

A mixed methods evaluation of the large-scale implementation of a school- and community-based parenting program to reduce violence against children in Tanzania: A study protocol

Mackenzie Martin (✉ Mackenzie.Martin@spi.ox.ac.uk)

University of Oxford <https://orcid.org/0000-0002-3202-3800>

Jamie Lachman

University of Oxford

Joyce Wamoyi

National Institute for Medical Research Mwanza Research Centre

Yulia Shenderovich

Cardiff University

Mwita Wambura

National Institute for Medical Research Mwanza Research Centre

Samwel Mgunga

National Institute for Medical Research Mwanza Research Centre

Esther Ndyetabura

Pact Tanzania

Amal Ally

Pact Tanzania

Asheri Barankena

Pact Tanzania

Amon Exavery

Pact Tanzania

Nyasha Manjengenja

Clowns Without Borders South Africa

Study protocol

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Abstract

Background

Despite the rapid dissemination of parenting programs aiming to reduce and prevent violence against children (VAC) worldwide, there is limited knowledge about and evidence of the implementation of these programs at scale. This study addresses this gap by assessing the quality of delivery and impact of an evidence-based parenting program for parents/caregivers and their adolescent girls aged 9 to 14 – Parenting for Lifelong Health Teens (PLH-Teens), known locally as Furaha Teens – on reducing VAC at scale in Tanzania. The study will explore participating family and staff perspectives on program implementation and examine factors associated with implementation and how implementation quality are associated with intervention outcomes when the program is delivered to approximately 50,000 parent-child dyads ($N=100,000$) in schools and community centers across eight districts of Tanzania.

Methods

This mixed-methods study will answer the following research questions: (1) what is the implementation quality and fidelity of PLH-Teens at scale in Tanzania; (2) what factors are associated with the quality of delivery and implementation fidelity of PLH-Teens; (3) how are implementation quality and fidelity associated with intervention outcomes; (4) what are participant and implementing staff perspectives on the acceptability, appropriateness, feasibility, benefits, and challenges of delivering PLH-Teens in their schools and communities; (5) what is the impact of PLH-Teens on VAC and participant well-being; and (6) how much does it cost to deliver PLH-Teens at scale? Qualitative and quantitative data will be collected directly from implementers, parents/caregivers, and adolescents using pre-post questionnaires, observational assessments, cost surveys, focus groups, and interviews. Qualitative data will be analyzed thematically with the aid of NVIVO software. Quantitative data will be cleaned and analyzed using methods such as correlation, regression, and structural equation models using Stata and R. COREQ and TREND guidelines will be used, where appropriate.

Discussion

Findings will provide vital insights into some of the factors related to quality implementation at scale. Lessons learned regarding the implementation of PLH-Teens at scale will be applied in Tanzania, and also in the delivery of PLH parenting programs globally.

Contributions To The Literature

- The FAIR study responds to the urgent need to evaluate the implementation and impact of parenting programs that aim to prevent VAC at scale in low- and middle-income countries (LMICs), and in Sub-Saharan Africa in particular.
- Despite emerging evidence on the effectiveness of parenting programs in LMICs, further research is necessary to understand the implementation, impact, optimization, and sustainability of these

programs when delivered at scale.

- The FAIR study seeks to capitalize on innovative implementation science approaches to contribute to the evidence base in relation to PLH-Teens so as to maximize the prevention and reduction of VAC in Tanzania and in the 16 other LMICs where PLH-Teens is being implemented.

Background

Violence Against Children and Parenting Programs

Over one billion children experience violence each year with disproportionate numbers impacted in low- and middle-income countries (LMICs) (1, 2). Violence has serious short- and long-term negative consequences for children, including for mental health, substance use, peer violence, delinquency, and the intergenerational transfer of violence (e.g., 3-8). In Tanzania, over 72% of individuals aged 13-24 years old have experienced physical violence before age 18 (9). Caregivers, other adult relatives, and teachers are the most commonly reported perpetrators of physical and emotional violence against children (VAC) in Tanzania, with corporal punishment considered normative (9). As a Pathfinder Country, Tanzania has prioritized ending VAC and committed to reducing VAC by 50% by 2022 (10).

There is considerable evidence that parenting programs reduce VAC by improving parenting skills and reducing child behavior problems and by indirectly reducing associated risks such as youth violence, delinquency, and substance use as well as parental mental health difficulties (e.g., 11, 12-18). The potential of these programs has been recognized by international agencies, including the multi-agency *INSPIRE: Seven Strategies to End Violence Against Children* collection of evidence-informed approaches wherein parenting programs are recommended as a key strategy to prevent abuse (19).

Implementation and Scale-Up of Parenting Programs

Given the encouraging evidence regarding the effectiveness of parenting programs aiming to reduce VAC in LMICs (e.g., 18), there have been numerous calls to build the capacity of governments and agencies to implement such programs at scale (e.g., 20). Scale-up may be defined as “deliberate efforts to increase the impact of health innovations successfully tested...so as to benefit more people and foster the development of sustainable policies and programs” (21). However, there are numerous questions and challenges associated with scale-up, including whether such programs are: perceived as being culturally acceptable and appropriate by beneficiaries and stakeholders; able to reach increased number of participants; feasible to deliver on a larger scale within existing delivery systems; delivered with fidelity to the program model; cost effective; and still effective when delivered beyond the scope of their original testing (21-24).

Research on family outcomes as part of the scale-up of parenting programs is limited, particularly in LMICs (25). There are some studies in high-income countries (HICs) that have examined program impacts among entire populations. For instance, a study on the large-scale implementation of the Triple P program in North Carolina, USA, suggested some benefits in reducing child behavior problems and child

maltreatment, even though a range of methodological challenges and limitations have been reported (25-27). An evaluation of Triple P in Glasgow, UK, found no evidence of a population-level impact on child mental health (28). There are other studies that have examined program impacts among large groups of participants. For instance, randomized controlled trials of the Nurse Family Partnership program – a community-level home visiting program aiming to prevent child maltreatment by providing in-home support to low-income pregnant women and new-mothers – found the program to be effective in preventing child maltreatment and other outcomes in large samples (29, 30). A study by Gray and colleagues examined the outcomes of various evidence-based parenting programs delivered on a large scale, including Triple P and Incredible Years, by comparing ‘service-led implementation’ using data from 3706 families with previous ‘researcher-led’ trials using data from 1390 families and found that community- and researcher-delivery resulted in similar outcomes suggesting that large-scale delivery is possible and effective for children and families (31).

