

The Effects of Armed Conflict on Healthcare in Nigeria – A Scoping Review

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DOI: <https://doi.org/10.51244/IJRSI.2024.11150067P>

Received: 21 November 2024; Accepted: 02 December 2024; Published: 02 January 2025

ABSTRACT

This scoping review examines the impact of armed conflict on healthcare delivery in Nigeria, highlighting the multifaceted consequences of violence on health services. The review synthesizes existing literature to explore the disruption of healthcare access, quality, and availability while identifying key factors exacerbating these challenges in conflict-affected regions.

Through a comprehensive literature search, 59 studies were included, revealing direct effects such as increased mental health issues, traumatic injuries, malnutrition, and poor maternal and child health outcomes, alongside indirect effects like infrastructure destruction and forced displacement of healthcare professionals.

The findings underscore the fragility of Nigeria's healthcare system, already strained by poverty and poor health indicators, and the urgent need for tailored interventions that consider the unique socio-cultural context of the affected populations.

The review concludes with a call for more primary research to fill existing evidence gaps and inform effective policy-making to strengthen healthcare delivery in conflict regions of Nigeria.

Keywords: Armed conflict, Armed conflicts, war, wars, Health care, Health care delivery, Health care quality, public health care, Health care access, Nigeria, Mental health, Malnutrition.

KEY MESSAGE

Armed conflicts do not only lead to the direct loss of life and property among affected populations, it also presents far-reaching effects on the health of people living in conflict regions.

BACKGROUND

Healthcare is a basic human right, with the World Health Organization (WHO) noting “Healthcare for all” as one of the key Sustainable Development Goals (SDGs) to allow us access to the next level of development as a species (*Goal 3 - United Nations Partnerships for SDGs Platform*, n.d.). Healthcare is a simple enough concept but in reality, it is a complex construct that may often need to be broken down into its component parts to be properly appreciated. This complex network of interconnected and interdependent factors makes Effective healthcare delivery difficult to attain even under the best conditions. (*Goal 3: Good Health and Well-Being | Joint SDG Fund*, n.d.)

Times/ Areas of conflict present a huge question that challenges effective healthcare delivery. This is more important when we note that times of conflict are often associated with increased demand for healthcare,

often in areas with already weak or overloaded healthcare structures. The low- and middle-income countries of Africa have historically been among the poorest on the planet and consequently have sub-optimal health systems. The continent ranks lowest in key indices like maternal mortality, infant mortality, under-five mortality, vaccine coverage, etc. These weak health systems have historically been tested by extended periods of armed conflict from insurgency, civil wars, and banditry. (Bennett et al., 2010)

Africa has more than 35 non-international armed conflicts (NIACs) taking place in Burkina Faso, Cameroon, the Central African Republic (CAR), the Democratic Republic of the Congo, Ethiopia, Mali, Mozambique, Nigeria, Senegal, Somalia, South Sudan and Sudan. These conflicts are also noted for the involvement of Western powers and other regional players as is the case in Burkina Faso, Mali, Mozambique, Nigeria, and Somalia. (*Today's Armed Conflicts - The Geneva Academy of International Humanitarian Law and Human Rights*, n.d.)

An Armed Conflict Location and Event Data (ACLED) report in 2022 stated the key areas of conflict in Nigeria to include the long-running threats of Boko Haram / Islamic States West Africa Province in the North East, the resurgence of the Ansaru faction of Boko Haram in the North-west, the communal and ethnic militias in the North-central and North-West which are of special attention due to the cost of civilian deaths recorded. The Indigenous People of Biafra / Eastern Security Network has also caused sporadic episodes of conflict in the South East. The insecurity across Nigeria wages on several fronts across tenuous lines of religion, and ethnic identities as the Military remains stretched and unable to put the chaos to order. (*10 Conflicts to Worry About in 2022: Nigeria | Mid-Year Update*, n.d.; *Non-International Armed Conflicts in Nigeria | Rulac*, n.d.)

RATIONALE OF THE STUDY

Armed conflict is a persistent issue in Africa, with many countries experiencing ongoing violence and warfare. According to the Uppsala Conflict Data Program, there were 21 armed conflicts in Africa in 2021 alone, which have affected millions of people and caused significant damage to infrastructure and resources. The problems arising from armed conflict are complex and multidimensional and affect all aspects of society, including healthcare. (*UCDP - Uppsala Conflict Data Program*, n.d.)

