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Original Research Article

Life course health and mental health of care-experienced adults after age 30: A scoping review

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Abstract:

Foster care outcome research provides critical insights into the impacts and efficacy of child welfare interventions as well as the developmental needs of those who experience placement. As the outcome literature to date has predominantly focused on children and transition-age youth, the later life course of care leavers has not been thoroughly explored. Using Arksey and O'Malley's (2005) scoping review framework, we examined 29 articles addressing health and mental health outcomes among care leavers. Across the life course, individuals with care experience exhibit a higher prevalence of both mental (28/29 articles) and physical (12/29 articles) health issues. However, most of the studies conflate care-experienced adults with care leavers, limiting our understanding of those who age out of the system. This review identifies key gaps - particularly in physical health research and how we conceptualise wellness. It subsequently offers directions for future exploration.

Introduction

Researchers have documented clear challenges facing transition-age foster youth. The challenges highlighted in previous studies cut across domains of development, including difficulty achieving basic academic qualifications (Refaeli et al., 2013; Reilly, 2003; Rosenberg & Kim, 2018; Schelbe et al., 2022), high rates of unemployment and lower quality employment (Cameron et al., 2018; Ibrahim & Howe, 2011; Lee & Yoon, 2009; Zeira et al., 2014), reduced financial stability (Courtney et al.,

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2007; Rosenberg & Kim, 2018; Zeira et al., 2023), and limited social integration (Curry & Abrams, 2015; Jones, 2014).

These psychosocial and economic challenges facing transition-age foster youth have been examined and documented in several previous systematic and scoping reviews (Gypen et al., 2017; Häggman-Laitila et al., 2018, 2019; Phillips et al., 2023). Notable among these is one systematic review focused on documenting the needs of youths aging out of the system with mental health disorders (Kang-Yi & Adams, 2017) and one which focused on youth's mental health post-care (Phillips et al., 2023). While several review studies have examined the health of children in care (Lee & Yoon, 2009; Leloux-Opmeer et al., 2016; Vasconcelos et al., 2021), only one examined the physical health of care leavers (Power & Hardy, 2024). Finally, and alarmingly, one systematic review found alumni of care have elevated rates of early mortality, a trend that held true globally (Batty et al., 2022). Across these studies, they highlight complex psychosocial and health-related adversities.

Despite the valuable insights provided by previous systematic and scoping review articles to inform policy to better support care leavers across the transition to adulthood, research has predominantly concentrated on the experiences and outcomes of transition-age youth and young adults under the age of 30. Our scoping review seeks to build on these important contributions and to map outcomes in middle and later adulthood.

In this article, care leaver, care-experienced person, foster care alumni, and aging-out of care are related but distinct terms. Care leavers and foster care alumni are used interchangeably and generally refer to someone who exited the care system around the upper age limit of state support. A care-experienced person is someone with care experience at any point in their childhood or adolescence, for any amount of time. Aging out of care refers to the administrative transition in which a young person leaves the child welfare system because they have reached the maximum age of eligibility for child welfare services, often without having achieved family reunification or adoption.

Method

Search strategy

The search strategy primarily focused on understanding the mid- and late-adulthood outcomes of those who have aged out of foster care. A secondary objective involved exploring variations in research approaches that contribute to our knowledge of outcomes. An initial article sort indicated three broad domains; health and mental health, life course relationship trajectories; and mid- and later-life economic and educational outcomes. This initial review focuses on health and mental health.

To find relevant studies, the following bibliographic databases were searched: PsycINFO (Ovid, 1806 – present), Social Services Abstracts (ProQuest), and Scopus. All three database searches were limited to publications from 2000 to June 2023 and to peer-reviewed publications. PsycINFO was limited to journal articles, peer-reviewed journal articles, and journal articles where the peer-reviewed status was unknown; ProQuest Social Services Abstracts was limited to peer-reviewed publications; Scopus was limited to document type articles or reviews. The database searches were all run on June 12, 2023. The final search results were exported into Rayyan, a free web-based tool commonly used to deduplicate, screen, and select articles for scoping reviews.

We performed two searches, and in the first we used six Boolean search terms: (1) "foster care" OR (2) "care leavers" OR (3) "foster care alumni" AND (4) "outcome*" OR (5) "longitudinal" OR (6) "long-term prospective." The second search employed seven Boolean search terms: (1) "foster care" OR (2) "care leavers" OR (3) "foster care alumni" AND (5) "qualitative" OR (6) "narrative" OR (7) "ethnography".

