Research Square

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Effectiveness of a multimedia campaign in shifting community knowledge, attitudes, social norms, and practices of FGM and CM in Ethiopia

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Abstract

Background: Female genital mutilation (FGM) and child marriage (CM) remain pervasive in Ethiopia, driven by entrenched social norms, gender inequalities, and economic factors. Despite legal prohibition, national prevalence stands at 65% for FGM and 40% for CM. In response, Population Media Center (PMC) collaborated with the United Nations Population Fund (UNFPA) to implement a multimedia social and behavior change (SBC) intervention to raise awareness, shift attitudes and norms, and reduce the practice of FGM and CM in 4 targeted woredas of southern Ethiopia. This study evaluates the effectiveness of the intervention in changing knowledge, attitudes, social norms, and practices related to FGM and CM.

Methods: A mixed-methods evaluation was conducted in May 2025 using a comparative cross-sectional survey and qualitative interviews. Respondents were categorized by exposure to the PMC multimedia intervention. Differences in knowledge, attitudes, behavioral intentions, social norms, and practices related to FGM and CM were analyzed. Chi-square tests determined statistical significance (***p* < 0.05), and** quantitative insights were triangulated with qualitative insights.

Results: Of 403 participants (205 exposed; 198 non-exposed; 73.7% female), the exposed group demonstrated significantly higher awareness (93.2% vs. 84.6%, $p < 0.001$), stronger anti-FGM attitudes (90.2% vs. 81.4%, $p = 0.014$), and stronger anti-CM attitudes (83.4% vs. 78.1%, $p < 0.001$) compared to the non-exposed. Total prevalence was 32.7% for FGM and 4.9% for CM. Qualitative data revealed that FGM persists covertly; families bypass legal restrictions by temporarily relocating girls to other villages for secret procedures. Despite high levels of awareness, deeply rooted sociocultural norms, marriageability myths, economic factors, social acceptability, and religious beliefs (“Sunna”) continue to perpetuate both practices.

Conclusion: Exposure to PMC multimedia SBC engagement was associated with significant improvements in awareness and attitudes. However, the continued practice of FGM through covert means underscores the power of interlinked sociocultural and religious norms. Accelerating the abandonment of FGM and CM requires scaling community dialogues, empowering girls and young people, fostering intergenerational dialogue, coordinating stakeholder efforts, and strengthening legal enforcement to move beyond individual attitude shifts toward collective social norm change.

Background

Female genital mutilation (FGM) and child marriage (CM) are deeply rooted harmful practices (HPs) that persist despite legal prohibition and extensive advocacy efforts. FGM comprises all procedures involving the partial or complete excision of female genitalia or other injury to the female genital organs for non-medical reasons [1]. Globally, 230 million girls and women worldwide have undergone FGM, with the largest share in Africa (144 million), followed by Asia (80 million) and the Middle East (6 million). Every year, an estimated 4 million girls and women are subjected to FGM; without accelerated action, an estimated 27 million more girls will undergo FGM by 2030 [1,2].

CM, defined as the formal marriage or informal union of a child under age 18, presents a similarly staggering global challenge. An estimated 640 million women alive today were married in childhood. Each year, 12 million adolescent girls are married before the age of 18, and, every 3 seconds, an adolescent girl gets married somewhere in the world [3,4].

These HPs are driven by a combination of deep-rooted social norms, cultural beliefs, and religious traditions. These factors foster a sense of cultural identity that makes the abandonment of the practice elusive despite decades of efforts at community, national, and international levels. Since its launch in 2008, the United Nations Population Fund (UNFPA)–United Nations Children's Fund (UNICEF) Joint Programme on the Elimination of Female Genital Mutilation has worked toward ending FGM by 2030, aligned with Sustainable Development Goal (SDG) 5, target 5.3. In collaboration with the World Health Organization (WHO), the program has provided prevention and protection services to nearly 7 million women as of February 2025. In addition, 48 million people have made public declarations to abandon the practice, and 220 million individuals were reached by mass media messaging on the issue [5].

However, global crises such as conflict, drought, and the COVID-19 pandemic have increased vulnerability to HPs such as FGM and CM. These crises not only increase the risk but roll back the progress of interventions due to economic shock, school closure, and fund adjustment. Modeled estimates indicate that the risk factors for FGM and CM intensified beginning in 2020, threatening to offset previous declines in prevalence. In 2022 alone, an estimated 12 million girls became child brides [6].

Despite a gradual decline in prevalence, the UNFPA–UNICEF Joint Programme reported that as of 2023, FGM remained widely practiced in Ethiopia. With 25 million girls and women affected, the country bears the largest absolute burden of FGM in Eastern and

Southern Africa [7]. Nevertheless, historical data indicate a clear downward trajectory; according to data from the Ethiopian Demographic and Health Surveys (EDHS, 2016), FGM prevalence fell from 80% in 2000 to 74% in 2005, and further to 65% in 2016. However, despite this national progress, prevalence remains high and exhibits significant regional variation. For instance, the 2016 EDHS shows that prevalence reached 99% in the Somali region, while it was as low as 23% in Tigray. The age at which FGM is performed also varies significantly by geography; in the Afar region, it typically occurs within the first 7 days after birth, whereas in parts of southern Ethiopia, the practice is often delayed until a girl reaches marriageable age [8].

CM presents a similarly complex challenge. Current data indicate that 4 in 10 married women in Ethiopia entered into marriage or union before their 18th birthday. Consequently, Ethiopia is home to 15 million child brides, including 6 million who were married before the age of 15 [9]. While EDHS data show that marriage by age 15 decreased from 13% in 2005 to 8% in 2011 and further to 6% in 2016, rates of marriage by age 18 remained relatively stable between 2011 and 2016, at 41% and 40%, respectively. Significant disparities exist between urban and rural areas, with the median age at first marriage ranging from just below 16 years among women in Amhara to 24 years among women in Addis Ababa [8]. The consequences of these early marriages—and the resulting early pregnancies—are profound, leading to severe physical, psychological, and social harm for young girls and women.

Despite numerous interventions aimed at eliminating these HPs, prevalence rates have remained largely unchanged. In response, the National Costed Roadmap to End FGM and CM 2020–2024 was implemented in alignment with Proclamation No. 414/2004 of the Criminal Code of the Federal Democratic Republic of Ethiopia, which criminalizes the performance or procurement of FGM [10]. Beyond legal measures, scholars emphasize that community engagement, intersectoral collaboration, girls' education and empowerment, and comprehensive social and behavior change (SBC) are the most transformative interventions for shifting community norms and ending these practices at the grassroots level [11-13].

Multimedia-based SBC interventions have proven effective in shifting public attitudes and behaviors toward social issues. Research on mass media's role in behavior change highlights that carefully designed media content can significantly influence knowledge, perceptions, and social norms. Pooled evidence found that sustained community exposure to anti-FGM and anti-CM campaigns through multimedia intervention resulted in individual persuasion, norm diffusion and increases in service linkages [14]. Similarly, evaluations of Ethiopian radio programs revealed significant reductions in harmful gender norms in communities exposed to consistent media messaging. Further evidence confirms that integrating media interventions with community dialogue amplifies impact, particularly in regions where FGM and CM are deeply entrenched [15]. Previous SBC communication interventions in Ethiopia and other African countries have demonstrated measurable reductions in FGM and CM prevalence following such media-led behavior change campaigns [16,17].