The effects of armed conflict on healthcare in Africa presents a critical problem that cannot be glossed over or approached with only half a thought. The provision of healthcare services is essential for the well-being of individuals and communities. Armed conflict can significantly disrupt the delivery of these services. This disruption can have severe consequences for the health and well-being of the affected population in the short, medium, and long term, leading to increased morbidity and mortality rates. (Betts et al., 2023; *Joint Press Release: 25 Million Nigerians at High Risk of Food Insecurity in 2023*, n.d.)

This scoping review will attempt to identify the different effects of Armed conflict in Nigeria on healthcare. This information is crucial for policymakers and healthcare providers to understand the unique challenges posed by each conflict and develop targeted interventions to mitigate their impact on healthcare.

OBJECTIVES OF THE SCOPING REVIEW

The primary objective of this scoping review is to provide a comprehensive overview of the existing literature on the effects of armed conflict on healthcare in Nigeria. Specifically, the review aims to:

1. Explore the consequences of armed conflict on the provision of healthcare services both directly, indirectly.
2. Identify the gaps that exist in literature and areas for future research.

Research Question:

What are the effects of armed conflict on healthcare delivery and public health in Nigeria? What gaps exist in current literature to be explored in future research?

METHODOLOGY

Search Strategy

A Literature search was done based on a scoping review methodology. The research question is as follows:

What are the effects of armed conflict on healthcare delivery and public health in Nigeria?

Published articles were searched through Google Scholar and PubMed databases. The search was limited to articles published in English. The key concepts used in the search included “armed conflict in Nigeria”, “effects of armed conflict on healthcare”, and “Nigeria”.

Keywords of the key concepts will be modified accordingly following the first search cycle to minimize any misunderstanding caused by their meanings when unaccompanied by the relevant key concepts.

A further search was done using modifiers to include synonyms such as “war” “banditry” and “insurgency” as well as adding “healthcare”, and “treatment” to help isolate papers specifically looking into the effects of armed conflict on healthcare in Nigeria.

The identified papers were then evaluated to note if they met the other criteria to be added or excluded from the study.

RESULTS

Selection of articles

This review was conducted from July to September 2024, using various combinations of the following search terms in all fields: “effects of armed conflict on healthcare in Nigeria”, the keywords included; “war”, “armed crisis”, seeking out papers published in 2024. This search query was conducted in PubMed and Google Scholar’s databases and yielded 1264 articles.

After the identification process, the remaining articles’ abstracts were screened and, where an abstract was unavailable, full texts were read to determine eligibility as this review focuses on the effects of armed conflict on healthcare in Nigeria.

To be included in the review, a study had to meet the following criteria:

1. Report on the effect of armed conflict on healthcare; either directly or indirectly affecting the risk of disease, effective diagnosis or affecting the effective treatment of disease, while stating the relationship or potential mechanisms behind the link with healthcare.
2. Be published in English
3. Be published between 2024

No additional studies were identified by snowballing, consultations with experts nor any grey sources.

Following the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (“PRISMA”) flow diagram’s criteria presented in Fig 1, 59 studies were included in the review.

