


BMJ Open Assessment of whole school approach intervention to reduce violence affecting children in and around schools in Kenya and Tanzania: protocol for a before-and-after, mixed-methods pilot study

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ABSTRACT

Introduction National violence against children (VAC) surveys in Tanzania and Kenya reported that approximately three-quarters of children in Tanzania experienced physical violence while 45.9% of women and 56.1% of men experienced childhood violence in Kenya. In response to VAC, Investing in Children and their Societies—Strengthening Families & Protecting Children (ICS-SP) developed the whole school approach (WSA) for reducing VAC in and around schools. Objectives of this evaluation are to: (1) determine intervention's feasibility and (2) the extent to which the WSA reduces prevalence and incidence of VAC in and around schools in Kenya and Tanzania; (3) gain insights into changes in stakeholders' knowledge, attitudes and practices in relation to VAC following intervention implementation and (4) provide evidence-based recommendations for refining intervention content, delivery and theory of change (ToC).

Methods and analysis The study is a mixed-methods, controlled before-and-after, quasi experimental pilot designed to assess the delivery and potential changes in knowledge, attitudes, behaviours and VAC prevalence and incidence in and around schools following the WSA intervention implementation in Kenya and Tanzania. The preintervention phase will entail stakeholder enhancement of the WSA ToC and baseline cross-sectional surveys of teaching and non-teaching staff and parents (knowledge, attitude and practices), pupils (VAC incidents and school climate) and school safety audits. The WSA intervention implementation phase will include an intervention delivery process assessment and random school visits. In the postintervention phase, end-line surveys will be conducted similarly to baseline. Focus group discussions and in-depth interviews will be held with ICS-SP staff, training facilitators, teachers, parents and pupils to gain insights into acceptability, delivery and potential intervention effects. Quantitative and qualitative data will be analysed using SPSS V.25 and NVIVO V.12, respectively.

Ethics and dissemination Ethics approvals were received from Amref Health Africa in Kenya (AMREF-ESRC P910/2020) and National Health Research Ethics Committee (NathREC) in Tanzania (NIMR/HQ/R.8a/

STRENGTHS AND LIMITATIONS OF THIS STUDY

- ⇒ The study addresses the need for cross-setting approaches to violence against children prevention through soliciting knowledge, attitudes and practices data from adults and children in the school, home and community settings.
- ⇒ The study's before and after-intervention design will provide evidence-based recommendations for whole school approach intervention and theory of change refinement.
- ⇒ The study is a pilot and as such generalisability of the study findings is limited.
- ⇒ Due to limited study funding, intervention implementers participated in study data collection (supervising the enumerators) and reporting processes.

Vol.IX/3655). Dissemination will be through research reports.

INTRODUCTION

Violence against children (VAC) is a global health challenge with as many as one billion children experiencing some form of violence each year.¹ Research conducted in sub-Saharan Africa (SSA) suggests that VAC is pervasive. According to a South African study, prevalence for lifetime physical abuse, emotional abuse and sexual abuse was estimated at 56.3%, 35.5% and 9%, respectively.² A 2009 UNICEF-supported VAC survey (VACS) conducted in Tanzania reported that nearly 3 in 10 girls and approximately one in seven boys experienced sexual violence prior to the age of 18.³ The VACS also estimated that almost three-quarters of the young people who participated in the survey experienced study-defined physical violence prior to turning 18 and one-quarter reported



experiencing emotional violence by an adult during childhood.³ A similar UNICEF-supported VACS conducted in Kenya in 2019 reported that 45.9% of women and 56.1% of men experienced childhood violence.⁴

Research conducted in South Africa, Kenya and Tanzania suggests that perpetrators of physical violence in these SSA countries are typically parents, relatives and teachers, of emotional violence relatives and peers and of sexual violence dating partners, relatives and strangers.²⁻⁴