Inclusion and exclusion criteria

Inclusion criteria

Studies were included if they fulfilled seven requirements: (1) The study sample interviewed adults aged 30 or older, who had been placed in out-of-home care (foster care, group home care, or kinship care) during their childhood; (2) The sample substantially represented participants aged 30 and above at the time of data collection, with a minimum of five participants in qualitative studies or at least 10% of the sample size in quantitative studies; (3) The studies were published in English between 2000 and 2023; (4) The research addressed aspects of life after the age of 30 for care leavers; (5) The researchers used qualitative, quantitative, or mixed-methods approaches; (6) The studies incorporated data directly obtained from alumni for at least 30% of their outcomes, minimising reliance on staff or foster parent perspectives; and (7) The research reported on outcomes relating to health or mental health.

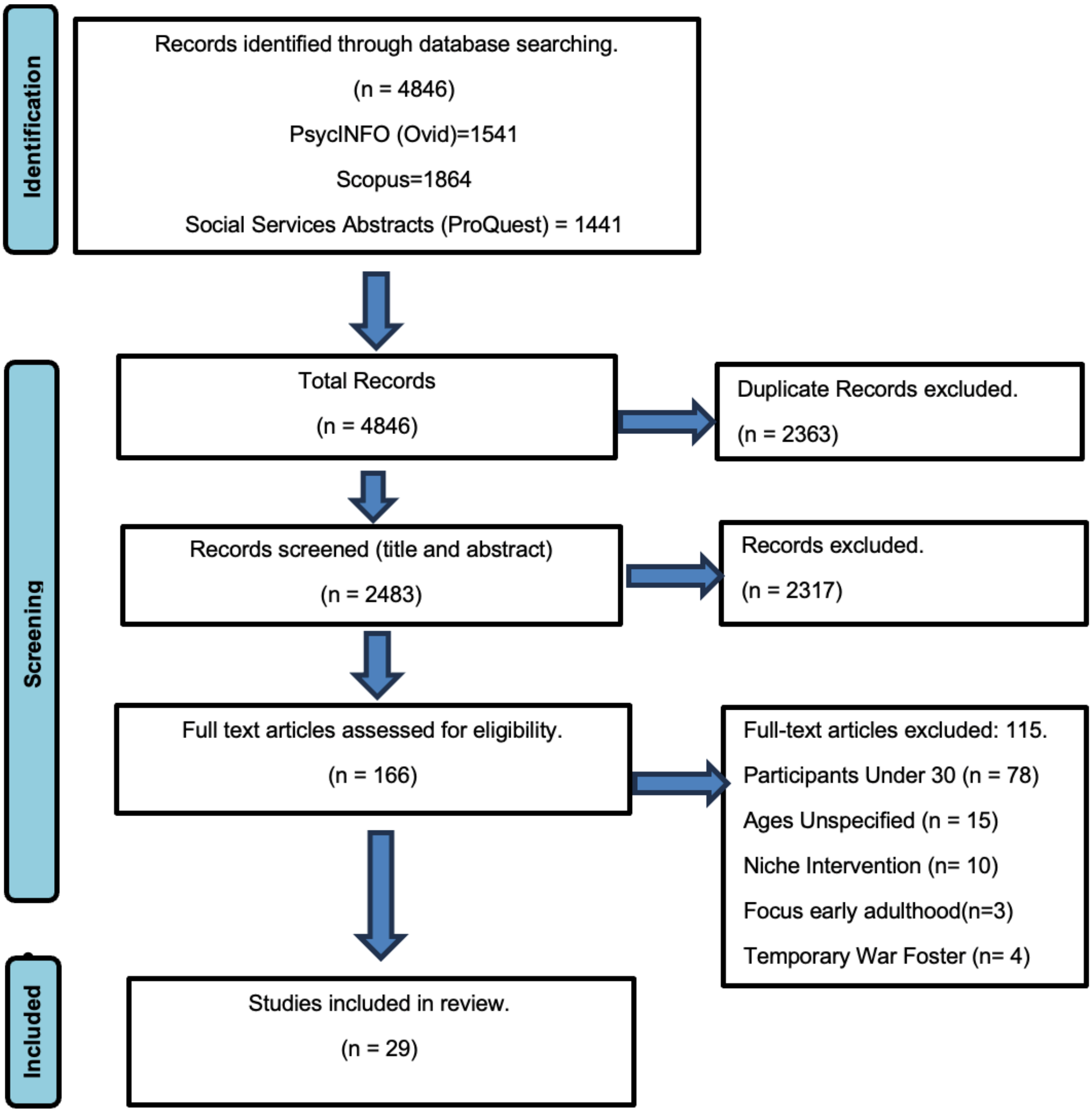
Exclusion criteria

Studies were excluded if the research exhibited any of the following nine characteristics: (1) The research exclusively focused on outcomes of minor children in foster care; (2) The studies concentrated on adults under age 30; (3) The findings lacked clarity regarding the age of the interview or data collection participants; (4) The studies primarily examined the outcomes or opinions of foster parents or other caregivers; (5) The researchers primarily investigated foster youth who were adopted while in care; (6) The researchers interviewed individuals over 30 but primarily focused on gathering insights into their childhoods or early adulthood; (7) The studies were not published in English, or between January 2000 and June 2023; (8) The research focused exclusively on niche populations such as undocumented migrant children or those placed out-of-home short-term due to war; and (9) The studies focused on relationships, income, or education.

Data extraction

The following data were extracted from the studies: (1) cohort name or administrative data, (2) study design, (3) country, (4) sample size and characteristics (e.g., placement history type), (5) health and mental health outcome measures, and (6) age of participants.

Figure 1: Prisma Flow Diagram



Results

Twenty-nine articles were included in this scoping review. The largest number of peer-reviewed articles came out of the USA, which included 14 studies, while Sweden produced five articles. There was also representation from the UK (4), Australia (1), Belgium [Flanders] (1), Canada (1), and Israel (2). One article performed a cross-country comparison of England, Germany, and Finland. These 29 studies were predominantly quantitative, with one study being qualitative, and one mixed method (Fernandez et al., 2017).

