ROTARY CLUB BUTARE

PROJECT EVALUATION REPORT

Project number: **GG2236361**

Project title**: RESTORATION OF PEACE AND COMPASSION AMONG RWANDAN GENOCIDE SURVIVORS AND EX-PRISONERS.**

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1.INTRODUCTION

EVALUATION METHODOLOGY

1.1. Introduction

Methodology section describes the project area in which the research had been implemented , the study design and population, the process for collecting information and measurements used to evaluate it, and last but not least, the study analysis and ethical considerations.

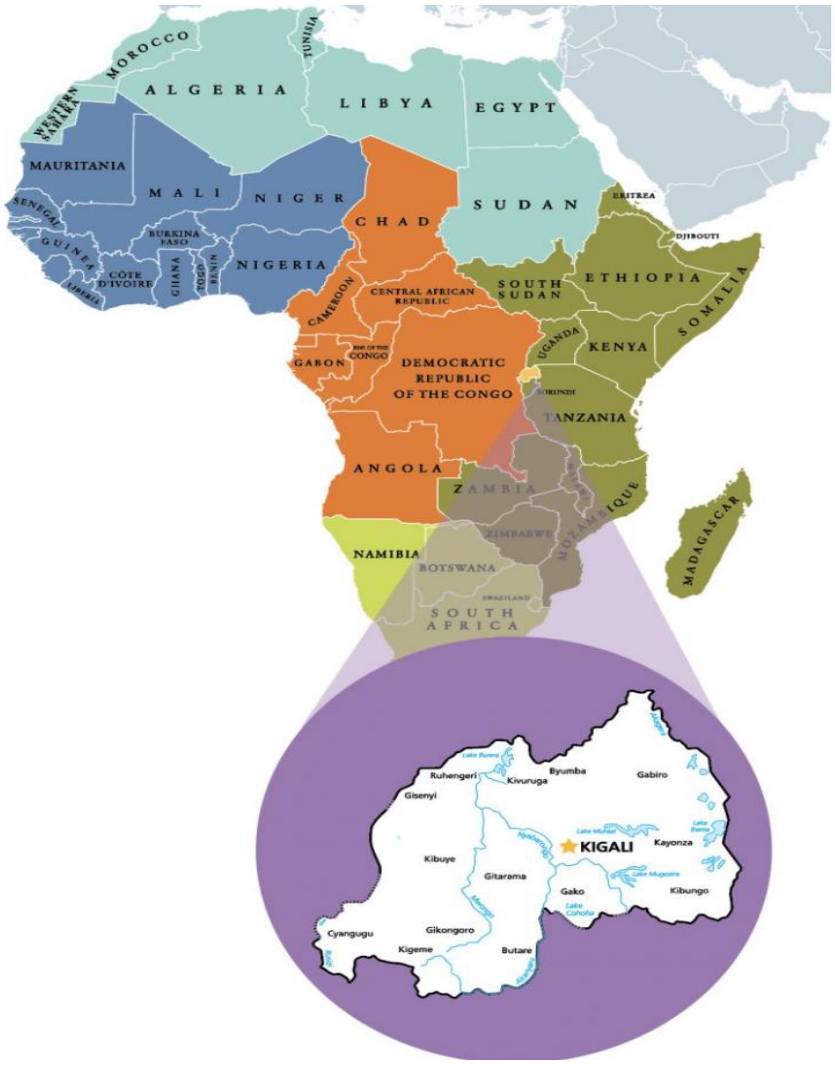
1.2. Physical description of the study area

Rwanda, situated in east-central Africa, is a landlocked nation bordered by Uganda to the north, Tanzania to the east, Burundi to the south, and the Democratic Republic of the Congo to the west (Nyandwi et al., 2016). Rwanda is considered a small country, with a population of approximately 13.2 million in 2022 (NISR, 2022). It is often called “The Land of a Thousand Hills” due to its topography, surrounding five volcanoes, 23 lakes, and an extensive network of rivers, some of which contribute to the Nile, Africa’s longest river. Geographically, Rwanda is positioned 75 miles south of the equator within the Tropic of Capricorn, 880 miles west of the Indian Ocean, and 1,250 miles east of the Atlantic Ocean, placing it at the heart of the African continent (NISR, 2022).