VAC has negative consequences on the health and development of children. The ramifications include increases in the risks of injury, HIV, sexually transmitted infections, mental health problems, reproductive health problems and non-communicable diseases, including cardiovascular disease, cancer, chronic lung disease and diabetes.⁵ Research conducted with school-aged children in Tanzania indicated that harsh discipline is linked with children's negative externalisation behaviours and negatively affects children's working memory capacity and school performance.^{6,7} Additionally, research evaluating a programme designed to address school-associated violence in Ugandan linked physical violence in schools with increased odds of poor mental health and poor academic performance for girls.^{8,9} The risk factors for physical and sexual abuse in SSA at an individual level are age, disability, physical health, behaviour and gender.¹⁰ At the caregiver level, the risk factors are caregiver illness, in particular AIDS, mental health problems, caregiver changes, family functioning, parenting, caregiver-child relationship and substance abuse.¹⁰ At the household level, they include poverty, household violence and non-nuclear family; whereas at the community-level, they include exposure to bullying, sexual violence and rural/urban location.¹⁰

Stress resulting from low income at the family level, health problems or other aspects of the family environment can heighten conflict and the ability of parents to cope or access support systems.^{11,12} Consequently, many parents feel overwhelmed and inadequate to raise their children. Addressing issues of violence in settings where harsh physical punishment in childrearing is normalised is extremely complex. While both Tanzania and Kenya have passed legislation regulating or banning the use of physical punishment in schools, high levels of physical punishment and other forms of violence persist.¹³⁻¹⁷

Due to the negative impact of violence on the health and development of children, there is need to prevent all forms of violence affecting children. Research, including a recently completed study on community perspectives on child discipline in northwest Tanzania,^{18,19} has demonstrated the need for cross-setting approaches to VAC prevention. Whole school approaches (WSAs) use a socioecological perspective on violence prevention engaging stakeholders across the various settings where children live their lives, that is, homes, schools and communities and as such addressing risk factors across each level. WSAs depend on the commitment to actions that involve the entire community.²⁰ In 2019, the WHO

published a handbook on school-based violence prevention, including a WSA, which promotes the engagement of key child wellbeing and protection actors across the settings in which children live. This approach includes children, teachers, parents and people within communities across different settings.²¹ WSAs have been developed and promoted to support anti bullying, bystander intervention, power dynamics, including gender relations, and school democracy.²²⁻²⁵

A study focusing on interventions for reducing VAC in low-income and middle-income countries indicated that although VAC intervention studies are numerous in SSA, they are mainly from South Africa.²⁶ Some studies have been conducted in Uganda and Tanzania aimed at violence prevention. However, prevention programmes aim at one or two forms of violence. For instance, the Good School Toolkit intervention in Uganda aimed at reducing physical violence from school staff to primary school students. Despite engaging multiple stakeholders, that is, teachers, administration, students and parents, only one form of violence from teachers was measured despite the numerous VAC perpetrators.²⁷ In Tanzania, the Interaction Competencies with Children for Teachers prevention intervention reported good feasibility and a significant decrease in the use of emotional and physical violence reported both by teachers and students as well as in the positive attitudes of teachers towards physical and emotional violence in the intervention schools at follow-up. Our study adds knowledge to the extant research by focusing on an array of perpetrators and physical, emotional and sexual violence.²⁸ There is little research, if any, evaluating such a cross-setting approach to VAC in East Africa creating need for research.

The study to assess the WSA pilot intervention will contribute significantly to the knowledge gap. The main study objectives are to: (1) determine feasibility of the intervention, (2) determine the extent to which the WSA reduces prevalence and incidence of child physical, emotional and sexual violence in and around schools in Kenya and Tanzania, (3) gain insights into changes in stakeholders' knowledge, attitudes and practices in relation to VAC, including prevention and response mechanisms, following implementation of the WSA and (4) provide evidence-based recommendations for refining the content, delivery and theory of change (ToC) associated with the WSA.

The study design and implementation will be guided by a socioecological framework adapted by Heise for use in gender-based violence research, based on the premise that no single factor can explain why some people or groups are at higher risk of interpersonal violence, while others are more protected from it.²⁹ The complex interplay of biological, relationship, community and societal factors interacts to increase or decrease children and young people's likelihood of experiencing violence; an understanding of these dynamics forms a basis for evidence-based interventions.^{30,31,32}

METHODS AND ANALYSIS

Study settings

The study will be conducted in Kenya and Tanzania. In Kenya, the study will be conducted in Kisumu County in four public schools (two intervention and two control). Kisumu was chosen as a study site because it is the geographical implementation area for Investing in Children and their Societies—Strengthening Families & Protecting Children—Africa (ICS-SP). In addition, VAC is prevalent in Kenya and Kisumu County is no exception. In Tanzania, the study will be carried out in and around four public primary schools (two intervention schools and two control) in Shinyanga District Council in Shinyanga region. Findings of the Tanzania VACS, UNICEF and UNFPA indicate that Shinyanga region has one of the highest rates of child abuse, especially child marriage (~59%).³ The schools were selected purposively, they were in project area where ICS-SP is planning to implement the WSA.