We were interested in examining which studies accounted for placement type and whether these controlled for those who aged out of the system or were placed at any time in their childhoods. The study categorises placement history types as either family-based foster care or congregate care, which broadly encompasses group homes, residential care, child welfare-based residential schools, mother and baby centers, and orphanages. Studies with unclear or unreported placement history data were labelled unknown. Within these papers, three included studies focused solely on congregate care alumni, seven were focused specifically on those placed in foster families, and 12 studies did not specify which types of placement histories were included. Finally, only two studies included and reported on child welfare placement histories, while controlling for differences in long-term outcomes between distinct placement history types (Dregan & Gulliford, 2012; Okpych & Courtney, 2021).

Within these articles most summarise the outcomes of adults who spent any time in care before the age of 18, with only two studies explicitly stating they focused on adults who aged out of the system (Achdut et al., 2022; Okpych & Courtney, 2021). A handful of other studies reported on what percentage aged out, or state that most did so (Fernandez et al., 2017; McKenzie, 2003). Most of the studies do not include, mention, or control for aging-out in their analysis. Therefore, care leavers in this literature review mostly references people who spent any amount of time in out-of-home care as children. In terms of study design, quantitative analysis (27) is the most frequently utilised, with one study being qualitative (Nuytiens et al., 2018) and one employing mixed methods (Fernandez et al., 2017).

This narrative review summarises the known outcomes under two subsections: the first on physical health, and the second on mental wellbeing. Each subsection first provides a broad overview of the topic and then summarises specific or niche findings that may have public health research implications. The results section concludes with a brief analysis of disproportionality for each subsection, followed by a discussion and conclusion.

Health

Overall health findings

Studies over the past two decades have consistently reported worse health outcomes for people placed in out-of-home care than for those in the community or matched samples (Cameron et al., 2018; Schneider et al., 2009). Twelve studies included in this scoping review dealt with physical health or wellbeing (Anctil et al., 2007a, 2007b; Cameron et al., 2018; Fernandez et al., 2017; Jackson Foster et al., 2015; Parsons & Schoon, 2022; Schneider et al., 2009; Villegas et al., 2011; Zlotnick et al., 2012), but only three delved into specific physical health diagnoses (Cooley et al., 2018; Schneider et al., 2009; Zlotnick et al., 2012), with a further three reporting on early mortality rates (Bullock & Gaehl, 2012; Cameron et al., 2018; Vinnerljung & Hjern, 2014).