From January 2020 through June 2025, Population Media Center-Ethiopia (PMC-E), in collaboration with UNFPA, implemented a multimedia intervention to address FGM and CM in targeted districts of central, south, and southwest Ethiopia, including Mareko, Dalocha, Esera, and Dasenech. Prior to the intervention, formative audience research (FAR) was conducted to identify key behavioral barriers, enabling factors, and audience preferences. Building on these findings, the program identified lack of awareness, interlinked social norms, religiously rooted HPs, and other socioeconomic factors as primary drivers requiring strategic intervention.

The PMC-E intervention comprised a radio talk show (RTS) designed to raise awareness and challenge gender norms, supplemented by advocacy workshops, capacity building for key influencers, distribution of promotional materials, and social and digital media engagement. To foster meaningful discussions on gender equality, audiences were segmented to include youth, religious and community leaders, health professionals, and local government officials. This evaluation aimed to assess the effect of PMC-E's intervention in shifting knowledge, attitudes, and practices (KAP) regarding FGM and CM in targeted regions.

Intervention description

The multimedia intervention was comprised of an RTS, spot messages, and promotional materials, complemented by capacity building, advocacy workshops, and radio listener groups (RLGs).

RTS program

Yalaleke Guzo (Unfinished Journey) utilized a magazine-style format combining community voices, expert advice, and dramatic storytelling. A total of 215 editions were produced and broadcast. Program elements included stakeholder interviews, book reviews,

short plays, vox pop segments (capturing diverse community voices on specific issues), poems, and narration. Broadcast via the Ethiopian Broadcasting Corporation (EBC) and local stations such as Silte and Jinka FM, the 30-minute program reached more than 5 million individuals. Messaging emphasized the health and social consequences of FGM and CM, legal prohibitions and enforcement, and the importance of parental involvement in HP abandonment through a storytelling approach.

To catalyze the program and promote engagement within the target communities, 36 RLGs were established, each consisting of 10 members. These groups were equipped with multimedia tools to facilitate weekly collective listening. Members were expected to discuss the content, reach a consensus on the issues presented, and influence behavioral changes among other community members based on what they learned from the program about the consequence of HPs and the potential for legal prosecution.

Capacity building and advocacy workshops

To augment the reach and impact of the RTS at the community level, capacity-building activities were provided to frontline health extension workers, social workers, and teachers. Beyond these sessions, community-level advocacy was conducted with clan and religious leaders, local government officials (specifically kebele and woreda women and social affairs leaders), elders, and former circumcizers. These workshops were critical for addressing the cultural frameworks and belief systems interlinked with HPs in the targeted woredas. A total of 1,800 participants were involved in these capacity-building and advocacy efforts over the course of the project.

Broadcast of radio and TV spot messages

Radio and TV spot messages were critical for reinforcing key themes related to HPs. Thirty-three distinct spot messages were produced and broadcast across national and local media, reaching an estimated 2 million people.

Social and digital media amplification

To engage adolescents and youth who are increasingly active online, PMC utilized a multi-platform digital strategy encompassing Facebook, Telegram, YouTube, TikTok, and LinkedIn. PMC used monthly social media analysis to track message performance across all channels; data indicated that the intervention reached more than 3 million unique users and cultivated over 70,000 followers. To extend this reach to those with limited internet access, PMC also deployed an interactive voice response (IVR) system in collaboration with the digital consulting firm Viamo. This telephony-based digital component enabled 2,600 individuals to directly access messages about HPs via mobile phone.

Promotional material distribution

To reinforce the multimedia campaign, a diverse range of promotional materials—including booklets, flyers, posters, brochures, stickers, T-shirts, and billboard installations—were developed and distributed throughout the target areas. These materials featured key messages designed to inform and engage the public, while challenging prevailing community attitudes toward FGM and CM. The materials also incorporated human-interest stories of lived experiences to foster empathy and inspire collective action toward the abandonment of these practices.

Study setting

The evaluation covered 4 woredas (districts): Mareko and Dalocha (Central Ethiopia), Esera (Southwest Ethiopia), and Dasenech (South Ethiopia). These areas were purposefully selected due to their high documented prevalence of FGM and CM, as well as their inclusion in the 5-year PMC-E multimedia intervention.

Study design

A post-only mixed-methods design was employed to evaluate the intervention's impact. The quantitative component used a comparative cross-sectional approach to analyze differences in key indicators between individuals either exposed or non-exposed to

PMC multimedia programming. Household exposure status was determined by asking screening questions about exposure to the RTS, spot messages, promotional materials, social media, audio push messages (IVR), or PMC-trained change agents over the preceding 5 years. Participants who reported no exposure to any of these channels were categorized as the non-exposed group. To complement and triangulate these quantitative data, qualitative interviews were conducted to provide a deeper understanding of shifts in knowledge, social norms, and behavior.

Population and sampling

Quantitative survey sampling

The study population included women of reproductive age (15–49 years) and heads of households with at least 1 daughter. The sample size for the comparative cross-sectional survey was calculated using a 2-population proportion formula, assuming a 16% expected change in exposure and behavior [15], with 95% confidence, 80% power, 5% margin of error, and a 10% non-response adjustment.

The final sample included 403 participants: 205 exposed and 198 non-exposed. If participants exposed at least one from the following PMC-E intervention (RTS, Radio and TV spot messages, advocacy workshop, capacity building, social media and promotional materials) during intervention period considered as exposed. A multi-stage sampling approach was used. First, 2 kebeles (the smallest administrative units) were selected per woreda. Within these clusters, households were identified using systematically sampled until the target sample size was achieved.

Qualitative sampling

Sixteen qualitative activities were conducted, with 4 activities per woreda. These activities consisted of 8 key informant interviews/in-depth interviews (KIIs/IDIs) and 8 focus group discussions (FGDs), as illustrated in (Table 1). Each FGD was composed of 6–8 participants and was purposively selected to ensure diversity in gender, religion, residence, education, age, membership in women's networks, exposure status to PMC-E multimedia interventions, and opinion leadership. This purposive multi-variation sampling ensured representativeness across key demographic and leadership strata, capturing both community-level and institutional perspectives.

Data collection tools and procedures

A structured SurveyCTO-based questionnaire was deployed, translated into the local language (Amharic), and back-translated into English for analysis. The tool was adapted from existing literature and evidence, comprising 6 sections: socio-demographic information, knowledge, attitudes, media exposure, behavioral intentions, and practices. The qualitative guides were aligned with the same theoretical constructs, exploring predisposing, enabling, and reinforcing factors influencing FGM and CM. These factors included beliefs, decision-making processes, gender norms, social pressures, multisectoral responses, and experiences with law enforcement.

Quantitative data were collected digitally via SurveyCTO by 13 trained, gender-balanced, enumerators and 4 supervisors. Qualitative data (FGDs, KIIs, and IDIs) were collected by 8 experienced researchers fluent in the local languages (Qualitative interview guide). Interviews and discussions were audio-recorded and transcribed verbatim to preserve the authenticity of the responses.

Data analysis and reporting

Quantitative data were analyzed using SPSS version 27. KAP were assessed using composite scales with validated items. Comparative assessments examined mean and proportion differences between exposed and non-exposed groups across knowledge, attitudes, behavioral intentions, and practices. Statistical significance was determined using chi-square tests and related measures of association. Practice was evaluated in 2 ways: cumulative prevalence among all participants and point prevalence in the 5 years following the PMC SBC multimedia intervention. Qualitative data were analyzed thematically using ATLAS.ti version 7.5.18 to identify contextual insights. Quantitative and qualitative results were triangulated to interpret changes in knowledge, attitudes, social norms,

and behavioral practices. These findings informed policy and communication recommendations to promote community-level normative change.