The project selected 15 villages that are prevalence of mental health and social conflict in Rwanda. Many villages that our intervention was targeting were located 80% in southern province of Rwanda. The southern province of Rwanda holds significant historical importance as it served as the primary location within the country where the genocide unfolded, extending over a prolonged period and resulting in a substantial loss of life (Kiyani et al., 2017; Verpoorten, 2005). Our project were implemented specifically in Gasaka, Cyanika, Tare , Kamegeri, Kibirizi, Mbuye,

Cyahinda, Nyanza, Rutsiro, Kabarore,Mbazi,Mayange, Mahama, Utunani and Nyabiheke villages from Southern, western and Eastern provinces of Rwanda. The 80% of villages are situated in the southern province of Rwanda (Kiyani et al., 2017). The genocide involved numerous individuals responsible for these heinous acts, while many survivors also endured such atrocities (Eltringham, 2014; Hitchcott, 2009).

Figure 1:Location of Rwanda



Source: Robyn Ross (2018)

https://magazine.tcu.edu/fall-2018/tcu-educates-the-next-generation-of-rwandan-leaders/

1.3. Study Design

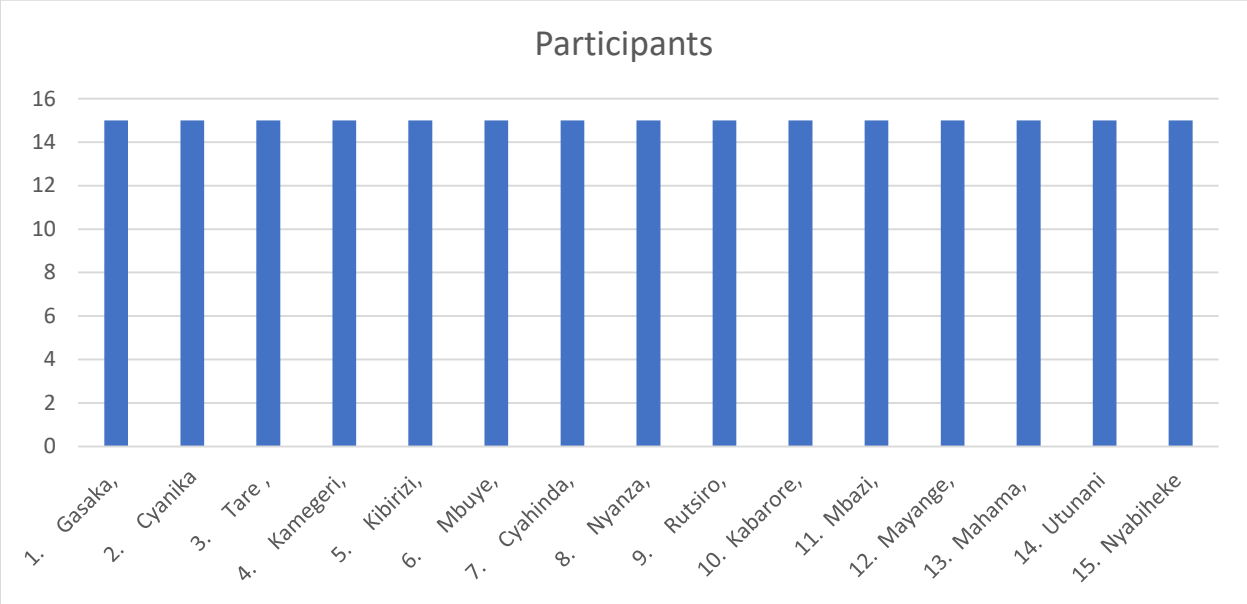
The study used design mixed methods. This mixed methods approach in the first phase have explored mental health concerns such as depression, anxiety, and post-traumatic stress disorder (PTSD), as well as resilience, forgiveness, and social cohesion challenges among genocide survivors and perpetrators. In the second phase, after six month for each trainings, we evaluate and compare the relative effectiveness of the Community Resiliency Model (CRM) plus laughter yoga in reducing mental health symptoms and fostering resilience, compassion, and social cohesion among Rwandans who experienced the genocide.

The use of mixed methods in research dates back to 1959, when Campbell and Fiske first employed it to validate psychological traits. Since then, it has been widely adopted in social science research (Creswell & Creswell, 2017). Researchers have different reasons for utilizing mixed methods in their studies. However, Russell Bernard (2000) has elucidated that the primary rationale behind employing mixed methods is that the findings obtained from one approach, be it qualitative or quantitative data, can inform and guide the researcher to utilize the subsequent approach. In this research, I we have used exploratory sequential mixed methods (Creswell et al., 2011). This strategy used qualitative data collection and analysis, followed by a quantitative phase, and then integrates the qualitative and quantitative findings in the prior phase. This ”building” technique is one of several integration approaches that use data from one stage to inform the data-gathering methodology of the second phase (Creswell et al., 2011). Merging data at the reporting level includes a “joint display,” providing excellent tools for researching complicated health and healthcare processes and systems. Creswell (2011) added that the varied methods promote the strengths and minimize the weaknesses of each technique. This study will then adapt a CRM plus laughter yoga intervention.