Study design

The study is a controlled before and after mixed-methods pilot designed to assess feasibility, the intervention delivery and potential changes in prevalence and incidence of child maltreatment and in knowledge, attitudes and behaviours following the implementation of the ICS-SP's WSA intervention. The study is a pilot because it is part of a larger study that will be conducted later, assesses feasibility and will make recommendations for refining training content and delivery.³³ The study has several aims: assessing the feasibility of the intervention by determining the relevance of the training content and the acceptability of the intervention; making recommendations for refining the training content, delivery and ToC; determining the extent to which the intervention reduces prevalence and incidence of physical, emotional and sexual violence; and gaining insights as to whether there are changes in stakeholders' knowledge, attitudes and practices. The research study is anticipated to take 10 months, with collaborative enhancement of the intervention ToC with stakeholders, and the baseline surveys taking approximately 1 month. The WSA intervention will then be implemented over a 6-month period. One month after the completion of WSA intervention implementation, end-line surveys and qualitative focus group discussions (FGDs) and interviews will be conducted to assess potential changes in knowledge, attitudes and practices following the WSA intervention within 1 month. Data analysis and report writing will take approximately 2 months. The study is divided into three phases: (1) preintervention, (2) intervention and (3) postintervention phases. The study is currently in postintervention phase and anticipated to end on the 30 June 2022.

Preintervention phase

This phase will include a 1-day stakeholders' ToC workshop and baseline, cross-sectional surveys with parents, teachers, non-teaching staff and pupils from both

intervention and control group schools in both countries. Specific activities, anticipated outputs and outcomes, indicators and resource planning associated with the implementation of the various components of the WSA intervention and the reduction of child maltreatment will be discussed. A school safety audit using a structured checklist will also be administered in intervention and control schools in both countries.

Intervention implementation phase

Intervention implementation will be carried out by ICS-SP, who are the project implementors and commissioners of this research. During this phase, intervention implementation data will be collected to support an evaluation of the intervention delivery process. Process evaluation data collected during this phase will provide insights into the fidelity, dose, reach and acceptability of the WSA intervention, see online supplemental material 1.

Intervention description

The WSA is a complex intervention that uses an individual and group dynamics behaviour-change strategy to address school-based violence prevention. The WSA intervention combines multiple educational components targeting various stakeholders to address the complex interplay between individual, relationship, communities and societal factors. The WSA's five components include: (1) school leadership support and training, (2) teacher and support staff training and skills development, (3) life skills and values education for learners, (4) parent and caregiver engagement and training and (5) community partnerships and child protection mechanisms.

In the school leadership and support training, members of the board of management in schools, teachers and support staff will be taken through the lunch and learn curriculum, which comprises of five modules. The modules are: (1) child development stages, (2) moulding behaviour in children, (3) positive discipline, (4) good schools and (5) child protection. The guide has been adapted from the Good School Toolkit.³⁴ In addition, school staff are taken through the value-based life skill education curriculum, which is a student-focused life skills curriculum delivered to students by school staff or trained community representatives.