Scientific validity and rigor

Quantitative data quality was ensured through pre-testing, expert content validation, and rigorous supervision. Internal consistency of composite scales was confirmed via Cronbach's alpha (ranging from 0.72 to 0.87 across constructs such as knowledge and attitudes), confirming reliability. The SurveyCTO platform incorporated real-time validation, GPS verification, and logic checks. Enumerators received intensive training, and supervisors conducted frequent data audits. Triangulation across FGDs, KIIs, and quantitative surveys enhanced validity.

Qualitative rigor was maintained through multiple strategies to ensure credibility, dependability, transferability, and confirmability. These strategies included prolonged engagement, peer debriefing, member checking, reflexivity, and thick description. Draft reports underwent internal review and verification by PMC-E staff.

Operational definitions

FGM: Self-reported partial or total removal of the external female genitalia or other injury to the female genital organs for non-medical reasons.

CM: Any formal or informal union or marriage of girls under age 18.

Knowledge of FGM and CM: Assessed through a 13-item scale where responses were coded as True = 2, Don't Know = 1, and False = 0 (with reverse coding for negative items). Scores were computed out of a maximum of 26; participants scoring above the mean were classified as having "good knowledge", whereas those scoring below the mean were considered to have "poor knowledge."

Attitude toward FGM and CM: Assessed through a 16-item scale, with responses ranging from 1 = Strongly Disagree to 5 = Strongly Agree (with reverse coding for negative items). Scores were computed out of a maximum of 80; participants scoring above the mean were categorized as having an "unfavorable attitude" toward FGM and CM, whereas those scoring below the mean were considered to have a "favorable attitude."

Prevalence of FGM: The proportion of women aged 15–49 who self-report having undergone FGM.

Girls' prevalence of FGM: The proportion of girls aged 0–14 who have undergone FGM as reported by parents or guardians.

Prevalence of CM: The proportion of women aged 20–24 who were married before age 18.

Ethical Considerations

In accordance with Helsinki declaration, this research is ethically cleared by the Institutional Review Board (IRB) of Jimma University (Ref: JUIH/IRB/0492/25). Informed consent and assent were obtained from all participants. Confidentiality was maintained through the use of pseudonyms and anonymized transcripts.

Results

Socio-demographic characteristics and household profile

403 individuals participated in the survey, with near-equal representation in the intervention-exposed (50.9%) and non-exposed (49.1%) groups. The majority of participants were female (73.7%), married (77.4%), and urban residents (86.4%). Educational attainment varied widely: 11.9% had no formal education, while 12.9% held a bachelor's degree or higher. The predominant religious affiliations were Orthodox Christianity (48.1%) and Islam (32.8%). Respondents' primary occupations included housewife (34.2%), private business operator (24.6%), or government employee (21.8%). Over half of households (56.1%) were categorized as poor by wealth index, and the average household size was 5.88 members. Community engagement was high, with 92.6% of respondents affiliated with traditional

support groups such as Idir (Table 2). Qualitative participants ranged in age from 21 to 62 years, and FGDs comprised 5–8 individuals per session.

Socio-behavioral shifts by exposure to the PMC-E media intervention

Knowledge about FGM and CM

Overall knowledge about FGM and CM was significantly higher among the exposed group (93.2%) compared to the non-exposed group (84.6%; $p < 0.001$), representing an 8.6 percentage point difference. Significant differences were also observed across several specific knowledge items between exposed and non-exposed groups. The exposed group demonstrated better understanding of the mental health effects of FGM, such as anxiety and depression (96.1% vs. 83.8%; mean = 3.02, $p < 0.001$), were more likely to reject the myth linking FGM to chastity or moral character (mean = 3.05, $p < 0.001$), and better understood that FGM causes physical harm ($p = 0.049$).

Regarding CM, the exposed group demonstrated better awareness of the economic benefits of delaying marriage (86.8% vs. 77.3%; mean = 3.13, $p = 0.009$), understood that CM increases maternal mortality (98.4% vs. 90.5%. $p < 0.0001$), and recognized that CM increases spousal abuse (95.1% vs. 87.4%, $p = 0.005$) (Table 3).

The qualitative findings were consistent with the survey results. FGD and IDI participants reported that advocacy through relatable body analogies helped the community better understand the severity of FGM.

"I gave awareness… with example about losing of one finger from five. As your four fingers do no work appropriately, cutting organ like as fingers it doesn't work task. Moreover, I also use sensory body to give analogy of harm. For example, there are five sense organs. From five sense organs, as eye helps to see, she is losing one of reproductive organs… Therefore, when removed that organ it left with scar." (IDI, Mareko, Advocate)

Participants also noted that youth had gained awareness of legal protection through various channels and have started to resist HPs.

"I joked with my daughter about circumcising her. She said, 'I will call the police, and you'll be arrested.' That's how much awareness they have from school." (FGD, Mareko, P2)

However, misconceptions about medical, sociocultural, and religious justifications for FGM persisted among older generations. Participants reported that older community members believe that FGM ensures marriageability and controls sexual desire.

"If she is not circumcised, no man will marry her. They say she is not clean, she is rebellious. That's why even educated families still do it." (IDI, RLG)

"People say if not circumcised, she will be over-stimulated, she won't control herself, she will break household items. These beliefs are stronger than science here." (Esera Men's FGD, P3)

Some elders and parents associate FGM with ensuring community acceptance and honor.

"First an uncircumcised woman loses her honor; she is ostracized from society… she cannot find a husband. That is why she is circumcised." (KII, Dasenech, FGM Practitioner

Similarly, others viewed FGM as deeply intertwined with community concepts of bodily cleanliness and modesty.

"They say the girl has a bad smell if not circumcised. They say she's not pure. These are myths, but they are very powerful in the community." (IDI, Survivor)

Despite several awareness-raising campaigns via different channels, some participants framed FGM as a religious obligation.

"There is still attitude that this is Sunnah. There are opinions of scholars who say it should be done, although others say it's not required." (FGD, Mareko, P6)

Attitudes towards FGM and CM

FGM

The exposed group demonstrated significantly greater rejection of sociocultural justifications for FGM compared to the non-exposed group. Exposed participants were less likely to agree with common pro-FGM beliefs, including that FGM ensures virginity (1% vs. 4%, $\chi^2 = 7.92$, $p = 0.005$) or improves marriage prospects (1.5% vs. 5%, $\chi^2 = 4.51$, $p = 0.034$). The exposed group also showed higher recognition of FGM's harms: 83.4% acknowledged its health risks (vs. 72.2%, $\chi^2 = 7.33$, $p = 0.007$), 83.9% recognized the psychological trauma it causes (vs. 68.2%, $\chi^2 = 11.42$, $p < 0.001$), and 92.7% rejected the notion that condemning FGM's harms is "weak" (vs. 79.8%, $\chi^2 = 13.70$, $p < 0.001$). The largest between-group differences were observed for two beliefs: agreement that "FGM avoids family shame" was significantly lower in the exposed group (0.5% vs. 5.1%, $p = 0.005$), while agreement that "FGM causes psychological trauma and anxiety" was significantly higher (83.9% vs. 68.2%, $p < 0.001$). However, there were no significant differences between groups regarding religious justifications for FGM, perceptions of fairness around marriage benefits, or beliefs about sexual autonomy (Table 4).