1.4. Population and study sampling

In this study, we engage the populations of genocide survivors and perpetrators living in the same community and the local leaders. Participants are males and females from 15 villages.

It is essential to provide the inclusion and exclusion criteria to ensure the study's reliability and validity. Patino and Ferreira (2018) explained that it is necessary to point out standards in research to assess their impact on the external validity of the results. This requires in-depth knowledge of the area of research and in what direction each criterion could affect the study's external validity (Patino & Ferreira, 2018).



Inclusion criteria

Within this research project, the participants who have experienced the 1994 genocide are more than 28 years old, live in Rwanda, and are survivors of the genocide or perpetrators of crimes during the genocide. For all participants, we have obtained active consent, and only those willing to participate in the research and without cognitive impairments have been invited to participate.

Sample size and sampling

A sample is defined as a subset of individuals chosen from the wider population who are believed to be representative of the full population for a certain study (Seawright & Gerring, 2008). We select 15 participants for each village mean that we have 225 participants during implementation of this project.

Data collection

Measures (see Appendix for instruments):

Measures are aligned with the aims and theoretical framework of the study. The social demographic measurements: The following social demographic variables will be collected: Age, residence, education, marital status, sex, religion, social living categories, living with family members or alone, being a victim or a perpetrator, income, and availability of health insurance. Historical health disorders include a family history of depression, trauma crises, or other related mental health problems.

Connor-Davidson Resilience Scale (CD-RISC 10): This is a 25-item scale used with clinical and non-clinical populations for evaluating resilience and stress tolerance in the last month (Kathryn M Connor & Jonathan RT Davidson, 2003). The scale measures resilience or the capacity to change and cope with adversity. In this version, we will use a 10-item Likert scale, with higher scores indicating greater stability whereby *(0=not true at all and 4=nearly always).* The total score can range from 0 to 40. Initially, this scale was used among primary care, general psychiatric outpatients, clinical trials of generalized anxiety disorder, and other research (K. M. Connor & J. R. Davidson, 2003). The scale's reliability, validity, and factor analytic structure will be assessed, and reference scores for study samples will be computed. The Cronbach's alpha of a recent study conducted on a sample of Rwandan communities was ($\alpha = 0.93$) of internal consistency (Scorza et al., 2017).

World Health Organization Quality of Life (WHQOL-Brief version): The WHOQOL-BREF is one of the most well-known measures for comparing the cross-cultural quality of life, and is available in over 40 languages (Vahedi, 2010). The WHO-5 Well-being Index (WHO-5) includes five Likert-type items that assess wellness in the last 2 weeks, with "0" indicating no times and "5" showing all of the time. The respondents are asked, "How would you rate your quality of life?" and "How satisfied are you with your health, personal, and sex life?" The participants can choose from items on a five-point Likert scale (1 =" Very dissatisfied, "5 = "Very good/satisfied)." The Cronbach's alpha will be used to reject or confirm the validity of this measurement. The scores ranged from 0 to 25 and explained the worst possible and best possible well-being, respectively. The scores can range from 0 at the lowest to 25 at the highest.

Hopkins Symptom Checklist (HSCL): This is a psychometric assessment tool for depression and anxiety (Nettelbladt et al., 1993) comprised of 25 questions: the first 10 items screen for anxiety, and the last 15 assess depression (Nettelbladt, Hansson, Stefansson, & Borgquist, 1993). The respondent is asked to indicate to what extent they agree or disagree with each question. For example, "I feel suddenly scared for no reason" and "I have difficulty falling asleep and staying asleep." The four-point Likert scale ranged from not at all (1) to extremely (4). The HSCL-25 item scale has been validated in Rwanda and has proven reliable for the Rwandan population (Epino et al., 2012; Heide Rieder & Thomas Elbert, 2013). Several authors suggested a cut-off point 1.75 in refugee situations and cross-cultural research. Cronbach's alpha for anxiety was [=0.87], and Cronbach's alpha for depression was [=0.92] (Niyonsenga et al., 2021).

PTSD Checklist (PCL): The PTSD Checklist for DSM-5 (PCL-5) is a screening tool for post-traumatic stress disorder (Blevins et al., 2015). Respondents are asked to rate themselves on a 5-point Likert scale ranging from not at all (0) to extremely (5) (Weathers et al., 2013). Referring to

the study conducted in Rwanda, a PCL-5 cut-off score range of 31-33 predicts probable post-traumatic stress disorder (PTSD) across samples. It has been validated and used in the Rwandan context (Niyonsenga et al., 2021; Pham et al., 2004).

