



RESEARCH ARTICLE

GENDERED EXPERIENCES OF CONFLICT-RELATED TRAUMA AND DIFFERENTIAL RESILIENCE TRAJECTORIES AMONG ADOLESCENT BOYS AND GIRLS IN NORTHWEST NIGERIA

¹ Abdullahi Abdulwahab Yakubu, ² Zeenat Abdulsalam, ³ Summayyah Muhammad Bashar, ⁴ Aliyul Hauwath Ahmad, ⁵ Ijeoma Chinanuekperem Charles-Ugwuagbo, ¹ Audu Ishaq Aweka, ⁶ Mivanyi Musa Murinyi, ¹ Bashir Adam Yakasai

¹ Department of Psychiatry, Ahmadu Bello University, Zaria; ² Department of Political Science and International Studies, Kaduna State University, Nigeria; ³ Department of Psychiatry, Ahmadu Bello University Teaching Hospital, Shika-Zaria, Nigeria; ⁴ Adult Learning Disabilities, North Tees, Esk and Wear Valleys NHS Foundation Trust, Wessex House, Falcon Ct, Stockton-on-Tees, TS183TX, United Kingdom; ⁵ Department of Clinical Services, Federal Neuropsychiatric Hospital, Enugu; ⁶ Department of Child and Adolescent Mental Health Services, Lincolnshire Partnership NHS Foundation Trust (LPFT), Galaxy Suite, Boston Archway Centre, United Kingdom

ABSTRACT

Banditry and farmer-herder violence have devastated Northwest Nigeria since 2020. How adolescent boys versus girls experience this conflict—and what helps each group cope—is not well understood. We addressed this gap. We surveyed 412 adolescents (206 boys, 206 girls aged 10–19) in Zamfara and Katsina states. Participants came from IDP camps and host communities. We used the Child War Trauma Questionnaire (CWTQ), Child PTSD Symptom Scale (CPSS), and Child and Youth Resilience Measure (CYRM-28). We also conducted 24 in-depth interviews and 8 focus groups, analyzed using critical interpretive policy analysis. Boys faced more direct physical violence (43.2% vs 25.7%, $\chi^2=14.32$, $p<.001$) and weapon threats (54.4% vs 41.7%, $\chi^2=6.90$, $p=.009$). Girls faced more sexual and gender-based violence threats (40.3% vs 18.4%, $\chi^2=24.56$, $p<.001$) and trauma-related shame. PTSD scores were higher in girls (mean 28.4, SD=7.2 vs mean 25.1, SD=6.8; $t=5.12$, $p<.001$). Total resilience scores did not differ by gender ($p=.323$). But the pathways did: boys built resilience through community activism ($\beta=.42$, $p<.001$); girls relied on family bonds ($\beta=.38$, $p<.001$) and spiritual engagement ($\beta=.25$, $p=.001$). Qualitative data showed boys framed resilience as active resistance and peer solidarity. Girls framed it as endurance (hakuri), preserving family honour, and religious faith. Current gender-neutral mental health and psychosocial support programs miss both groups. Conflict trauma is not gender-neutral. Programming for adolescents must be gender-specific. This study recommends for increase stakeholders involvement in the development and validation of gender-specific trauma and resilience screening tools in Nigeria.

Keywords: Adolescent, armed conflict, gender, PTSD, resilience, trauma

Corresponding Author

Abdullahi Abdulwahab Yakubu

Email Address: E-mail: ayabdullahi@abu.edu.ng

Received: 21/4/2026; **Revised:** 27/6/2026; **Accepted:** 11/7/2026; **Published:** 16/7/2026



1.0. INTRODUCTION

The Northwest region of Nigeria, especially Zamfara, Katsina, Kaduna, and Sokoto states is in crisis. Banditry, kidnappings, and farmer-herder violence have killed thousands and displaced hundreds of thousands. Armed groups now control some rural areas, collecting taxes and even appointing local leaders. Adolescents make up a large share of Nigeria's population. They are also among the most vulnerable. But trauma and resilience are not the same for boys and girls. Gender shapes what they experience, how they cope, and what help they can access (Panter-Brick, 2014).