In a longitudinal panel study of women's health in California, women who experienced out-of-home placement self-rated their health as fair or poor at a rate two times higher than those who were never placed (Schneider et al., 2009). In the UK, Parsons and Schoon (2022) similarly found higher rates of poor general health in the out-of-home care group than in the sample never placed, while Cameron et al. (2018) generally found lower rates of subjective wellness across the UK, Finland, and Germany. Bullock and Gaehl (2012) reported that those with a history of child welfare placement had lower overall physical health before the pandemic than their same-age peers. The only study that conversely reported better health outcomes for those in out-of-home care had one critical limitation, in that the control group was not matched and was, unfortunately, significantly older than the subgroup that experienced foster care (Cooley et al., 2018). While the mean age of participants is missing, the age gap is at least a decade, making it difficult to draw accurate conclusions about the differences between low-income foster care alumni and the low-income general population.

Specific diagnostic and symptom-related health findings

In the one study that addressed specific medical diagnoses, Zlotnick and colleagues reported that midlife rates of diabetes, hypertension, asthma, or epilepsy were higher for alumni of care (Zlotnick et al., 2012), suggesting that these self-evaluations of poorer health likely have diagnostic validity and should be explored in additional research.

The literature also confirms higher premature death rates for out-of-home care populations in several European countries. Two longitudinal studies reported a higher mortality rate for care leavers than for their matched controls. Bullock and Gaehl's (2012) UK sample compared care leavers to their non-placed biological siblings, finding a 50% higher death rate in the former group. A tri-country comparison yielded similar findings in England, Germany, and Finland (Cameron et al., 2018). Of these three European studies, Bullock and Gaehl (2012) have the strongest matched control, while the tri-country cross-comparison study helps to confirm their findings throughout developed European countries.

Etiology

An Australian sample reported qualitative findings that many adults were struggling with health conditions related to their childhood physical trauma, including sequelae related to physical abuse such as unset fractures (Fernandez et al., 2017). These unique insights add nuance to the complex literature on post-foster care health.

Disproportionality and other analytic control factors

In terms of health-related disproportionality, the US-based Casey family cohort found that differences between white alumni were not statistically significant in comparison to racialised alumni. However, while race was not a statistically significant factor, both women and older alumni of care on average reported worse health outcomes than male and younger alumni (Villegas et al., 2011).

Mental health

Overall mental health findings

Previous studies have reported high rates of mental health challenges for youth transitioning from care (Phillips et al., 2023). Their findings are confirmed by 28 of the 29 studies included in this review (Anctil, et al., 2007a). However, there is variability in how studies measure and report on mental health outcomes. Some relied on measures of broad constructs such as happiness (McKenzie, 2003), life satisfaction (Achdut et al., 2022; Dregan & Gulliford, 2012), quality of life (Anctil et al., 2007b), psychological distress (Fernandez et al., 2017; Sulimani-Aidan et al., 2022), self-esteem (Anctil, et al., 2007b), perspectives on resilience (Nuytien et al., 2018), and optimism (Sulimani-Aidan et al., 2022). Other studies reported on factors such as psychiatric medication (Brännström et al., 2020; Cameron et al., 2018; Vinnerljung & Hjern, 2014), or psychiatric hospitalisation (Brännström et al., 2017; Vinnerljung & Hjern, 2014), or conducted interviews that identified rates of recent mental illness (Anctil et al., 2007b; Cameron et al., 2018; Cooley et al., 2018; Fechter-Leggett & O'Brien, 2010; Jackson Foster et al., 2015; Roberts, 2017; Villegas & Pecora, 2012). Collectively, these studies all seem to point toward long-term challenges facing alumni of care across the life course.

Studies examining mental health more broadly report that those with care experience have worse mental health. In an Australian sample, researchers found chronic mental health issues to be much higher than in the general population (Fernandez et al., 2017). A study using the California women's health survey data found that 22.8% of their female sample of care leavers experienced frequent mental distress, compared to 14.6% of the general population (Schneider et al., 2009). Likewise, researchers examining the British cohort study found that any experience with out-of-home care in childhood was associated with poorer mental health in adulthood when compared to same-age peers (Parsons & Schoon, 2022).

The Casey family cohort study, due to its routine screening for mental health diagnoses, is over-represented in the mental health literature included in this review. A broad Casey family cohort study found that 46% of children placed in Casey foster homes as adults met the criteria for mental health diagnoses in later life, with PTSD, panic disorders, and depression being the most common (Fechter-Leggett & O'Brien, 2010). Another Casey family study reported that 20% had experienced symptoms of a diagnosable condition in the last 12 months, and that 10% had received three or more mental health diagnoses in the last 12 months (Jackson Foster et al., 2015). These findings suggest that foster care experiences are associated with important mental health vulnerabilities across the life course. A handful of studies examined specific diagnostic outcomes. Here we will report on depression, suicidal ideation and completion, anxiety, and substance abuse.