In addition to a need for further research on outcomes, there is a need for more research on the implementation of parenting programs at scale to determine the extent and quality with which these programs are delivered (32). Such research will then allow for an exploration of the impact of implementation at scale on program outcomes and the generation of insights regarding how programs might be improved (32). Proctor’s taxonomy outlines eight implementation outcomes to examine to fully understand the quality of program implementation - adoption (the extent of program uptake); acceptability (participant satisfaction); appropriateness (program fit); feasibility (the extent to which the program can be delivered successfully, including consideration of its benefits and challenges); fidelity (adherence to the program theory and model); cost (time and resources required); penetration (the extent to which program delivery is embedded within existing services and systems); and sustainability (the practicality of long-term delivery) (22).

Several studies of parenting programs report on one or more of these implementation outcomes, including nascent insights emerging from studies in LMICs. To illustrate, a study on the Reach Up program in Brazil and Zimbabwe used qualitative methods to ascertain the perspectives of parents, facilitators, and supervisors on the program’s acceptability and appropriateness (33). The authors of the paper drew insights about these implementation outcomes, including that parents were satisfied with the program. Other studies of parenting programs have explored the relationship between implementation outcomes and participant outcomes. For instance, a study on the implementation of the ‘Growing Up Happily in the Family’ program in Spain explored a variety of implementation outcomes (including fidelity and acceptability) and analyzed whether they were associated with improvements in parental attitudes (34). The researchers found that better fidelity and acceptability were associated with better parental attitudes. Similarly, a study on the Parent Management Training-Oregon (PMTO) program delivered at scale in Norway (35) found that better facilitator delivery was correlated with improved parenting skills among program participants (35). However, the majority of the literature on implementation quality is from studies conducted in HICs. The Furaha Adolescent Implementation Research (or FAIR) study aims to help fill this gap by contributing knowledge regarding what implementation quality is like in a lower resource setting and at scale.

Aside from the relationship between implementation outcomes and participant outcomes, other studies have examined factors that predict implementation outcomes. It has been recommended, for instance, that researchers explore the relationship between and the role of staff and organizations on implementation outcomes, including factors such as staff selection and training, ongoing monitoring and support of staff, and organizational leadership (32). A study of a community-based intervention in South Africa and Malawi explored such a relationship; researchers looked at child outcomes in relation to whether implementing staff were paid or unpaid (36). The study concluded that child outcomes were enhanced when the program was delivered by paid staff - an important finding given program delivery in LMICs leans towards volunteer-led delivery due to staffing shortages (36). The FAIR study will add to the existing literature by examining staff and organizational factors, including facilitator characteristics such as the differences between teacher and volunteer delivery.

Overall, while there are some studies on the implementation and scale-up of parenting programs, the literature would benefit from enhanced evidence of: family outcomes and quality of parenting program implementation at scale, how implementation outcomes are associated with participant outcomes, the factors that predict implementation outcomes, and how program implementation might be improved. The FAIR study aims to contribute in these areas by examining the factors, implementation, and outcomes of a parenting program delivered at scale in Tanzania.

Parenting for Lifelong Health-Teens

Parenting for Lifelong Health (PLH) for Adolescents (PLH-Teens, known in Tanzania as Furaha Teens – or “Happy Teens”) is among few low-cost parenting interventions for families with adolescents that has been rigorously tested in LMICs (37). Originally developed and tested in South Africa, PLH-Teens is a parenting program rooted in social learning theory and behavior change principles that aims to reduce adolescent exposure to violence in the home and community by improving positive parenting and parent-child communication, while reducing familial conflict, harsh discipline, parenting stress, adolescent conduct problems, risky behavior, and mental ill-health (38, 39). Trained school and community facilitators engage parents/caregivers and adolescents in 14 weekly group sessions of approximately three hours in length using non-didactic, participatory methods including discussions, role-plays, problem-solving, and experiential activities (39). As part of their participation, families receive incentives including meals and school supplies. Facilitators also assist families in developing child safety plans, responding to abuse, budgeting, and accessing medical and social services. Thus, PLH-Teens tackles a multitude of upstream and downstream contextual factors that lead to increased risk of VAC (e.g., 40, 41-43).

A recent cluster randomized trial in South Africa ($N=40$ clusters, 552 parent/caregiver-adolescent dyads) found intervention effects for reduced abuse and corporal punishment as well as improved positive parenting, involvement, and monitoring based on caregiver reports at five to nine months follow-up (37). Effects on secondary outcomes included reductions in both adult and child substance use and parental stress, depression, endorsement of corporal punishment, and financial stress (37). A cost-effectiveness

analysis of PLH-Teens found that the intervention cost \$972 USD per case of abuse prevented or a total cost savings of \$2,724 USD per case of child abuse (44).

PLH-Teens in Tanzania

Encouraging results from the cluster RCT (37) have contributed to the rapid dissemination of PLH-Teens in 16 countries to approximately 300,000 beneficiaries. Among these is the large-scale implementation of PLH-Teens in Tanzania that started in 2017 as part of the Kizazi Kipya (or “New Generation”) Project by Pact Tanzania. Kizazi Kipya is a USAID-PEPFAR funded project aiming to enable more Tanzanian orphans and vulnerable children (OVC) – children, adolescents, and young people orphaned and made vulnerable by HIV and other adversities – to use age-appropriate HIV- and AIDS-related and other services for improved care, health, nutrition, education, protection, livelihoods, and psychosocial well-being. Through the Kizazi Kipya Project, Pact Tanzania implements the DREAMS Initiative (Determined, Resilient, Empowered, AIDS-free, Mentored, and Safe). This program aims to reduce HIV infection among adolescent girls and young women in HIV priority areas. As part of DREAMS, Pact is implementing the locally adapted and HIV-enhanced version of PLH-Teens program, known as the Furaha Caring Families Program for Parents and Teens (Furaha Teens), for adolescent girls aged 9-14 and their parents/caregivers.

In 2020-2021, Pact is scaling-up the program with 444 trained facilitators and 70 coaches to reach an additional 100,000 beneficiaries (approximately $N=50,000$ adolescents and $N=50,000$ parents/caregivers). The 2020-2021 delivery of PLH-Teens in Tanzania offers an unprecedented opportunity to examine the intervention and implementation outcomes when delivered at scale. As a result, this study – the Furaha Adolescent Implementation Research or FAIR study – will provide vital information on how to establish, implement, improve, and sustain high-quality delivery of PLH-Teens. The findings will also be of value to other parenting programs aiming to prevent VAC at scale.