Difficulties in Emotion Regulation Scale (DERS): The DERS assesses difficulty with emotion regulation (Victor & Klonsky, 2016). It includes a 36-item self-report test that asks respondents how they connect to their emotions and assigns scores based on the following subscales: (1) Difficulty absorbing emotional reactions, (2) Difficulty participating in goal-directed activities, (3) Difficulty with impulse control, (4) Lack of emotional awareness, (5) Limited access to emotion regulation tools, and (6) Lack of emotional clarity. The Likert scale was "1" almost never to "5" almost always, with a high score indicating difficulty with emotion regulation and a low score indicating less trouble with emotion regulation. The DERS has been validated and used in Rwanda, and Cronbach's alpha is .955 (Jensen et al., 2021).

Dimensions of Anger Reaction-Revised (DAR): The DAR-5 contains five items that assess anger frequency, severity, length, aggression, and interference with social functioning (Kannis-Dymand et al., 2019). Items are rated on a 5-point Likert scale (1 = none of the time, 2 = a little of the time, 3 = some of the time, 4 = most of the time, and 5 = all of the time), providing a scale score ranging from 5 to 25, with higher scores indicating severe symptom of anger (Kim et al., 2023). This tool has not yet been tested in Rwanda. We will assess its internal reliability and validity before using it.

Santa Clara Brief Compassion Scale: The SCBCS (Hwang et al., 2008) is a 5-item version of Sprecher and Fehr's 2005 21-item Compassion Love Scale, which assesses kindness and its relationship to social behaviors (Hoseininezhad et al., 2023). Each answer, such as "When I hear about someone (a stranger) going through a difficult time, I feel a great deal of compassion for

him or her," is graded on a 7-point Likert scale (1 = not at all true of me to 7 = very true of me). The higher scores indicated high compassion and good social behavior. This tool has not yet been tested in Rwanda. We will assess its internal reliability and validity before using it.

Social Cohesion Scale: The SCS is a 12-item questionnaire that measures the participant's cohesive participation and reconciliation (Sylvain et al., 2011). The Likert scale items range from "0" (strongly disagree) and "4" (strongly agree). Higher scores explain great social cohesion, while lower scores explain less cohesion. This tool has not yet been tested in Rwanda. We will assess its internal reliability and validity before using it.

Forgiveness Reconciliation Inventory (FRI): This is a survey used to assess forgiveness in the context of reconciliation (Balkin et al., 2014). Balkin et al. (2014) coined the term in 2009 after being inspired by the Forgiveness and Reconciliation Model (FRM), which specifically addresses forgiveness from a Jewish perspective. The FRI is utilized in this study to assess forgiveness among participants and to investigate its psychometric properties, such as reliability and validity. It is made up of 24 variables that are summarized as Collaborative Exploration, Role of Reconciliation, Remorse/Change, and Interpersonal/Intrapersonal. We will validate and express the internal reliability and validity in the Rwandan context.

Participant retention

Once a participant has been enrolled in this evaluation, the team will make every reasonable effort to retain the participant for the entire evaluation period.

Analysis procedure

Quantitative data analysis have been conducted using SPSS version 29.After data cleaning, all variables have been reviewed for normality and other assumptions. Descriptive statistics have been employed to examine distributions, whereas inferential statistics have been used to analyze variables about measurements and research objectives.

Quantitative data analysis:

Quantitative data have been cleaned and scales created along published guidelines. Cronbach's alphas will establish the scale's internal validity. Descriptive data have been presented, providing percentages (%) for categorical data and mean and standard deviation (M, SD) for continuous variables. Multicollinearity among independent variables will be assessed, and a multivariate diagnostic will be employed to identify and address outliers.

Repeat measures ANOVA or ANCOVA have been used due to the presence of multiple outcome variables to show the impact of the intervention (Langenberg et al., 2022; Park, 2009). The significance of variables have been confirmed at the bivariate level between independent variables and outcome variables, using a p-value threshold of less than 0.05 or better. The paired t-test is a statistical analysis that compares pre- and post-tests within the same group, enabling assessment of changes resulting from the intervention. Multivariate model analyses will explore variables and how they affect various mental health outcomes along the analytic framework. Given small sample sizes, only variables associated at .1 or better in the bi-variable analyses will be included in the multi-variable modeling.