PRISMA SHOWING STUDY SELECTION

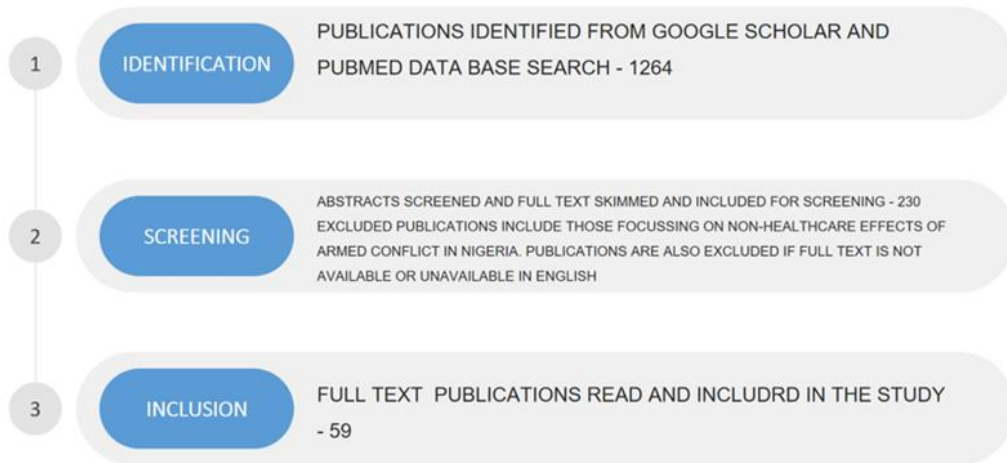


Figure 1: PRISMA FLOW DIAGRAM

Data from retained studies was extracted by using a charting table in Excel. This process was iterative, and the variables to extract were continuously updated. Data was charted for the following variables: author(s), Title of the study, and factors identified from the study. A codex was developed to help with analysis and maintain congruency of data. They are all presented in the tables below as a summary of the findings.

Summary of findings

Table 1. TABLE SHOWING THE SUMMARY OF DATA COLLECTED FROM INCLUDED PUBLICATIONS AFTER LITERATURE SEARCH.

S/N	YEAR OF PUBLICATION	AUTHOR	Title of Publication	EFFECTS IDENTIFIED	CODE
1	2024	Karu, Rachel Dibal Simon	Public Health Implications of Armed Conflict in Nigeria	low vaccination rates, low maternal healthcare utilization, food insecurity	A, B, E, G, D
2	2024	Abdulrahman Ahmed et al	The Effect of Boko Haram Insurgency on Health and Nutrition among the Residents of Bolori 2 of Maiduguri Metropolitan Council of Borno State, Nigeria.	destruction of health facilities, forced migration of healthcare workers, low vaccination rates, food insecurity	H, I, B, G
3	2024	Adebusoye, Favour Tope et al	Terrorism’s impact on low and middle-income countries’ healthcare services: A perspective	lack of trained personnel, inability to afford healthcare, destruction of health infrastructure, unmet health care needs, mental health problems	A, H, I, J

4	2024	Yahya Umar Magaji, Jacob Filgona, Aisha Ahmed Hamman	Assessment of Psychosocial Effects of Insurgency on Resettled Communities in Adamawa State, Nigeria	Post Traumatic stress	A
5	2024	Gbadebo Collins Adeyanju et al	Armed Violent Conflict and Healthcare-Seeking Behavior for Maternal and Child Health in Sub-Saharan Africa: A Systematic Review	decreased health seeking behavior	F, E, J
6	2024	Olabayo Ojeleke et al	The impact of armed conflicts on the nutritional status of children: Evidence from Northern Nigeria	food insecurity, childhood malnutrition	D, G
7	2024	Max Schaub	Violent conflict and the demand for healthcare: How armed conflict reduces trust, instills fear, and increases child mortality	destruction of health facilities, forced migration of healthcare workers, distrust of government	H, I, J
8	2024	Kingsley Chukwuka Agbo et al	Addressing gaps in protection of health workers and infrastructures in fragile and conflict-affected states in Africa	violence against healthcare workers	F, H, I
9	2024	Alaba Abdulhameed Kunle, Agbaje, Elijah Babasola Afolabi	Assessing The Economic Impact Of Terrorism On Internally Displaced Persons (Idps) In Nigeria	Malnutrition	G
10	2024	Ibrahim Kassoum Habibou	Linking armed conflicts and children undernutrition in Nigeria: the mitigating effects of maternal bargaining power	Malnutrition	G, D
11	2024	Souleymane Bayoulou et al	Health system resilience in countries facing terrorist threats: a scoping review	poor health system resilience	J
12	2024	Signe Svallfors et al	Armed conflict, insecurity, and attitudes toward women's and girls' reproductive autonomy in Nigeria	reduced access to reproductive health services	E