FAIR Study

The FAIR study is linked to a larger study called the Scale-Up of Parenting Evaluation Research (SUPER), which is examining the implementation of PLH programs in multiple LMICs (45). The SUPER study is using the Exploration, Preparation, Implementation and Sustainment (EPIS) framework to guide study questions and research tools as the framework has been widely used by practitioners and researchers to guide program implementation and evaluation (46). EPIS has also been used to understand whether and how programs can be implemented successfully and sustainably in various settings on a large scale (47, 48). The framework considers four intervention phases: exploration phase where stakeholders work together to identify the best evidence-based practices to address community needs, and subsequently decide whether to adopt them; preparation phase which focuses on identifying potential barriers to and promoters of implementation, assessing the need for adaptation, and developing a detailed implementation plan; implementation phase which involves the delivery of evidence-based practices and the subsequent ongoing monitoring of the implementation process and; sustainment phase which involves supporting the program to transition to routine delivery - such as by supporting adaptations and

scale-up - to realize the positive public health impacts of the program (46, 49). The FAIR study is similarly rooted in the EPIS framework and is also informed by Proctor's aforementioned taxonomy of implementation outcomes (22).

Study Aims and Research Questions

The FAIR study aims to examine the quality of implementation of PLH-Teens and its impact on preventing and reducing VAC at scale in Tanzania as well as consider factors associated with implementation and how implementation can be improved to optimize intervention impact. The study seeks to answer the following research questions: (1) what is the level of program implementation of PLH-Teens in terms of quality of delivery and implementation fidelity; (2) what factors are associated with the quality of delivery and implementation fidelity of PLH-Teens; (3) how are implementation quality and fidelity associated with intervention outcomes; (4) what are participant and implementing staff perspectives on the acceptability, appropriateness, feasibility, benefits, and challenges of delivering PLH-Teens in their schools and communities; (5) what is the impact of PLH-Teens on VAC and family well-being; and (6) how much does it cost to deliver PLH-Teens at scale?

Methods

This mixed-methods study involves the integration of quantitative and qualitative methods to address the research questions. The data sources to be used are outlined in *Table 1*. Qualitative (including focus group discussions, in-depth interviews, and observation) and quantitative (merged secondary data collected via routine monitoring and evaluation by Pact Tanzania, local implementing partners or LIPs, and Clowns Without Borders South Africa or CWBSA) methods will be used to explore the impact, acceptability, appropriateness, feasibility, fidelity, and cost of PLH-Teens. As randomization to intervention and control groups is not possible, the study will make the most of the routine service delivery data available. Analyzing this data will allow for a unique inquiry into the real-world implementation of a parenting program at scale.

Collaborators and Setting

The FAIR study is being conducted by the National Institute for Medical Research (NIMR) in Tanzania, the University of Oxford, CWBSA, and Pact Tanzania. The study will be conducted in eight districts of rural and semi-urban Tanzania: Kyela District Council (DC), Mbeya DC, Muleba DC, Shinyanga DC, Shinyanga Municipal Council (MC), Kahama Town Council (TC), Msalala DC, and Ushetu DC. PLH-Teens will be delivered by facilitators in schools by teachers and in communities by volunteers (compensated with an honorarium) ($N=444$) with Furaha program coaches ($N=70$) providing facilitators with ongoing supervision. Facilitators will deliver the program via the coordination of five LIPs - Humuliza, Tadepa, Integrated Rural Development Organisation, Caritas, and Tanzania Red Cross Society.

Study Participants

The study will collect primary data from 48 program coaches, 96 program facilitators, 58 Pact Tanzania and LIP staff, eight school principals, three CWBSA staff, 155 parents/caregivers, and 155 adolescents. The study will also collect anonymized secondary data from approximately 50,000 parent-child dyads ($N=100,000$), 444 program facilitators, 70 program coaches, and five LIP organizations. The inclusion criteria used to select study participants for primary and secondary data collection are outlined in *Tables 2 and 3*.

Study Recruitment and Informed Consent

For the collection of primary qualitative data, a combination of purposive and snowball sampling will be used in collaboration with Pact Tanzania and LIPs to identify potential participants in each of the eight districts for semi-structured interviews and focus group discussions (FGDs). If potential participants consent to their contact details being shared with the researchers, the participants will be contacted by email or phone to outline the scope of the interviews and FGDs prior to seeking informed consent. Alternatively, a researcher may be present during program training or another meeting to explain the study. Once potential participants have been identified, they will be invited to provide informed consent. Pact Tanzania staff will then provide potential participants with consent forms, assent forms (in the case of study participants under age 18), and the opportunity to discuss the study with researchers.

Oxford and NIMR researchers will not be involved in recruiting participants for the secondary data. Instead, Pact Tanzania and CWBSA will ask all program participants if they would like to participate in the research upon their enrolment in the Kizazi Kipya Project. Those who agree to participate in the study will be asked to sign consent forms, and assent forms in the case of participants under age 18.

Primary Qualitative Data Collection

The qualitative data collection methods include: individual semi-structured interviews; FGDs; structured observations of PLH-Teens group sessions conducted by facilitators and structured observations of facilitator supervision sessions conducted by coaches; analysis of policies, progress reports, and other documents anonymized and voluntarily provided by Pact Tanzania; and field notes taken by researchers during community of practice meetings with stakeholders.

Interviews and FGDs.

Individual interviews will be conducted with program coaches ($N=16$), program facilitators ($N=16$), LIP staff ($N=8$), school principals ($N=8$), and CWBSA staff ($N=3$). FGDs will be held with program coaches ($N=32$, 8/FGD), program facilitators ($N=80$, 10/FGD), parents/caregivers ($N=80$, 10/FGD), and adolescents ($N=80$, 10/FGD). All interviews (approximately 60-90 minutes) and FGDs (approximately 90-120 minutes) will be conducted in Kiswahili based on semi-structured interview guides (see Open Science Framework). The guides provide an outline of key topics and questions for the interviewers to ask study participants as well as leaves room to delve into pertinent issues that emerge during interviews and FGDs. All interviews and FGDs will be audio-recorded with the permission of the participants. Where a

participant declines, permission will be sought for field notes to be taken instead. Interview and FGD participants will be provided with lunch and transportation to and from the meeting venues (approximately \$10-15 USD). In cases where face-to-face interviews and FGDs are not possible, interviews will be conducted remotely via telephone. While the importance of confidentiality will be emphasized during FGDs, participants will be informed about how limited researchers are in their ability to enforce post-discussion adherence to confidentiality commitments made by FGD participants.

Session observations.

To better understand the implementation fidelity of PLH-Teens, researchers will conduct direct observations of program delivery and supervision sessions. Program participants and facilitators will be observed during program sessions ($N=5$ sessions; 150 participants) and facilitators and coaches will be observed during supervision sessions ($N=5$ sessions; 50 participants). The exact locations of the five program observations will be selected by the implementation team to take the variation and contextual factors of each district into consideration. A random selection of five coaching observations will be conducted in consultation with Pact Tanzania. Observations of program sessions and supervision sessions will follow structured observation guides (see Open Science Framework).

