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Adverse Childhood Experiences, Women's Reproductive Health Trajectories and Healthy Ageing Outcomes: An Intergenerational Life-Course Perspective

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Abstract
Adverse childhood experiences (ACEs) represent a global public health crisis with far-reaching consequences that extend well beyond childhood. This narrative review synthesises empirical evidence and theoretical frameworks to examine the pathways through which ACEs shape women's reproductive health trajectories and subsequent healthy ageing outcomes within an intergenerational life-course perspective. Drawing on biopsychosocial models, allostatic load theory, and intergenerational trauma frameworks, we explore how childhood exposure to abuse, neglect, household dysfunction, and structural adversities embedded in socioeconomic deprivation particularly in sub-Saharan African contexts including Nigeria programme biological, psychological, and social systems in ways that dysregulate reproductive function, undermine maternal health, and predispose women to accelerated biological ageing and non-communicable disease burden. The review integrates evidence on gender-based violence, psychosocial well-being, mental health, social support systems, family background, and healthcare access as mediating and moderating influences across the life course. Findings highlight that ACEs do not operate in isolation; rather, they intersect with structural inequalities, cultural norms, healthcare expenditure constraints, and intergenerational poverty to produce cumulative disadvantage. Implications for social work practice, health policy, geriatric care, and intergenerational intervention are discussed. We

argue that centering women's ACE histories in reproductive and ageing health policy is essential to achieving health equity and sustainable development outcomes.

Keywords: Adverse, Childhood, Experiences, Reproductive, Health.

Introduction

The developmental origins of health and disease (DOHaD) paradigm has firmly established that early life exposures do not merely shape childhood trajectories they encode biological, psychological, and social vulnerabilities that reverberate across the entire life span. Among the most consequential of these early exposures are adverse childhood experiences (ACEs), a term first systematically operationalised by Felitti *et al.* (1998) to encompass physical, emotional, and sexual abuse; physical and emotional neglect; and household dysfunction including domestic violence exposure, parental mental illness, substance abuse, incarceration, and divorce. Over two decades of cumulative research have since documented dose-response relationships between ACE burden and a remarkably wide array of adult health outcomes, including cardiovascular disease, depression, substance use disorders, risky sexual behaviour, and premature mortality.

While the ACEs literature has expanded considerably, its application to women's reproductive health trajectories and subsequent healthy ageing outcomes remains undertheorised, particularly in low-and-middle-income country (LMIC) contexts. This gap is especially striking given that women bear a disproportionate burden of ACE exposure through gender-based violence a burden that is both a form of childhood adversity and a persistent threat that continues into reproductive adulthood (Fatoye, 2020a). In Nigeria and the broader sub-Saharan African region, structural conditions including poverty, limited healthcare expenditure, patriarchal norms, and constrained social welfare systems amplify the health consequences of ACEs and create distinct intergenerational transmission pathways (Fatoye, 2021a; Afolabi & Hendricks, 2025).

A life-course perspective offers a theoretically coherent framework for integrating these disparate lines of inquiry. This perspective holds that health and disease are the cumulative products of biological, behavioural, and social processes that operate from conception through old age, and that critical and sensitive developmental periods exist during which adversity exerts disproportionate and often irreversible effects. Applied to women's health, a life-course lens illuminates how ACE exposures in childhood programme stress-response systems, shape socio-emotional development, influence reproductive decision-making and outcomes in adolescence and adulthood, and ultimately determine whether women achieve healthy ageing. Critically, these pathways are not merely individual they are intergenerational, transmitted

through epigenetic mechanisms, parenting behaviour, poverty, and social norms that shape the ACE exposures of the next generation.

This narrative review synthesises the theoretical and empirical evidence linking ACEs, reproductive health trajectories, and healthy ageing, with particular attention to psychosocial mechanisms and structural contexts relevant to Nigerian and African settings. By integrating literature on gender-based violence, mental health, social support, geriatric care, and health expenditure from scholars working in these contexts (Fatoye, 2018; Fatoye, 2020b; Fatoye, 2022; Afolabi, 2020; Adewole & Afolabi, 2020), we aim to provide a holistic account of how the shadows of childhood adversity reach into women's reproductive and ageing health across generations.

This narrative review pursues four interconnected objectives: (1) to map the theoretical frameworks linking ACEs to women's reproductive health and healthy ageing; (2) to synthesise empirical evidence on the biological, psychological, and social pathways through which ACEs shape reproductive trajectories; (3) to examine contextual and structural factors including healthcare systems, social support, and gender inequalities that mediate or moderate ACE effects in African settings; and (4) to distil implications for policy, social work practice, and future research.