The effectiveness of the intervention have been determined by survivors and perpetrators and compared. In addition, we will explore if a mixed group has similar results to determine if groups can be mixed in the future since persons co-live in their communities.

Limitations:

The project has some limitations. Firstly, its scope is confined to Rwandans living in the country. Responses are based on self-report and subject to social desirability; however, to address this, program delivery and data collection are done by different teams. Participants have been placed

into comparison groups without random assignment. While participants are identified from governmental lists of survivors and perpetrators, they are volunteers who chose to participate. Therefore, this limited sample might not represent the larger target population, affecting the generalizability of the findings.

Additionally, the study's longitudinal timeframe is restricted to the six-month follow-up period. Consequently, the potential longer-term effects of the intervention are not assessed. Finally, as a pilot feasibility study, the study is knowingly underpowered, which could cause us to miss potential sub-group effects due to sample size issues.

Implications:

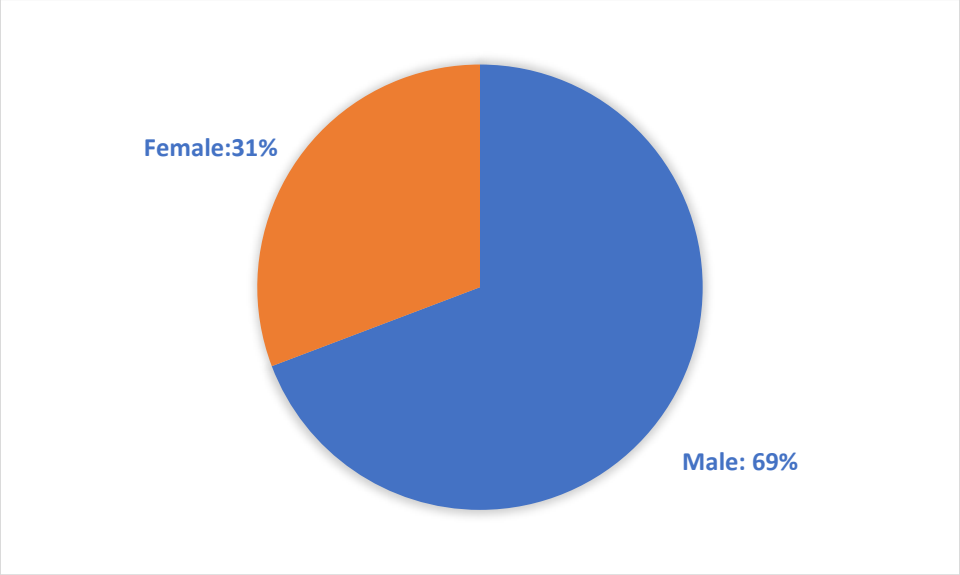
The implications of this study project are significant for Rwanda's health system and for the target sub-groups of concern. By exploring the effectiveness of a CRM skills plus laughter yoga intervention for survivors and perpetrators, the research may offer valuable guidance to policymakers and health authorities in implementing similar programs to address trauma and improve social cohesion in post-conflict societies.

If found effective across groups of survivors and perpetrators and possibly in mixed training groups, the program could have far-reaching effects throughout Rwanda, especially given its cost-effectiveness and transferability to new contexts. A comprehensive program could be developed to promote resilience and social cohesion throughout Rwanda. It serves as a model for other regions grappling with the aftermath of conflict, civil wars, political violence, or trauma to help restore their mental health, encourage forgiveness, and promote social cohesion.