Document analysis.

The researchers will conduct content analyses of Pact Tanzania and CWBSA reports to identify implementation barriers and supports as well as to identify how PLH-Teens fits within the larger Kizazi Kipya Project. Formal requests will be sent to partner organizations seeking permission to review and analyze relevant documents, with sensitive information redacted before the documents are shared and analyzed.

Community of practice meetings.

Following program delivery, stakeholder engagement meetings will be held with government and non-government stakeholders involved in the implementation of PLH-Teens ($N=2$ session; 50 participants). In these meetings, stakeholders will be asked to provide an overview of their experiences, including challenges implementing the program and possible solutions to the challenges identified. These participatory community of practice meetings will be held in Dar es Salaam during which researchers will take field notes.

Qualitative data collection tools have been developed based on the EPIS framework and Proctor's taxonomy. The interview, FGD, and observation guides cover relevant parts of the implementation process experienced by various participants (see Open Science Framework). For example, questions for facilitators focus on the implementation process since they are most familiar with implementation while questions for Pact managers emphasize exploration and sustainment. Each tool includes questions and probes to guide the conversation or observation as well as leaves room to delve into pertinent matters that emerge during conversations or observations. The guides for conversations with implementing staff

cover topics including: program likes and dislikes; balancing program delivery with other commitments; perspectives on the training and ongoing supervision provided; anticipated impact on program beneficiaries; barriers and challenges to program implementation; potential improvements to the program and its delivery; impact of COVID-19; and appropriateness of delivering the program via the education system. The guides for conversations with participating family members are similarly wide ranging and covers topics including cultural relevance of the program; experience attending the program; program likes and dislikes; impact of COVID-19; barriers and supports to participation; impact of the program on their family; and perspectives on the quality of their facilitators.

Secondary Quantitative Data Collection

The study will analyze the following anonymized secondary process and outcome data from Pact Tanzania and CWBSA: pre-post surveys completed by parent/caregiver program participants ($N=50,000$); pre-post surveys completed by adolescent program participants ($N=50,000$); parent/caregiver and adolescent program attendance registers ($N=100,000$ participants); facilitator demographic questionnaires ($N=444$); coach demographic questionnaires ($N=70$); coach assessments of facilitators ($N=444$); CWBSA assessments of coaches ($N=70$); LIP organizational surveys ($N=5$); and implementation cost surveys ($N=300$).

Family outcome measures.

Pact Tanzania was provided with a set of process and outcome tools by CWBSA as part of the monitoring and evaluation technical support they provide to all implementing partners delivering PLH programs. CWBSA recommends and provides these tools because they are open-access and have been psychometrically tested in previous studies. Due to the large number of beneficiaries Pact Tanzania is reaching and their limited capacity to collect evaluation data, they are using abbreviated versions of the tools provided by CWBSA.

Demographic items.

The demographic information that will be collected includes parent/caregiver and adolescent age, gender, education level, economic status, food security, health insurance status, HIV status, and home-level risk factors of VAC (15 items).

Positive parenting.

An adapted version of the Alabama Parenting Questionnaire (APQ) (50) will be used to assess parent/caregiver- and child-reports on the frequency of specific parent/caregiver behaviors towards adolescents in the past month on a seven-point Likert scale (0 = *never*, 6 = *always*). The APQ measures parental involvement (3 items, e.g., “you/your caregiver get(s) involved in activities that your child/you like(s)”) and parental monitoring (3 items, e.g., “you/your child are/is left at home without adult supervision”) subscales. Items are summed to create a total positive parenting score as well as for each subscale.

Child behavior and mental health.

The Strengths and Difficulties Questionnaire (SDQ) (51) will be used to assess child behavior problems. The tool asks parents/caregivers and adolescents to indicate the frequency of specific child behaviors using a three-point Likert scale (1 = *not true*, 3 = *very true*). Pact Tanzania uses the SDQ Conduct Problems subscale to assess externalizing behavior (5 items, e.g., “I get/your child gets angry and often lose(s) my/their temper”) and the SDQ Emotional Problems subscale to assess internalizing behavior (5 items, e.g., “I am/your child is often unhappy, downhearted or tearful”). The items in each subscale are summed, with higher scores indicating more behavioral problems.

Child maltreatment.

The ISPCAN Child Abuse Screening Tools-Trial Version (ICAST-T) will be used to assess parent/caregiver- and child-reports on child maltreatment (4 items). The tool asks parents/caregivers and adolescents to indicate the frequency of emotional abuse (e.g., “shouting or screaming” and “saying mean things to upset,”) and physical abuse (e.g., “spanking, slapping, or hitting with a hand” and “discipline with an object like a stick or belt,”) over the past month using a nine-point Likert scale (0 = *never*, 8 = *8 or more times*) (52). Items are summed to create a total child maltreatment score as well as a score for each subscale.

Acceptability of corporal punishment.

One item from the Multiple Indicator Cluster Survey (MICS) will be used to assess parents/caregivers and adolescent views on the acceptability of corporal punishment. This item asks respondents to indicate the extent to which they agree or disagree (1 = *strongly disagree*, 5 = *strongly agree*) with the statement: “In order to bring up, raise, or educate a child properly, a child needs to be physically punished.”

Parental depression.

Parental depression will be assessed using the Centre for Epidemiologic Studies Depression Scale (CES-D 10) (53). The tool asks parents/caregivers to respond to items related to how they have felt over the past seven days (3 items, e.g., “How often in the past week have you felt depressed?”). Responses are coded on a four-point Likert scale (1 = *rarely or none of the time*; 4 = *most or all of the time*). Items are summed with higher scores indicating higher levels of parental depression.

Parental support of education.

An adapted version of the Parental Support for School Scale (54) will be used to measure parent/caregiver- and adolescent-reports on the frequency of supportive behavior by parents/caregivers towards their children’s learning (e.g. “I/your caregiver support(s) my child’s/your schoolwork in any way that I/they can” and “I/your caregiver praise(s) my child/you for working hard at school”) using a five point Likert scale (1 = *never*; 5 = *always*). Items are summed to create a frequency score, with higher scores suggesting more parental support and value for school.

Economic strengthening.

The Family Financial Coping Scale (FFCS; 6 items) will be used to gain insight into the financial status of the participating families. The tool asks parents/caregivers to respond to items related to financial matters in the past month. These items include questions on whether parents/caregivers were worried about money, saved money, and ran out of money to buy certain items, such as two meals a day.

Intimate partner violence.

