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The Impact of Poverty on Under 5 Children in Rural Communities of the West African Region

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Abstract

Background: Under 5 children mortality is a significant public health issue in West Africa, where poverty is prevalent. Poverty is a complex and multifaceted issue that affects various aspects of life, including health outcomes. The impact of poverty on under 5 children mortality has been extensively studied in West Africa, and this review aims to provide a comprehensive understanding of the findings of these studies.

Methods: This review is a qualitative Narrative review in which systematic review procedures were employed to search, select, and extract data from overviews that meet eligibility criteria for this study. The search yielded a total of 1,245 articles; published between 2005 and 2023 in West Africa, including Nigeria, Ghana, Mali, and Senegal. 78 articles were selected for full-text review, out of which 30 met the inclusion criteria and included in the final analysis. The studies used different study designs, including cross-sectional, cohort, and case-control studies. The sample sizes ranged from 100 to 10,000 participants.

Results: The findings of the studies showed that poverty has a significant impact on under 5 children mortality in West Africa. Children from poor households were more likely to

die before their fifth birthday compared to children from wealthier households. Poverty also affected the health outcomes of mothers, which in turn affected the health outcomes of their children. The studies identified various factors that contribute to the impact of poverty on under 5 mortality, including malnutrition, lack of access to healthcare, poor sanitation, and inadequate housing. The studies also highlighted the role of community-level factors, such as social support and community participation, in mitigating the impact of poverty on under 5 mortality.

Conclusion: Poverty affects various aspects of life, including access to healthcare, nutrition, and basic amenities, which in turn affects the health outcomes of children. Community-based interventions that address the underlying causes of poverty and improve access to healthcare and basic amenities should be strengthened, designed better and implemented in collaboration with stakeholders to ensure their effectiveness and sustainability. Further research is needed to identify effective interventions that can improve health outcomes in impoverished communities.

Keywords: Poverty, Children, Rural Communities, Nigeria

Introduction

Poverty is a major issue in West Africa, with almost half of the population living below the poverty line. Poverty has a significant impact on the health and well-being of the population, particularly on children under the age of five. Under-5 children mortality is a key indicator of the health and well-being of a population, and the high under-5 mortality rate in West Africa is largely attributed to poverty and the lack of access to basic needs such as healthcare, clean water, and adequate nutrition. Poverty is a complex and multidimensional issue that is difficult to define. The World Bank defines poverty as living on less than \$1.90 per day, which is the international poverty line (World Bank, 2020). However, poverty is not just about income; it is also about access to basic needs such as food, water, shelter, and healthcare. Poverty is a global issue that affects millions of people around the world. It is a complex and multidimensional phenomenon that is difficult to define and measure.

Poverty is not only about income but also encompasses access to basic needs such as food, shelter, healthcare, and education. There has been significant progress in reducing poverty levels over the last few decades, but the COVID-19 pandemic has highlighted the fragility of these gains. This paper will discuss poverty, its causes and effects, and measures to alleviate it. Poverty is a multifaceted and complex issue, and there is no one definition that captures all its dimensions.

The World Bank defines poverty as living on less than \$1.90 per day, which is the international poverty line (World Bank, 2020). This definition only captures the monetary aspect of poverty and does not address the wider social, cultural, and political factors that contribute to poverty.

The United Nations Development Programme (UNDP) defines poverty as the lack of basic capabilities to lead a dignified life (UNDP, 2020) [32]. It highlights the importance of access to basic needs such as food, water, shelter, and healthcare, as well as education, employment, security, and social inclusion. This definition acknowledges the multidimensional nature of poverty and emphasizes the importance of addressing both the root causes and the consequences of poverty. Poverty has complex and interrelated causes that vary across countries and regions. One of the main causes of poverty is the lack of access to education and training, which limits people's ability to compete for jobs and earn a decent wage (Jalan & Ravallion, 2003) [16]. Limited access to education also limits people's ability to participate in civic life and exercise their rights as citizens.

Another key factor contributing to poverty is the lack of economic opportunities resulting from structural inequalities and market failures (Kanbur, 2009). Inadequate infrastructure and public services, such as healthcare and education, also contribute to poverty, particularly in rural areas. Conflict, political instability, and natural disasters are also significant factors contributing to poverty, particularly in developing countries (Mehrotra, 2014). These factors disrupt economic activity and destroy essential infrastructure, forcing people to flee their homes and seek refuge elsewhere.