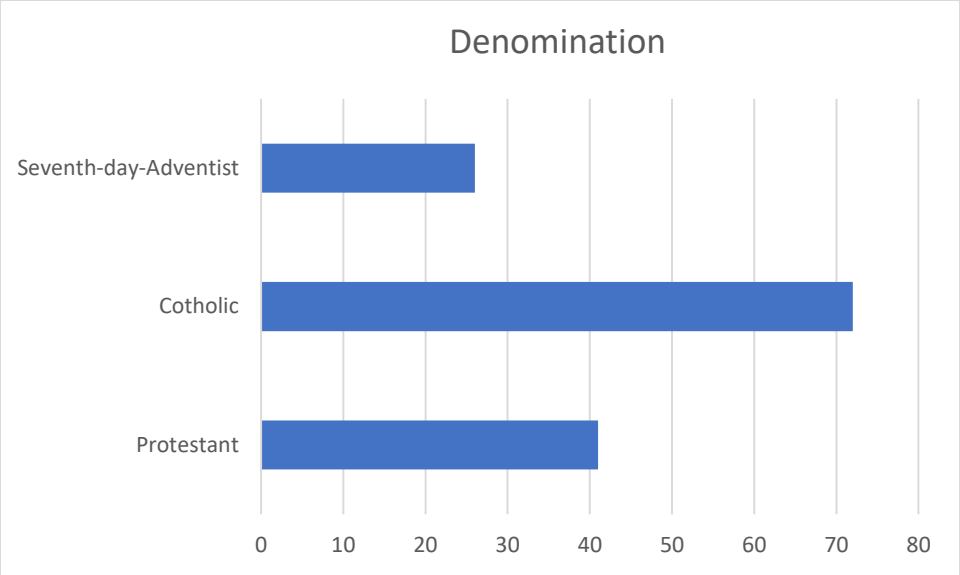
4.RESULTS

4.1.The social demographic presentation

The results indicated that the majority of participants were female genocide survivors with 52% and the majority of participants were aged 53 years old. This means that during the genocide they were 24 years old who either survived genocide or involved in genocide. In addition, the majority of them were catholic believer over 44%.

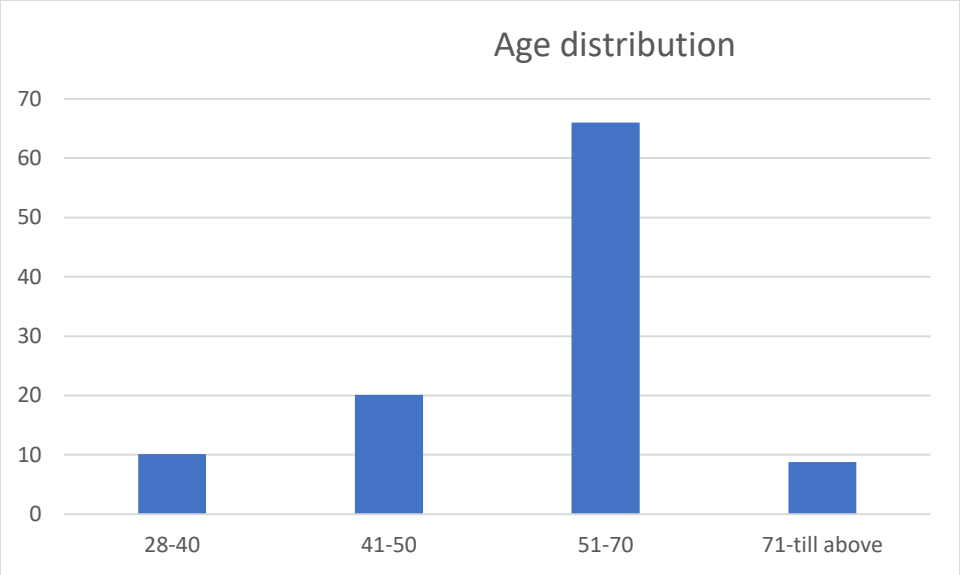


About the religion affiliation, majority of participates are catholic with 51%, followed by protestant 29.5 % churches and the last were seven's day Adventist 18.7%.



Among the participants in this project, significant majorities, accounting for over 66%, were between the ages of 51 and 70 years old. This age distribution is understandable, as the majority of these individuals were children or young adults during the genocide in 1994.

