

The Intergenerational Cycle of Deprivation: A Narrative Review of Early-Life Deprivation and Adult Socioeconomic Outcomes

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DOI: <https://dx.doi.org/10.51244/IJRSI.2025.1210000180>

Received: 06 November 2025; Accepted: 14 November 2025; Published: 14 November 2025

ABSTRACT:

Deprivation, viewed as a relative and multidimensional lack of customary societal resources, is increasingly recognized as a stronger determinant of poverty than income alone. This review synthesizes empirical literature to map the causal pathways through which early-life deprivation initiates and perpetuates a self-sustaining cycle of socioeconomic disadvantage across generations. Employing an integrative narrative review design, a systematic search of databases (Scopus, PubMed, Science Direct, and Google Scholar) was conducted using keywords across three constructs: exposure, outcomes (cognitive, educational, health, employment), and linking terms (e.g., life course, cumulative disadvantage). This process identified and synthesized 64 key studies.

The findings confirm that exposure to adverse conditions in-utero and during early childhood results in a cumulative disadvantage that compromises Human Capital across three critical domains. First, deprivation undermines cognitive development through factors like poor nutrition, sleep, and household socioeconomic status. Second, this leads to setbacks in educational attainment exacerbated by factors like poor school quality, the neighbourhood effect, and lack of parental resources. Third, it increases the incidence of poor physical and mental health in adulthood, linked to increased psychological distress, chronic diseases, and reduced lifespan. These compromised endowments then converge to limit labour market outcomes, resulting in significantly lower employment probability, reduced wages, and sporadic employment, thereby creating the conditions for the intergenerational transfer of deprivation. Thus, adopting a multidimensional, life-course perspective is crucial for developing effective policy interventions.

Keywords: Childhood deprivation, early-life poverty, socioeconomic status (SES), multidimensional poverty, cognitive development, educational attainment, health outcomes, labour market outcomes, employment, wages

INTRODUCTION

Deprivation is fundamentally a relative concept, defined by an individual's lack of resources such as diet, housing, education, and social conditions- that are widely customary or approved in their society [1], [2]. This societal notion of an 'acceptable' level establishes the relativity, enabling a comparison between the 'better' off and those who are not. While income has long been the primary metric for poverty, its limitations spurred the development of multidimensional measures, recognizing that socioeconomic and other individual factors significantly determine subjective poverty, independent of income [3].

The strong, interlinked relationship between low income and high deprivation is evident [4], but a holistic, multidimensional view allows for better identification of those who cannot afford essential items [5]. This shift led to the creation of instruments like the global Multidimensional Poverty Index (MPI) in 2010 [6] and the World Bank's Multidimensional Poverty Measure (MPM), highlighting common areas of deprivation globally, such as sanitation, educational attainment, and electricity access [7]. Deprivation is multidimensional, encompassing political, physical, social, and material aspects [8]. A small shock in one dimension can cascade, increasing overall deprivation [9]. This means that developing countries consistently hold the highest concentrations of extremely poor people [10], with regions like Sub-Saharan Africa and South Asia, and countries like India, accounting for significant portions of the global deprivation burden [6]. In India, for instance, almost 75% of those in extreme poverty were found to be concentrated there, with specific states (e.g.,

Bihar, Jharkhand, Uttar Pradesh) and certain social groups (STs and SCs) facing compounded disadvantages [11], [12].

This review synthesizes the extensive literature to detail how childhood deprivation initiates a self-sustaining cycle that negatively impacts an individual's cognitive development, educational attainment, health trajectory, and eventual labour market outcomes.

METHODOLOGY

This study employs an integrative narrative review design to synthesize existing literature and map the causal pathways linking early-life deprivation to adult socioeconomic outcomes. The methodology was guided by the principles of thematic synthesis, focusing on identifying, analyzing, and integrating themes across established empirical studies and seminal review articles.

A systematic literature search was conducted to identify relevant publications that looked at the impact of childhood deprivation across four key domains: cognitive development, educational attainment, health, and employment. The search strategy utilized a combination of keywords related to three core constructs:

- **Exposure:** "childhood deprivation," "early-life poverty," "socioeconomic status (SES)," "multidimensional poverty."
- **Outcomes:** "cognitive development," "educational attainment," "health outcomes," "labour market outcomes," "employment," "wages."
- **Linking terms:** "cumulative disadvantage," "life course perspective," "intergenerational mobility."

In order to understand the long-term effect of deprivation, searches were performed in Scopus, PubMed, Science Direct, and Google Scholar to identify seminal works that may not have been captured by the primary database search. While the systematic search was limited to post 2000 literature, seminal theoretical works and landmark empirical studies published prior to this date were also included where they were critical to the conceptual understanding of deprivation.

The study selection process involved an initial screening of titles and abstracts against the inclusion criteria, which yielded 130 articles for full-text review. Following a detailed assessment of these full texts, 66 articles were excluded. The primary reasons for exclusion were: lacking a clear analytical link between early-life deprivation and one or more of the specified long-term outcomes, or being superseded by a more comprehensive study. This rigorous screening process resulted in the final inclusion of 64 key studies, books, and reports.