Theoretical Frameworks

The Life-Course Perspective

The life-course perspective, as developed by Elder (1994) and subsequently elaborated by Kuh et al. (2003), posits that health trajectories are shaped by the timing, duration, and accumulation of biological, psychological, and social risk factors across development. Central to this perspective are three conceptual models: the critical period model, which holds that adversity during sensitive developmental windows produces permanent biological programming; the accumulation of risk model, in which risks compound across time in additive or synergistic ways; and the pathway model, in which early adversity sets individuals on developmental trajectories that constrain or enable future health behaviours and outcomes. For women specifically, the reproductive period spanning menarche through menopause constitutes a critical cascade of biological and social events through which ACE effects are expressed, amplified, or potentially buffered.

The relevance of life-course models to the Nigerian context is demonstrated by research documenting how structural adversities experienced in childhood including poverty, educational deprivation, and household instability predict reproductive health outcomes in adulthood, including teenage pregnancy, maternal morbidity, and limited healthcare access. Afolabi and Hendricks (2025) documented that socio-cultural factors exert significant

influence on reproductive health among female teenagers in Nigeria, illustrating the embeddedness of reproductive trajectories within broader socioecological systems shaped from childhood.

Allostatic Load Theory

McEwen and Stellar's (1993) concept of allostatic load the cumulative physiological toll of chronic stress provides a critical mechanistic bridge between ACE exposure and long-term health outcomes. When the stress-response system is activated repeatedly or for prolonged periods during childhood, as occurs with abuse, neglect, and household chaos, it undergoes dysregulation across multiple biological axes including the hypothalamic-pituitary-adrenal (HPA) axis, the sympathetic nervous system, and inflammatory signalling pathways. The resulting allostatic load predisposes individuals to a wide range of chronic diseases and accelerates biological ageing as indexed by telomere shortening, immune dysregulation, and epigenetic modification.

For women, allostatic load has particular reproductive implications. Dysregulated cortisol and inflammatory signalling are associated with menstrual irregularity, polycystic ovarian syndrome, endometriosis, impaired fertility, and adverse pregnancy outcomes including preterm birth and low birth weight. Evidence suggests that ACE-related allostatic load is further compounded in resource-constrained settings where nutritional deficits, infectious disease burden, and poor healthcare access add additional physiological stressors, accelerating the path from childhood adversity to reproductive and ageing health compromise. The healthcare expenditure literature in Nigeria corroborates this, with Fatoye *et al*. (2018) and Fatoye (2021a) documenting significant associations between inadequate public health financing and poor health outcomes including elevated maternal mortality rates an outcome linked upstream to the accumulated burden of women's lifetime adversities.

Biopsychosocial and Feminist Frameworks

A biopsychosocial framework, integrating biological, psychological, and social determinants, is necessary to capture the full complexity of ACE pathways. This is particularly true for women, whose health is shaped by gender-specific vulnerabilities including differential exposure to sexual and intimate partner violence, gendered poverty, and structural barriers to healthcare access. Feminist scholarship emphasises that ACEs experienced by girls particularly sexual abuse, emotional invalidation, and exposure to domestic violence are not random misfortunes but are structured by patriarchal social arrangements that systematically devalue female lives and bodies. Fatoye and Fatunbi (2026) assert that gender inequality constitutes a root cause of poverty and that women's social well-being must be placed at the centre of development policies, a position that directly implicates ACE prevention in poverty reduction efforts.

Victimology frameworks further illuminate how women who experience childhood victimisation often encounter revictimisation across the life span in intimate relationships, within healthcare encounters, and through structural violence. Fatoye (2019) documented the victimological dimensions of adversity experienced by elderly women in Nigerian communities, suggesting that the seeds of later victimisation are frequently planted in childhood contexts of abuse and neglect. This accumulation of victimisation experiences across the life course is particularly relevant to understanding why ACEs produce such powerful effects on healthy ageing outcomes for women.

Intergenerational Transmission Frameworks

A defining feature of ACE science is the recognition that childhood adversity does not simply affect the individual who experiences it, it generates intergenerational transmission effects that shape the health and development of subsequent generations. Transmission mechanisms operate through at least three pathways: biological mechanisms including epigenetic inheritance and in utero programming through maternal stress physiology; psychological mechanisms including disrupted attachment, parenting behaviour, and mental health transmission; and social mechanisms including intergenerational poverty, educational deprivation, and community violence. The intergenerational dimension is especially relevant in the African context, where extended family structures and communal living mean that ACEs experienced by one generation ripple outward into the caregiving environments of subsequent generations. The work of Fatoye (2021b) on parental separation and children's psychosocial well-being, and that of Fatoye and Ayegbusi (2023) on family background and adolescent delinquency, demonstrates empirically how the psychosocial sequelae of childhood adversity propagate through family systems.