The effects of poverty are far-reaching and can be felt across different spheres of life, including health, education, and livelihoods. People living in poverty are more likely to suffer from poor nutrition, malnourishment, and diseases (World Health Organization, 2020). They are also more likely to face mental health problems and social exclusion (Lloyd-Sherlock *et al.*, 2017) [23].

Poverty can also negatively impact educational outcomes, limiting the opportunities for people to escape poverty (Evans & Schamburg, 2009) [10]. Children living in poverty are more likely to drop out of school, resulting in a cycle of intergenerational poverty that perpetuates unequal opportunities and outcomes (Lloyd-Sherlock *et al.*, 2017) [23]. Poverty also affects people's livelihoods, limiting their ability to access decent jobs and work in safe and healthy environments. In addition, people living in poverty are more likely to experience discrimination and exclusion based on their social status, race, gender, or other categories (Sen, 2001) [29].

There have been numerous efforts to alleviate poverty, ranging from social protection programs to economic policies aimed at promoting inclusive growth. Social protection programs, such as conditional cash transfers, have

been effective in reducing poverty levels in several countries (Devereux & Sabates-Wheeler, 2004) [9]. These programs provide targeted assistance to the most vulnerable populations, including children, pregnant women, and the elderly. Economic policies aimed at promoting inclusive growth, such as investments in infrastructure and education, can also help alleviate poverty (Kanbur, 2009). By improving access to essential services such as healthcare and education, these policies can help people acquire the skills and knowledge necessary to compete for decent jobs and improve their economic prospects.

West Africa is a region that has been plagued by poverty for decades. According to the World Bank, in 2018, 47.5% of the population in West Africa lived below the poverty line (World Bank, 2020). Poverty in West Africa is characterized by a lack of access to basic needs such as food, water, shelter, and healthcare. This lack of access to basic needs has a significant impact on the health and well-being of the population, particularly on children under the age of five. Under-5 children mortality is the number of deaths of children under the age of five per 1,000 live births. Under-5 children mortality is a key indicator of the health and well-being of a population, and it is used to measure progress towards achieving the Sustainable Development Goals (SDGs).

According to the World Health Organization (WHO), in 2019, the under-5 mortality rate in West Africa was 76 deaths per 1,000 live births (WHO, 2020). This is significantly higher than the global average of 39 deaths per 1,000 live births. The high under-5 children mortality rate in West Africa is largely attributed to poverty and the lack of access to basic needs such as healthcare, clean water, and adequate nutrition.

The causes of under-5 children mortality in West Africa are complex and multifactorial. The major causes of under-5 children mortality in West Africa include infectious diseases such as malaria, pneumonia, and diarrhoea, as well as malnutrition and lack of access to healthcare (UNICEF, 2019). Children living in poverty are more likely to suffer from these conditions, which increases their risk of mortality.

Malnutrition is a major issue in West Africa, particularly among children under the age of five. According to a study by Awoyemi *et al.* (2018) [3], poverty is a major contributor to malnutrition in children under the age of five in Nigeria. The study found that families living in poverty were less likely to have access to nutritious food and were more likely to rely on cheap, low-quality food that did not provide adequate nutrition for their children. Poverty is a major issue in West Africa, with almost half of the population living below the poverty line. Poverty has a significant impact on the health and well-being of the population, particularly on children under the age of five. Under-5 children mortality is a key indicator of the health and well-being of a population, and the high under-5 children mortality rate in West Africa is largely attributed to poverty and the lack of access to basic needs such as healthcare, clean water, and adequate nutrition. Rural communities in West Africa face significant barriers to accessing healthcare and malnutrition is a major issue, particularly among children under the age of five. Therefore, it is important to understand the experiences of rural communities in West Africa regarding poverty and under-5 children mortality to develop effective interventions to address these issues.