Specific diagnostic findings

Depression

All studies that specifically examined depression symptoms reported higher rates among care leavers. This finding was shown to be true in low-income medical clinics in the United States, where adults with childhood foster care experience reported higher rates of depression than their non-placed peers (Cooley et al., 2018). In Canada, Métis foster care alumni experienced depression symptoms at a rate nearly 50% higher than that found among Métis adults without a history of childhood placement (Kaspar, 2014). The Casey family cohort has also consistently reported on mental health conditions, with depression being the second most prevalent following PTSD.

Suicidal behaviour

Sadly, suicidal ideation and suicide completion are higher in the foster care alumni group, as evidenced by a handful of studies. Brännström et al. (2020) found that suicidal behaviour was more common later in life amongst those placed out-of-home when comparing care leavers to their biological siblings who remained at home. There were four times the number of deaths by suicide in foster care alumni when compared to their non-placed siblings. Hospitalisation rates were also elevated for these siblings, but one in six women who were placed in care as children were hospitalised due to a suicide attempt versus one in 15 of their siblings. Increased rates of suicidal ideation were corroborated by a Canadian sample that indicated twice the rate in Métis care leavers than in a matched non-fostered Métis comparison sample (Kaspar, 2014).

Anxiety

Anxiety-related disorders are infrequently reported in the literature. PTSD was consistently the most common diagnosis noted in the Casey family cohort (Jackson Foster et al., 2015; Schneider et al., 2009). Schneider et al. (2009) found that 18.3% of the out-of-home placement group versus 6.3% of the care leaver comparison group had symptoms of active PTSD diagnosis, while in an additional subset Casey family cohort, 21.6% of alumni had symptoms of PTSD (Jackson Foster et al., 2015). In terms of anxiety-related diagnoses within the Casey family dataset, social phobia, panic disorder, and generalised anxiety were all common, with nine to 12% of alumni experiencing these symptoms into their 40s (Anctil et al., 2007a; Fechter-Leggett & O’Brien, 2010; Jackson Foster et al., 2015; Schneider et al., 2009).

Substance use

Six of the studies included herein report on some aspect of substance use in care leavers over the age of 30. A Swedish study found a seven-fold increase in substance abuse problems among care-experienced individuals aged 17 to 35 when compared to peers in the same age range among the general population (von Borczyskowski et al., 2013). This sample compared adults with child welfare placement experience to adoptees, both of whom saw some elevated risks, but which were higher for foster children. The authors posited that the elevated substance use for children placed in out-of-home care is an important intergenerational challenge. They confirmed that 37% of Swedish care alumni have two parents with a history of substance use disorder (von Borczyskowski, 2013). Examining kinship care’s impact on substance use disorder, Fechter-Leggett and O’Brien (2010) found that kinship care placement as opposed to regular foster care placement appears to be associated with higher adult rates of substance use disorders. Three studies reported that those who had experienced foster care were more likely to be smokers (Dregan & Gulliford, 2012; Schneider et al., 2009; Zlotnick et al., 2012). This finding of elevated substance uses in care leavers contrasts with the

Cooley et al. (2018) study, which did not find statistically significant differences in alcohol use disorder between foster care alumni and their comparison group of slightly older low-income adults. Finally, and curiously, Okpych and Courtney (2021) found double the rate of substance use disorders after foster care alumni leave college. Collectively, these papers establish substance use as an important public health concern for care leavers, warranting exploration in future research.

A handful of studies examined post-care justice system involvement. We include this outcome while acknowledging that involvement with the criminal justice system is not a mental health disorder but rather interrelated with economic, housing, and behavioural health factors. Several studies report that alumni of care are at increased risk of adult justice system involvement (Bullock & Gaehl, 2012; DeGue & Widom, 2009; Lindquist & Santavirta, 2014). However, these increased rates primarily impacted youth from congregate care (Dregan & Gulliford, 2012), boys placed later in childhood (Dregan & Gulliford, 2012; Lindquist & Santavirta, 2014), and boys with more placement instability (DeGue & Widom, 2009). These studies highlight a critical criminal justice disparity for young men who are transitioning from the system and for children who age-out of congregate care.