Adverse Childhood Experiences and Women's Reproductive Health Trajectories

ACEs and Adolescent Reproductive Health

The reproductive consequences of ACEs frequently manifest first in adolescence. Research consistently documents that ACE exposure particularly childhood sexual abuse, physical abuse, and household dysfunction predicts earlier age at sexual debut, higher rates of coercive sexual experiences in adolescence, reduced contraceptive use, and elevated rates of adolescent pregnancy. These associations operate through multiple pathways. Neurobiologically, childhood trauma accelerates pubertal timing in girls, likely through HPA axis dysregulation and alterations in the hypothalamic-pituitary-gonadal axis, increasing the window of reproductive risk. Psychologically, ACE exposure shapes sexual risk behaviour through its effects on self-worth, impulse control, capacity for trusting relationships, and mental health.

In the Nigerian context, girl child education deficits represent a structural ACE analogue a form of systemic neglect that curtails girls' developmental opportunities and predisposes them to early marriage, limited reproductive agency, and poor maternal health outcomes. Afolabi (2023) has articulated the relevance of social work theories to promoting girl child education and mental health in Nigeria, emphasising that educational exclusion is both a childhood adversity and a pathway to compromised reproductive health. Similarly, Afolabi and Hendricks (2025) documented that socio-cultural factors including gender norms, family pressure, and limited sex education significantly influence reproductive health behaviours among female teenagers in Nigeria pathways that are themselves shaped by childhood family environments characterised by varying degrees of adversity.

ACEs and Mental Health: The Reproductive Nexus

One of the most robustly documented consequences of ACE exposure is elevated risk for mental health disorders, including depression, anxiety, post-traumatic stress disorder (PTSD), and personality disturbances. These mental health sequelae are not merely parallel outcomes of childhood adversity they are mechanistically central to the reproductive health consequences of ACEs. Depression and anxiety disorders are associated with menstrual dysfunction, impaired fertility, elevated rates of pregnancy complications including preterm birth and low birth weight, higher rates of perinatal depression, and poor maternal-infant attachment the last of which itself constitutes a risk factor for the next generation.

The mental health toll of ACEs in Nigerian women is compounded by structural factors including limited mental healthcare infrastructure, stigma associated with mental illness, and the added burden of COVID-19-related stressors. Afolabi (2020) documented significant mental health implications of lockdown during the COVID-19 pandemic among adults in Ibadan, Nigeria, with elevated distress disproportionately affecting women whose household adversities intensified during the lockdown period. Fatoye (2020a) similarly documented the psychological impacts of gender-based violence on female victims during the COVID-19 lockdown, noting that the convergence of pandemic-related stressors and pre-existing childhood trauma histories created compounded vulnerability for many women. Afolabi (2024) further established links between psychological stress and mental disorders, underscoring the cumulative nature of adversity that frequently begins in childhood.

The pathway from mental illness to reproductive health compromise is also mediated by social consequences of mental health difficulties, including impaired relationship quality, intimate partner conflict, social isolation, and reduced capacity to access and navigate reproductive healthcare services. Afolabi and Bakare (2023) demonstrated that discriminating factors of mental illness significantly undermine the social well-being of patients in Nigerian

society, illustrating how psychological consequences of adversity create cascading social disadvantages that affect health-seeking behaviour across the reproductive period.

Gender-Based Violence: ACEs, Revictimisation, and Reproductive Harm

Gender-based violence (GBV) occupies a uniquely central position in the ACE-reproductive health nexus for several reasons. First, GBV is frequently both an ACE (when experienced in childhood) and a downstream consequence of ACE exposure (through revictimisation in adult intimate relationships). Second, GBV including intimate partner violence, sexual violence, and psychological abuse has direct and severe reproductive health consequences including unwanted pregnancy, sexually transmitted infections, gynaecological injury, and adverse pregnancy outcomes. Third, GBV interacts with mental health sequelae of ACEs to produce compounded psychological harm that is particularly difficult to escape in contexts of economic dependence and limited social welfare support.

