health development and health trajectories at the micro, meso and macro levels through reciprocal processes. However, our review also highlights the invisibility of care in the life-course discourse, which makes it challenging for different professional groups, policymakers and researchers to conceptualize and discuss such concepts. This conclusion leads to two questions: (1) how can the life-course literature inform the further refinement and application of the CLCT and (2) how can the CLCT increase the visibility of care in the life-course literature to better understand its role in shaping well-being and development?

4.1 | How can the life-course literature inform the CLCT?

Life-course approaches recognize the importance of addressing social determinants of health (SDH). These determinants are the social, economic and environmental conditions that shape health outcomes and trajectories (Blane et al., 2007; Kuh & Ben-Shlomo, 2004). Studies have shown that SDH accounts for between 60% and 80% of modifiable health outcomes and individuals’ responses to care (Magnan, 2017). SDH such as income, education, employment and housing can shape health outcomes and access to care. These factors highlight the importance of understanding the context of individuals’ lives, addressing barriers to care and working collaboratively across health, education and social care systems. Care plays a critical role in mitigating the negative impact of SDH. Social support from family, friends and community members can alleviate stress and social isolation that can result from living in disadvantaged circumstances (Boozary & Shojania, 2018). Nursing and allied health professions have historically been committed to addressing disparities in healthcare through addressing environmental factors, living conditions and advocacy (Pittman, 2019). However, there has been relatively little attention given to developing nurses’ and other care workers’ roles in improving community and population health within existing life-course theories. This lack of attention may be due to the lack of understanding of the importance of care in the life-course discourse and the resultant lack of consistent terminology in bringing health and other key professional groups together to find solutions to these challenges.

The life-course literature in this review has contributed to our understanding of “health” as an integrated, multidimensional and dynamic state. For example, the LCHD framework (Halfon & Forrest, 2018) integrates concepts of health and developmental processes into a unified whole, suggesting that health development arises from complex, adaptive, reciprocal and multi-level interactions between people and their physical and social environments. This conceptualization reinforces the notion that “health” is a complex adaptive state that gives rise to subjective health experiences and patterns over time. In contrast, the concept of “care” is either omitted or addressed implicitly in these life-course theories. Care, according to the CLCT, is a multifaceted concept that can be seen as a behaviour, a capacity and a developmental process. At different life stages, individuals engage in processes of acquiring and maintaining specific developmental capacities and maintaining these capacities in the face of decline. Importantly, care behaviours, capacities and processes reflect the agency exercised by individuals and caregivers directed at addressing care needs, specific goals and health conditions (Kitson et al., 2022; Matarese et al., 2018). In this sense, while “health” can be seen as “the what” (i.e. the desired
outcomes, "care" can be seen as a significant contributor to "the how" (i.e., the mechanism). Care can be considered the "active ingredient" in health and well-being across the lifespan – at the individual, relational, community and systems levels – because it encompasses the range of actions and behaviours that are essential for maintaining physical, emotional and social well-being. A more explicit focus on care in the life-course literature highlights practical actions that can improve outcomes by recognizing and valuing care relationships at all life stages, adequately valuing and compensating care work, promoting gender and social equity, building resilience and fostering adaptive coping skills.

### 4.2 What does the CLCT offer the life-course literature?

The CLCT can inform the life-course discourse in several ways. The CLCT proposes that care is a fundamental human need that is necessary for individual well-being and development (Kitson, 2018; Kitson et al., 2022). The CLCT emphasizes that care is not only provided during childhood but continues throughout the life course and is exchanged among individuals within a network of relationships. The CLCT suggests that the quality and quantity of care received in their early years affect individuals' future development and outcomes, including the ability to form and maintain positive relationships and physical and mental health. It also recognizes that individuals can experience care deficits at any point in their lives, which can have negative consequences for their health and well-being. Moreover, the CLCT emphasizes the importance of promoting care as a core value in society and suggests this can be achieved by supporting individuals and families in providing care and by developing policies and programmes that prioritize care. It, therefore, recognizes the importance of promoting equity and social justice. Although existing life-course theories describe health trajectories across the lifespan and recognize continuities from childhood to older age, how care experiences and relationships influence care behaviours, capacities and longer-term trajectories require further attention. To achieve this, an agreed conceptualization of care needs to be explicitly incorporated into the life-course discourse to inform policies and interventions that support care providers and enable access to high-quality care.

The CLCT allows us to theorize the complex, dynamic processes that shape care trajectories over the lifespan. Care can be considered a complex adaptive system because it involves a dynamic, interdependent network of individuals, relationships, institutions and support systems that respond to changing circumstances and adapt over time (Lawless et al., 2021; Notarnicola et al., 2017). The interactions between the components of the system are constantly changing and adapting in response to changing circumstances, such as changes in the health status of care recipients, shifts in the availability of resources and changes in social norms around caregiving. In addition, care involves multiple layers of analysis, from individual-level experiences and behaviours, to broader social, cultural and policy contexts. Drawing on complexity theory, care, including self-care and care from others, can have both "top-down" (from the macro to the micro level) and "bottom-up" (from the micro to the macro level) influences on health states and experiences (Sturmberg, 2021).