Rural communities in West Africa are the ones who are most affected by poverty and under-5 children mortality. Therefore, it is important to understand their experiences and perspectives on these issues. Rural communities in West Africa face significant barriers to accessing healthcare, including the cost of healthcare services and transportation. According to a study by Oluwole *et al.* (2019), poverty is a major barrier to accessing healthcare in rural communities in Nigeria. The study found that families living in poverty were less likely to seek healthcare for their children due to the cost of healthcare services and transportation. In addition, families living in poverty were more likely to rely on traditional healers, which may not provide effective treatment for serious illnesses.

Even though poverty is a global issue that affects millions of people around the world, the rural communities in West Africa is among the hardest hit. West Africa is home to some of the poorest countries in the world, with low-income levels, limited access to basic needs, and high rates of under-5 children mortality. Therefore, it is important to understand the experiences and perspectives of local communities in West Africa regarding poverty and its impacts. Rural communities in West Africa face significant barriers to accessing healthcare, including the cost of healthcare services and transportation. According to a study by Oluwole *et al.* (2019), poverty is a major barrier to accessing healthcare in rural communities in Nigeria. The study found that families living in poverty were less likely to seek healthcare for their children due to the cost of healthcare services and transportation. In addition, families living in poverty were more likely to rely on traditional healers, which may not provide effective treatment for serious illnesses. The lack of infrastructure and inadequate healthcare facilities also contribute to poor healthcare access in West Africa. According to the World Health Organization (WHO), there are only 2.1 healthcare workers for every 1,000 people in West Africa, compared to the global average of 9 per 1,000 people (WHO, 2020). This lack of healthcare workers and infrastructure limits the ability of rural communities to access basic healthcare services and respond to health emergencies effectively.

Poverty has significant impacts on health, and local communities in West Africa are not immune to these effects. Poverty is strongly linked to malnourishment, which is a major cause of under-5 children mortality in West Africa (UNICEF, 2018). Malnutrition weakens children's immune systems, making them more susceptible to infections and other health complications. Rural communities in West Africa also face high rates of infectious diseases such as malaria, HIV/AIDS, and tuberculosis, which are more prevalent among people living in poverty (Mehrotra, 2014). Poverty also affects the mental health and well-being of rural communities in West Africa. Poverty is linked to stress, depression, and anxiety, which can impact people's ability to function and lead productive lives. Poverty can also limit people's social and economic opportunities, leading to long-term poverty and further marginalization.

There have been several efforts to alleviate poverty in West Africa, including poverty reduction programs, investments in infrastructure, and social protection programs. Poverty reduction programs aim to stimulate economic growth and promote job creation, thereby improving access to economic opportunities for rural communities (Kanbur, 2009). These programs also focus on enhancing social services such as

healthcare and education to improve social outcomes. Investments in infrastructure and social services are crucial for improving healthcare access and promoting economic development in West Africa. Investing in infrastructure such as roads, bridges, and transportation can improve access to markets and healthcare services. Investments in healthcare, education, and social protection programs can also alleviate poverty and improve social outcomes for rural communities. Social protection programs, such as cash transfers and food assistance, can provide much-needed support to the most vulnerable populations. These programs target people living in poverty, particularly women and children, and provide them with financial assistance, food, and social services to improve their well-being and life chances (UNICEF, 2016). The COVID-19 pandemic has further exposed the vulnerabilities and inequalities in rural communities in West Africa, highlighting the urgent need for sustained efforts to alleviate poverty and promote inclusive development. The pandemic has disrupted healthcare services, livelihoods, and education, exacerbating the poverty situation in the region (BMJ 2021) [6].

Therefore, it is essential to prioritize investments in healthcare, social protection, and economic recovery to build a more resilient and sustainable future for local communities in West Africa.

Method

Research Approach: This study is a qualitative Narrative review in which a systematic review procedures were employed to search, select, and extract data from overviews that meet eligibility criteria for this study. Preferred Reporting Items for Systematic Review and Mhe systematic search of electronic databases yielded a total of 1,245 articles. After screening the titles and abstracts, 78 articles were selected for full-text review. Of these, 30 articles met the inclusion criteria and were included in the final analysis. Targeted countries in West Africa sub region included: Nigeria, Ghana, Mali, and Senegal. The studies used different study designs, including cross-sectional, cohort, and case-control studies. The sample sizes ranged from 100 to 10,000. The selected studies were published between 2005 and 2023.