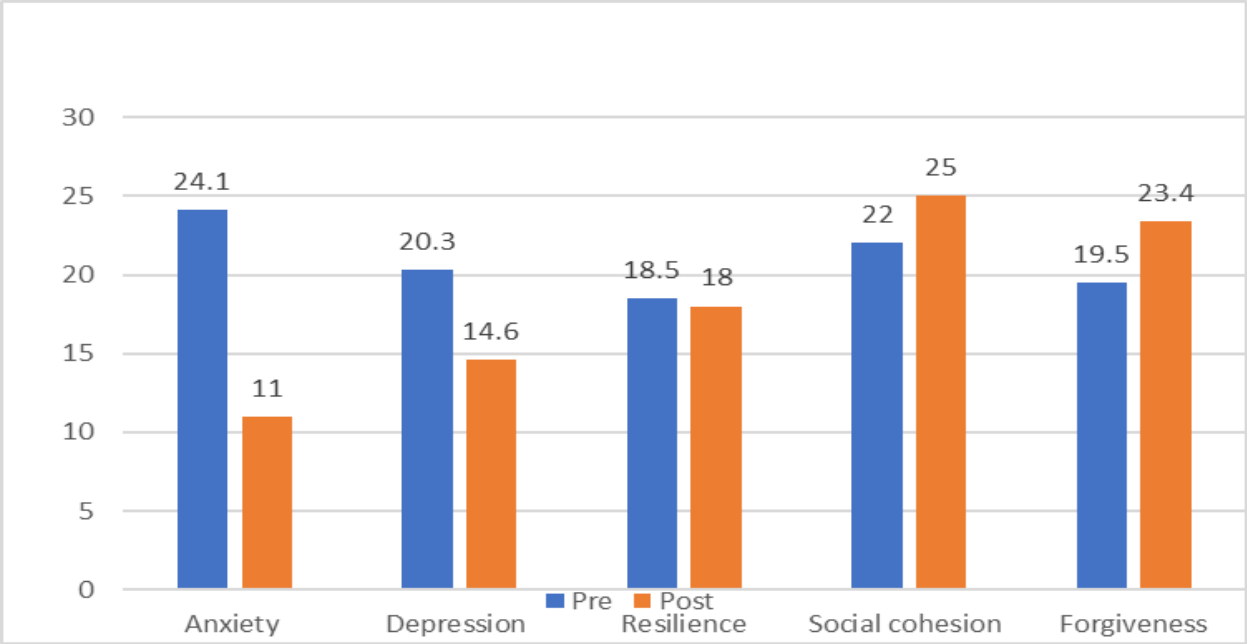
A smaller proportion, approximately 10.1%, fell within the age range of 28 to 40 years old, while 8.9% were aged 71 years or older. Additionally, about 20% of the participants were between the ages of 41 and 50 years old. This age breakdown reflects the diversity within the participant group and underscores the importance of addressing mental health and well-being across different age brackets among genocide survivors and perpetrators



4.2.The Prevalence of Trauma and Mental Health Issues Among Genocide Survivors and Perpetrators:

Before implementing the CRM and Laughter Yoga training sessions, a comprehensive assessment was conducted to evaluate the mental health status of genocide survivors and perpetrators. This assessment utilized various psychometric tools, including a depression scale, anxiety assessment, social cohesion evaluation, resilience measurement, and forgiveness assessment. This assessment's primary objective was to understand their mental health conditions before the intervention clearly. The results from this pre-assessment revealed a significant prevalence of mental health issues in both groups, particularly with a notably high rate of depression.

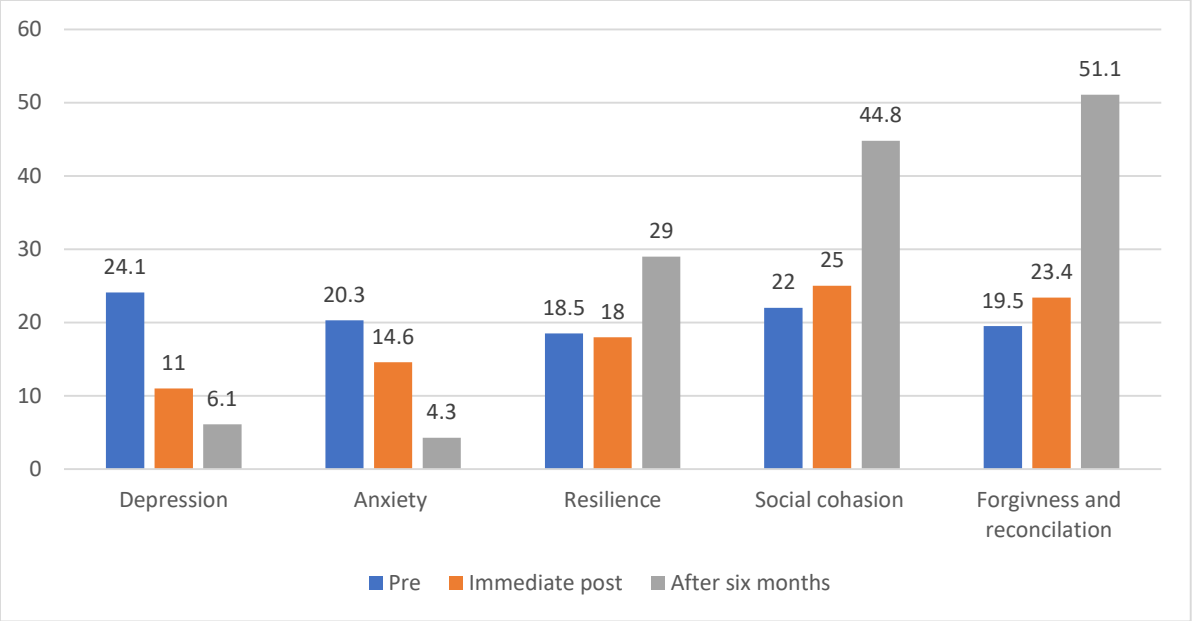
Following each training session, immediate assessments were conducted after the Community Resiliency Model (CRM) and Laughter Yoga training. As illustrated in the accompanying graph, the data demonstrated a substantial reduction in mental health problems. Specifically, depression symptoms decreased from 24.1% to 11%, and anxiety symptoms decreased from 20.3% to 14.6%. While resilience levels remained relatively constant, other variables, such as social cohesion and forgiveness, significantly improved.