Parent/caregiver reports of intimate partner violence victimization and perpetration in the past month will be assessed using four items adapted from the Revised Conflict Tactics Scale Short Form (CTS2S; 8 items) (55). Items included in the tool ask about the frequency of physical assault (e.g., “my partner/I hit, push, shove, or slap me/my partner”) and psychological aggression (e.g., “my partner/I insult(s), shout(s), yell(s) or swear(s) at me/them”). Answers are coded using the same nine-point Likert scale as the ICAST (0 = *never*, 8 = *8 or more times*). Items are summed, with higher scores indicating higher levels of victimization or perpetration of intimate partner violence.

School violence.

Child experience of school violence will be assessed using three items, one on bullying (“In the past 4 weeks, how often did you experience any bullying at school such as persistent name calling, threats of violence, or physical attacks?”), one on physical discipline from adults at school (“In the past 4 weeks, how often did a teacher or any other adult discipline you at school by hitting you with their hand or an object like a stick or belt?”), and one on verbal discipline from adults at the school (“In the past 4 weeks, how often did a teacher or other adult at your school discipline you by shouting, yelling, or screaming at you?”). These questions were designed by FAIR study researchers and will be coded using the same nine-point Likert scale as the ICAST (0 = *never*, 8 = *8 or more times*). Items are summed with higher scores indicating higher levels of school violence victimization.

Other measures.

As part of their monitoring and evaluation of the broader Kizazi Kipya Project, Pact Tanzania collects a variety of information from all enrolled families: HIV status and HIV risk assessment; caregiver-child communication on sexual and reproductive health (about puberty and growth, safe sex practices and contraceptive methods, relationship with adults, sugar daddy/sugar mummy); food security; and other sociodemographic indicators such as wealth quintile and household size.

Cost measures.

Information about the time and resource costs of program set-up and implementation will be collected by Pact from facilitators, coaches, and LIP coordinators to determine how much program delivery costs at scale. Costing information will be collected using surveys which ask participants for retrospective estimates of the amount of time used or money expended on a program activity. The surveys were

created based on resources provided by The Abdul Latif Jameel Poverty Action Lab. The collection of cost information will also include a review of program budgets, spending, and other data obtained from Pact Tanzania about the resources required to set-up and deliver the program.

Implementation process measures.

Pact Tanzania, LIPs, and CWBSA will collect data about parents/caregivers and adolescents (e.g., attendance), facilitators (e.g., demographic characteristics, fidelity), and coaches (e.g., demographic characteristics, fidelity) (see OSF page). The data will be used to understand the quality of program implementation, the factors that predict implementation outcomes, how implementation varies from context to context, and how implementation is associated with intervention outcomes. All of the implementation data will be linked to parent/caregiver and adolescent outcome data through the use of unique identifiers supplied by LIPs which will make it possible to link data from multiple sources. The data will be anonymized by the LIPs before it is shared with researchers.

Attendance. Attendance refers to the number of sessions attended by a program participant out of the total possible number of sessions offered to the participant. Attendance data will be collected by Pact Tanzania via attendance registers completed by facilitators each week. An overall attendance rate will be calculated for each parent/caregiver-child dyad.

Staff demographic data. Pact will collect demographic data on facilitators and coaches using an implementation staff questionnaire (Facilitator and Coach Profile Forms). The demographic data to be collected includes facilitator/coach age, gender, marital status, parental status, number and age of children, employment status, and educational level. The questionnaires will also assess facilitator/coach self-efficacy and their view on the acceptability of corporal punishment using the same MICS item administered to parents/caregivers and adolescents.

Facilitator competent adherence. Facilitator competent adherence is the skill with which a facilitator delivers intervention components and the strictness with which they follow the activities outlined in the programme manual (56, 57). Data on facilitator competent adherence will be collected by Pact coaches using the PLH-Facilitator Assessment Tool for Teens (PLH-FAT-T). The PLH-FAT-T is an observational assessment tool which will be administered by coaches based on either live observations or video recordings of facilitator group sessions. The PLH-FAT-T was developed by the study investigators and PLH program developers to assess the proficiency of program delivery by facilitators as a prerequisite to their certification. The items in the tool are grouped into two subscales based on the core activities and process skills required of facilitators as outlined in the PLH-Teens program manual. The assessment of core activities (22 items) requires coaches to rate the quality of facilitator delivery during home activity discussions (11 items, e.g., “identify specific challenges when shared by at least one parent”) and role-plays (11 items, e.g., “make sure everyone can see and hear the action in the role-play”). The assessment of process skills (28 items) requires coaches to rate the quality of facilitator use of modelling skills (5 items, e.g., “give positive, specific, and realistic instructions”), the Accept-Explore-Connect-Practice facilitation technique (8 items, e.g., “accept participant responses verbally by reflecting back what the

participant says”), and collaborative leadership skills (15 items, e.g., “use open-ended questions during group discussions”). Each PLH-FAT-T item is rated on a three-point Likert scale ranging from zero to two (0= *inadequate*, 1= *good*, 2= *excellent*). By totaling the score from all items, an overall impression score is produced and represented as a percentage.

Coach competent adherence. Data on coach competent adherence will be collected by CWBSA staff using the PLH-Coach Assessment Tool (PLH-CAT) which is an observational assessment tool similar to the PLH-FAT-T. The PLH-CAT assesses the quality of coaching provided to facilitators based on either live observations or video recordings of coaching sessions. The tool includes an activity subscale which assesses a coach’s review of delivery highlights and challenges (12 items) and use of process skills similar to those assessed by the PLH-FAT-T (26 items). Each PLH-CAT item is rated on a three-point Likert scale ranging from zero to two (0= *inadequate*, 1= *good*, 2= *excellent*). By totaling the score from all items, an overall impression score is produced and represented as a percentage.

Organizational surveys. A short organizational survey has been developed to gather LIP characteristics from staff and to explore their observations about variations in program adoption and differences between the districts.

Data Analysis

Qualitative analyses.

Qualitative data will be transcribed verbatim and translated into English. Analysis will be conducted with the aid of NVIVO 12 qualitative analysis software. Multiple researchers will review the translated transcripts to generate a coding framework based on the research questions and a thorough reading of a sample of interview and FGD transcripts. Following the creation of the coding scheme, the data will be double coded to establish reliability among the researchers. Thereafter, data-driven coding will be used to identify concepts, relationships, and broad themes (thematic analysis). The findings will then be discussed by the research team to identify overarching themes and to select and extract data segments that represent the key themes and divergent viewpoints. Where appropriate, COREQ standards will be used when reporting qualitative data (58).

Quantitative analyses.