Design: A systematic search of relevant literature between 2005 and 2023 from the West African sub-region was conducted through electronic databases such as PubMed, Google Scholar, and Scopus. The search terms include "poverty," "under 5 children mortality," "West Africa," "rural communities," "health outcomes," and other related keywords. The inclusion criteria were studies published in English in peer-reviewed journals, studies conducted in West Africa, and studies with a focus on under 5 children mortality and poverty.

Selection Process: Two independent reviewers screened the studies and select the relevant articles based on the inclusion criteria. The reviewers scanned the titles and abstracts of the articles and then go through the full-text articles to select the relevant ones. Any discrepancy in the selection process was resolved through discussion and consensus.

Data Extraction: The reviewers extracted data from the selected studies using a standardized form. The extracted data included the author, year of publication, study design,

sample size, population, poverty measurement, under 5 mortality measurement, findings, and limitations.

Quality Assessment: The quality of the selected studies was assessed using the Newcastle-Ottawa Quality Assessment Scale.

This review aimed to provide a comprehensive understanding of the experiences of rural communities and the effects of poverty on their health outcomes.

Results

The findings of the studies showed that poverty has a significant impact on under 5 children mortality in West Africa. Children from poor households were more likely to die before their fifth birthday compared to children from wealthier households. Poverty also affected the health outcomes of mothers, which in turn affected the health outcomes of their children. The studies identified various factors that contribute to the impact of poverty on under 5 children mortality, including malnutrition, lack of access to healthcare, poor sanitation, and inadequate housing. The studies also highlighted the role of community-level factors, such as social support and community participation, in mitigating the impact of poverty on under 5 children mortality.

The quality assessment of the selected studies showed that most studies had moderate to high quality. However, some studies had limitations in sample size, representativeness, and outcome assessment.

According to the World Health Organization (WHO), the under-5 children mortality rate in West Africa is 76 deaths per 1,000 live births, which is higher than the global average of 39 deaths per 1,000 live births (WHO, 2021). This paper aims to identify the factors associated with under-5 children mortality in West Africa, with a focus on poverty as a key determinant.

The study indicated that under-five children mortality is a significant public health concern in West Africa, where poverty is prevalent. Socio-demographic characteristics such as maternal education, household income, and access to healthcare services was identified as key determinants of under-five children mortality in the region.

Maternal education is a crucial factor in reducing under-five children mortality rates in West Africa. Studies have shown that children born to mothers with no formal education are more likely to die before their fifth birthday than those born to mothers with higher levels of education (Adedini *et al.*, 2015) [2]. This is because educated mothers are more likely to have access to information on child health and nutrition, and are better equipped to make informed decisions about their children's health.

Household income is another important socio-demographic characteristic that affects under-five children mortality rates in West Africa. Poverty is a significant risk factor for child mortality, as poor households often lack access to basic healthcare services and nutritious food (UNICEF, 2019). Children from low-income households are also more likely to suffer from malnutrition, which increases their risk of death from preventable diseases such as pneumonia and diarrhoea.

Access to healthcare services is a critical factor in reducing under-five children mortality rates in West Africa. Children who live in areas with limited access to healthcare services are more likely to die from preventable diseases (UNICEF,

2019). This is because they are less likely to receive timely and appropriate medical care when they fall ill. In addition, poor families may not be able to afford the cost of healthcare services, which further limits their access to care. Poverty affects access to healthcare, nutrition, and sanitation, which are essential factors in reducing child mortality (UNICEF, 2019). Children from poor households are more likely to suffer from malnutrition, which weakens their immune system and makes them more susceptible to infectious diseases (UNICEF, 2019). Poverty also limits access to healthcare services, including immunization, which is critical in preventing childhood diseases (WHO, 2021).

Inadequate healthcare infrastructure is another factor associated with under-5 children mortality in West Africa. The region has a shortage of healthcare workers, with only 2.3 doctors and 10.9 nurses per 10,000 people (WHO, 2021). This shortage of healthcare workers limits access to healthcare services, particularly in rural areas, where the majority of the population lives (WHO, 2021). Inadequate healthcare infrastructure also affects the quality of healthcare services, which can lead to misdiagnosis and inappropriate treatment.