Fatoye (2020a) documented the psychological impacts of gender-based violence on female victims during the COVID-19 lockdown, finding that confinement conditions dramatically increased women's exposure to intimate partner violence and associated psychological harm. Fatoye and Fatunbi (2024) further elaborated the influence of intimate partner violence on the well-being of adults in Ibadan Metropolis, documenting significant associations between IPV exposure and compromised physical and psychological functioning outcomes that directly affect women's reproductive health and their capacity for healthy ageing. These Nigerian findings resonate with the global evidence base documenting GBV as a critical mediator between childhood adversity and reproductive harm.

The relationship between childhood sexual abuse and adult revictimisation through intimate partner violence is particularly well-documented. ACE-exposed women are more likely to enter relationships characterised by power imbalance, coercion, and violence partly as a consequence of disrupted attachment schemas, reduced self-protective behaviour, and limited social networks that might buffer against abusive partners. In Nigeria and similar contexts, cultural norms that normalise male dominance in intimate relationships further constrain women's ability to exit violent partnerships, creating conditions in which the reproductive health consequences of childhood adversity are perpetually reinforced by adult revictimisation.

ACEs, Social Support, and Reproductive Health Mediation

While the evidence for ACE-related reproductive harm is compelling, research consistently identifies social support as a critical mediator and moderator of ACE effects across the life course. Supportive family environments, access to caring adults outside the family, community-based support networks, and peer relationships can buffer the neurobiological and

psychological impacts of childhood adversity, enabling women to negotiate reproductive health decisions with greater agency and access healthcare services more effectively.

Fatoye (2022) documented the significance of social support for quality of life among elderly individuals in Ibadan Metropolis, a finding that has direct implications for the reproductive period: women who can draw on strong social support networks during their reproductive years are better equipped to resist revictimisation, make informed contraceptive choices, access antenatal and postnatal care, and maintain psychological resilience in the face of life stressors. The cooperative society structures studied by Fatoye and Oyeleke (2022) represent one such informal support mechanism, providing members with financial resources and social connection that can partially offset the health consequences of poverty-related adversities.

For women living with HIV a population with elevated rates of childhood adversity exposure social support takes on particular salience. Fatoye and Afolabi (2022) examined the role of support group systems in the psychosocial well-being of people living with HIV in Oyo State, finding that structured peer support was associated with improved psychological outcomes. These findings suggest that social support interventions in healthcare settings can meaningfully modify the reproductive and psychosocial trajectories of women whose ACE histories have predisposed them to immune compromise and relationship challenges.

For informal caregivers of children with complex health needs a role disproportionately shouldered by women ACE-related psychological vulnerabilities can compound the caregiving burden and create bidirectional risks for both caregiver and child. Isaac and Fatoye (2019) documented the psychosocial factors influencing well-being among informal caregivers of children with sickle cell disease, identifying elevated distress among caregivers who lacked adequate social support a dynamic that mirrors the situation of many ACE-exposed mothers navigating caregiving with limited psychological resources.

Women's Reproductive Health Trajectories and Healthy Ageing Outcomes

From Reproductive History to Ageing: Biological Pathways

The transition from reproductive health to healthy ageing is increasingly understood as a continuum rather than a discrete threshold. Reproductive history including age at menarche, parity, breastfeeding duration, experience of pregnancy complications, and menopausal timing — shapes the biological substrate upon which ageing processes unfold. ACE exposure influences each of these reproductive events in ways that compound biological ageing risk.

Earlier age at menarche, associated with childhood stress through HPA-gonadal axis dysregulation, is itself linked to elevated risk for breast cancer, cardiovascular disease, type 2

diabetes, and depression in later life. Adverse pregnancy outcomes including preterm birth and gestational hypertension elevated in ACE-exposed women are associated with accelerated maternal cardiovascular ageing. Telomere shortening, a molecular marker of biological ageing, has been directly associated with ACE burden and is exacerbated by the cumulative allostatic load of poverty, violence, and structural disadvantage that characterises many ACE-exposed women's lives. The net result is that women with high ACE burden arrive at midlife and older age with diminished biological reserves, predisposing them to earlier onset and greater severity of non-communicable diseases.

Psychosocial Dimensions of Ageing in ACE-Exposed Women

Beyond biological mechanisms, ACEs shape the psychosocial determinants of healthy ageing through their effects on mental health, relationship quality, economic participation, and social connectedness. Depression, anxiety, and PTSD elevated in ACE-exposed women are associated with accelerated cognitive decline, elevated dementia risk, reduced physical activity, poor nutrition, and decreased healthcare utilisation in older age. The social isolation that often accompanies chronic mental illness and the sequelae of intimate partner violence further diminishes the social capital available to ACE-exposed women in older age.