Quantitative data will be cleaned using Stata and analyzed in Stata and R, using methods such as correlation and regression analyses, as well as structural equation models. The frequencies and distribution of each variable will be examined to check for any implausible values as well as to select the appropriate analysis method (e.g., a suitable regression link function). When there are more than two items in a given scale, coefficients such as Cronbach Alphas or Omegas will be used to assess the item-level reliability of the measures. Where possible, mixed effect models will be utilized to account for nesting within parenting groups (59). Missing data will be addressed appropriately by considering the complete case observations as well as using full information maximum likelihood or multiple imputation,

as appropriate (60, 61). Where relevant, TREND guidelines will be used when reporting quantitative results (62).

Research question 1.

The level of implementation of PLH-Teens delivery will be determined by analyzing data from family participation registers; facilitator assessments; coach assessments; structured observations of group sessions; individual interviews held with facilitators, coaches, and LIP staff; and focus group discussions held with adolescents, parents/caregivers, facilitators, and coaches. Attendance rates and attendance trends among parents/caregivers and adolescents, as well as variations in attendance, and program completion rates will be calculated based on the attendance registers to determine the extent of participation in PLH-Teens. The level of competent adherence with which facilitators deliver the program will be determined using the results from the Facilitator Assessment Tool assessments completed by coaches. To examine the reliability and validity of the Facilitator Assessment Tool results, a psychometric evaluation consisting of content validity (stakeholder perspectives from interviews and focus groups with facilitators, coaches, and CWBSA staff), intra-rater reliability (percentage agreements and intra-class correlations), inter-rater reliability (percentage agreements and intra-class correlations), internal consistency (Cronbach Alphas), construct validity (exploratory factor analyses), and predictive validity analyses will be performed. Similarly, the level of competent adherence with which coaches deliver facilitator supervision will be determined using the results from the Coach Assessment Tool assessments completed by CWBSA staff. Interviews, focus group discussions, and session observations will be used to expand upon and contextualize the findings regarding the demographic, attendance, facilitator competent adherence, and coach competent adherence data.

Research question 2.

Factors associated with the quality of implementation will be examined using the socio-demographic data from the Facilitator and Coach Profile Forms; LIP organizational characteristics surveys; individual interviews; focus group discussions; and structured observations of group sessions. Correlation and regression analyses will be used to examine the relationship between facilitator and coach competent adherence and their associations with family, facilitator, coach, and organizational characteristics. Interviews, focus group discussions, and session observations will be used to expand upon and contextualize the findings.

Research question 3.

A variety of data sources will be used to examine how implementation is associated with changes in VAC and family well-being. In particular, correlation and regression analyses will be used to look at whether pre-post changes in family outcomes are associated with family attendance, facilitator and coach competent adherence, and facilitator and coach characteristics, as well as LIP characteristics. Interviews, focus group discussions, and session observations will be used to expand upon and contextualize the findings.

Research question 4.

Participant and implementing staff perspectives on the acceptability, appropriateness, feasibility, benefits, and challenges of delivering PLH-Teens in their communities will be examined by analyzing the interviews, focus group discussions, and session observations with school principals, facilitators, coaches, LIP staff, CWBSA staff, adolescents, and parents/caregivers.

Research question 5.

Changes in VAC and participant well-being will be analyzed based on data gathered from parent/caregiver pre-post questionnaires, adolescent pre-post questionnaires, individual interviews, and focus group discussions. Multi-level models will be used to examine differences in pre- to post-intervention family-level outcomes and to compare differences in outcomes reported by both adolescents and parents/caregivers. Variation in the pre-post effects changes will be examined by participant baseline characteristics, and, if possible, by parenting group and LIP. The analyses will be similar to treatment-on-the-treated analyses since all participants included in the monitoring data would have engaged with the program to some extent. The levels of change reported by participants will be compared to the levels of change reported by the treatment and control groups in the randomized trial of the program in South Africa. Where possible, the reliability of the family survey items will also be examined using coefficients such as Cronbach Alphas or Omegas.

The findings from the interviews and focus group discussions will also be analyzed to explore participant perspectives on the impacts of the program on them and their families. The interviews and focus group discussions will also reveal what impact implementing volunteers and staff assess the program had and will have on themselves, participants, schools, and communities.

Research question 6.

The cost of delivering PLH-Teens at scale will be calculated using retrospective cost estimates provided by program facilitators, coaches, and LIP coordinators and costing data provided by Pact Tanzania. Average costs will also be calculated and summarized for each program component (e.g., facilitator training, group sessions, supervision), family (parent/caregiver-adolescent dyad), district, and facilitator type (community volunteer or teacher).

A summary of the data that will be analyzed to answer each of the FAIR study's six research questions is shown in *Table 4*.

Discussion

This mixed-methods implementation science study is a part of the first effort of its kind to examine the large-scale implementation of a parenting program aiming to reduce VAC in East Africa. The study's results are important for the Parenting for Lifelong Health program and broader parenting program literature as they will provide key insights into the impact, acceptability, appropriateness, feasibility, costs,

and optimization of large-scale parenting program delivery in both school and community settings. As the study will also examine factors associated with program outcomes and implementation, the results will help elucidate the potential mechanisms and processes through which program delivery and impacts can be improved in future (e.g., facilitator quality of delivery).

There are a number of practical, ethical, and operational issues that will require consideration during the study. These include awareness of potential pressures to participate in the study, safeguarding, potential implementation and funding delays, data quality concerns, staff burden issues, international coordination difficulties, and COVID-19 related impacts.

Potential Pressure to Participate in the Study

The researchers from NIMR and the University of Oxford may be perceived as authority figures by adolescents, parents/caregivers, and implementing partner staff. This potential perception and its impact will be addressed by emphasizing to study participants that there is no obligation to participate in the study and if they participate in the study, they may choose to withdraw from the study at any time without consequence, there are no right or wrong answers, and they may choose not to answer any questions.

Safeguarding

As program implementation is reliant on timely delivery of USAID funding to the prime implementing partner, spending/disbursement delays to LIPs could impact the study's timeline. To accommodate potential delays, a flexible timeline has been adopted.

Data Quality and Potential Biases

Collecting comprehensive assessments of family-level outcomes from 100,000 beneficiaries is challenging. As a result, the study relies on existing data collection tools and processes developed and used during program implementation by Pact Tanzania's Monitoring and Evaluation team. If timing allows, the research team will conduct random checks to verify the quality of implementation and outcome data. Among the observational facilitator and coach assessments, CWBSA will double code a random sample of program delivery videos to verify the accuracy and reliability of the assessments. As a significant amount of study data relies on self-reported outcomes, this data could be limited by recall and social desirability bias.

Where relevant, the study will take into consideration advice regarding how to manage and analyze data with FUPS characteristics (flawed, uncertain, proximate, and sparse), such as by presenting the data flow, conducting statistical sensitivity checks, and making the analyses accessible (63). In the event of missing outcome data on individuals who are eligible but not included in the sample, sensitivity analysis will be done by replacing missing data with simulated data.