13	2024	Babagana Usman et al	Epidemiology and Management Outcomes of Terrorism-related Trauma: A 10 years review of Nigeria's Boko Haram Insurgency	increased work load - terrorism related trauma	C
14	2024	Habeeb Abdulrauf Salihu, Ali Oladimeji Shodunke	Crisis in crisis: Boko Haram violence, orphaned children, and the precariousness in human survival in Northeast Nigeria	mental health - post traumatic stress	A
15	2024	Adejogbagbe et al	Psychological Consequences of a Mass Attack Following Multiple Gunshots and Explosions among Victims in a State in Southwest Nigeria	mental health - anxiety and post-traumatic stress	A
16	2024	Daniel Meierrieks, Max Schaub	Violence, Fear, and Infant Mortality: How violent conflict reduces healthcare demand and harms child well-being	child mortality - malnutrition, reduced health care accessibility, trauma reduced health care supplies	G, A, H, I
17	2024	I Idris	Children and Armed Conflict: Effects and Interventions	child mental health, sexual abuse, malnutrition, reduced access to healthcare	D, A, G, I
18	2024	Péter Marton, Buyisile Ntaka	Shots in the Dark: Immunization in Zones of Armed Conflict in Sub-Saharan Africa	poor vaccination coverage	B, D
19	2024	Atilola, Bolanle	Essays on the impact of conflict on household welfare in Nigeria	malnutrition, reduced access to maternal health	G, E
20	2024	Comfort Fatimoh Sheidu, Iroro S. Izu	Unrest And Unfilled Stomachs: Unravelling The Linkage Between Armed Conflict And Food Insecurity In North Central Region Of Nigeria	malnutrition	G, D
21	2024	Nkechi Angela Chukwuemeka et al	Fifty years after Nigerian Civil War: social support is associated with PTSD symptoms through increased self-efficacy among Biafran veterans	post war PTSD	A

22	2024	Olabayo Ojeleke et al	The Role of Traditional Birth Attendants in the Provision of Neonatal Care for Women Living in Complex Emergencies: An Analysis Using Repeated Cross-Sectional Data for Northern Nigeria	maternal and neonatal health: utilization TBA	J, D, E
23	2024	Ibrahim Alkali, Dr. Bukar Jamri	Boko Haram Terrorism and Development Challenges in Northeastern Nigeria	Destruction of hospital infrastructure and attack of healthcare personnel	H, I, F
24	2024	Adesina, Miracle et al	Impact of the Brave Heart mental health intervention on the prevalence and severity of depression among young internally displaced persons in Northern Nigeria	Mental health - depression	A
25	2024	Olabayo Ojeleke et al	The impact of armed conflicts on health-care utilization in Northern Nigeria: A difference-in-differences analysis	reduced health seeking behavior and increased reliance on traditional practitioners/ cures	H, I, J, D, E
26	2024	Damilola Abosede Olu-Dukiya, Abidemi Emman Oguntunji	Remembering Trauma: Women and the Boko Haram Terrorists in Adaobi Tricia Nwaubani's Buried Beneath the Baobab Tree	mental health - post traumatic stress and other effects	A
27	2024	Sunday Ejikeme Nwoye	Trauma Exposure and Hopelessness as Predictors of Post-traumatic stress disorder and Depression among War Veterans in South-East Nigeria.	mental health - post-traumatic stress among veterans of the civil war	A
28	2024	Abu, H.O. and Blake, M.K.	Characterization of food insecurity among the forced migrants in Northern Nigeria	food insecurity, childhood malnutrition among forced migrants in Northern Nigeria	G, D
29	2024	Isaac Albert, Abah Olawale Joel	Surviving Humanitarian Crisis In Nigeria: Coping Strategies Of Internally Displaced Persons (Idp) In Benue State, Northcentral, Nigeria	mental health, coping strategies	A

30	2024	Ehiane, Stanley O and Abuloye, Ayoola	Sexual and Gender-Based Violence in Armed Conflicts: A Comparative Analysis of Democratic Republic of Congo and Nigeria	sexual and gender-based violence	E
31	2024	Michael Aboah	WASH Levels and Associated Human Health Risks in War-Prone West African Countries: A Global Indicators Study (2015 to 2021)	health risks (water, sanitation and hygiene)	B, I
32	2024	Yemisi Olawale, Oyewusi Akinniyi A.	Revisiting Internally Displaced Persons, Social Distancing and COVID-19 Crises in Nigeria	Health risks- spread of communicable diseases; Covid 19	B
33	2024	Bukasa, B. et al	The Health of Victims of Wars and Armed Conflicts in Africa and Asia: Resilience, an Organizational Question	mental health - coping mechanisms	A
34	2024	Adebayo John James et al	Trauma Literacy among Practicing Journalists in the Boko Haram-Ravaged North-Eastern Nigeria	mental health - post-traumatic stress, coping mechanisms, and drug abuse	A
35	2024	Itunu O. Ilesanmi et al	Returnees' Perspectives of the Adverse Impact of Forced Displacement on Children	mental health in children - coping strategy and PTSD	A
36	2024	Ike, Chianaraekpere Chiemeka	Hidden in Plain Sight, an Empirical Study of Sexual Violence in Armed Conflict from a Boko Haram Perspective	sexual violence	E
37	2024	Stephen Asatsa, Joyzy Pius Egunjobi	Post-Traumatic Stress Disorder and Psycho-Spiritual Wellbeing of Survivors of Fulani Herdsmen Attack in St. Ignatius Mission Mbalom Makurdi Diocese Benue State, Nigeria	mental health – PTSD	A
38	2024	T., Hassan, J. et al	Towards Creating Effective Strategies for Communicating with Victims of Trauma in Nigeria	mental health - communicating trauma	A