Fatoye (2019) documented the victimological dimensions of adversity experienced by elderly women in Nigerian communities, illuminating how women who have experienced cumulative victimisation across the life span frequently originating in childhood adversity enter older age with compromised psychological well-being, social marginalisation, and limited economic resources. Fatoye (2020b) extended this analysis by examining family support systems as predictors of psychological well-being among elderly individuals in Ibadan Metropolis, demonstrating that the quality of family relationships in older age reflects, in part, the relational histories forged across the life course including in the family environments of childhood.

Economic adversity a frequent companion of ACE exposure exerts independent and synergistic effects on healthy ageing for women. Fatoye (2023) documented the implications of the rising cost of living in Nigeria specifically for the welfare of aged women, identifying economic vulnerability as a central threat to well-being in older age a vulnerability whose roots frequently trace to childhood educational deprivation and gender inequality. The intersections of poverty, gender, and ageing that Fatoye (2023) and Fatoye and Fatunbi (2026) illuminate are directly relevant to understanding why ACE-exposed women, who are disproportionately poor and educationally disadvantaged, achieve systematically worse healthy ageing outcomes.

Geriatric Health and the Legacy of ACEs

The geriatric health implications of ACEs are receiving increasing attention as populations age globally and the consequences of childhood adversity accumulate in ageing cohorts. Fatoye (2024) examined the geriatric healthcare system and the elderly population in Ibadan Metropolis, identifying significant gaps in healthcare provision for older adults gaps that are particularly consequential for ACE-exposed elderly women who carry the highest burden of physical and psychological morbidity. The underinvestment in geriatric care documented in the Nigerian context is part of a broader pattern of inadequate public health expenditure that has been associated with poor health outcomes across the life span (Eboh *et al*., 2018).

The psychotherapy and quality of life literature provides additional insight into how interventions can modify the ageing trajectories of individuals with high ACE burden. Udeme, Afolabi, and Pillay (2024) demonstrated that psychotherapy significantly improves quality of life outcomes among older persons, suggesting that the accumulated psychological burden of childhood adversity can be partially addressed through targeted therapeutic intervention even in later life. This finding is particularly significant for ACE-exposed older women, for whom the opportunity to process and integrate childhood trauma may represent a pivotal pathway to improved physical health, relational quality, and subjective well-being in older age.

Drug compliance and treatment engagement represent additional dimensions of healthcare utilisation in which ACE histories may create barriers for ageing women. Afolabi (2021) demonstrated that drug compliance significantly predicts psychosocial well-being among patients with mental illness in Ibadan, a finding that reflects the broader challenge of engaging individuals with trauma histories in sustained therapeutic relationships. For older ACE-exposed women managing chronic conditions including hypertension, diabetes, depression, and musculoskeletal disease, disrupted compliance with medication regimens represents a modifiable risk factor that can meaningfully worsen ageing trajectories.

Mental Health in Later Life: The ACE Legacy

Late-life mental health represents perhaps the most direct expression of the ACE legacy in older women. Depression, anxiety, PTSD, and cognitive impairment are all elevated in older adults with high ACE burden, and for women, these risks are compounded by the additional ACE-related exposures of lifetime GBV and economic marginalisation. Afolabi *et al*. (2024) identified predictors of emotional distress among inmates of Agodi Correctional Centre in Ibadan, documenting elevated distress associated with social adversity and limited support a microcosm of the conditions that many ACE-exposed elderly women navigate without institutional support.

Afolabi and Salami (2022) documented stress and coping strategies among relatives of mentally ill individuals in Ibadan Metropolis, finding that inadequate coping resources were associated with elevated psychological burden a dynamic that is particularly acute for elderly women who may simultaneously carry their own ACE-related psychological burden while shouldering caregiving responsibilities for ill family members. Adewole and Afolabi (2020) provided complementary evidence from a comparative study of physical health in retirement among civil servant and non-civil servant retirees in Ibadan Metropolis, demonstrating that retirement context shapes health trajectories in ways that reflect accumulated advantage and disadvantage across the working life trajectories that for women are fundamentally shaped by ACE histories.