Qualitative findings also confirmed that the religious and deep-rooted myths underlying FGM remain persistent in the community. FGD and IDI participants noted that uncut girls face rejection, insults, and stigma, even from their own families. Some participants also remarked on perceived benefits of FGM in shaping girls' sexual discipline and marriageability.

"Many times, people insult who did not undergo FGM… they insult by saying you eat the money of the child… by saying your child has waste, it is not disposed."
(IDI, Esara, CM Survivor's Father)

"People say if not circumcised, she will be over-stimulated, she won't control herself, she will break household items. These beliefs are stronger than science here." (FGD, P3)

"If she is not circumcised, no man will marry her. They say she is not clean; she is rebellious. That's why even educated families still do it." (IDI, RLG)

CM

Overall, 83.4% of the exposed group demonstrated an unfavorable attitude toward CM, significantly higher than 78.1% in the non-exposed group ($\chi^2 = 11.25$, $p < 0.001$). Significant differences were also observed across multiple key statements. Only 2.4% of the exposed group agreed that early marriage helps girls settle down, compared to 13.6% of the non-exposed group ($\chi^2 = 28.146$, $p < 0.001$). Similarly, only 8.8% of the exposed group agreed that early marriage protects girls from dishonor, versus 13.6% in the non-exposed group ($\chi^2 = 24.962$, $p < 0.001$). Regarding perceptions of the impact of early marriage on education, 90.7% of the exposed group disagreed that marriage before age 18 ends a girl's schooling, compared to 80.8% of the non-exposed group ($\chi^2 = 9.606$, $p = 0.048$), suggesting stronger recognition of CM's consequences for girls' education. The exposed group also more strongly rejected economic, social, and autonomy-based justifications for CM and was more likely to support delaying marriage as a path to girls' independence (Table 5).

Practice and intention regarding FGM and CM

Practice of FGM and CM

The practice of FGM and CM was assessed both before and after project implementation. 855 girls/daughters were identified within the sampled households. Of these, 243 (28.4%) had ever been married, of which only 12 were married before the age of 18, indicating a CM prevalence of 4.9%. The overall prevalence of FGM among participants was 262 (32.7%), of which almost all (99.6%) had undergone the practice before the age of 18. However, no statistically significant differences in FGM or CM were observed between exposed and non-exposed groups (Table 6).

Qualitative findings revealed shifting practices of FGM and CM in the community, with some changes appearing positive and genuine, and others remaining superficial or symbolic. Participants described intergenerational dialogue in which increased awareness led families to spare younger generations from HPs.

"I was circumcised. And my older sisters were circumcised. But due to awareness… my younger sister has not be circumcised and also my children too." (IDI, Mareko, Advocate)

Some participants noted that social sanctions are diminishing the practice. Community groups such as Idir have begun establishing regulations and punishments for those who perform FGM. However, enforcement of these locally established rules remains inconsistent.

“Our idir decided 10,000 ETB as punishment. Anyone who performs FGM will be excluded from social participation.” (FGD, Mareko, P6)

At the same time, participants reported that practices have shifted towards secrecy rather than abandonment. Qualitative data indicate that FGM is increasingly performed in secret in response to legal prohibitions, government penalties, and interventions such as PMC’s multimedia campaigns and public dialogues. Improved case reporting and law enforcement appear to have driven the practice underground rather than eliminating it.

"The community leaders send their daughters to rural areas where nobody checks. After a month, they return. It’s all done secretly now." (Esera FGD, Male Participant)

"They do the cultural part, dancing, feeding, but the cutting happens later, somewhere else. The girl disappears for a few days and returns silently." (IDI, RLG Member)

Reported intentions for FGM and CM

The study revealed clear differences in intentions regarding FGM and CM between exposed and non-exposed groups. Regarding FGM, only 0.5% of the exposed group were uncertain or willing to circumcise their daughters, compared to 4.1% in the non-exposed group ($\chi^2 = 9.42$, $p = 0.009$). Similarly, only 1% of the exposed group would consider marrying off their daughters before age 18, compared to 6.6% in the non-exposed group ($\chi^2 = 9.14$, $p = 0.010$).

The exposed group also reported significantly higher rates of taking preventive action against FGM (84.3% vs 70.4%; $\chi^2 = 15.66$, $p = 0.004$) and stronger commitment to resist early marriage pressure (94.1% vs 85.3%; $\chi^2 = 11.72$, $p = 0.008$) (Table 7).

Institutional support, legal enforcement, and challenges

According to qualitative findings, community-based structures such as Idir groups and kebele leadership are beginning to support legal enforcement against FGM and CM, though their involvement remains limited. Participants noted that policy responses are increasingly seen as critical, with swift action credited for preventing CM and rescuing at-risk girls.

“I told the police… they arrested him for 3 days… now police keep them… now thanks to God, it is peace.” (IDI, Esara, CM Survivor's Father)

However, several challenges hinder the institutionalization and effective legal enforcement of anti-FGM and anti-CM efforts:

Community elders intervening in legal processes. Customary dispute resolution systems often undermine formal legal enforcement. Elders often remove cases from formal legal systems, resolving them according to traditional practices instead.

"There are elder (hafa shumagile) people… they ask court to hand over case to see at community level… based on their custom." (IDI, Mareko, Advocate)

Victims claiming consent to avoid stigma. Girls often claim consent to marriage even when coerced, attempting to preserve their social standing and avoid further stigma.

"She may say ‘my life is once damaged’ and I don’t want enter issue’. She tries to accept marriage." (IDI, Mareko, Advocate)

Discussion

The primary objective of this evaluation was to assess the effectiveness of a multimedia SBC intervention in increasing awareness and shifting attitudes, norms, and practices related to FGM and CM. The study compared areas where PMC programming had been implemented to areas that did not receive the intervention. Consistent with established findings, the analysis showed statistically significant differences in knowledge and attitudes toward FGM and CM between exposed and non-exposed participants.

Participants exposed to the multimedia SBC intervention demonstrated significantly higher knowledge levels regarding FGM and CM, with 93.4% scoring high compared to 84.6% in the non-exposed group ($p < 0.001$). This difference reflects an 8.6 percentage point

improvement attributable to targeted SBC messaging. These findings are consistent with existing evidence. For instance, a study conducted in Ethiopia's Oromia region found that individuals with access to more than 2 sources of information on FGM were 3 times more likely to possess adequate knowledge compared to those with 1 or no source [18]. Such results underscore the importance of diversified and sustained communication strategies in enhancing public awareness and shifting social norms.

Beyond HPs, exposure to health messaging through SBC interventions has been shown to significantly increase knowledge in other health domains. An Indian study found that participants exposed to SBC interventions were twice as likely to have better knowledge about menstrual health and hygiene [19]. Furthermore, findings from a UNICEF evaluation in Ethiopia reaffirm the pivotal role of media engagement, particularly RTS programs, in raising awareness of and shifting attitudes toward FGM and CM [15].