39	2024	Emeka Thaddues Njoku et al	Moral Injury: A Framework for Understanding Conflict-Related Sexual Violence Against Men	sexual violence among men in conflicts	E
40	2024	FM Ajodo et al	Self-esteem And Social Support As Correlates Of Combat Stress Among 213 Forward Operating Base, Nigerian Air Force Personnel In Katsina State, Nigeria	mental health- combat stress among Airforce personnel	A
41	2024	Hembafan D. Ngutsav et al	Assessment of post-traumatic stress disorder and psychological well-being of Military Personnel in Kaduna State, Nigeria	mental health - PTSD among military personnel	A
42	2024	Sara E. Davies et al	The Dynamics of Conflict-Related Sexual and Gender-Based Violence: Comparing Impact Across Global Regions	sexual and gender-based violence	E
43	2024	Ida Rudolfsen, Paola Vesco	War Exposure and Food Insecurity	food insecurity - malnutrition across all age groups	G, D
44	2024	Damilare Michael, Adegoke	Unveiling a “silent epidemic”: How do food insecurity and malnutrition affect the health outcomes of the older adults in West Africa? An analysis of the impact and health outcomes of food insecurity and malnutrition among older adults in West Africa	food insecurity - malnutrition among older adults	G
45	2024	Okereka Onofere Princewill	Understanding Food Security and the Failure of Agricultural Infrastructure in Nigeria: A Case of the Management of Herdsmen and Farmers	food security - malnutrition	G
46	2024	Attahiru Dan-Ali Mustapha et al	Determinants of Mental Health in Nigeria	mental health - depression, PTSD	A

47	2024	Nseowo Udofia Anieti	UNDP's Sustainable Livelihood Programs and Poverty Reduction in Nigeria: The Development Paradox of Prebendalism	failure to meet SDGs - Goal 1 poverty	J, F, B
48	2024	Ibrahim, Hawkar et al	Continuous chains: childhood maltreatment and intimate partner violence victimization among displaced women in a war Context	Child abuse, sexual abuse, GBV, intimate partner violence	D, E
49	2024	Nonso Mbah	Civilian Abdominal Gunshot Injuries at Awka, Nigeria	traumatic injuries - gunshots among civilians	C
50	2024	Adekola Paul O., Adedini, Sunday A.	Sexual Violence, Disclosure Pattern, and Abortion and Post-Abortion Care Services in Displaced People's Camps in Africa: A Scoping Review	Access to reproductive health, sexual violence, abortion, and postabortal care	E
51	2024	Joshua USMAN, Bartholomew OGEH	Influence Of Social Support On The Mental Health Of Internally Displaced Persons In Bama, Borno State.	mental health - coping strategies	A
52	2024	Inyang Ime	Delivering Care at the Hands of Crime: Exploring the Nexus of Security Concerns and Maternal & Child Mortality in Nigeria	poor access to health facilities, supplies and personnel	H, I, J
53	2024	Nathaniel Siji Olutegbe et al	Resilience to COVID-19 and Armed Conflict Shocks: Evidence from Nigeria	food security, health care resilience	J, G
54	2024	Ngamsan Jirah Sunday	Boko Haram Insurgency: Assessing the Response Capacity of National Emergency Management Agency Towards the Plights of Internally Displaced Persons in Adamawa State, Nigeria	increased need for health care financing, infrastructure and emergency response	J
55	2024	Christopher M. Anierobi et al	Communal conflicts in Nigeria: Assessment of the impacts on internally displaced persons and settlements amidst	challenges of food security, WASH, and anxiety disorders	G, A, B