Mental health risk factors

A host of factors were broadly associated with poorer mental health functioning in foster care alumni. Several placement-related factors were correlated with long-term mental functioning, including placement type, age at first placement, number of moves, and history of abuse. For instance, higher rates of childhood placement disruptions and moves were associated with lower levels of reported wellbeing in adulthood (Anctil et al., 2007a; Garcia et al., 2015). Those placed after age 12 (Dregan & Gulliford, 2012), as well as those placed in group care (Dregan & Gulliford, 2012), also fared worse in terms of mental health outcomes. Experiencing more chronic abuse before placement (Garcia et al., 2015) and having a history of childhood sexual abuse was also associated with worse mental health functioning in later adulthood (Anctil et al., 2007a).

Disproportionality and other analytic control factors

Several identity characteristics were associated with increased vulnerabilities later in life, including gender, disability, socioeconomic background, and immigration status. Two studies reported that female care leavers are more likely than their male counterparts to have mental ill health (Jackson Foster et al., 2015; Sulimani-Aidan et al., 2022), while another study associated childhood mental or physical disability with poorer mental health in adulthood (Garcia et al., 2015). Reporting on economic-related variables, Kaspar's (2014) findings linked community-level adversity in childhood with poorer functioning later in life, while an Israeli study correlated transition-age material deprivation (e.g., inability to afford food or other essential items) with increased psychological distress over time (Sulimani-Aidan et al., 2022). The Israeli group further reported greater psychological distress in children born outside of Israel, those born to immigrant families, and those whose parents had also experienced child welfare placement (Sulimani-Aidan et al., 2022). The US-based Casey family cohort study was the only one to examine ethnicity in relation to wellbeing, yielding no significant evidence linking ethnic identity to mid-life mental health functioning (Harris et al., 2010; Villegas & Pecora, 2012; Villegas et al., 2011).

In an Israeli sample, psychological distress was higher among alumni who were in the care of welfare services at age 18 than among those who had returned home at the age of majority (Sulimani-Aidan et al., 2022). This is one of the few studies that controlled for differences between those who age out of the system and those who spent time in placement during childhood. Indeed, the researchers found that those who aged out of the system fared worse on mental health outcomes than those who left care before the age of majority. Most of these studies were unable to distinguish participants who aged out of the system from those who returned to their families of origin, or those who were adopted.

Positive mental health outcome and protective factors

Across the 29 studies, several factors were associated with improved mental wellbeing in mid-to late-adulthood, such as receiving mental health support in placement and believing that foster parents were helpful (Anctil et al., 2007a; Jackson Foster et al., 2015). Improved long-term mental health outcomes were also more likely in those who reported feeling loved by their foster families (Jackson Foster et al., 2015). In other studies, earlier admission to care was associated with improved mental health outcomes (Dregan & Gulliford, 2012; Vinnerljung & Hjern, 2014). The sole study that contradicted findings of reduced wellbeing was McKenzie (2003), where relatively higher rates of happiness were found for care alumni, highlighting that some cohorts or placements may attain improved outcomes.

Discussion

The current scoping review provides a comprehensive examination of the literature on health and mental health outcomes for adults in middle- and later-adulthood who have experienced out-of-home placement as children. The current literature is limited in both breadth and depth for care leavers over the age of 30. The most critical limitation is the lack of child welfare follow-up studies tracking adults from diverse placement settings, and control for factors such as preplacement exposures and the length, type, quality, and match of placement. Furthermore, few studies were able to report what percentage of adults had aged out of the system. Without these critical details, we are limited in our ability to extrapolate how to improve the child welfare system or even how to use such information to supply adequate community-based services.

Yet, despite these limitations, these findings indicate that individuals who spent any time in foster care as children experienced greater health and mental health disparities than the general population, and that these vulnerabilities subsist across the later life course. The care leaver literature has focused predominantly on emerging adulthood. However, this emphasis on a highly stressful transition period may obscure longer-term challenges that are difficult to detect amid the immediate economic and housing instabilities many care leavers experience in early adulthood. Furthermore, certain challenges or therapeutic gains might emerge longitudinally at later key developmental transitions, from entry into long-term relationships to parenting, etc. Our current approaches to intervention and outcome measurement are often too shortsighted.

European foster care alumni experience higher rates of premature death than the general population (Boddy et al., 2020; Bullock & Gaehl, 2012; Cameron et al., 2018), but the researchers curiously fail to report on the causes of premature death, perhaps due to limitations within current data sets. Premature death rates are wholly absent from the included outcome studies conducted on other continents, making it difficult to compare death rates between countries. Thus, these findings raise the question of what percentage of care leavers die early around the world and how many of these premature deaths may be preventable.