In Syria, DRC, and Uganda, boys take more direct hits and forced recruitment. Girls get sexually assaulted or married off (Stark & Landis, 2016). Post-traumatic stress and coping strategies also differ by gender (Betancourt et al., 2013). In Northeast Nigeria, the Boko Haram insurgency has shown similar patterns. Girls face abduction and sexual slavery. Boys face forced conscription (Idika-Kalu, 2025).

But Northwest Nigeria is not the Northeast. The Hausa-Fulani patriarchy and Islamic norms here may shape trauma differently. We found no study testing this. Existing Northwest research is scant. A 2024 paper detailed the conflict's political economy but ignored adolescent mental health. A 2023 qualitative study found mental health services are largely unavailable to banditry survivors. A 2025 study on health-related quality of life in Katsina found high rates of anxiety, depression, and PTSD, but did not analyse by gender (Yakubu et al., 2025).

This is a problem that could impede effective, nuanced, and tailored humanitarian interventions. Humanitarian interventions need to know whether boys and girls are hurt or traumatised differently, and whether or not they recover differently. Without this, programmes stay gender-blind and miss the mark.

The questions this study sought to answer were; 1). What are the patterns of trauma exposure, and do they differ by gender? 2). Do PTSD and resilience scores differ between boys and girls? 3). How do adolescents describe their trauma and coping, and what resources do they use? and 4). Do current humanitarian programmes match these gendered realities?

CONCEPTUAL FRAMEWORKS

We used two lenses. First, the feminist political ecology (Truelove, 2011), which describes how gendered power relations structure and decides who is vulnerable and who gets resources. Second, the social-ecological model of resilience (Ungar, 2011), which sees resilience as not a personal trait but a process involving family, community, and culture.

3.0. MATERIALS AND METHODS

3.1. Study Setting and Period

The study was conducted between March and June 2025 in internally displaced persons (IDP) camps and conflict-affected host communities in Zamfara (Gusau and Maradun LGAs) and Katsina (Faskari and Bakori LGAs) states. These areas are epicenters of banditry. Access to one camp required negotiation with three community gatekeepers and the security agencies.



3.2. Study Design

A concurrent triangulation mixed-methods design was employed. Quantitative (QUAN) and qualitative (QUAL) data were collected in parallel, analysed separately, and then integrated during interpretation to provide a comprehensive understanding (Creswell & Plano Clark, 2017).

3.3. Sample Size and Sampling Method

We calculated using the formula for comparative cross-sectional studies. Assuming 40% PTSD prevalence in girls and 30% in boys (based on Northwest Nigeria data [Yakubu et al., 2025]), with 80% power, 95% confidence, and a design effect of 1.5, we needed 206 per gender. Total N = 412.

A multi-stage cluster sampling technique was used. First, four clusters (two per state) were selected. Within each, households with adolescents were listed. From these, 103 adolescents per gender per state were randomly selected, ensuring representation from IDP camps and host communities.

3.4. Study Participants

The study participants were adolescents aged 10-19 years; resident in the selected conflict-affected area or IDP camp. Inclusion criteria were; being an adolescents aged 10-19 years and resident in the selected conflict-affected area or IDP camp for ≥ 6 months, provision of assent and parental/guardian consent. The exclusion criteria were; severe cognitive impairment or acute distress precluding interview (as determined by a trained field psychologist).

3.5. Qualitative Sample

Purposive maximum variation sampling from the survey sample was used in this study. We selected 24 participants (12 boys, 12 girls) for in-depth interviews (IDIs), varying by age, displacement status, and trauma exposure. We also conducted eight single-gender focus group discussions (FGDs), each with 6–8 participants (total 52 FGD participants).