			COVID-19 pandemic			
56	2024	Daniel Meierrieks, Max Schaub	Terrorism and child mortality	reduced health seeking behavior, reduced accessibility and adverse behavioral responses	D, H, J	
57	2024	David Omo-Irogho	The Protection Of Childrens Right In Armed Conflict: Boko Haram Case Study	child abuse and mental health effects of trauma	D, A	
58	2024	Jonas E Mertens	A History of Malaria and Conflict	Malaria	B, D	
59	2024	Inibehe Ime Okon	Addressing neurosurgical challenges in war conflict countries			C, H

Study Characteristics

The included studies are found to have the following defining characteristics as presented below:

1. All publications were made in 2024.
2. All papers were given codes from the stated codex to help highlight effects of armed conflict identified in each publication. The codex was developed retrospectively after the trend of information in the studied publications hinted at a pattern. The effects are then summarized into topics as itemized in the codex below

Figure 3: CODEX OF THEMES IDENTIFIED FROM INCLUDED PUBLICATIONS

CODEX	CODE
DIRECT HEALTH EFFECTS	
MENTAL HEALTH	A
INFECTIOUS DISEASES	B
TRAUMA	C
CHILD HEALTH	D
SEXUAL, REPRODUCTIVE AND MATERNAL HEALTH	E
CHRONIC HEALTH NEEDS	F
MALNUTRITION	G
INDIRECT EFFECTS	
HEALTH INFRASTRUCTURE	H
DISPLACEMENT	I
HEALTH SYSTEM EFFECTS	J

DISCUSSION

Armed conflicts irrespective of the groups involved are always associated with a disruption of the normal routine of the affected population or communities. Health is a complex entity, and the effects discussed present a continuum of individual phenomena that would not appear in isolation or manifest independently. These disruptions to healthcare can be addressed under the following headings:

Direct Effects of Armed Conflict on Healthcare

Mental Health:

The mental health problems that follow armed conflict were found to be the most widely discussed in the literature studied. These problems primarily arise from traumatic events experienced by affected people, how they process this trauma, and how they deal with the consequences of these traumatic events. (T. et al., 2024)

Probably the most affected group in any armed conflict is the civilians in the area. They are often considered collateral damage in the grand scheme of events. Yahya Magaji et al studied the Psychosocial effects of armed conflicts among civilians resettled in Adamawa, Northeast Nigeria bearing testament to the drastic lifestyle changes, dealing with loss, and the burden of having to build their lives from the ground up. These changes are associated with a mixture of anxiety disorders, panic attacks, and cases of depression. These problems were echoed by Adejugbagbe et al. in another study done in South-west Nigeria.

ALBERT and ABAH (2024) looked at the various coping mechanisms people employed with the most popular religious beliefs. The most difficult part of the journey is moving on from the trauma. Survivors are often burdened with the memories of the events, the emotional turmoil of anger, hate, and sadness at the losses, as well as the need to move forward. Moving forward from these events is more easily said than done, this was discussed by Adesina et al. following their work among the internally displaced people in Benue state, North-Central Nigeria. (Dan-Ali Mustapha et al., 2024)

The mental health challenges faced by children exposed to conflicts is probably the most difficult to move on from. While children 5 years or less may not have any real memories of the events themselves, they are made acutely aware of them by the problems they are forced to face to rebuild the lives of their families and communities. These may cause them to be disadvantaged at every turn with problems like food insecurity, poverty, illiteracy and poor healthcare making them susceptible to be brainwashed and utilized as child soldiers or bred to embrace hate and violence thus perpetuating the cycle. (Aliche & Onyishi, 2020)

The affected population is not just isolated to civilians who report cases of post-traumatic stress disorder, depression, and a myriad of anxiety disorders as victims of violence, it also includes the military as reported by Ngutsav et al in Kaduna, North-western Nigeria. They assessed the combination of traumatic experiences, pre-trauma states of self-esteem, social support system, prevailing coping mechanism among servicemen and the mental health outcomes which included anxiety states, depression and post-traumatic stress disorders. These problems are also determined to be far reaching as referenced in the work of Nwoye and Nweke among Post-war Veterans of the Nigerian Civil war. These experiences are seen to have major impact on their mental health 50 years later. (Aboah, 2024; USMAN and OGEH, 2024)