The Thematic Results of Deprivation Across the Life Course

The long-lasting impact of childhood deprivation on adult life course outcomes can be understood through two main theories. The first is the Cumulative Disadvantage Theory, which says that adverse conditions experienced *in-utero* and throughout early life set in motion a sequence of setbacks that accumulate over time [13]. The second is the Ecological Systems Theory, which understands the impact of deprivation understood through the interplay of immediate settings (microsystem), social conditions (exosystem), and culture (macrosystem) affect the child's development [14].

A. Deprivation and Cognitive Development

Cognitive development in children is influenced by an intricate network of factors, from internal physiology to external environments. Internal factors, resulting from lifestyle, include sleep and nutrition. Poor sleep duration or quality and frequent night awakenings are linked to lower cognitive performance, language development, and IQ [15], [16]. Similarly, hunger severely impacts physical and brain development, causing a reduction in cognitive capacity in early years [17].

Nutritional status is a strong determinant, with specific nutrient deficiencies (e.g., iron, zinc, iodine, B12) having serious implications for brain development [18]. For example, a poor diet high in fat, sugar, and processed foods in early childhood has been linked to a reduction in later-life IQ, while nutrient-rich diets may increase it [19]. This effect is compounded by the environment, where deprived households cannot afford the quality resources, adequate physical activity, and necessary materials (e.g., play materials) that foster cognitive skills in the early years [20], [21].

Socioeconomic factors and household poverty emerge as critical determinants, with children from lower socioeconomic status (SES) households consistently performing poorer, regardless of their cognitive ability [22]. The timing and duration of poverty are crucial - persistent poverty and exposure during the early ages of a child lead to gradually lower IQ outcomes [23]. The neighbourhood effect, of living in areas where poverty is concentrated and facilities are inadequate, also contributes to this effect, leading to lower test scores, when compared to children from affluent areas [24]. Finally, parental factors, particularly the mother's education and the lack of a father figure, also negatively impact cognitive development [25].

B. Deprivation and Educational Attainment

The cognitive deficits induced by early deprivation translate directly into setbacks in educational attainment, initiating a crucial stage of the cycle. Exposure to neighbourhood deprivation is negatively associated with academic success [26]. However, family-level variables are more significant, and children from disadvantaged families often do not benefit from living in affluent neighbourhoods [27].

Family SES remains paramount. Family wealth, home-ownership, and the capacity to allocate resources towards education (like higher education or early intervention programs) increase the probability of higher educational attainment [28], [29]. Low learning levels at early ages - often due to the inability of deprived households to afford pre-school participation - are associated with lower attainment and failure to complete primary education [30]. The experience of Adverse Childhood Experiences (ACEs), often prevalent in poor households, also leads to lower educational qualifications [31].

The quality of schooling is directly affected by household means. Children in private schools spend more time studying than those in state-run schools [32]. This has serious implications for a country like India, which has a strong male-bias when it comes to private school enrolment among lower-income and rural households [33]. Parental factors again play a definitive role here - the educational- aspirational- level of parents, particularly the mother, are strong predictors of a child's educational attainment [34], [35]. Poor dietary diversity, resulting in conditions like stunting and wasting, is associated with substantially lower reading and math scores [36]. Even with government interventions like Free School Meals (FSMs), the structural disadvantage is not fully mitigated, as FSM beneficiaries still show the lowest educational attainment levels [37].

C. Deprivation and Health Outcomes

The physical and psychological stresses of sustained deprivation accumulate, leading to chronic health issues over an individual's life course [38], [39].

1) Psychosocial Health: Continued exposure to poor socioeconomic conditions results in chronic psychological distress, aggression, and helplessness [40], [41]. ACEs - including physical/emotional neglect, parental mental health issues, and food shortage - predict poor mental health, depression, and engagement in risky behaviours (drug/alcohol use) in adulthood [42], [43]. For children who were institutionalized, the psychological damage is lasting, worsening the later the intervention is received [44].

2) Physical Health: Children born into deprivation often experience poor health at birth (low birthweight) and undernutrition (stunting), which are linked to high adult blood pressure and glucose concentrations [45]. Stunting in childhood is associated with multiple adult diseases [46]. Childhood poverty is associated with poor adult health behaviours, including smoking and lack of exercise [47]. This persistent poor health increases the risk of premature mortality due to cardiovascular diseases, respiratory-related diseases, and various cancers [48], [49]. Poor housing conditions, such as crowding and lack of basic amenities such as indoor private tap water, are also

important determinants of higher adult mortality [48], [50]. While all children recover from health shocks, the impact on low-SES children is greater due to the higher frequency of these shocks [51].

D. Deprivation and Employment

The long-term consequence of compromised cognitive ability, low educational attainment, and poor health manifests in adverse adult labour market outcomes. Adults raised in poverty experience labour market exclusion, facing significantly lower odds of employment and earning lower wages [52], [53].

Education serves as the most effective mechanism to offset the negative impact of childhood adversity, increasing both the probability of employment and eventual wages [52]. Conversely, the inability to pursue higher education due to wealth constraints creates a cycle of reduced earnings and persistent economic hardships [54]. This results in a higher likelihood of individuals being NEET (Not in Education, Employment, or Training) in adulthood [55].