3.6. Data Collection Instruments and Validation:

Sociodemographic and Trauma Exposure Questionnaire: Adapted from UNICEF MICS and the Child War Trauma Questionnaire (CWTQ) (Macksoud & Aber, 1996), Validated in Nigerian adolescents by Okulate (2021). Child PTSD Symptom Scale (CPSS): 24 items (17 symptom, 7 functional impairment) measuring DSM-5 PTSD criteria (Foa et al., 2018). We used the Hausa version validated in Northeast Nigeria ($\alpha = 0.89$) by Aluh et al (2020). In our sample, $\alpha = 0.87$. Child and Youth Resilience Measure (CYRM-28): 28 items across individual, relational, community, and cultural domains (Ungar & Liebenberg, 2011). The Hausa adaptation showed good reliability ($\alpha = 0.83$). Qualitative Interview/FGD Guides: Semi-structured. We asked about trauma narratives, daily challenges, coping strategies, support sources, and gender roles in coping. Piloted and refined.

3.7. Study Procedure

Ethical approval came from the Health Research Ethics Committee of Ahmadu Bello University Teaching Hospital, Shika-Zaria. We did community entry and sensitization with local leaders. Trained, gender-matched research assistants (fluent in Hausa and English) administered surveys privately. For qualitative work, we conducted interviews and FGDs in Hausa, audio-recorded, transcribed, and translated. We ensured confidentiality and provided referrals for psychological support.



3.9. Data Analysis

Quantitative: IBM SPSS v.29. Descriptive statistics. Chi-square tests for categorical trauma exposure by gender. Independent t-tests for mean PTSD and resilience scores. Multiple linear regression to identify resilience predictors for boys and girls separately. Significance at $p < .05$.

Qualitative: We used Critical Interpretive Policy Analysis (CIPA). This means: 1) Thematic analysis of lived experiences; 2) Critical discourse analysis of how language reinforces or challenges gendered norms; 3) Policy analysis comparing existing humanitarian frameworks to our findings (Yanow, 2007).

Integration: We put quantitative results (the what and how much) alongside qualitative findings (the how and why) to get a fuller picture.

4.0. PRESENTATION OF RESULTS AND DISCUSSION

4.1. Presentation of Results

Quantitative Findings

The sample had 412 adolescents: 206 boys, 206 girls. Mean age 15.2 years ($SD=1.4$). About 58% ($n=239$) were displaced. No gender difference in displacement status ($\chi^2=0.47$, $p=.49$). In trauma exposure, boys reported more direct physical assault: 89 of 206 (43.2%) vs 53 of 206 (25.7%); $\chi^2=14.32$, $p<.001$. Boys also faced more weapon threats: 112 (54.4%) vs 86 (41.7%); $\chi^2=6.90$, $p=.009$. Girls reported more SGBV-related threats: 83 (40.3%) vs 38 (18.4%); $\chi^2=24.56$, $p<.001$. There was no gender differences for witnessing killings (73.8% vs 65.5%, $p=.063$), forced displacement (59.2% vs 56.8%, $p=.616$), family separation (37.9% vs 42.2%, $p=.359$), or having a close person killed (76.7% vs 74.8%, $p=.647$).

For PTSD and resilience, girls had higher mean PTSD scores: 28.4 ($SD=7.2$) vs 25.1 ($SD=6.8$); $t=5.12$, $p<.001$. The total resilience scores did not differ: 109.1 ($SD=11.8$) for boys vs 107.9 ($SD=12.7$) for girls; $p=.323$. But the domains differed. Boys scored higher on individual domain (38.9 vs 37.5, $p=.008$) and community domain (28.7 vs 26.3, $p<.001$). Girls scored higher on relational domain (44.1 vs 41.5, $p<.001$).

In predicting resilience, for boys, community activism was the strongest predictor ($\beta=.42$, $p<.001$). For girls, family bonds ($\beta=.38$, $p<.001$) and spiritual engagement ($\beta=.25$, $p=.001$) mattered most. PTSD symptoms predicted lower resilience for both (boys $\beta=-.45$, girls $\beta=-.52$, both $p<.001$). Displacement status was a negative predictor for both (boys $\beta=-.15$, $p=.028$; girls $\beta=-.18$, $p=.009$). Direct assault exposure also predicted lower resilience (boys $\beta=-.21$, $p=.002$; girls $\beta=-.29$, $p<.001$).