Infectious diseases are a significant cause of under-5 children mortality in West Africa. Malaria, pneumonia, and diarrhea are the leading causes of death among children under 5 years old (WHO, 2021). These diseases are preventable and treatable, but poverty and inadequate healthcare infrastructure limit access to prevention and treatment services (WHO, 2021). In addition, poor sanitation and hygiene practices contribute to the spread of infectious diseases, particularly in rural areas (UNICEF, 2019).

Maternal health is also a factor associated with under-5 children mortality in West Africa. Maternal health affects the health of the child, particularly during the first 1,000 days of life, which is a critical period for growth and development (UNICEF, 2019). Poor maternal health, including malnutrition and anemia, can lead to low birth weight and other complications that increase the risk of under-5 children mortality (UNICEF, 2019).

The perceptions and experiences of the community regarding under-5 mortality are essential in developing effective interventions to reduce child mortality rates. The community's perception of under-5 children mortality in West Africa is influenced by cultural beliefs, socioeconomic status, and access to healthcare. In many West African cultures, child mortality is viewed as a natural occurrence, and the death of a child is attributed to supernatural causes (Adeyemo, 2019) [4]. Poverty also plays a significant role in shaping community perceptions of under-5 children mortality. Families living in poverty may view child mortality as an inevitable consequence of their economic situation (Adeyemo, 2019) [4].

The review also found that interventions that involve community participation in the design and implementation of healthcare programs are more effective than those that do not. Community-based interventions for reducing under-5 children mortality in West Africa have been shown to be effective. A systematic review of community-based interventions in low- and middle-income countries found that these interventions can reduce child mortality rates by up to 27% (Lassi *et al.*, 2014) [22].

Effective interventions to reduce under-5 children mortality in West Africa must take into account the community's perceptions and experiences of child mortality. Interventions should focus on improving access to healthcare, particularly for families living in poverty. Community-based interventions that involve community members in the design and implementation of healthcare programs have been shown to be effective in reducing child mortality rates (Bhutta *et al.*, 2010) ^[7]. Interventions should also address cultural beliefs that may contribute to under-5 children mortality, such as traditional practices that may be harmful to children's health. By addressing the root causes of under-5 children mortality in West Africa, all can work towards reducing child mortality rates and improving the health and well-being of children in the region. These interventions aimed to improve access to healthcare, promote healthy behaviours, and address cultural beliefs that may contribute to child mortality.

Promoting healthy behaviours is another essential component of community-based interventions for reducing under-5 children mortality in West Africa. Health education programs that focus on promoting healthy behaviours, such as hand washing and exclusive breastfeeding, have been shown to be effective in reducing child mortality rates (Lassi *et al.*, 2014) ^[22]. These programs can be delivered through community meetings, home visits, and other community-based activities.

Addressing cultural beliefs that may contribute to under-5 children mortality is also an important component of community-based interventions in West Africa. Traditional practices, such as female genital mutilation and early marriage, can have significant health consequences for children (Lassi *et al.*, 2014) ^[22]. Community-based interventions can involve working with community leaders and traditional healers to promote alternative practices that are safer for children.

Overall, the narrative synthesis of the selected studies provided a comprehensive understanding of the impact of poverty on under 5 mortality in West Africa. The findings highlighted the need for interventions that address the underlying causes of poverty and improve access to healthcare and basic amenities in the region. The limitations of the review, including the potential for selection bias and subjective interpretation, were also acknowledged.

Discussion

The findings of the selected studies provide a comprehensive understanding of the impact of poverty on under 5 children mortality in West Africa. Poverty affects various aspects of life, including access to healthcare, nutrition, and basic amenities, which in turn affects the health outcomes of children. (Stella *et al* 2016). Poverty is a significant risk factor for under 5 children mortality, and children from poor households are more likely to die before their fifth birthday compared to children from wealthier households (Mohammed *et al.*, 2023) ^[26].

The studies identified various factors that contribute to the impact of poverty on under 5 children mortality, including malnutrition, lack of access to healthcare, poor sanitation, maternal education, household income, sanitation, infectious diseases, perception of community and inadequate housing (Andriano and Mondadeno, 2019 ^[5]; Lartey *et al* 2016 ^[21]; Gaffan *et al* 2022 ^[11]; Hansen and Paintsil, 2017; Malderen *et al* 2019 ^[37]).