As for the life skills and values education for learners' component, pupils will be taken through the life skill education curriculum. The curriculum has 13 modules: (1) introduction to life skills, (2) self-awareness, (3) self-esteem, (4) managing emotions, (5) coping with stress, (6) effective communication, (7) empathy, (8) assertiveness, (9) negotiation skills, (10) peer pressure resistance, (11) peace and conflict resolution, (12) life skills for decision-making and (13) values and citizenship. The manual is based on life skills curriculum available through Lifeskills Promoters.³⁵

In the parents and caregiver engagement and training component, parents will be trained on skillful parenting. This training entails nine modules: (1) family relations,

**Table 1** WSA core components—training and activity summary

Component	Target stakeholders	Training content	Number of modules	Who conducts the training	Delivery mode and duration
School leadership support and training	School administrators Board of management Parent teacher associations	Lunch and Learn training guide Value-based life skills manual	5 13	ICS-SP staff	School lunch breaks KE: Five 1 hour sessions over 5 consecutive days TZ: Six 2–3 hour sessions spread across 6 weeks
Teacher and support staff training and skills development staff	Teachers and non-teaching school staff	Lunch and learn training guide Value-based life skills education manual	5 13	ICS-SP staff	School lunch breaks KE: Five 1 hour sessions over 5 days TZ: Six 2–3 hour sessions over 6 weeks
Life skills and values education for learners	Primary school students through children's clubs	Value-based Life skills education curriculum	13	ICS-SP staff - trains mentors and teachers KE: Mentors—train children TZ: Teachers—train children	Schools Safe spaces community level Child parliaments KE: 5 days for mentors TZ: 13–16 weeks for pupils (flexible depends on school capacity)
Parents and caregiver engagement and training	Parents/caregivers	Skillful parenting project manual	9	ICS-SP staff—trains community facilitators Community facilitators—train parents/ caregivers	Workshops Community sensitisation activities Parental peer groups Home visits Community facilitators (6 days-skillful parenting and 5 days family budgeting) 13–15 weeks (parents/ caregivers)
Community partnerships and child protection mechanisms	Community members, leaders and local government officials involved with child protection KE: Area Advisory Councils (AAC) TZ: Violence Against Women and Children (VAWC) Protection Committees	Child protection toolkit Community strategy engagement guideline Country-specific child protection systems guidelines	Variable	ICS-SP staff Government staff	Workshops—6 days training (Tz) *Community sensitisation meetings (three times during the intervention period) *Depending on funding

ICS-SP, Investing in Children and their Societies—Strengthening Families & Protecting Children; WSA, whole school approach.

(2) roles and responsibilities of a skillful parent, (3) self-esteem and self-care, (4) values and discipline, (5) communication, (6) child protection, (7) family budgeting, (8) early childhood development and (9) nutrition. The training is based on the ICS-SP skillful parenting curriculum, which has undergone evaluation in Tanzania.³⁶

In the community partnerships and child protection mechanisms, community members and leaders, and government officials are sensitised on child protection issues. **Table 1** details the WSA intervention components, targeted populations and required resources.

Postintervention phase

One month following the completion of WSA intervention implementation, repeated safety audits and end-line surveys will be conducted, and qualitative discussions and interviews will be completed over an approximately

1-month period. This phase includes end-line cross-sectional surveys with parents, teaching and non-teaching staff and pupils and school safety audits using the same instruments as used at baseline with a slightly rephrased follow-up question. Cross-sectional surveys and safety audits will be conducted at both control and intervention schools in both countries. In addition, end-line FGDs and in-depth interviews (IDIs) will be conducted with ICS-SP staff, community leaders and members, parents, teachers and pupils. Qualitative interviews will explore participants' experiences of the WSA intervention delivery process and acceptability of the intervention itself and will contribute to a process evaluation assessment.

Outcomes

The primary outcome of this study is the reduction in prevalence and incidence of child maltreatment before

and after the intervention. The outcome will be assessed by the questionnaire administered to children, which determines the incidence of different forms of child maltreatment. The secondary outcome is the changes in knowledge, attitudes and practices of parents and teaching and non-teaching staff before and after the intervention. The outcome will be assessed by the parent and teacher questionnaires, which examines the changes in knowledge, attitudes and practices.

Study population

The study population will comprise of male and female parents, male and female teaching and non-teaching staff, pupils (boys and girls), ICS-SP staff and community leaders (chiefs and village elders) and members involved in the child wellbeing and protection systems in the areas around the intervention schools. The inclusion criteria are (1) all teaching and non-teaching staff in the intervention and control schools, (2) parents/caregivers with children in standard 4–7 who attend intervention or control schools, (3) pupils attending intervention and control schools in classes 4, 5, 6 and 7, (4) pupils 10–18 years old, (5) community leaders holding administrative responsibilities in the study area, (6) ICS-SP staff involved in managing or implementing the WSA intervention. The exclusion criteria are participants who do not meet the inclusion criteria and those not consenting to the study participation.