4.3.Impact Of Intervention On Population

The histogram demonstrates the substantial impact of the CRM (Community Resiliency Model) and laughter yoga intervention among genocide survivors and perpetrators. After six months of this intervention, there is a remarkable improvement in the well-being of both groups. The results indicate a significant reduction in trauma-related symptoms, particularly depression decreasing from 24.1% to 6% and anxiety dropping from 20.3% to 4.3%. Other key variables have also shown substantial improvements, with resilience increasing from 18.5% to 29%, social cohesion rising from 22% to 44.8%, and forgiveness increasing from 19.5% to 51.2%.

These data provide valuable insights into the impact of the CRM and laughter yoga intervention on the restoration of the community, the promotion of peace, and the prevention of further conflicts in post-genocide Rwanda. This evidence underscores the effectiveness of these programs in addressing mental health challenges and fostering positive change, ultimately contributing to the healing and reconciliation process in the aftermath of such a traumatic event.



4.4.Qualitive data about the impact of intervention among surivvor and perpetrators

There are many and different witness from particiants after trainings and after six months that showed the impact of the intervention in peacebuinding, resilience and prevention of future conflict of genocide.

A surivivor from Mbuye village in Ruhango district said"Thank you for giving us this medication. For me, it is the first time since I lost my family memebers during the genocide, I get intervention for helping me to heal as well us to unite as rwanda. We (surivivor), we had always have fear that perpetrators can do again the genocide but this prpgram where we benefits the trainings together, my heart and my mind are now safe. I can ensure that it is my decrease and trauma that always alter me that another genocide can happnen bu now, I am akay , I am confident that it will never happen again. We need to keep support in this process ofn resilience and healing."

RRGO during the traings

The perpetrators from Kamegeri sector, Nyamagabe district said" I spent 25 years in prison. I walys think that when I back in country (leaving prison after finish sentece) It will be hard to meet surivivor when I commit crime agains them and their family members. Listern I back from prison this years in may 23, 2023. You undesnd that I am stilll new but thhese training proves me that I am human and I meet with other human people. I feel confient that I can unite with my nebeibor. I decide that next week I will call a woman(surivior) whem I killed his hsuband and I ask her " pardon" I am sure she will forvige me becae since we were tohther in trainings, the model help both us to go to in anther step toward sastainibke reconcilation and resilience

CONCLUSION

The implementation of this project has been incredibly successful and has had a profound impact on the restoration of well-being, peace, and social cohesion among both genocide survivors and perpetrators. The findings from the evaluation unequivocally demonstrate the positive effects of the intervention on the overall well-being of the community. This project stands as a testament to the potential for positive change and healing, not only in Rwanda but also in similar settings that have experienced the devastating effects of conflict and trauma.

RECOMMENDATIONS.

The implementation of the project has demonstrated significant importance in the Rwandan community, yielding a substantial impact on mental health, resilience, and social cohesion among genocide survivors and perpetrators. To build upon these successes and further enhance the well-being and peace within the community, the following recommendations are suggested:

1. **Expansion of the Intervention:** The Community Resiliency Model (CRM) and laughter yoga have proven promising interventions in post-genocide Rwanda. Extending this project to at least 30 districts across the country is highly recommended. Expanding the reach of this program can ensure that a larger portion of the Rwandan population benefits from these impactful interventions.
2. **Inclusion of Young Adults:** To promote sustainable peace and prevent future genocides, it is essential to consider including young adults aged 18-30 from both genocide survivor and perpetrator backgrounds. Engaging this demographic will contribute to building a resilient and united Rwandan society.
3. **Government Prioritization:** Local government authorities and the Ministry of Health, specifically the Mental Health Division, should prioritize and support this intervention. It is a cost-effective means to sustain the mental well-being of the population, aligning with the broader mental health objectives of the nation.
4. **Capacity Building for Local Leaders:** Local leaders and heads of families should receive training and intervention, such as task shifting, to equip them with the skills needed to promote family, community, and child development within the Rwandan

community. This grassroots approach can further reinforce the positive changes initiated by the project.

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