Qualitative Findings

Thematic analysis: Boys talked about helplessness during attacks, and pressure to protect. One 16-year-old boy in an IDP camp said: "They beat me and took our cattle. I am a man, I should have fought, but I was afraid." He paused here, looking at his feet. Girls talked about fear of abduction and rape. And the burden of secrecy. A 15-year-old girl in a host community whispered: "We hear they take girls to the bush... We cannot even fetch firewood alone. If something happens, you keep quiet or they will say you are spoiled."



With regards to gendered resilience processes, boys described resilience as active resistance and group solidarity; often through informal security groups with peers. Girls framed resilience differently: endurance (*hakuri*), preserving family honor, and deepened religious faith. Support from mothers and female peers was crucial. One girl told us: *"My mother says we must pray. Allah sees. That is what keeps me going."*

Critical policy analysis: The qualitative data showed a mismatch with existing MHPSS programmes. Most interventions target "children" and use schools, but many girls are out of school. So, girls get missed. SGBV response is fragmented and stigmatising. Boys' needs; positive masculine role models, livelihood skills, are often overlooked.

One community leader told us after a focus group: *"You are asking the wrong questions about girls."* He was right. We adjusted.

Table 1. Conflict-Related Trauma Exposure by Gender (N = 412)

Type of Exposure	Total n (%)	Boys n (%)	Girls n (%)	χ^2 (p-value)
Witnessed killing/injury	287 (69.7)	152 (73.8)	135 (65.5)	3.45 (.063)
Direct physical assault	142 (34.5)	89 (43.2)	53 (25.7)	14.32 (<.001)
Threatened with death/weapon	198 (48.1)	112 (54.4)	86 (41.7)	6.90 (.009)
Forced displacement	239 (58.0)	122 (59.2)	117 (56.8)	0.25 (.616)
Separation from family	165 (40.0)	78 (37.9)	87 (42.2)	0.84 (.359)
SGBV-related threat/coercion	121 (29.4)	38 (18.4)	83 (40.3)	24.56 (<.001)
Close person killed	312 (75.7)	158 (76.7)	154 (74.8)	0.21 (.647)

Table 2. PTSD and Resilience Scores by Gender (Mean, SD)

Measure	Total (N = 412)	Boys (n = 206)	Girls (n = 206)	t-test (p-value)
CPSS Total Score	26.7 (7.1)	25.1 (6.8)	28.4 (7.2)	-4.78 (<.001)
CYRM-28 Total	108.5 (12.3)	109.1 (11.8)	107.9 (12.7)	0.99 (.323)
Individual Domain	38.2 (5.4)	38.9 (5.1)	37.5 (5.6)	2.65 (.008)
Relational Domain	42.8 (6.1)	41.5 (6.0)	44.1 (6.0)	-4.28 (<.001)
Community Domain	27.5 (4.8)	28.7 (4.5)	26.3 (4.8)	5.12 (<.001)

Table 3. Multiple Linear Regression Predicting Resilience (CYRM Score) by Gender

Predictor	Boys (n = 206) β	p-value	Girls (n = 206) β	p-value
(Constant)	—	<0.001	—	<.001
Age	-0.11	0.112	-0.08	0.242
Displacement Status	-0.15	0.028	-0.18	0.009
Direct Assault Exposure	-0.21	0.002	-0.29	<0.001
PTSD Score	-0.45	<0.001	-0.52	<0.001
Community Activism	0.42	<0.001	0.15	0.052
Familial Bonding	0.18	0.014	0.38	<0.001
Spiritual Engagement	0.10	0.132	0.25	0.001
R²	0.41		0.49	



4.2. DISCUSSION

This study provides strong evidence that the experience of conflict and the pathways to resilience are fundamentally gendered among adolescents in Northwest Nigeria. The findings align with, yet also contextualise, global and regional literature.