Staff Burden

To mitigate the possible overburdening of implementation staff tasked with both program delivery and data collection, the study focuses on answering research questions that respond to priority questions for implementers and draws on existing data collection tools and procedures to minimize the need for additional data collection.

International Coordination

This study is a collaboration between academic and non-profit partners in Africa and Europe. To mitigate against the risk of miscommunication due to geographic distance, regular digital meetings will be held to keep all research team members and partners up to date.

COVID-19 Impacts

The delivery of PLH-Teens by Pact Tanzania was delayed for a number of months due to the COVID-19 pandemic. In response, the study approach and timeline have been adjusted. For instance, COVID-related questions were added to the primary qualitative data collection. Further, researchers are remaining flexible as the situation evolves. To illustrate, preparations will be made to conduct interviews via telephone, if necessary.

Stakeholder Engagement

Stakeholder engagement is critical to the development, implementation, and dissemination of the FAIR study and its findings. As a result, key stakeholders involved in PLH-Teens in Tanzania were consulted and have provided input into the study (e.g., families, facilitators, coaches, trainers, community implementers, and policymakers). The study is grounded in participatory approaches and will engage parents/caregivers, adolescents, facilitators, and LIPs during study implementation and dissemination.

Research Uptake Strategy

A variety of strategies will be deployed to ensure that the findings of this study are used to improve the implementation and scale-up of parenting programs aiming to reduce VAC in Tanzania and other LMICs. First, FAIR study researchers will collaborate and engage with key stakeholders involved in parenting programs to end VAC in Tanzania (e.g., policymakers, non-governmental organizations, and the Tanzanian Ministries of Education and Health). This engagement will involve meetings with key stakeholders to generate plans to put study findings into action and create guidelines for the scale-up of parenting programs in Tanzania. Second, the FAIR study researchers will not only collaborate and engage with existing stakeholders but will also form new relationships with additional potential stakeholders who are also working on the reduction of VAC in Tanzania (e.g., Partnership to End VAC, World Health Organization, and UNICEF). This engagement will be accomplished by holding meetings and workshops wherein FAIR study researchers will share key findings with policymakers, academics, and others to gather feedback, distribute policy briefs, and follow-up on recommendations outlined in these briefs. Third, research findings will be used to enhance the future delivery of PLH-Teens by Pact Tanzania, CWBSA, and LIPs by hosting community of practice meetings, workshops, and training/capacity building

sessions based on the findings. Fourth, keeping in mind that this research is ultimately for the benefit of children and families in Tanzania, findings will also be disseminated in user-friendly language to program participants through Pact’s community networks. Fifth, the findings and resulting recommendations will be shared with academics and organizations involved in the implementation and evaluation of PLH programs globally.

Conclusion

The delivery of PLH-Teens in Tanzania to approximately 50,000 adolescent girls and their parents/caregivers (or 100,000 beneficiaries) represents an unprecedented opportunity to study the implementation and impact of a parenting program aiming to reduce VAC at scale in a LMIC. Although PLH-Teens has been delivered in 16 LMICs to over 300,000 beneficiaries, the Tanzanian delivery of PLH-Teens is the largest implementation of the program to date. To seize the opportunity to learn from the delivery of the program on such a large scale, this study plans to use innovative mixed-methods implementation science methods to examine the impact of PLH-Teens at scale and the key elements of program implementation identified by Proctor (22) - the acceptability, appropriateness, feasibility, benefits, and challenges of the intervention to families and implementation staff; the extent to which the program is adopted, implemented, and disseminated as intended; how implementation is associated with outcomes; the extent to which the program is embedded within existing systems and services; and how much it costs to deliver the program on a large-scale. The results will contribute to the larger SUPER study on the implementation of PLH programs globally (45). The results will also be used to inform future thinking about the sustainability of the program and to communicate evidence-based recommendations regarding how program delivery could be modified so as to sustain and improve program effectiveness at scale both in Tanzania and 24 other LMICs where PLH program are delivered.

Abbreviations

CWBSA: Clowns Without Borders South Africa

EPIS: Exploration, Preparation, Implementation and Sustainment framework

FAIR: The Furaha Adolescent Implementation Research Study

LIPs: Local implementing partners

LMICs: Low- and middle-income countries

NIMR: National Institute for Medical Research

PLH: Parenting for Lifelong Health

PLH-Teens: Parenting for Lifelong Health-Teens or locally known in Tanzania as Furaha Teens

Declarations

Ethics approval

The FAIR study has received the multiple ethics approvals required for the study. First, Pact Tanzania has received ethics approval for their collection of participant-level data (NIMR/HQ/R.8a/ Vol.IX/2902). Second, the National Institute of Medical Research (NIMR/HQ/R.8a/Vol.IX/3459) and the University of Oxford (R64777/RE001; R48876/RE002 HEY BABY) have each received ethics approval for the collection of primary qualitative data and the analysis of secondary quantitative data.

Consent for publication

Not applicable. Please note the contents of this paper; the study design, data collection, analysis, and interpretation; and the manuscript's writing remain the sole responsibility of the authors and do not necessarily reflect the views of USAID or the United States Government.

Availability of data and materials

Information and study materials are available on our Open Science Framework page: <https://osf.io/m5fu2/>. Intervention materials can be found on the World Health Organization website: <https://www.who.int/teams/social-determinants-of-health/parenting-for-lifelong-health>.

Competing Interests

Dr Lachman, and other collaborators, including Professors Gardner and Cluver (University of Oxford), were involved in the design of the Parenting for Lifelong Health (PLH) program being evaluated in this study. However, none of the investigators receive financial benefit from the dissemination of the program. Ms Ngcobo is the co-Director of Clowns Without Borders South Africa, the non-profit organization that is responsible for training partner organizations in the PLH programs and providing technical support, and so receives and has received income in that role. Dr Lachman was in this role until October 2019. He continues to deliver trainings on PLH to NGOs and receives an income for this role. This being said, throughout our work on PLH programs, we have been adamant that we have no interests (vested or otherwise) in the outcomes, and we work together to hold each other to account on this.

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Authors' contributions

JL, JW, MM, YS, MW, SM, EN, and NM worked on designing the study. MM led the drafting of the manuscript. JL, JW, YS, MW, EN, and NM contributed sections and revisions to the manuscript. All authors (MM, JL, JW, YS, SM, MW, EN, NM, AE, AA, AB) read and approved the submitted manuscript.