Additionally, in the California panel study on women's health it was found that women with any care experience have higher rates of health conditions such as obesity, asthma, and heart disease (Zlotnick et al., 2012). Understanding the etiology of illness would thus aid in the design of effective public health responses. For example, one study found that care leavers experience higher rates of asthma than the general population (Zlotnick et al., 2012), a curious but important finding. It is unclear if these asthma rates are due to premature birth, unsanitary pre-placement housing, second-hand smoke exposure, or even participants' own later smoking habits, or alternatively current stress or lower air quality. If we collected more holistic longitudinal data from across service sectors, we could be better positioned to elucidate these complex developmental processes.

An Australian mixed-methods study shared qualitative findings showing that many adults were struggling with health conditions related to their childhood trauma, including sequelae related to physical abuse such as unset fractures (Fernandez et al., 2017). These findings suggest that health issues impacting care leavers are not simply a question of emotional stress reactions. Instead, this data suggests a more complex etiology, including an array of physical injuries, stress, and trauma leading to increased rates of illness being evidenced in the current health literature. Yet no other studies included herein examined if or how childhood physical abuse could be affecting participants' long-term health. However, this finding may be specific to Australia or to certain cohorts of care leavers. It should be examined in future research.

At present, the mental health literature is far better developed than the long-term health outcome literature. It is clear from all but one study that individuals who spent any time in care have increased risk of mental and physical illness as well as criminal justice involvement. Certain childhood experiences were associated with worsened mental health outcomes later in life, such as being moved frequently (Anctil et al., 2007a; Garcia et al., 2015) and aging out of the system (Sulimani-Aidan et al., 2022). Furthermore, criminality was more common for those placed in group care and those placed after age 12 (Dregan & Gulliford, 2012). These factors are critically important to understand, as perhaps as a society we are failing these children. If we recognise that group care creates a path towards criminal justice involvement, judges could be trained in trauma-informed judicial practice, and therapeutic responses to criminal actions could be offered to adults failed as children. Similar programming could be developed for physicians, psychologists, and social workers who support adults who have aged out the system.

Additionally worth consideration, one study suggested that the increased prevalence of mental illness could be fully explained in its statistical models not by placement experiences but by preplacement and ongoing socioeconomic factors (Parsons & Schoon, 2022). The critical influence of poverty on post-care functioning is supported by an Israeli study that found worse mental health outcomes for alumni who experience material deprivation during their transition period (Sulimani-Aidan et al., 2022). The idea that poverty exposure both preplacement and following care influences longer-term health vulnerabilities suggests that financial support for care leavers and family-based child tax credits could be prioritised in public expenditure.

Current data sets and data collection efforts have many limitations. Most studies are secondary analyses of panel studies reporting on the outcomes of adults who spent any time in out-of-home care as children. A handful of studies report on the outcomes of adults who spent at least one year in placement (Brännström et al., 2017, 2020; Kaspar, 2014; Lindquist & Santavirta, 2014; Nuytiens et al., 2018; von Borczyskowski et al., 2013; Zlotnick et al., 2012). Fernandez et al. (2017) reported that roughly half of their participants had aged out of the system, a factor they did not control for in their analysis. Within these articles only Sulimani-Aidan et al. (2022) were able to do this analysis, reporting that those who aged out of the system fared worse on average than youth who left residential care services earlier. Consequently, we cannot effectively examine the later-life health outcomes of care leavers who age out of the system, but we can state that adults who spent any time in care as children have increased hardships when compared to their same-age peers. Furthermore, while we are unable to determine causality with respect to increased life course vulnerabilities it is nonetheless important to note that these exist. However, it must be restated that the causality of these hardships is likely influenced by preplacement exposures, family separation, difficult placement experiences, and/or abrupt and often inadequately resourced transitions to adulthood. Despite these clear limitations, this data draws attention to the need for improved and expanded longitudinal designs and increased access to services.

Despite the disproportionate negative health outcomes associated with out-of-home placement histories, it is well known that not everyone is negatively affected by child welfare placement, and understanding the differences between placement experiences, individual and community-based resilience factors, and their associations with long-term outcomes is critical to improving our child welfare practices. The McKenzie (2003) study found higher rates of happiness in care alumni, but this study of mid-western US farm-based orphanage alumni isn’t indicative of group care realities as a whole. His sample experienced on average eight years in the same placement, and 90% of alumni reported that they were placed with siblings. They also learned increasingly complex tasks over time as the children worked on farms. These practices are no longer common in group care in the developed world, but perhaps if we sampled care leavers globally about resilience factors, we could learn critical policy and practice lessons from healthier care leaver samples and cohorts.