Study sample

Stakeholders' Workshops

Fifty-six individuals in each country including teaching and non-teaching staff, and school administrative staff, pupils, parent representatives and relevant community and local-government representatives from the various sectors involved with child wellbeing and protection, such as education, health, social welfare and development, and justice will be invited to participate in the workshop.

Baseline and end-line cross-sectional surveys

To calculate the sample size for pupils, we used prevalence of violence in schools as the primary outcome measure for the statistical power calculation. We used the results from a Ugandan-clustered randomised controlled trial on the effectiveness of the Good School Toolkit for reducing physical violence from school staff to primary school students to calculate the prevalence of difference between the intervention and control group.^{8 9 37} Based on the results from this trial, we expect that the prevalence of violence at the trial end in the control group will be 48.1% versus 31% in the intervention arm. Setting the desired statistical power of the study at 90%, and alpha level of significance 0.05, we estimated that we needed to recruit 340 pupils to detect a clinically important difference in prevalence of 17.1% between the groups. However, since this is a clustered trial with schools acting as clusters, we have inflated the sample size using a design effect (DE) of 2. The DE or variance inflation factor is

estimated using the formula: $DE = 1 + r(m-1)$, where r is the intracluster correlation coefficient (ICC) and m is the expected size of each cluster. Assuming an ICC of 0.05 and a cluster size of 21, we estimated the DE at $1 + 0.05(21-1) = 1 + 1 = 2$. Therefore, the minimum sample size needed is 680 for both study sites; 340 for Tanzania and 340 for Kenya. Based on the sample size for pupils, we will assume a ratio of 1:1. Resultantly, we will sample 680 parents in both study sites; 340 for Tanzania and 340 for Kenya. As for the teaching and non-teaching staff, we will interview all teaching and non-teaching staff in the intervention and control schools.

FGDs and IDIs

The estimated FGDs size for this study will be 7–12 participants.³⁸ Eleven FGDs will be held in each country: two with school leadership teams, teachers and non-teaching staff who attended Lunch & Learn Trainings, one with teachers/mentors who delivered life skills trainings to pupils, two with teachers/mentors from the two intervention schools, four with pupils who received life skill training at the two intervention schools and two with parents who attended ≥ 7 skillful parenting sessions.

Twenty-five IDIs will be conducted with six school staff, six pupils, six parents, five key informants (community leaders, ie, local chiefs and chief elders and government staff) and two ICS-SP staff in each country. Community leaders have the administrative responsibilities at the subcounty level. The sample size for FGDs and IDIs will be determined by data saturation.

Sampling

Baseline and end-line cross-sectional surveys

We will use simple random sampling to select the pupils and parents. Using the class register for pupils in classes 4, 5, 6 and 7, and a list of their parents, we will construct a sampling frame for pupils and parents. The names will be numbered from 1 to N for both parents and pupils in the list and register, respectively. Using R (R core team 2020), a random sample will be drawn. When there is a school where their total number of pupils or parents in classes 4–7 are less than 85, a census will be conducted for consenting respondents. As for the teaching and non-teaching staff, we will interview all teaching and non-teaching staff in the intervention and control schools.

Stakeholders' workshop, FGDs and IDIs

Purposive sampling will be used to select a representative sample of WSA intervention stakeholders to participate in the workshop. As for FGDs and IDIs, participants will be sampled purposively, based on the fact that they have been involved with the implementation of the WSA intervention (ICS-SP staff) or will be exposed to or benefit from the WSA intervention at some point, that is, at the point of intervention implementation or later after the end of the study.

Recruitment

Through their ongoing work in communities and their relationships with district-level education officials and heads of individual schools, ICS-SP team members will approach head teachers at selected intervention and control schools to request their support in participant recruitment. The head teachers at the intervention and control schools will serve as primary connections to school leadership teams, staff, parents and pupils. ICS-SP staff and community representatives will be approached through ICS-SP management for study participation based on their role or connection to WSA intervention implementation or community child protection and safety issues.