Infectious diseases:

It is no surprise that areas ravaged by Armed conflicts also show the highest rates of disease outbreaks. This may arise as a result of poor access to basic amenities – portable water, poor sanitation, and housing which exposes people to a wide range of disease vectors. Malaria is a significant culprit in Nigeria where it is endemic as discussed by Mertens. (Aboah, 2024)

Poor vaccination coverage in areas where these conflicts rage may be another reason why diseases will spread even to epidemic proportions as in the case of cholera, measles, and polio. Karu noted this in northern Nigeria alongside reduced utilization of maternal and child health services as provided in the primary health care system to be key which is then exacerbated by the food insecurity that ensues(Ojeleke et al., n.d.).

Traumatic injuries:

Traumatic injuries are the most immediate effects of conflicts as they come in the form of gunshot injuries, or following other mechanisms of injury. Mbah noted a massive spike in the prevalence of civilian cases of

gunshot injuries in Awka, Southeast Nigeria with sporadic armed conflicts, but these figures are dwarfed by the numbers reported by Babagana Usman et al in the North where the Boko Haram Insurgency has led to a sustained increase in cases that continues to overwhelm the current capacity of the health centers. This is not a Nigeria-specific problem as OkonOkon et al. summarized in his publication on the neurosurgical challenges of war in conflict-ridden countries. (Alkali & Jmari, 2024; *Remembering Trauma: Women and the Boko Haram Terrorists in Adaobi Tricia Nwaubani's Buried Beneath the Baobab Tree* | Olu-Dukiya | *Ansu Journal of Language and Literary Studies*, n.d.)

Child health:

Protecting and improving the health of children is of fundamental importance. Over the past several decades, we have seen dramatic progress in improving the health and reducing the mortality rate of young children. However, a great deal of work remains to further improve the health outcomes for children; especially children mired in conflict regions, who present with a unique set of challenges to their health. (Child Health, 2024)

Disease outbreaks that follow the lack of portable drinking water, safe housing, acceptable solid waste, and sewage disposal systems are also quite common. This may be attributable to the poor vaccine coverage rates in these regions, broken down disease surveillance, and an almost absent reporting or intervention where and if they eventually get reported. This is particularly important for notifiable diseases which if left unchecked will eventually cause even more child mortality. (Ilesanmi et al., 2024)

Sexual, Reproductive and Maternal Health

Sexual violence remains severely under-reported. This is often closely related to the associated stigma, fear, and other mental health problems that it comes with, where there is a breakdown of law and order, with increased violence in general, Sexual violence seems also to abound. (Adekola & Adedini, 2024; "Sexual and Gender-Based Violence in Armed Conflicts: A Comparative Analysis of Democratic Republic of Congo and Nigeria," 2024)

Sexual violence against women in these regions can occur in the form of rape, sexual harassment or sex for favors in the form of food, shelter, protection, or other social support. This arises because women become vulnerable as they may be physically dominated by stronger assailants, threatened, and intimidated into submission. They may also be forced to offer themselves up for food, medicines, shelter, other supplies, or even protection as they seek refuge. (*The Dynamics of Conflict-Related Sexual and Gender-Based Violence: Comparing ...* - Sara E. Davies, Jacqui True, Yolanda Riveros Morales, Phyu Phyu Oo, Joana Osei-Tutu, Rachel Banfield - Google Books, n.d.)

Sexual violence is however not restricted to just women and Children in these areas, Men are also reported to be victims of Conflict-related Sexual violence. Many of these violent acts were deployed as strategic tools aimed at emasculating, humiliating, and subduing male victims perceived to be adversaries. These techniques, which include rape and other acts that tend to create homosexual portrayals, are aimed at shaming and dishonoring men to psychologically weaken the man by making him look feminized in the eyes of society. (Chiemeka Ike et al., 2024; Njoku et al., 2024)

Chronic health needs and non-communicable diseases

Nigeria has not been left behind as other low and middle-income countries especially in Sub-Saharan Africa live with changing disease patterns. The prevalence of non-communicable diseases such as diabetes, hypertension, and cardiovascular disease is on the increase, these patients require frequent follow-up visits to maintain good health. In conflict regions where normal routes of accessing healthcare are affected either by loss of infrastructure, supplies or even forced emigration/ displacement of Health providers, this intimate relationship is broken some of these patients fail to continue care. The complications follow and avoidable mortalities will abound. (Anierobi et al., 2024; Bukasa et al., 2024; Inyang, 2024)

Malnutrition

According to UNICEF, Nigeria has the second highest prevalence of stunted children in the world, 32 percent of Nigerian children under 5 years are stunted. Another 2 million currently have acute severe Malnutrition but only 2 in 10 have access to treatment. (*Nutrition / UNICEF Nigeria*, n.d.)