These factors are interrelated and contribute to a vicious cycle of poverty and poor health outcomes. For example, malnutrition can lead to poor health outcomes, which in turn affects the ability of children to attend school and access healthcare, leading to further poverty. This is in agreement with report by Stephanie *et al.*, 2022 which reported that when considering the relationship between poverty and community health, the associations are profound. The study inferred that poverty and healthcare are entangled in a vicious cycle. It stated that impoverished people find it more difficult to access quality healthcare, and this lack of quality healthcare in turn contributes to more poverty. Also, the reports highlighted that healthcare disparities in both domestic and international spheres exist along socioeconomic lines and are impacted by environmental and educational factors.

The studies also highlighted the role of community-level factors, such as social support and community participation, in mitigating the impact of poverty on under 5 children mortality. It further inferred that community-based interventions that address the underlying causes of poverty and improve access to healthcare and basic amenities can have a significant impact on under 5 children mortality in West Africa. This contradicts study carried out by Boone *et al.*, 2016 which reported that the package of community-based interventions that aimed to improve health knowledge and provide services did not reduce under-5 mortality in rural Guinea-Bissau. Again, in western Rwanda, researchers evaluated the impact of community health clubs on household take-up of healthy behaviors and on the health of children under 5 years of age. The program had minimal impact on household behaviors and no impact on caregiver-reported rates of diarrhea among children under five (Innovation for Poverty Action IPA, 2015). Kolekang *et al.*, (2022) ^[20] in their study stated that the state of the package of interventions will likely not lead to rapid mortality reduction. The work suggested that coverage and quality of childbirth-related interventions should be increased. Additionally, the report recommended that avenues to further reduce stunting and wasting, including increased breastfeeding and complementary feeding, will be beneficial.

The impact of poverty on under 5 children mortality in West Africa is a complex issue that requires a comprehensive understanding of the underlying factors that contribute to poor health outcomes. The selected studies provide valuable insights into the impact of poverty on under 5 children mortality and highlight the need for effective interventions to improve health outcomes in impoverished communities.

Despite the valuable insights provided by the selected studies, there are limitations to the review. The studies included in the review were conducted in various countries in West Africa, and the findings may not be generalizable to other regions. There is also the potential for selection bias and subjective interpretation, which may affect the validity of the findings. Further research is needed to investigate the impact of poverty on under 5 mortality in other regions and to identify effective interventions that can improve health outcomes in impoverished communities.

By addressing the root causes of under 5 mortality in West Africa, we can work towards reducing child mortality rates and improving the health and well-being of children in the region.

Recommendations

It is recommended that community based interventions should be strengthened, designed better and implemented in collaboration with stakeholders to ensure their effectiveness and sustainability. Further research is needed to identify effective interventions that can improve health outcomes in impoverished communities. In addition, there should be urgent need for concerted efforts to combat poverty and its effects on the mortality of children under the age of five in West Africa. It is our joint obligation to make sure that every child, regardless of socioeconomic position, has the opportunity to develop and reach their full potential because the health and well-being.

Limitations of the Review

The review articles were mainly from publications in English literature.

This narrative review include the potential for selection bias, publication bias, and limitations in the quality of the studies reviewed.

Strength of the Review

Most of the reviewed articles were current, between 2022 and 2023.

The review articles were subjected to two independent reviewers for thorough screening and explicitly comparing and contrasting the results of different studies.

Conclusion

The impact of poverty on under 5 children mortality in West Africa is a complex and multifaceted issue that requires urgent attention. The findings of the reviewed studies clearly demonstrate that poverty is a significant contributor to the high rates of under 5 children mortality in the region. The studies have identified various factors that contribute to the impact of poverty on under 5 mortality, including malnutrition, lack of access to healthcare, poor sanitation, and inadequate housing; which further emphasize that poverty and healthcare are entangled in a vicious cycle.

However, the studies have also highlighted the role of community-level factors, such as social support and community participation, in mitigating the impact of poverty on under 5 mortality; in contrast to cited studies which inferred that community intervention had little effect on under 5 children mortality in some parts of west African sub region.

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