In contrast, studies conducted in rural communities of Enugu State, Nigeria, revealed that mass media engagement was ineffective in raising awareness and shifting behaviors related to FGM and CM [20]. This discrepancy might be explained by the study's selection of remote rural sites with limited network and electricity access, where deeply rooted cultural values may have contributed to media ineffectiveness. Moreover, the Nigerian study lacked baseline data, audience segmentation research, and a comparison group, making it difficult to determine whether infrastructural constraints limited the intervention's impact. The UNICEF evaluation shows that multimedia interventions succeed when they reach engaged audiences through multiple channels strategically chosen based on where the target audience actually obtains their information [15]. This consideration is essential for optimizing reach, resonance, and behavioral impact. In alignment with this approach, PMC consistently designs its multimedia SBC interventions based on FAR. This strategy is evident in the current post-project evaluation, which confirms the multimedia intervention's success in shifting target audiences' knowledge and attitudes toward FGM and CM.

Anti-FGM attitudes were higher among the exposed group (90.2%) compared to the non-exposed group (81.4%), with a 6.01 percentage point difference attributable to the intervention ($p = 0.014$). Similarly, rejection of CM was greater among exposed participants (83.4%) than non-exposed participants (78.1%), showing an 11.25 percentage difference ($p < 0.001$). This finding represents a statistically significant positive impact of the intervention.

These findings align with studies from northern Nigeria, which found that storytelling and multimedia entertainment-education are critical approaches for shifting community attitudes toward early marriage [21]. According to UNICEF's evaluation of RTS effectiveness, media engagement remains relevant for shifting attitudes toward FGM and CM [15]. PMC and UNICEF's collaborative experience with other health issues further demonstrates the effectiveness of multimedia interventions; for example, their work on under-5 diarrheal disease in Ethiopia showed significant impact in shifting norms [22].

However, a study in Bangladesh using an edutainment approach did not show significant changes in community attitudes toward FGM and CM, although the study confirmed that behavioral experiments were less prone to social desirability bias in assessing sensitive topics [23]. The possible reason for the difference is that the investigators in Bangladesh focused on evaluating a single media intervention—a television series designed to promote positive role models—making it difficult to determine attribution in the presence of multiple media sources and variable exposure patterns.

In the present study, while quantitative findings demonstrated positive shifts in knowledge and attitudes toward FGM and CM, qualitative findings uncovered persistent myths and misconceptions deeply rooted in intergenerational and sociocultural belief systems. Even though participants reported that most of the community is aware of FGM and CM, FGM is still associated with notions of marriageability, bodily cleanliness, and religious obligation—often referred to as "Sunna" within Muslim communities. This justification is consistent with findings from studies conducted in Spain and the United Kingdom, where FGM was reported to be highly prevalent [24]. Similarly, in Ethiopia's Afar and Somali regions, hygienic-esthetic and religious-spiritual factors were identified as major reasons for the continuation of the practice [25].

Surprisingly, across all study sites, a common belief held that FGM serves to calm girls and suppress perceived excessive sexual desire, reflecting entrenched sociocultural narratives that continue to justify the practice. Recognizing these narratives, KII participants emphasized the critical need for sustained community engagement strategies complemented by targeted multimedia awareness interventions to effectively challenge and transform harmful social norms.

Regarding CM, the survey results align with qualitative findings. More than three-fourth of participants agreed with some CM justifications, such as the claims that early marriage leads to pregnancy-related complications and ends schooling, or that delaying marriage helps achieve independence. However, the survey results contradicted qualitative findings on justifications related to family

honor, the girl's honor, and community acceptance. A majority of survey respondents disagreed with sociocultural and family honor justifications. This contradiction may be due to social desirability bias. Furthermore, qualitative studies often involve longer rapport-building, enabling more honest disclosure of taboo or stigmatized beliefs [26].

In the current study, the overall prevalence of FGM was 262/855 (32.7%), of which almost all (99.6%) had undergone the practice before the age of 18. Of the total women interviewed, 12 were married before the age of 18, indicating a CM prevalence of 4.9%. However, no significant differences in FGM and CM practice were observed between exposed and non-exposed groups ($p = 0.38$ and $p = 0.55$, respectively). The prevalence of FGM in this study was much lower than in other studies conducted in Ethiopia: EDHS 2016 reported 65% nationally, with nearly three-quarters (72%) in Afar region and 85% in Somali region having undergone FGM, and the pooled African prevalence was 56.4% [8,27,28]. Similarly, the reported practice of CM in this research is lower than in other Ethiopian studies: 33.7% in Harari region, 34.7% in Amhara region, and a pooled prevalence of 56.34% [29-31]. These differences could be due to the targeted behavioral intervention in the last 5 years, variations in when and where studies were conducted, and sociocultural differences across study sites.

Despite the notable decline in overall FGM prevalence, qualitative findings underscore the persistence of underground practices that evade legal accountability. Moreover, recent trends indicate a strategic shift in the timing and location of the procedure, with some communities increasingly conducting FGM during school holidays or when girls are temporarily out of school, thereby minimizing the risk of detection and legal repercussions.

Conclusion

The multimedia SBC intervention effectively increased awareness and shifted attitudes toward FGM and CM, through no significant differences in practice were observed between exposed and non-exposed groups. The multimedia intervention was found to be critical in shifting intentions to commit HPs and in supporting legal enforcement efforts. However, deeply rooted social norms related to misconceptions and myths about FGM and CM remained persistent, sustaining the practices. Moreover, entrenched cultural beliefs, religious misinterpretations, and traditional legal arbitration by elders continue to impede sustainable abandonment of FGM and CM. The role of male figures, teachers, religious leaders, and multi-sector stakeholders remains under-leveraged. Scaling community dialogues to involve all layers of the community, empowering youth, facilitating intergenerational dialogue, engaging men, empowering girls, coordinating stakeholders, and strengthening legal enforcement are critical for shifting social norms and accelerating the abandonment of FGM and CM in Ethiopia.

Abbreviations

CM: Child Marriage

EBC: Ethiopian Broadcasting Corporation

EDHS: Ethiopia Demographic Health Survey

FAR: Formative Audience Research

FGD: Focus Group Discussion

FGM: Female Genital Mutilation

HDA: Health Development Army

HEW: Health Extension Worker

HF: Health Facility

HH: Household

HP: Harmful Practice

IDI: In-Depth Interview

IRB: Institutional Review Board

IVR: Interactive Voice Response

KAP: Knowledge, Attitudes, and Practices

KII: Key Informant Interview

PMC: Population Media Center

PMC-E: Population Media Center-Ethiopia

RLG: Radio Listener Group

RTS: Radio Talk Show

SBC: Social and Behavior Change

SD: Standard Deviation

SDG: Sustainable Development Goal

UNFPA: United Nations Population Fund

UNICEF: United Nations Children's Fund

WDA: Women's Development Army

WHO: World Health Organization

WWSA: Woreda Women and Social Affairs Office

Declarations

Ethics approval and consent to participate

The study was reviewed and ethically approved by the Institute of Health, Jimma University, with reference number JUIH/IRB/0492/25. Informed consent was obtained from every respondent. Data were collected in a private manner. Confidentiality of the data was maintained through the use of pseudonyms during interviews, and all identifiers were removed from transcriptions and reporting.

Consent for publication

All participants provided consent for publication of anonymized data and findings delivered from this study.

Availability of data and materials

The data sets generated and/or analyzed during the current study are available from PMC-E upon reasonable request.

Competing interests

The authors declare they have no competing interests.