The neighbourhood effect persists into adulthood, with growing up in poor or disadvantaged areas increasing the chances of being jobless and having lower wages, an effect that remains even if the individual moves to a more affluent area [56], [57].

The health pathway is critical. Poor childhood health, both physical and mental, affects an individual's lifetime earnings by leading to absenteeism and preventing the fulfilment of academic potential [58], [59]. Poor physical and, especially, poor mental health in childhood lead to an inability to work and fewer workweeks as an adult, drastically reducing lifetime income [60], [61]. Consequently, early interventions targeting disadvantaged children are shown to yield significant economic returns by improving adult productivity [62].

Conceptual Framework: The Self-Sustaining Cycle of Deprivation

The literature demonstrates that deprivation, viewed through the lens of the Life Course Theory [63], is not a single event but a sequence of linked adversities that shape a person's trajectory. The impact is cumulative and self-reinforcing.

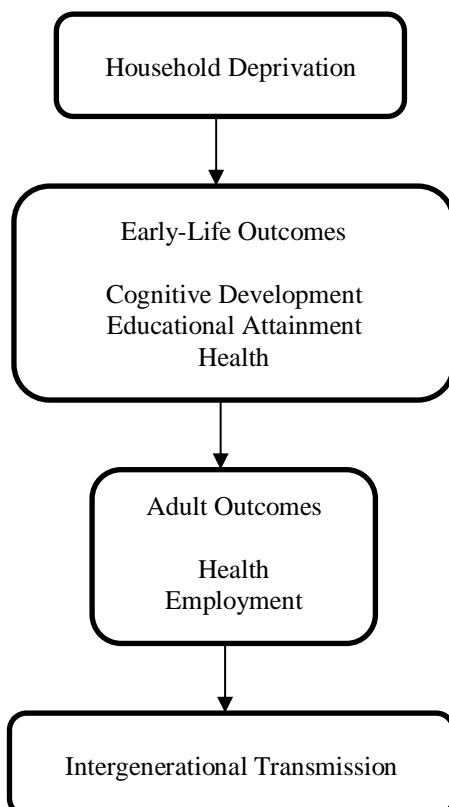


Fig. 1 The Conceptual Framework of Deprivation and Adult Outcomes

The framework illustrates the central argument: early-life deprivation (microsystem and exosystem stress) compromises Human Capital [64] formation in childhood across three critical domains: Cognition, Education, and Health (Social Determinants of Health). These compromised endowments - specifically, low cognitive function, low educational attainment, and poor physical/mental health - converge to limit health and labour market outcomes (low employment, low wages). This restricted economic capacity then creates the conditions for adult socioeconomic disadvantage and the intergenerational transfer of deprivation, restarting the cycle for the next generation. The theory of Cumulative Disadvantage explains the widening gap between deprived and non-deprived individuals over time as these disadvantages compound.

Gaps in Literature

While the existing literature provides a robust mapping of multidimensional deprivation, there are critical gaps which impede a deeper, causal understanding of its long-term consequences. This review identifies three primary areas where future research is needed:

The literature establishes that deprivation is inherently multidimensional [6], yet a significant gap exists in quantifying the relative causal influence of core deprivations. Research is needed to quantify whether, for instance, nutritional deficits in childhood exert a stronger independent effect on the long-term outcomes than deficiencies in housing quality or sanitation.

While disadvantages faced by the Scheduled Castes (SCs) and Scheduled Tribes (STs) in India are well known [11], there is a pressing need for recent empirical work that applies an intersectional lens. Focussed research should be done which details how caste and tribal identity, compounded by multidimensional deprivation, specifically channel individuals into (or away from) certain opportunities, such as access to quality private versus state schooling and subsequent job outcomes.

A critical methodological gap is the scarcity of longitudinal studies in the India context. Without such data, our understanding of how exposure to household deprivation during childhood dynamically shapes critical life course outcomes (including cognitive development, educational attainment, health status, and employment opportunities) remains fragmented and often inferential.

CONCLUSIONS

The evidence overwhelmingly supports the existence of a robust, self-sustaining cycle wherein early-life deprivation compromises cognitive, educational, and health capital, severely limiting labour market success and perpetuating socioeconomic disadvantage across generations. This process is effectively explained by the Cumulative Disadvantage Theory, where initial setbacks compound over the Life Course, creating a persistent and widening gap between deprived and non-deprived individuals.

The mechanisms detailed herein - from nutritional deficits compromising cognitive potential to poor health resulting in job absenteeism - converge to restrict human capital formation, ultimately leading to labour market exclusion and the intergenerational transfer of deprivation. Adopting a multidimensional, life-course perspective is, therefore, crucial for effective policy-making. Only through comprehensive, integrated interventions targeted at the earliest stages of life can policymakers disrupt this powerful cycle of intergenerational deprivation and foster equitable social mobility. Examining the structural deprivations identified in this review, particularly the gaps that exist in quantifying causal influence, and addressing specific social and regional inequalities, must be the focus of future empirical research.

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