Structural and Contextual Factors Mediating ACE Effects in African Settings

Healthcare Expenditure and System Capacity

The translation of ACE-related biological and psychological vulnerabilities into health outcomes is powerfully shaped by the quality and accessibility of healthcare systems. In Nigeria and comparable sub-Saharan African contexts, chronic underinvestment in public health infrastructure creates a particularly harsh environment for ACE-exposed women navigating reproductive health and ageing. Eboh et al. (2018) documented the impact of public health expenditure on health outcomes in Nigeria, demonstrating that inadequate investment in health systems was associated with significantly worse population health metrics. Fatoye (2021a) extended this analysis to maternal mortality specifically, documenting significant associations between healthcare expenditure levels and maternal mortality rates in Nigeria a finding with direct relevance to the reproductive health consequences of ACEs.

The implications are clear: even if ACE-exposed women develop the motivation and capacity to seek reproductive and mental healthcare, they frequently encounter systems that lack the resources, infrastructure, or culturally competent practices to serve their needs effectively. Limited access to mental health services constrains the treatment of depression, PTSD, and trauma-related disorders in reproductive-aged women. Inadequate geriatric care services leave older ACE-exposed women without the specialised support needed to address their complex health needs. The innovative use of cooperative societies and community-based support structures as informal health insurance mechanisms, documented by Fatoye and Oyeleke (2022), represents a creative adaptation to these systemic limitations but one that places significant responsibility on civil society to compensate for state failures.

Socioeconomic Inequalities and Structural Violence

Structural violence the harm inflicted on individuals through social arrangements that prevent them from meeting their basic needs is inseparable from the ACE experience for most women in low-resource contexts. Poverty, limited education, restricted occupational

opportunities, and gender-based discrimination collectively constitute forms of structural adversity that both generate ACE-type experiences and constrain women's capacity to recover from them. Fatoye and Fatunbi (2026) argue that gender inequality functions as a root cause of poverty, and that development policies must centre women's social well-being to achieve meaningful progress a position that directly implicates childhood adversity prevention as a poverty-reduction strategy.

The rising cost of living in Nigeria, documented by Fatoye (2023) as a significant threat to the welfare of aged women, represents a contemporary manifestation of structural violence that compounds ACE legacies in older women. When women who have carried the biological and psychological burden of childhood adversity throughout their reproductive lives reach older age in conditions of economic precarity, the health consequences are predictably severe including inadequate nutrition, limited medication access, social isolation, and diminished dignity. These outcomes are not individual failures; they are the terminal expressions of structural arrangements that systematically disadvantaged these women from childhood.

Socio-Demographic Factors and Marital Context

The marital and family context represents a critical proximal environment in which ACE effects are expressed and potentially moderated across the reproductive life course. Research on marital satisfaction and its determinants illuminates one pathway through which childhood adversity may generate intergenerational effects: ACE-exposed women who struggle with relationship quality, trust, and effective communication may experience marital dissatisfaction that elevates stress, reduces social support, and creates adverse environments for children. Fatoye (2023) examined socio-demographic factors as correlates of marital satisfaction in Ogun State, Nigeria, finding that educational attainment, age, and social support were significantly associated with marital satisfaction variables that are themselves shaped by childhood adversity.

Parental separation, which may itself be an ACE for children, also represents a downstream consequence of ACE-related relationship difficulties for adult women. Fatoye (2021b) documented the psychosocial effects of parental separation on children in secondary schools in Ibadan, Oyo State, finding significant associations between parental separation and children's psychosocial well-being a finding that illustrates the intergenerational transmission of ACE-related family instability. These dynamics reinforce the importance of addressing ACE legacies in women's mental health and relationship functioning as a strategy for interrupting intergenerational cycles of adversity.

Gender Norms, Cultural Context, and ACE Expression

Cultural and gender norms shape both the types of ACEs to which girls and women are exposed and the psychosocial meanings attributed to those experiences, influencing the pathways from adversity to health outcomes. In many Nigerian communities, cultural norms that normalise physical discipline, restrict girls' educational opportunities, subordinate women's needs to family honour, and constrain reproductive autonomy function as contextual amplifiers of ACE effects. These norms may prevent disclosure of abuse, limit help-seeking behaviour, constrain contraceptive decision-making, and reduce women's capacity to exit violent relationships — each of which represents a pathway through which cultural context magnifies the reproductive and ageing health consequences of ACEs.

Fatoye (2020b) documented women's vulnerability and social welfare challenges during the COVID-19 lockdown in Nigeria, illustrating how cultural norms restricting women's mobility and concentrating them in domestic spaces under conditions of confinement amplified their exposure to intimate partner violence an ACE-related risk factor with direct reproductive health implications. These findings underscore the importance of integrating gender-transformative approaches into ACE-responsive health policies, addressing not only individual trauma histories but also the cultural structures that generate and perpetuate them.