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Authors' contributions

KM: Conceptualization, methodology, reviewing and editing, supervision of data collection, quality assurance, and manuscript writing. ME: Conceptualization, methodology, reviewing and editing, and quality control. YK: Conceptualization, data curation, formal analysis, investigation, methodology, project administration, resources, software, visualization, and writing—original draft. KA: Reviewing, project administration, and management. SZ: Reviewing, project administration, and supervision. AM: Reviewing the manuscript, editing, and quality assurance. AA: support in revising the manuscript, support in conceptualization of research idea ST: Supporting manuscript writing, report editing, and reviewing. BF: Reviewing and editing. BJ: Reviewing and editing. HE: Reviewing, methodology, and supervision. AHR: Conceptualization, methodology, reviewing, finalizing, and quality control.

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Tables

Table 1. Sampling distribution of FGDs/KIIs/IDIs for the FGM-CM study, May 2025, PMC-E

Districts	FGDs	IDIs/KIIs	Total
Mareko	• Female residents (semi-urban) = 1 • Community leaders (town) = 1	• Advocate against FGM/CM (town) = 1 • WWSA representative = 1	4
Dalocha	• Male residents (town) = 1 • Woreda multisector leaders = 1	• Advocate against CM/FGM (rural) = 1 • Youth RLG change agent = 1	4
Esera	• Male residents (semi-urban) = 1 • Woreda multisector leaders = 1	• Victims of CM with trauma (town) = 1 • Female educated survivor of CM = 1	4
Dasenech	• Community leaders = 1 • Female residents (urban) = 1	• FGM practitioner = 1 • Youth RLG change agent = 1	4
Total	8	8	16

Abbreviations: CM, child marriage; FGD, focus group discussion; FGM, female genital mutilation; IDI, in-depth interview; KII, key informant interview; PMC-E, Population Media Center-Ethiopia; RLG, radio listener group; WWSA, Woreda Women and Social Affairs Office

Table 2. Socio-demographic characteristics of the respondents and household profile, PMC-E evaluation study, target districts, May 2025 (N = 403: exposed = 205, non-exposed = 198)

Variables	Exposed (n = 205)	Non-exposed (n = 198)	Total (N = 403)	Statistics
District				
Dasenech (South Omo)	55 (26.8%)	48 (24.2%)	103 (25.6%)	$\chi^2 = 0.04$, $p = 0.84$
Mareko Special Woreda	50 (24.4%)	50 (25.3%)	100 (24.8%)	
Essera (Dawro Zone)	50 (24.4%)	50 (25.3%)	100 (24.8%)	
Dalucha (Silte Zone)	50 (24.4%)	50 (25.3%)	100 (24.8%)	
Residence/Kebele				
Urban	178 (86.8%)	170 (85.9%)	348 (86.4%)	$\chi^2 = 0.36$, $p = 0.55$
Semi-urban town	27 (13.2%)	28 (14.1%)	55 (13.6%)	
Sex				
Female	149 (72.7%)	145 (73.2%)	294 (72.9%)	$\chi^2 = 0.01$, $p = 0.92$
Male	53 (25.9%)	52 (26.3%)	105 (26.1%)	
Marital status				
Married	156 (76.1%)	153 (77.3%)	309 (76.7%)	$\chi^2 = 0.09$, $p = 0.99$
Single	25 (12.2%)	24 (12.1%)	49 (12.2%)	
Widowed	10 (4.9%)	10 (5.1%)	20 (5.0%)	
Divorced	11 (5.4%)	11 (5.6%)	22 (5.5%)	
Religion				
Orthodox	97 (47.3%)	95 (48.0%)	192 (47.6%)	$\chi^2 = 0.04$, $p = 0.99$
Muslim	66 (32.2%)	65 (32.8%)	131 (32.5%)	
Protestant	38 (18.5%)	37 (18.7%)	75 (18.6%)	
Other (Traditional)	1 (0.5%)	0 (0%)	1 (0.2%)	
Education				
No formal education	24 (11.7%)	23 (11.6%)	47 (11.7%)	$\chi^2 = 0.03$, $p = 1.00$
Able to read/write	26 (12.7%)	25 (12.6%)	51 (12.7%)	
Primary (1–8)	54 (26.3%)	52 (26.3%)	106 (26.3%)	
Secondary (9–12)	41 (20.0%)	40 (20.2%)	81 (20.1%)	
Tertiary (certificate >12)	15 (7.3%)	14 (7.1%)	29 (7.2%)	
Tertiary (college diploma)	17 (8.3%)	17 (8.6%)	34 (8.4%)	
Tertiary (bachelor's degree or higher)	26 (12.7%)	25 (12.6%)	51 (12.7%)	
Occupation				
Housewife	69 (33.7%)	68 (34.3%)	137 (34.0%)	$\chi^2 = 0.02$, $p = 0.99$
Merchant/private business	50 (24.4%)	48 (24.2%)	98 (24.3%)	
Government employee	44 (21.5%)	43 (21.7%)	87 (21.6%)	
Student	15 (7.3%)	15 (7.6%)	30 (7.4%)	
Farmer	14 (6.8%)	14 (7.1%)	28 (6.9%)	
Daily laborer	5 (2.4%)	4 (2.0%)	9 (2.2%)	

Other	5 (2.4%)	4 (2.0%)	9 (2.2%)	
Spouse/HH head education				
No formal education	20 (9.8%)	20 (10.1%)	40 (9.9%)	$\chi^2 = 0.01$, $p = 1.00$
Able to read/write	22 (10.7%)	22 (11.1%)	44 (10.9%)	
Primary (1–8)	39 (19.0%)	38 (19.2%)	77 (19.1%)	
Secondary (9–12)	33 (16.1%)	32 (16.2%)	65 (16.1%)	
Tertiary (certificate >12)	13 (6.3%)	12 (6.1%)	25 (6.2%)	
Tertiary (college diploma)	23 (11.2%)	22 (11.1%)	45 (11.2%)	
Tertiary (bachelor's degree or higher)	31 (15.1%)	30 (15.2%)	61 (15.1%)	
Not applicable	14 (6.8%)	14 (7.1%)	28 (6.9%)	
Spouse/HH head occupation				
Merchant/private business	54 (26.3%)	53 (26.8%)	107 (26.6%)	$\chi^2 = 0.01$, $p = 0.99$
Government employee	53 (25.9%)	52 (26.3%)	105 (26.1%)	
Farmer	35 (17.1%)	34 (17.2%)	69 (17.1%)	
Housewife	27 (13.2%)	26 (13.1%)	53 (13.2%)	
Daily laborer	6 (2.9%)	6 (3.0%)	12 (3.0%)	
Other	5 (2.4%)	4 (2.0%)	9 (2.2%)	
Not applicable	14 (6.8%)	14 (7.1%)	28 (6.9%)	
Wealth Index				
Poor	113 (55.1%)	111 (56.1%)	224 (55.6%)	$\chi^2 = 0.05$, $p = 0.98$
Medium	46 (22.4%)	45 (22.7%)	91 (22.6%)	
Rich	43 (21.0%)	42 (21.2%)	85 (21.1%)	
HH Profile (Mean ± SD)				
Household size	5.69 ± 1.74	5.91 ± 1.93	5.88 ± 1.80	-
Male children	2.13 ± 1.21	2.15 ± 1.49	2.14 ± 1.44	-
Female children	2.25 ± 1.09	2.23 ± 1.19	2.24 ± 1.15	-
Teenage girls (10–17 years)	0.95 ± 0.73	0.93 ± 0.66	0.94 ± 0.68	-
Membership in social groups				
Idir	187 (91.2%)	183 (92.4%)	370 (91.8%)	$\chi^2 = 0.21$, $p = 0.65$
Savings and loan group	137 (66.8%)	134 (67.7%)	271 (67.2%)	$\chi^2 = 0.04$, $p = 0.84$
WDA/HDA	49 (23.9%)	48 (24.2%)	97 (24.1%)	$\chi^2 = 0.01$, $p = 0.93$
Women's income group	40 (19.5%)	39 (19.7%)	79 (19.6%)	$\chi^2 = 0.00$, $p = 0.96$
Senbetie/mahber/debo	33 (16.1%)	32 (16.2%)	65 (16.1%)	$\chi^2 = 0.00$, $p = 0.99$
Women's militia group	22 (10.7%)	22 (11.1%)	44 (10.9%)	$\chi^2 = 0.01$, $p = 0.91$
Model family	18 (8.8%)	18 (9.1%)	36 (8.9%)	$\chi^2 = 0.01$, $p = 0.92$
Adolescent group	8 (3.9%)	7 (3.5%)	15 (3.7%)	$\chi^2 = 0.04$, $p = 0.84$