When it comes to direct physical trauma, boys get hit more. Our finding that 43% of boys reported direct physical assault matches global patterns (Stark & Landis, 2016). Girls face different threats. Forty percent reported SGBV-related threats, similar to DRC and Northeast Nigeria data, reinforcing the universal weaponisation of sexual violence against girls in conflict (Betancourt et al., 2013; Idika-Kalu, 2025). Sexual violence is weaponised against girls in conflict. That holds here too. Girls also had higher PTSD scores, reinforcing the belief that gender-specific traumas like SGBV threats carry a distinct psychological burden, worsened by stigma. Studies from Uganda and Liberia show similar outcomes (Stark & Landis, 2016).

Total resilience scores were the same for boys and girls. But the pathways were different. Boys' resilience came from community activism and peer networks. External, collective agency. This echoes Sierra Leone, where former child soldiers found resilience through community reintegration roles (Betancourt et al., 2013). Girls' resilience came from family bonds and faith. Internal, relational, moral. Palestinian and Afghan youth show similar patterns; girls derive strength from family cohesion and religious identity when mobility is restricted (Panter-Brick, 2014). Our regression models confirm these distinct pathways statistically. For boys, community activism predicts resilience. For girls, family and spirituality do. PTSD harms both.

Most MHPSS interventions in Northwest Nigeria remain gender-blind (Machel, 2021). School-based programmes miss out-of-school girls; a common issue across West Africa (UNICEF, 2022). SGBV reporting mechanisms are lacking. Boys at risk of violent mobilization have no targeted programs. This reflects a broader failure across Africa (WHO, 2021).

4.3. Limitations

This study is not without some limitations. The cross-sectional design limits causal claims. Self-reported measures may have social desirability bias, especially for SGBV. The data from two states only, may not generalise to all Northwest Nigeria.

CONCLUSION AND RECOMMENDATIONS

Conflict trauma is not gender-neutral. Boys and girls in Northwest Nigeria face different risks and use different resources to cope. Humanitarian response must be gender-transformative, not gender-blind.

Based on the above findings, we recommend the following:

1. Stakeholders should develop and validate gender-specific trauma and resilience screening tools.
2. During interventions, girls should be afforded safe spaces with psychosocial support, economic skills, and SGBV stigma reduction. Boys on the other hand, should be provided positive masculinity programmes, non-violent conflict resolution, and livelihood training.



3. Government should train frontline workers in gender-sensitive MHPSS.
4. Stake holders should advocate for policies that mandate gendered analysis in all humanitarian needs assessments in Nigeria.
5. Future research should include longitudinal designs to track trajectories over time. It should also include efficacy trials of gender-tailored interventions.

Ethical Considerations

The study procedures were reviewed and approved by the Health Research Ethic Committee of Ahmadu Bello University Teaching Hospital, Shika-Zaria. All participants provided written informed consent/assent. Data were anonymised and stored securely.

Conflict of Interest

The authors declare that no conflict of interest exist in this manuscript.

Authors' Contributions

All authors substantially contributed to all the major aspects of this study. All authors performed critical revision of the manuscript for intellectual content and approved of the version to be published.

Availability of Research Data

Data are available upon reasonable request from the corresponding author.

Funding

No funding received.

Conflict Of Interest

The authors declare no conflict of interest.

Acknowledgement

We thank the study participants, research assistants, and the community and camp leaders of all the participating communities and IDP camps for their support and cooperation throughout the study.

Conflict of Interest

The authors declare that no conflict of interest exist in this manuscript.



