Validation of Community Pediatric HIV risk Assessment screening checklist among 0 to 19 years old in selected Communities of Taraba State.

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INTRODUCTION

Recent studies have proven that it is important to standardize some of the innovative strategies which have improved the HIV case identification among children as traditional identification strategies have failed to locate the children amidst a large pool of unidentified cases.

In Nigeria, various partners supporting HIV services have used different versions of the HIV risk assessment/stratification checklists to screen children, but these tools were not context or age specific nor were they validated.

The National AIDS and STIs Control Program (NASCP) of the Federal Ministry of Health in partnership with the National Paediatric Task team organized a national Paediatric HIV/AIDS stakeholders meeting to harmonize the various HIV Risk Stratification checklists being used by all HIV Implementing Partners and designed a HIV risk stratification checklist that is context-specific and age-appropriate for use in the facility and community among children and adolescent's sub-population.

The Society for Family Health was saddles with the responsibility of validating the checklist at community level.

OBJECTIVE

- To validate (determine the specificity and sensitivity) the harmonized HIV risk assessment checklist in community setting
- To determine the association between HIV status and the screening score (overall score and each of the screening criteria contained in the checklist
- To determine the optimal screening score for HIV infection in the checklist.
- To determine the NNT to identify one HIV positive case among children and adolescents in Nigeria
- To determine that using the checklist, shows a reduction in the NNT to identify one child living with HIV.

METHOD

The study employed a cross-sectional design for community screening for HIV infection among children aged 0 to 19 years of age in the communities. The children were enrolled from the community based OVC program already implemented in the state.

The recruitment process considered children with unknown HIV status, children with negative HIV status who were tested 6 months or more and children with unknown HIV status not enrolled in community-based program but reside within the various selected communities.

The selection was carried out using a simple random sampling, were all eligible children had equal chance of being recruited into the study.

RESULT

A total 3000 children aged 0-19 years were sampled across 10 communities across five local government areas in Taraba state. More than fifty percent of the children were male (52.2%). The average age of the children was 10.55±5.49 years; those who tested positive was 14.36±5.63 years while the children who tested negative was 10.50±5.47 years. This mean difference is statistically significant at 95% CI (P<0.05).

Table 1: Association between Checklist Assessment & HIV Testing

	HIV Positive	HIV Negative	Total
At risk of HIV	31	2226	2257
Not At Risk of HIV	6	737	743
Total	37	2963	3000

From Table 1 above,

- Out of 2257 children who were at risk, only 31 tested positives to HIV; meaning the sensitivity of the instrument was 1.4%.
- Of the 744 children who were not at risk, 738 tested negatives to HIV; meaning the specificity of the instrument was 99.2%.
- The positive predicted value (PPV) was 84% while the negative predictive value (NPV) was 25%.
- The Fisher's Exact Test (χ^2 = 1,478, P=0.256). This depicts insignificant association between the outcome of the checklist assessment and the result of the HIV test (P<0.05).

CONCLUSION

The risk stratification checklist showed a very high specificity and a low sensitivity value. This shows that the instrument is not adequately sensitive to screen children aged 0-19 years for HIV test in the community. Although the screening test showed a high positive predictive value of 84%.

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