Northern Nigeria is most affected with incidence rates about double the National average in the North East and North West regions of the country. It is probably no coincidence that these numbers are this high in parts of the country most affected by armed conflict and by extension food insecurity. (Onah et al., 2024)

Nass et al. in their paper tried to link the prevalence and severity of childhood malnutrition in these regions to markers of maternal well-being such as health, literacy, and independent. Older children and women of reproductive age also suffer malnutrition in these periods of acute food shortages, the severity of which worsens the longer the famine persists. Pregnant women and breastfeeding mothers will often be the worst hit along with the elderly; a situation that aggravates their health needs. (Damilare Michael, 2024; Hassan Onimisi Abu & Megan K Blake, 2024)

INDIRECT EFFECTS

The indirect effects of Armed Conflicts on healthcare are those effects that affect the accessibility and quality of healthcare available to people in the affected regions. Some of these challenges are discussed below.

Destruction of Health infrastructure

Probably the most common and most devastating effect is the loss of healthcare infrastructure. This is common as hospitals are prime targets once the violence erupts. This action leads to a complete breakdown of health service delivery; the clinics are destroyed, vehicles such as ambulances are seized or burnt, and other stores and supplies are often looted, burnt, or left in a state of disrepair, and health care workers are assaulted. The prevalent threat of continued violence also serves as a deterrent for the government and other affected bodies to ensure prompt renovation and replacement of that which was lost in the violence thus affecting the quality of care. (Alkali & Jmari, 2024; Schaub, 2024)

Forced Displacement

The forced displacement of people as they flee conflict regions can affect healthcare availability in several ways:

1. Displacement of whole communities to areas with no healthcare centers, staff or adequate services. This often leads to the fragile and often undersupplied health systems seen in most IDPS which are primarily funded, manned, and managed by humanitarian bodies who would provide care in a manner that is restricted to primary care.
2. Forced emigration of health care professionals as they move to less volatile communities to resettle and work. This often leads to increased utilization of traditional health practices and practitioners with their attendant healthcare risks. (Chukwuka Agbo et al., 2024; Ojeleke et al., n.d.)

Effects on pre-existing health systems

The health system in Nigeria is already fragile, considered one of the poorest in the world when referenced using vital statistics such as maternal and child mortality rates and vaccine coverage rates. The system can therefore ill afford to have to deal with shocks, especially in the North where the most poverty and illiteracy abound, this is coincidentally where the most conflict rages. The Resilience of any health system is evaluated based on Effective healthcare financing, maintenance of an adequate health workforce, a continuous flow of information that informs preparedness and response, as well as effective leadership and governance in

healthcare. The constant availability of medical supplies (medications, consumables, vaccines) and technology rounds up the list. (Adebusoye et al., 2024; *Universal Health Coverage in Nigeria - UHC2030*, n.d.)

EVIDENCE GAPS

The majority of the information gleaned from the included publications are secondary data collected from previous work done on the field. There is a need to collect information directly from primary sources in order to substantiate the assertions made here and evaluate the efficiency of strategies in practice to ameliorate these problems.

RECOMMENDATIONS

It is recommended that more effort be put into gathering primary data in the form of qualitative and quantitative surveys to assess the health care needs of people living in conflict regions. It is also recommended that implementation Research of current models of service delivery be undertaken to assess the efficiency of current approaches, proceeds of which will be extremely useful in policy, program design and evaluation of the work.

CONCLUSION

Armed conflicts do not only lead to the direct loss of life and property among affected populations, it also presents far-reaching effects on their health. Direct effects such as insults to mental health, malnutrition as a result of food insecurity, outbreaks of infectious and vaccine-preventable diseases, poor maternal and child healthcare with increased sexual violence abound unchecked. While indirect effects such as displacement, destruction of healthcare infrastructure are insults that test the resilience of existing health systems.

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