Intergenerational Transmission: From ACEs to the Next Generation

Biological Transmission Mechanisms

The intergenerational consequences of ACEs are perhaps most dramatically illustrated by epigenetic research demonstrating that maternal adversity can alter gene expression patterns in ways that influence offspring development without changes to the DNA sequence itself. Maternal stress during pregnancy, mediated by glucocorticoid signalling and inflammatory pathways that are chronically dysregulated in ACE-exposed women, programmes fetal HPA axis development, alters placental function, and influences fetal growth trajectories effects that have downstream consequences for the child's stress reactivity, cognitive development, and lifetime health risk.

In Nigeria and comparable contexts, the biological transmission of adversity is compounded by nutritional insufficiency, infectious disease burden, and inadequate antenatal care access that disproportionately affect ACE-exposed women. Maternal depression elevated in ACE-exposed women predicts suboptimal breastfeeding, impaired maternal-infant interaction, and infant developmental delay, creating a psychosocial transmission pathway that parallels the biological one. The maternal mortality consequences of inadequate healthcare investment documented by Fatoye (2021a) represent the most extreme expression of this transmission failure, in which the health consequences of ACEs are literally lethal depriving

children of maternal care and propagating orphanhood as a form of childhood adversity in the next generation.

Psychosocial Transmission Pathways

Beyond biological mechanisms, ACE-related psychological difficulties in mothers create psychosocial transmission pathways through their effects on parenting. Depression, PTSD, substance use, and personality disturbances all elevated in ACE-exposed women are associated with reduced parental sensitivity, harsher discipline practices, inconsistent emotional availability, and difficulty maintaining safe and stable home environments. Each of these parenting characteristics constitutes a risk factor for childhood adversity in the next generation, completing the intergenerational cycle.

Fatoye and Ayegbusi (2023) documented the relationship between family background and delinquent behaviours among adolescents in Lagos State, finding significant associations between adverse family environments and adolescent problem behaviour a finding that reflects the downstream consequences of parental adversity on child outcomes. These patterns illustrate the importance of addressing ACE-related mental health and parenting difficulties in women as a strategy for interrupting intergenerational transmission and reducing childhood adversity in subsequent generations.

The family support system, examined by Fatoye (2020b) in the context of elderly psychological well-being, also plays a significant role in intergenerational transmission: families that have been disrupted by ACE-related difficulties including violence, separation, and mental illness may be less able to provide the elder care that elderly ACE-exposed women require creating a situation in which the consequences of childhood adversity ultimately compromise care at life's end.

Social and Structural Transmission Mechanisms

At the structural level, intergenerational ACE transmission operates through the inheritance of poverty, educational disadvantage, community violence, and social marginalisation. When ACE-exposed women are unable to achieve educational credentials, economic security, and social capital partly as a consequence of their adversity histories they may be unable to provide the material and social foundations that protect their children from similar adversities. This structural transmission is reinforced by the limitations of social welfare systems in Nigeria that fail to provide meaningful safety nets for vulnerable families.

Afolabi *et al*. (2024) documented predictors of emotional distress among inmates in Agodi Correctional Centre, Ibadan, identifying that social adversity and limited support significantly predicted distress a finding that resonates with the broader literature on structural disadvantage as an ACE amplifier. The criminal justice involvement of individuals from

adversity-exposed backgrounds itself represents both a consequence of ACE exposure and a risk factor for children of incarcerated parents one of the original ACE categories identified by Felitti *et al.* (1998).

Implications for Policy, Practice, and Research

Policy Implications

The evidence reviewed here has clear and urgent implications for health and social policy in Nigeria and comparable LMIC contexts. Most fundamentally, the life-course and intergenerational framing of ACEs demands that reproductive health and healthy ageing policies abandon the erroneous assumption that these are separate domains amenable to siloed interventions. Women's reproductive health cannot be meaningfully addressed without attending to the adversity histories that shape it, and healthy ageing outcomes cannot be improved without addressing the cumulative reproductive and psychological toll of those histories.

Increasing public health expenditure on primary and preventive care represents a prerequisite for any meaningful ACE-responsive health policy. The associations between healthcare investment and health outcomes documented by Fatoye (2018; 2021a) make clear that system-level underinvestment translates directly into preventable death and disability disproportionately affecting women with high ACE burden who depend most heavily on public healthcare services. Additionally, Fatoye and Adewole (2025) underscore the importance of both financial and non-financial welfare incentives in motivating public sector workers, including healthcare providers, whose motivation and retention are essential to delivering quality services to vulnerable populations.