Abbreviations: HDA, Health Development Army; HH, household; SD, standard deviation; WDA, Women's Development Army

Table 3. Knowledge about FGM and CM, PMC-E evaluation study, target districts, May 2025 (N = 403: exposed = 205, non-exposed = 198)

Knowledge variable about FGM and CM	Exposed (n = 205)	Non-exposed (n = 198)	Total (N = 403)	p-value
FGM causes lifelong physical harm (True)	204 (99.5%)	192 (97.0%)	396 (98.3%)	**0.049**
FGM leads to mental health issues (True)	197 (96.1%)	166 (83.8%)	363 (90.1%)	**<0.001**
FGM increases HIV risk (True)	205 (100%)	195 (98.5%)	400 (99.3%)	0.056
FGM is criminalized in Ethiopia (True)	201 (98.0%)	189 (95.5%)	390 (96.8%)	0.123
FGM enhances chastity/moral character (False)	163 (79.5%)	127 (64.1%)	290 (72.0%)	**<0.001**
Religious scriptures require FGM (False)	182 (88.8%)	167 (84.3%)	349 (86.6%)	0.178
FGM hinders sexual health (True)	165 (80.5%)	149 (75.3%)	314 (77.9%)	0.197
CM interrupts education (True)	197 (96.1%)	181 (91.4%)	378 (93.8%)	**0.042**
Girls under 18 are biologically mature for marriage (False)	175 (85.4%)	159 (80.3%)	334 (82.9%)	0.162
CM increases maternal mortality (True)	202 (98.5%)	179 (90.4%)	381 (94.5%)	**<0.001**
CM increases spousal abuse (True)	195 (95.1%)	173 (87.4%)	368 (91.3%)	**0.005**
CM is outlawed in Ethiopia (True)	201 (98.0%)	188 (94.9%)	389 (96.5%)	0.082
Delaying marriage improves girls' independence (True)	178 (86.8%)	153 (77.3%)	331 (82.1%)	**0.009**
Comprehensive knowledge (mean % correct)	**93.2%**	**84.6%**	**88.9%**	**<0.001**

Note: "I don't know" responses were merged with "No" due to low percentages across all items. Values in bold indicate statistical significance ($p < 0.05$).

Abbreviations: CM, child marriage; FGM, female genital mutilation; PMC, Population Media Center; PMC-E, Population Media Center-Ethiopia

Table 4. Attitude toward FGM statements, PMC-E evaluation study, target districts, May 2025 (N = 403: exposed = 205, non-exposed = 198)

Attitudinal statement about FGM	Response	Exposed (n = 205)	Non-exposed (n = 198)	χ^2	p-value
FGM ensures a girl's virginity and moral behavior.	Agree	0 (0.0%)	2 (1.0%)	3.91	**0.048**
	Disagree	205 (100%)	196 (99.0%)		
Ensuring virginity and moral behavior through FGM is valuable.	Agree	5 (2.4%)	5 (2.5%)	0.00	0.955
	Disagree	200 (97.6%)	193 (97.5%)		
FGM increases a girl's marriage prospects by cleansing her body.	Agree	1 (0.5%)	5 (2.5%)	2.85	0.091
	Disagree	204 (99.5%)	193 (97.5%)		
Improving marriage prospects through FGM is fair.	Agree	2 (1.0%)	3 (1.5%)	0.24	0.625
	Disagree	203 (99.0%)	195 (98.5%)		
FGM is a religious requirement.	Agree	1 (0.5%)	4 (2.0%)	1.93	0.165
	Disagree	204 (99.5%)	194 (98.0%)		
Fulfilling religious obligations through FGM is just.	Agree	1 (0.5%)	2 (1.0%)	0.37	0.542
	Disagree	204 (99.5%)	196 (99.0%)		
FGM protects the family from shame.	Agree	1 (0.5%)	10 (5.1%)	7.90	**0.005**
	Disagree	204 (99.5%)	188 (94.9%)		
Avoiding family shame through FGM is acceptable.	Agree	3 (1.5%)	8 (4.0%)	2.52	0.112
	Disagree	202 (98.5%)	190 (96.0%)		
FGM causes long-term physical and reproductive health problems.**	Agree	171 (83.4%)	143 (72.2%)	7.33	**0.007**
	Disagree	34 (16.6%)	55 (27.8%)		
Condemning FGM's health harms is a sign of weakness.**	Agree	13 (6.3%)	43 (21.7%)	10.12	**0.001**
	Disagree	192 (93.7%)	155 (78.3%)		
FGM leads to psychological trauma and anxiety.**	Agree	172 (83.9%)	135 (68.2%)	13.74	**<0.001**
	Disagree	33 (16.1%)	63 (31.8%)		
Causing FGM's psychological harms is unfair.**	Agree	163 (79.5%)	141 (71.2%)	3.74	0.053
	Disagree	42 (20.5%)	57 (28.8%)		
FGM is necessary for community acceptance.	Agree	5 (2.4%)	14 (7.1%)	4.81	**0.028**
	Disagree	200 (97.6%)	184 (92.9%)		
Gaining community acceptance through FGM is just.	Agree	3 (1.5%)	8 (4.0%)	2.52	0.112
	Disagree	202 (98.5%)	190 (96.0%)		
FGM restricts women's sexual autonomy.**	Agree	112 (54.6%)	92 (46.4%)	2.69	0.101
	Disagree	93 (45.4%)	106 (53.6%)		
Restricting sexual autonomy through FGM is important.	Agree	11 (5.4%)	5 (2.5%)	2.13	0.144
	Disagree	194 (94.6%)	193 (97.5%)		
Overall anti-FGM attitude (% with attitudes against FGM) ±		90.2%	81.4%	6.01	**0.014**

** Anti-FGM statement (agreement indicates positive attitude toward abandoning FGM).

± Composite measure of overall attitude based on responses across all items.