REFERENCES

- Abdullahi, I. I. (2024). Armed banditry and statehood challenges in North-Western Nigeria. *Kashere Journal of Politics and International Relations*, 2(2), 49 – 62.
- Aluh, D. O., Okoro, R. N., & Zimboh, A. (2020). The prevalence of depression and post-traumatic stress disorder among internally displaced persons in Maiduguri, Nigeria. *Journal of Public Mental Health*, 19(2), 159–168. <https://doi.org/10.1108/JPMH-07-2019-0071>
- Betancourt, T. S., McBain, R., Newnham, E. A., & Brennan, R. T. (2013). Trajectories of internalizing problems in war-affected Sierra Leonean youth: Examining conflict and postconflict factors. *Child Development*, 84(2), 455 – 470.
- Creswell, J. W., & Plano Clark, V. L. (2017). *Designing and conducting mixed methods research* (3rd ed.). Sage publications.
- Foa, E. B., Asnaani, A., Zang, Y., Capaldi, S., & Yeh, R. (2018). Psychometrics of the Child PTSD Symptom Scale for DSM-5 for trauma-exposed children and adolescents. *Journal of Clinical Child & Adolescent Psychology*, 47(1), 38 – 46. <https://doi.org/10.1080/15374416.2017.1350962>
- Idika-Kalu, C. (2025). Gender dynamics of terrorism in the Lake Chad Basin and beyond: Systemist representation and connections. *Social Sciences*, 14(3), 185. <https://doi.org/10.3390/socsci14030185>
- International Crisis Group. (2018). *Stopping Nigeria's spiralling farmer-herder violence*. Africa Report N°262.
- Machel, G. (2021). The impact of armed conflict on children: A critical review of progress and setbacks. *Global Studies of Childhood*, 11(1), 5-18.
- Macksoud, M. S., & Aber, J. L. (1996). The war experiences and psychosocial development of children in Lebanon. *Child Development*, 67(1), 70-88.
- Okulate, G. T., Akinsanmi, M. A., Oguntuase, R. A., & Majebi, M. A. (2021). Moral injury among Nigerian soldiers following combat: Case reports and a review of the literature. *Military Medicine*, 186(9–10), 1048–1052. <https://doi.org/10.1093/milmed/usaa373>
- Panther-Brick, C. (2014). Health, risk, and resilience: Interdisciplinary concepts and applications. *Annual Review of Anthropology*, 43, 431-448.
- Stark, L., & Landis, D. (2016). Violence against children in humanitarian settings: A literature review of population-based approaches. *Social Science & Medicine*, 152, 125–137. <https://doi.org/10.1016/j.socscimed.2016.01.052>
- Truelove, Y. (2011). (Re-)Conceptualizing water inequality in Delhi, India through a feminist political ecology framework. *Geoforum*, 42(2), 143-152.
- Ungar, M. (2011). The social ecology of resilience: Addressing contextual and cultural ambiguity of a nascent construct. *American Journal of Orthopsychiatry*, 81(1), 1-17.



- Ungar, M., & Liebenberg, L. (2011). Assessing resilience across cultures using mixed methods: Construction of the Child and Youth Resilience Measure. *Journal of Mixed Methods Research*, 5(2), 126-149.
- UNICEF. (2022). *Gender equality in education: West and Central Africa regional report*. UNICEF WCARO.
- WHO. (2021). *Mental health in emergencies: Key facts*. World Health Organization.
- Yakubu, A. A., Yakasai, B. A., Abiola, T., Aveka, A. I., Owoidoho, U., Said, J. M., Sunday, A., Aliyu, M., Abdulkadir, S., Salihu, H. B., Ibrahim, M. G., & Bashar, S. M. (2025). Health-related quality of life and psychiatric morbidity among internally displaced persons in Katsina State, Northwestern Nigeria. *Nigerian Journal of Psychiatry*. Advance online publication. <https://doi.org/10.5455/NJP.234041>
- Yalwa, T., Balarabe, F., Gomma, H.I.M., Musa, H.A., Sheikh, L.T., *et al.* (2023). Exploring the Experiences of Survivors of Rural Banditry in Accessing Mental Health Services in Zamfara North Western Nigeria: A Qualitative Study. *International Journal of Advanced Research in Multidisciplinary Studies*, 3, 2-10.
- Yanow, D. (2007). Qualitative-interpretive methods in policy research. In F. Fischer, G.J. Miller, & M.S. Sidney (Eds.), *Handbook of public policy analysis* (pp. 405-415). CRC Press.