DATA COLLECTION TOOLS AND PROCEDURES

The study will use structured questionnaires for the cross-sectional surveys of teaching staff, pupils and parents, structured checklists for school safety audits and semi-structured interview guides to support FGDs and IDIs with key informants and stakeholders.

Baseline and end-line cross-sectional survey tools

The questionnaire for teaching and non-teaching staff was adapted from a UNICEF study in Macedonia on knowledge, attitudes and practices of professionals with regards to VAC.³⁹ The questionnaire has seven sections namely: (a) sociodemographics; (b) knowledge of abuse, maltreatment and VAC reporting; (c) attitudes towards VAC and reporting; (d) beliefs about different forms of VAC, reporting, impact of witnessing violence and characteristics of good parents and children; (e) practices related to protecting children and use of policies and codes of conduct; (f) empirical expectations estimates respondents perception of the prevalence VAC within the community and intervention and reporting practices of others and (e) normative expectations on VAC reporting and the justice system.

Like the questionnaire for teachers and non-teaching school staff, the parent questionnaire was adapted from the same UNICEF study in Macedonia.⁴⁰ The questionnaire has eight sections, namely: (a) information regarding children, (b) knowledge on different forms of child maltreatment and reporting of VAC, (c) attitudes towards child maltreatment, (d) beliefs on child maltreatment, (e) parenting behaviour, (f) parents' opinions on discipline, (g) their experiences of discipline and abuse and (h) sociodemographic information. Unlike the school staff questionnaire, there is an additional section on the parenting behaviour. This section was adapted from the Alabama Parenting Questionnaire (APQ)—Adult Report. The APQ contains 42 questions with five subscales assessing positive involvement with children, supervision and monitoring, use of positive discipline techniques, consistency in the use of such discipline and use of physical punishment.⁴¹

The questionnaire for pupils was adapted from ICAST-C, which is a multinational, multicultural and multilingual child abuse surveillance and research tool available from the International Society for the Prevention of Child Abuse and Neglect. The tool has questions of children's experience of different forms of child maltreatment. Although the tool seeks information on maltreatment within weeks, months, year and lifetime, we will only seek to find out maltreatment within weeks and past months to minimise recall bias. In the questionnaire, we added 27 more questions on school climate adapted from the Beyond Blue School Climate Questionnaire (BBSCQ).⁴² The BBSCQ scale assesses perceptions of school climate by pupils in four areas: (1) supportive teacher–pupil relations, (2) sense of school belonging, (3) participation and (4) commitment. The total school climate score ranges from 0 to 28 with higher scores representing a more positive school environment.

Process evaluation tools

A safety school audit checklist will be used to assess codes of conduct in terms of if they address physical, emotional and sexual violence in and around schools. The tool assesses teachers' knowledge on response to emergencies, violence behaviour and criminal activity in and around schools. It also assesses the schools' referral system and network with violence response and prevention stakeholders and recording of violence and misbehaviour incidents. In addition, we will look in the suggestion boxes and review reports raised by the pupils. We will also examine the risk maps and assess them against plan of actions to see whether they have been implemented within the set time frames. Documentation collected as part of WSA implementation such as attendance logs, implementation reports and random visit data will provide information of the fidelity, dose and reach of intervention implementation.

Semi-structured FGD and IDI guides

FGDs with training facilitators will explore their impressions of the relevance and acceptability of the training materials as well as their experience of being trained in and delivering the trainings themselves. FGDs with school leadership and staff, pupils and parents will focus on their thoughts and experiences of receiving their targeted training component. Their experiences of the actual delivery of the training materials, the relevance and acceptability of the content and any barriers and facilitators to their utilisation of information and skills introduced through the respective trainings will be explored. IDIs with school staff, pupils and parents will seek to gain in-depth insights into their understanding of WSA training materials and associated activities. The interviews will also explore participants' understandings of child maltreatment, child safety and protection systems and the inter-related nature of the settings in which children and families live.

Training of research assistants and pretesting tools

The training of supervisors and research assistants will take 5 days. The training will entail introducing the research team to the WSA intervention, study design and data collection methods and tools, taking the participants through ICS-SP child protection policy and reviewing research ethics and conducting research with children. The research assistants will then pretest the research tools in an area outside the study sites.