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Supplementary information

TIDieR Checklist

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Tables

Table 1. Matrix of data collection methods

<i>Type of Data</i>	<i>Data Collectors</i>	<i>Data Collection Method</i>	<i>Study Participants</i>	
Primary data	FAIR research team	Focus group discussions	Adolescents	
			Parents/caregivers	
			Furaha facilitators and coaches	
		In-depth interviews	Program coordinators and directors	
			Pact Monitoring and Evaluation (M&E) team	
			Furaha facilitators and coaches	
			School principals	
			Structured observations	Furaha Teens group sessions
				Furaha Teens coaching sessions
Community of practice meeting	LIP and Pact staff			
Document review	All of the above			
Secondary data	Pact Tanzania and LIPs (collected by Furaha facilitators) and other team members	Family reports of parenting practices, child behavior, child and caregiver mental health (routine data)	Parents/caregivers and adolescents	
			Family enrolment, attendance, engagement, and dropout	
		Cost data	Facilitators, coaches, and LIP staff	
		Surveys on the sociodemographic and professional background of facilitators and coaches delivering the program	Furaha facilitators and coaches	
	CWBSA	Assessments of facilitator competent adherence	Furaha facilitators and coaches	
	Assessments of coach delivery of facilitator supervision sessions			

Table 2. Inclusion criteria for primary data study participants

Study Participant Group	Primary Data Inclusion Criteria
Program Coaches (N=70)	<ul style="list-style-type: none"> · Attended the Furaha Teens coach training workshop; and · Provided coaching to facilitators during the implementation of Furaha Teens.
Program Facilitators (N=444)	<ul style="list-style-type: none"> · Teachers or community volunteers; · Attended the Furaha Teens facilitator training workshop; and · Implemented the Furaha Teens program.
Pact Tanzania and LIP Staff (N=58)	<ul style="list-style-type: none"> · Staff member working for either Pact Tanzania or one of the LIPs delivering Furaha Teens.
School Principals (N=8)	<ul style="list-style-type: none"> · Principal in a school where Furaha Teens was delivered.
CWBSA Staff (N=3)	<ul style="list-style-type: none"> · Staff member working for CWBSA involved in the implementation or research associated with the FAIR Study.
Parents/caregivers (N=155)	<ul style="list-style-type: none"> · Aged 18 or older; · Primary caregiver responsible for the care of an adolescent between the ages of 9 and 14 who attended the Furaha Teens program; and · Attended in the Furaha Teens program.
Adolescents (N=155)	<ul style="list-style-type: none"> · Aged 9 to 14; · Consent provided by primary caregiver responsible for the adolescent's wellbeing; · Assent provided by the adolescent; · Primary caregiver responsible for their care attended the Furaha Teens program; and · Attended in the Furaha Teens program.

Table 3. Inclusion for secondary data study participants

Study Participant Group	Secondary Data Inclusion Criteria
Adolescents (N=50,000)	<ul style="list-style-type: none"> · Adolescent girl aged 9 to 14; · Participated in the Kizazi Kipya Project; · In the same household as her parent/caregiver at least 4 days a week; · Parent/caregiver attended the Kizazi Kipya Project; <p>Consent provided by primary caregiver responsible for the adolescent's wellbeing; and</p> <ul style="list-style-type: none"> · ssent provided by the adolescent.
Parents/caregivers (N=50,000)	<ul style="list-style-type: none"> · Aged 18 or older; · Primary caregiver responsible for the well-being and care of an adolescent girl between the ages of 9 and 14 who participated in the Kizazi Kipya Project; and · Attended the Kizazi Kipya Project.
Program Facilitators (N=444)	<ul style="list-style-type: none"> · Attended a Furaha Teens facilitator training workshop; and · Facilitated Furaha Teens sessions.
Program Coaches (N=70)	<ul style="list-style-type: none"> · Attended a Furaha Teens coach training workshop; and · Provided coaching to facilitators during the implementation of Furaha Teens.
LIPs (N=5)	<ul style="list-style-type: none"> · Submitted a Request for Application (RFA) to the Kizazi Kipya Project to implement Furaha Teens in specific districts; and · Selected by Pact Tanzania to implement Furaha Teens.

Table 4. Evaluation matrix

Evaluation question	Data source
<p>RQ1: What is the level of program implementation of PLH-Teens at scale in Tanzania in terms of quality of delivery and implementation fidelity?</p>	<ol style="list-style-type: none"> 1) Parenting for Lifelong Health-Facilitator Assessment Tool (PLH-FAT) - measures facilitator competence and adherence 2) Direct observation of group sessions using the structured observation guide 3) Semi-structured interviews held with facilitators, coordinators, coaches, and LIP staff 4) Focus group discussions (FGDs) held with adolescents, parents/caregivers, facilitators, and coaches
<p>RQ2: What factors are associated with the quality of delivery and implementation fidelity of PLH-Teens?</p>	<ol style="list-style-type: none"> 1) PLH-FAT 2) Interviews 3) FGDs 4) Community of practice reflective meetings among LIPs, Pact, and researchers 5) Facilitator Profile Form examining facilitator demographics including education level, experience, and professional background 6) Coach Profile Form examining coach demographics including education, experience, and professional background 7) LIP Organizational Characteristics Form 8) Direct observation of group sessions using the structured observation guide

Evaluation question	Data source
<p>RQ3: How are implementation quality and fidelity associated with intervention outcomes?</p>	<ol style="list-style-type: none"> 1) PLH-FAT 2) Interviews 3) FGDs 4) Community of practice reflective meetings 5) Facilitator Profile Form 6) Coach Profile Form 7) LIP Organizational Characteristics Form 8) Parent/caregiver- and adolescent-report on pre-post questionnaires 9) Parent/caregiver and adolescent program attendance data 10) Direct observation of group sessions using the structured observation guide
<p>RQ4: What are participant and implementing staff perspectives on the acceptability, appropriateness, feasibility, benefits, and challenges of delivering PLH-Teens in their schools and communities?</p>	<ol style="list-style-type: none"> 1) Interviews with school principals, facilitators, coordinators, coaches, and LIP staff 2) FGDs with adolescents, parents/caregivers, facilitators, and coaches 3) Direct observation of group sessions using the structured observation guide
<p>RQ5: What is the impact of PLH-Teens on VAC and participant well-being?</p>	<ol style="list-style-type: none"> 1) Parent/caregiver- and adolescent-report on pre-post questionnaires 2) Individual interviews with school principals, facilitators, coordinators, coaches, and LIP staff 3) FGDs with adolescents, parents/caregivers, facilitators, and coaches

Evaluation question	Data source
RQ6: How much does it cost to deliver PLH-Teens at scale?	<ol style="list-style-type: none">1) Facilitator cost surveys2) Facilitator profile surveys3) Coach cost surveys4) LIP cost surveys

Supplementary Files

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