Receiving care or performing self-care can affect health experiences through top-down mechanisms by influencing immune, stress and gene regulation via epigenetic changes (Halfon & Forrest, 2018). Care behaviours and associated health experiences are affected, in turn, by both bottom-up physiological mechanisms and top-down mechanisms at the environmental and community levels. These higher levels can influence resource availability and social and personal development opportunities (Sturmberg, 2021). The complex adaptive nature of care underscores the need for responsive and flexible approaches to supporting caregivers and care recipients as well as for future research to identify effective strategies for adapting and improving care systems over time. For example, at the individual level, a personalized care record ("care biography") might help address the complexity of health and social care systems by improving the coordination and continuity of care across different systems, settings and providers; increasing patient involvement in their own care; and streamlining administrative processes such as referrals, appointment scheduling and medication management.

### 4.3 Implications for policy and practice

Prominent life-course epidemiologists such as Ben-Shlomo et al. (2016) have emphasized the need to "find ways to capture the care pathways and interactions between individuals and their experience of health and social care that may shape future functional trajectories" (p. 984). While some life-course approaches acknowledge the impact of care on human development and well-being, there is a need for a more thorough examination of care and caring practices at the individual, community and system levels and the interplay between the health, education, social and environmental systems across which care operates. Understanding care as a complex adaptive system can help inform policies and interventions that support the development of high-quality and sustainable care systems. A whole system approach could improve care by promoting collaboration and coordination between multiple stakeholders (e.g., caregivers, healthcare providers, community organizations and policymakers); addressing systemic issues that impact care such as funding and resource allocation, workforce development and regulatory frameworks; focusing on outcomes that matter to individuals and communities; and emphasizing continuous improvement of care practices and systems via monitoring outcomes, tracking performance metrics and engaging diverse stakeholders in feedback and improvement processes (Conroy et al., 2023; Olsson et al., 2020). The findings also have implications for understanding the relationship between SDH and care capacity and capability (Brown-Yung et al., 2019). Collective efficacy, defined as the ability and willingness of groups to work towards a common goal, has a role in addressing SDH and promoting community collaboration, empowerment and collective action.
Collective efficacy within care networks can be leveraged to address SDH through activities including community engagement and empowerment, mutual support and resource sharing, collaborative problem-solving, health promotion and education. By building and exercising collective efficacy within care networks, communities can take a proactive approach to improving their collective well-being and reducing health disparities by addressing root causes of health inequities.

4.4 | Strengths and limitations

A strength of this review is the use of a flexible approach that allowed us to include a range of sources and explore new lines of inquiry. This approach resulted in a prolonged and iterative process of reading and interpreting descriptions, concepts and theories to ascertain overlapping elements and establish points of convergence and divergence. Although only 6 of the 14 CLCT constructs were included in the deductive analysis, the risk of overlooking relevant information was minimal. This is because the remaining constructs were largely encompassed by the constructs of fundamental care, capacity, capability and care biography. A limitation of this review is that one member of the team was primarily responsible for undertaking the search process and data extraction. However, the whole team met regularly to discuss central concepts and refine the analytical approach. In addition, the searches were limited to English language publications, which mainly focused on the North American context, where most of the included approaches originated. Future work could explore conceptualizations of the life course across different national and cultural contexts given the growing recognition of cross-cultural and comparative research in the field.

4.5 | Future directions

This review is part of a broader research agenda that aims to refine, test and operationalize the CLCT to optimize its practical impact. We have established research programmes related to the theory’s core constructs with a view to understanding how the constructs interconnect to form the unifying CLCT. This includes developing an interdisciplinary theoretical understanding of self-care and associated concepts (Lawless et al., 2021) and identifying self-care measurement instruments (Lawless et al., 2023). Additionally, we are advancing our understanding of care provision and care relationships for fundamental care (Feo et al., 2018, 2022). We are also establishing research programmes around care biographies and care networks to understand the social relationships and structures that shape care experiences throughout the life course. Important future directions for further inquiry include longitudinal studies to understand the long-term effects of care experiences on individual and family outcomes. Additional future directions include exploring cultural variations in the concept of care, intergenerational dynamics of care and the transmission of caregiving patterns across generations, the role of intersectionality in care across the life course and the impact of policy on care.

5 | CONCLUSION

This narrative review explored how core constructs of the CLCT are described in existing life-course approaches. The findings indicate that six core constructs of the CLCT – fundamental care, capacity/capability, care networks, care transitions, care trajectory and care biography – are identifiable, either explicitly or implicitly, in existing life-course approaches. However, no single approach fully describes the role of care as an essential feature of human development, health and well-being over the life course, nor the dynamic and interdependent network of individuals, relationships organizations and wider support systems involved in care. This review highlighted key areas in which the CLCT requires further refinement and elaboration. Existing life-course approaches provide a valuable framework for understanding how individual lives unfold over time and how these trajectories are shaped by various social, cultural and historical factors. However, many traditional life-course approaches have largely neglected the role of care in shaping life-course trajectories. This omission is problematic given the significant impact of care on a range of health, educational and social outcomes across the lifespan. Explicitly incorporating care into life-course approaches can help inform policy and practice by highlighting the importance of investing in care infrastructure and systems that promote health and well-being of individuals and communities. It can also help highlight the importance of caregiving and care work in shaping individual outcomes and broader social structures.

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Made substantial contributions to conception and design, acquisition of data or analysis and interpretation of data; ML, MT, RG, AK. Involved in drafting the manuscript or revising it critically for important intellectual content; ML, MT, RG, AK. Given final approval of the version to be published. Each author should have participated sufficiently in the work to take public responsibility for appropriate portions of the content; ML, MT, RG, AK. Agreed to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved; ML, MT, RG, AK.

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