DATA MANAGEMENT AND ANALYSIS

Cross-sectional surveys will be conducted using Open Data Kit. Instruments will be programmed into xlsform. These forms will contain metadata about language, field specifications, validation rules and branching logic to minimise data entry errors. The xlsform will then be uploaded into secure servers at KoBoToolbox and deployed. KoBoCollect will be installed in android-based tablets or mobile phones with at least a screen size of 6 inches and then linked to the forms on KoBoToolbox. The security of the data on KoBoToolbox servers will be managed using a username and a secure password. Data will be analysed using SPSS V.25 software. Basic characteristics of the sample data and estimates of prevalence rates of any form of abuse in both countries will be calculated using descriptive analyses. We hypothesise that several factors may contribute to VAC either separately or collectively and that these factors may be highly correlated. Therefore, an explanatory factor analysis followed by a confirmatory factor analysis, which is a form of structural equation modelling, will be undertaken. This will help in determining and understanding latent dimensions of violence in addition to understanding the strength of associations between these latent variables and the observed factors. However, responses obtained by summing up individual scores and/or categorising the data measured on a Likert scale will be analysed using mixed effects models with random effects at village level.

Audio recordings from IDIs and FGDs and transcribed data will be anonymised and protected through use of passwords. The collected interview and FGDs data will be transcribed and translated, and field notes will be used to give context. Thematic analysis will be conducted with the help of NVIVO V.12 to develop analytical categories and later themes that will be discussed based on empirical research and theoretical explanation.⁴³

PATIENT AND PUBLIC INVOLVEMENT

No patient will be involved in the study. The public will be involved in the ToC development workshop. The ToC workshop will introduce the study to the public and stakeholders will provide input on how different activities can lead towards achieving the study goals. The workshop will also promote buy-in from the community. After study completion, research findings will be shared in a

workshop with key stakeholders, that is, parents, teachers, pupils and government officials.

ETHICS AND DISSEMINATION

Ethical clearance was obtained from both the Amref Ethics & Scientific Review Committee (ESRC) in Kenya (AMREF-ESRC P910/2020) and the National Health Research Ethics Committee (NatHREC) in Tanzania (NIMR/HQ/R.8a/Vol.IX/3655). Furthermore, the lead researchers in Kenya and Tanzania obtained research permits from the National Commission for Science and Technology in the respective countries.

Both verbal and written informed consent will be sought from adult participants involved in the study. As for the children <18 years of age, assent and informed consent will be sought from them and their caregivers. Before informed consent and assent is sought, detailed information about the study in terms of the objectives, voluntary participation and withdrawal, risks and benefits will be provided. Informed consent and assent forms will be read to and reviewed with prospective participants and the study will be explained in detail. All questions posed by prospective participants will be answered.

Study participants' identity will be anonymised and kept confidential using unique identifier codes linked to each participant. All study documentation such as written material, recordings, and pictures produced as part of the study will be referenced by these unique codes. The master coding lists will be stored separately from all other study documentation. All the study documentation will be stored in locked cabinets located at the ICS-SP offices with access only granted to the research team. Computers or other electronic devices used to collect and manage study information and data will be password protected.

Field assistants and all others associated with the conduct of the study will undergo training on ethical conduct of research, including consenting and assenting processes and specialised training on the conduct of research with children on sensitive topics. This specialised training will build skills in communicating and developing rapport with children as well as recognising and appropriately responding to verbal and non-verbal cues signalling distress. Disclosures of information by children or other study participants that suggest possible safety concerns will be reported to the field team lead and possible subsequent referral to local protection authorities as necessary. All those involved in the conduct of the study will be required to sign a non-disclosure statement before providing any services or participating in study activities.

The project implementers will receive a research report. We will also hold a 1-day workshop with key stakeholders and project implementers to disseminate the study findings through a PowerPoint presentation. ICS-SP will further disseminate study findings through presentations at district, regional and national meetings and through distribution of findings summary brochures and

reports. The study findings will be published in international peer-reviewed journals. In addition, findings from this feasibility study will inform a larger trial testing the effectiveness of the WSA approach.

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