Limitations

This scoping review offers valuable insights into the later life course of care leavers. However, there are several limitations worth articulating as these could inform future study designs. These samples are heterogeneous and comprise diverse samples, from various countries, decades, and cultural backgrounds, making it hard to generalise these findings to all care leavers within the current child welfare policy and practice context. Moreover, since many of these studies included those who had spent any time in care, and not specifically youth who age out of the system, it is unknown how much wellbeing differs between youth who age out the system and those who spent short periods in placement. The same could be said in understanding health disparities between group care leavers and those from foster homes. We don’t know how institutionalised children are faring compared to those who were housed with families, when considering these studies.

The included studies were furthermore limited in their abilities to establish causal inference or even track outcomes over time. While most studies do not have designs that allow for firm conclusions of what proportion of poor health outcomes could be accounted for by their experience in out-of-home care as opposed to the conditions that led them to care in the first place, in terms of highlighting the needs of this population resolving that question fully is not necessary. It is enough to know that this is a population of young adults who struggle at high levels in their transitions into and through middle and later adulthood, to know that increased access to public services is required.

There was an overrepresentation of US and European data within these samples, and it would be prudent to track health and mental health outcomes from countries spanning the income gradient. Many studies were reliant on broader panel studies that were not designed to measure the needs or life course of care leavers. There is relatedly a lack of standardisation across studies, concerns, and measures. This lack of standardisation complicates data synthesis and interpretation. Despite these limitations, this scoping review serves as a resource for understanding what is documented about the later life course wellbeing of care leavers, underscoring the need for future health equity research on this population.

Future research directions

These findings skim the surface of the developmental impact of childhood stress, trauma, and instability on the later health functioning of adults who experienced childhood placement. It remains important to look at physical health more holistically and to keep in mind the potential stress-based physiological reactions, as there was a notable lack of health studies in this literature examining the stress axis and stress hormone functioning, sleep quality, chronic pain, or cellular aging. There are only two studies that reported on specific disease risks and only three reporting on early mortality rates. None of the included studies reported on dental health or needs. In addition, there were limited studies that controlled for variables such as poverty exposure. There were also no physical health-related studies that covered the type, length, or quality of placement and its relationship to current wellbeing. Fernandez’s (2017) qualitative finding that care leavers are continuing to struggle later in life with physical injuries from child abuse and childhood injuries should be examined in future research as well.

Research could delve deeper into how protective and intervention-based factors impact long-term outcomes. Examples of such factors that could benefit from more in-depth consideration include both childhood- and adult-based mental health intervention, the quality of foster care experiences, and the timing of placement or therapies, as well as whether certain interventions impact long-term physical and mental wellbeing. Disproportionality could be more thoroughly examined by not only considering ethnicity or cultural identity but via intersectional examinations of disability, aging-out status, and immigration status, as well as the influence of gender, ethnicity, placement type, and socioeconomic factors on these outcomes. Therefore, longitudinal future wellbeing research could be expanded to better understand the health-related implications and trajectories for care leavers. Additionally, community-based interventions to address ongoing care leaver needs could be further explored through community-university partnerships.

Conclusion

This scoping review broadly finds that any experience of child welfare placement exerts a profound and enduring impact on various aspects of an individual’s health- and mental health-related outcomes for a significant number of foster care alumni well after their thirties. Currently, there are clear limitations to study designs that survey care leavers after age 30. Mostly researchers are working with secondary analyses of population-based longitudinal studies that are unable to control for critical factors such as time spent in care, identifying who aged out of care, or identifying why someone was placed. Or they are working with niche cohorts that examine one type of care leaver in one country, such as the Casey foster family cohort study, which only studies those from Casey’s private and family-based service, or the Israeli residential school studies. Both samples add much insight to this literature, but have significant limitations with respect to meaning-making in other countries. These limitations represent barriers to using this data to inform practice and policy and to create meaningful programmatic responses. In documenting these health and mental health outcomes and assessing the impacts and efficacy of government interventions on individuals' lives, we pave the way for a more comprehensive understanding of improved child welfare interventions and transition-age support, providing key evidence to support the development of equitable, restorative justice measures.

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