Gender-transformative policies that address the structural drivers of GBV including educational investment for girls, women's economic empowerment, legal protection from intimate partner violence, and cultural norm change are essential to reducing the ACE burden at its source. Fatoye and Fatunbi (2026) make a compelling case that women's social well-being must be central to development policies, an argument that gains urgency when understood within the life-course framework articulated in this review: investing in women's protection from adversity in childhood pays dividends in reproductive health, maternal health, children's development, and ultimately in the healthy ageing of women themselves.

Social Work Practice Implications

Social workers are uniquely positioned at the intersection of individual, family, and structural systems that shape ACE exposure and its consequences. Trauma-informed social work practice which recognises the pervasive impact of trauma, integrates knowledge of

trauma into policies and practices, and actively resists re-traumatisation is essential to effective engagement with ACE-exposed women at all life stages. Afolabi (2023) has articulated the relevance of social work theories and practice to promoting girl child education and mental health in Nigeria, underscoring the profession's capacity to address both individual and structural dimensions of childhood adversity.

Case management approaches that identify ACE histories during reproductive health encounters including antenatal care, family planning services, and cervical cancer screening can facilitate linkage to mental health, social support, and violence prevention services that buffer ACE effects. The support group interventions documented by Fatoye and Afolabi (2022) for people living with HIV provide a model for how peer-based social support can be mobilised within healthcare settings to address the psychosocial consequences of adversity. The cooperative society model documented by Fatoye and Oyeleke (2022) similarly illustrates how community-based structures can be leveraged to extend financial and social support to women who lack other safety nets.

For elderly women, social work practice must engage with the geriatric healthcare gap identified by Fatoye (2024) advocating for adequate provision of geriatric services, facilitating access to community-based care, and addressing the social isolation that compounds ACE-related health risks in older age. The evidence from Udeme, Afolabi, and Pillay (2024) that psychotherapy improves quality of life among older persons further supports the case for integrating psychological services into geriatric care for ACE-exposed elderly women.

Research Implications

The current review identifies several critical gaps in the existing literature that warrant targeted research attention. First, longitudinal studies tracking ACE-exposed women from childhood through reproductive adulthood and into older age are almost entirely absent from the African context; such studies are essential to establishing the temporal and causal dimensions of the ACE-reproductive-ageing pathway with greater precision. Second, the specific ACE categories most prevalent in Nigerian and African contexts including community violence exposure, economic deprivation, and orphanhood are underrepresented in existing ACE frameworks that were developed primarily in high-income country settings and require adaptation and validation for African epidemiological realities.

Third, intervention research examining the effectiveness of ACE-informed reproductive health programs, intergenerational trauma interventions, and community-based support models for reducing ACE effects on women's health trajectories is urgently needed. The qualitative dimensions of women's ACE experiences including cultural meanings, help-seeking processes, and resilience mechanisms deserve greater attention in research designs that

move beyond cross-sectional surveys to encompass the richness of lived experience. Finally, greater methodological integration across the disciplines of public health, social work, psychology, and geriatrics is needed to capture the full complexity of ACE effects across the life course.

Conclusion

Adverse childhood experiences cast a long shadow one that extends through women's reproductive years and into the final decades of life, shaping biological functioning, psychological well-being, relationship quality, economic capacity, and access to healthcare in ways that are individually devastating and collectively inequitable. This narrative review has synthesised theoretical frameworks and empirical evidence to demonstrate that the connections between ACEs, reproductive health, and healthy ageing are not incidental but are structurally embedded in the life-course architecture of women's lives, particularly in resource-constrained contexts such as Nigeria.

The intergenerational dimension of this analysis is perhaps the most urgent: the ACE legacies that compromise mothers' reproductive health and ageing trajectories simultaneously generate the conditions for the next generation's adversity, perpetuating cycles that neither clinical intervention nor individual resilience can interrupt without structural change. Breaking these cycles requires the kind of comprehensive, multi-level action that integrates trauma-informed clinical practice, gender-transformative social policy, adequate healthcare investment, and community-based support mobilisation.

Fatoye and Fatunbi (2026) are correct that women's social well-being must be central to development policies and the evidence reviewed here makes clear that this centering must begin in childhood, with ACE prevention, and must extend across the full life course, through reproductive health services, mental health support, social protection, and geriatric care designed to address the cumulative consequences of lifetime adversity. Only such a comprehensive, life-course approach can hope to transform the trajectory from adverse beginnings to healthy endings for women whose childhoods have been marked by adversity.

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