Abbreviations: FGM, female genital mutilation; PMC-E, Population Media Center-Ethiopia

Table 5. Attitudes toward CM statements, PMC-E evaluation study, target districts, May 2025 (N = 403: exposed = 205, non-exposed = 198)

Attitudinal statement about CM	Response	Exposed (n = 205)	Non-exposed (n = 198)	χ^2	p-value
Marrying a girl early protects her from premarital sex and dishonor.	Agree	18 (8.8%)	27 (13.6%)	24.962	**<0.001**
	Disagree	187 (91.2%)	171 (86.4%)		
Avoiding dishonor/premarital sex through early marriage is justifiable.	Agree	10 (4.9%)	28 (14.1%)	16.256	**0.003**
	Disagree	195 (95.1%)	170 (85.9%)		
Early marriage eases the family's economic burden.	Agree	6 (2.9%)	17 (8.6%)	9.398	**0.024**
	Disagree	199 (97.1%)	181 (91.4%)		
Reducing economic burden through early marriage is fair.	Agree	6 (2.9%)	16 (8.1%)	11.016	**0.012**
	Disagree	199 (97.1%)	182 (91.9%)		
Girls who marry early are better respected.	Agree	5 (2.4%)	15 (7.6%)	10.127	**0.018**
	Disagree	200 (97.6%)	183 (92.4%)		
Gaining respect through early marriage is valuable.	Agree	7 (3.4%)	17 (8.6%)	13.483	**0.009**
	Disagree	198 (96.6%)	181 (91.4%)		
Early marriage ensures girls settle down.	Agree	5 (2.4%)	27 (13.6%)	28.146	**<0.001**
	Disagree	200 (97.6%)	171 (86.4%)		
Settling down early for girls is valuable.	Agree	58 (28.3%)	68 (34.3%)	12.302	**0.015**
	Disagree	147 (71.7%)	130 (65.7%)		
Early marriage exposes girls to pregnancy-related complications.**	Disagree	182 (88.8%)	152 (76.8%)	10.713	**0.030**
	Agree	23 (11.2%)	46 (23.2%)		
Facing complications through early marriage is justifiable.**	Disagree	116 (56.6%)	103 (52.0%)	2.802	0.591
	Agree	89 (43.4%)	95 (48.0%)		
Marriage before age 18 ends a girl's schooling.**	Disagree	186 (90.7%)	160 (80.8%)	9.606	**0.048**
	Agree	19 (9.3%)	38 (19.2%)		
Losing educational opportunity through early marriage is fair.*	Disagree	194 (94.6%)	182 (91.9%)	9.899	**0.042**
	Agree	11 (5.4%)	16 (8.1%)		
Girls have no decision-making power in early marriages.*	Disagree	31 (15.1%)	41 (20.7%)	5.922	0.205
	Agree	174 (84.9%)	157 (79.3%)		
Limiting a girl's autonomy through CM is justifiable.**	Disagree	182 (88.8%)	175 (88.4%)	7.085	0.131
	Agree	23 (11.2%)	23 (11.6%)		
Delaying marriage helps girls achieve independence.**	Disagree	161 (78.5%)	134 (67.7%)	15.265	**0.004**
	Agree	44 (21.5%)	64 (32.3%)		
Gaining independence through delayed marriage is acceptable.**	Disagree	163 (79.5%)	135 (68.2%)	13.925	**0.008**
	Agree	42 (20.5%)	63 (31.8%)		
Overall attitude (opposed to CM)±		83.4%	78.1%	11.25	**<0.001**

** Anti-CM statement (response pattern varies; see note below).

± Composite measure of overall attitude based on responses across all items.

Note: Statements marked with** are anti-CM statements where the "favorable" response (indicating opposition to CM) varies depending on the question wording. For some, agreement indicates anti-CM attitude; for others, disagreement does.

Abbreviations: CM, child marriage; PMC-E, Population Media Center-Ethiopia

Table 6. Prevalence of FGM and CM, PMC-E evaluation study May 2025 (N = 855: exposed = 442 and non-exposed = 413)

Variables		Non-exposed (n = 442)		Exposed (n = 413)		Total		Statistics
		Freq	%	Freq	%	Freq	%	
Female children's marital status	Married	122	29.5	121	27.4	243	28.4	$\chi^2 = 0.446$, p = 0.494
	Unmarried	291	70.5	321	72.6	612	71.6	
	Total	413	100	442	100	855	100	
CM status (n = 243)	CM (married before 18)	7	5.7	5	4.1	12	4.9	$\chi^2 = 0.352$, p = 0.553
	Legal age of marriage (18 or older)	115	94.3	116	95.9	231	95.1	
	Total	122	100	121	100	243	100	
FGM history (n = 654*)	Yes	107	36.0	117	32.8	224	34.3	$\chi^2 = 0.77$, p = 0.380
	No	190	64.0	240	67.2	430	65.7	
	Total	297	100	357	69.2	654	100	
Prevalence of FGM at < 15 years old	Yes	107	100	116	99.1	223	99.6	±
	No	0	-	1	0.9	1	0.4	
	Total	107	100	117	100	224	100	

* Missing data are present.

±No assumptions fulfilled for association.

Abbreviations: CM, child marriage; FGM, female genital mutilation; Freq, frequency; PMC-E, Population Media Center-Ethiopia

Table 7. Intention to prevent FGM and CM, PMC-E evaluation study, target districts, May 2025 (N = 403: exposed = 205, non-exposed = 198)

Item	Response	Non-exposed (n = 198)		Exposed n = 205		Statistics
FGM-related items		Freq	%	Freq	%	
Expect daughter will not be circumcised	Disagree	20	10.4	22	11.0	$\chi^2 = 7.846$, p = 0.097
	Agree	172	89.6	177	89.0	
Resist FGM under pressure	Disagree	25	13.2	21	10.7	$\chi^2 = 8.337$, p = 0.080
	Agree	165	86.8	175	89.3	
Would refuse FGM invitation/request	Disagree	16	8.4	19	9.7	**$\chi^2 = 10.902$, p = 0.028**
	Agree	174	91.6	177	90.3	
Have taken steps to prevent FGM	Disagree	55	29.6	30	15.7	**$\chi^2 = 15.663$, p = 0.004**
	Agree	131	70.4	161	84.3	
Intend to circumcise daughter in the future	No	189	95.9	204	99.5	**$\chi^2 = 9.417$, p = 0.009**
	Yes	8	4.1	1	0.5	
CM-related items						
Expect daughter will not marry before age 18	Disagree	22	11.2	8	3.9	**$\chi^2 = 15.497$, p = 0.004**
	Agree	175	88.8	197	96.1	
Resist early marriage pressure	Disagree	29	14.7	12	5.9	**$\chi^2 = 11.719$, p =0.008**
	Agree	168	85.3	193	94.1	
Would reject early marriage proposals	Disagree	13	6.6	4	2.0	**$\chi^2 = 9.682$, p = 0.046**
	Agree	184	93.4	201	98.0	
Plan to delay daughter's marriage	Disagree	20	10.2	8	3.9	**$\chi^2 = 9.799$, p = 0.020**
	Agree	176	89.8	197	96.1	
Intend to marry daughter off before age18	No	184	93.4	203	99.0	**$\chi^2 = 9.141$, p = 0.010**
	Yes	13	6.6	2	1.0	

Note: "Not sure" responses were merged with "Agree" for pro-FGM/CM statements and with "Disagree" for anti-FGM/CM statements.

Abbreviations: CM, child marriage; FGM, female genital mutilation; Freq, frequency; PMC-E, Population Media Center-Ethiopia

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