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ORIGINAL ARTICLE

Scheduled couple consultations during pregnancy as a lever to increase male involvement in maternal health: results of a qualitative photovoice study in Mozambique

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Background: Men in low- and middle-income countries often play a critical role in maternal health by increasing access to and utilization of maternal health services. This photovoice study examined the experiences of men and women with scheduled couple consultations during pregnancy, supported by social mobilization activities, as a lever to increase male involvement during pregnancy and childbirth.

Methods: The lived experiences with scheduled couple consultations were evaluated by collecting photovoice data from couples, conducting focus group discussions with health providers and in-depth interviews with women. Analysis was done by applying a thematic inductive approach.

Results: Data were collected from five couples using photovoice, nine health providers by conducting focus group discussions and nine single women by conducting individual in-depth interviews. Two overall themes arose during analysis of the data: health center experiences and community norms about pregnancy. Overall, the couple consultations had a positive effect on the interest of the male partner in pregnancy and childbirth, but deep-rooted gender norms around women's roles during pregnancy persisted.

Conclusions: Implementing scheduled couple consultations at health center level, supported by social mobilization activities, is a promising strategy for stimulating active participation of male partners in maternal health.

Keywords: male involvement, maternal health, Mozambique, photovoice.

Introduction

Maternal health refers to 'women's health during pregnancy, childbirth and the postnatal period (until 6 weeks after childbirth)', according to the WHO.[1] Important progress in reducing maternal mortality has been made in the last two decades, but still around 287 000 women died during and following pregnancy and childbirth in 2020.[2] Up to 99% of maternal deaths occur in low- and middle-income countries and 66% in sub-Saharan Africa. Mozambique, a country in southeastern Africa, has a high burden of maternal mortality. National numbers showed that only 51% of women have the recommended four antenatal care (ANC) visits during pregnancy and reported high maternal mortality with 289 maternal deaths per 100 000 live births.[3]

Men often play a critical role in maternal health by increasing access to and utilization of maternal health services.[4,5] Especially in patriarchal communities, the influence of men on maternal healthcare utilization and access is profound. Men in these settings control household resources and often make critical decisions that affect maternal health, including the access to and utilization of health services.[6] Furthermore, men often play a central role in birth preparedness and the actions needed in case of an emergency. Men can also adopt and encourage other household members to adopt health-promoting behaviors at home, such as improved nutrition and malaria prevention.[7,8] Interventions to increase male involvement in maternal health have also been linked with positive changes in couple dynamics, such as increased couple communication and equitable

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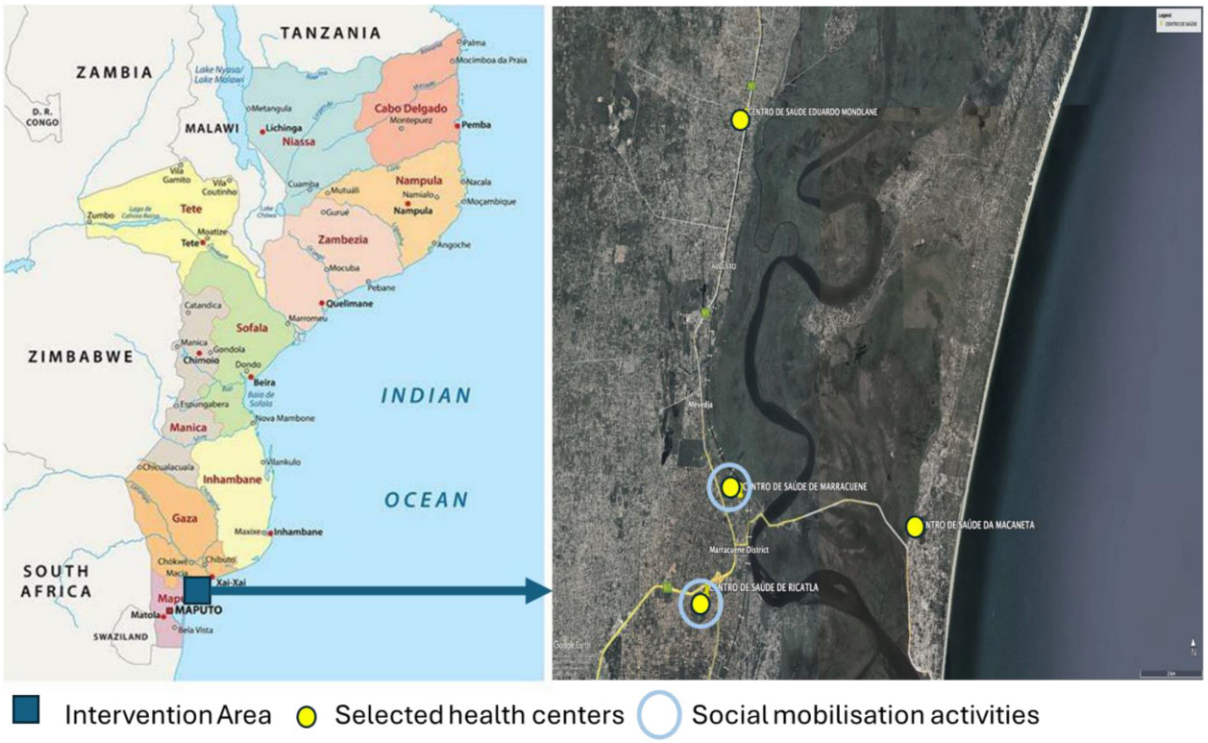


Figure 1. Overview of the intervention area and selected health centers.

decision-making, which contribute to improved health and care-seeking outcomes.[9–12]

Studies show that male presence at ANC in Mozambique is very low (1–3% women are accompanied by their husband), while men are often the main decision-makers in maternal healthcare issues.[13–15] Traditionally, male involvement interventions tend to focus on prevention of HIV transmission and index case testing, which has contributed to HIV stigmatization of men attending maternal health services. In some settings, couples are prioritized in the waiting queues for ANC, to avoid men having to wait for a long time (which could demotivate them to attend ANC services in the future). This might result in single women (e.g. women without a present partner) waiting for much longer and feeling discriminated against compared with couples.[14]

Persistent barriers to involving men in maternal health in rural Mozambique include the association of men at ANC with being HIV positive, and social norms that pregnancy and childbirth are the woman's domain.[15,16] To overcome these barriers to male involvement, a pilot project was implemented in rural Mozambique by organizing scheduled couple consultations during pregnancy in two rural health centers. The intervention combined health system modifications with community engagement activities around gender equality and maternal health. This paper describes the lived experience of women, men and health providers with these scheduled couple consultations during pregnancy using different qualitative methods.

Methods

Study setting

The study was conducted in Marracuene district in Maputo Province. This region has around 284 327 inhabitants and 11 rural health centers. Four health centers, comparable in patient load and daily activities, were purposively selected for the project. Of these health centers, two were randomly assigned to the intervention group and two to a control group (Figure 1).

Intervention

The intervention consisted of two consecutive components: one at community level and one at health system level, respectively. At community level, the involvement of men in pregnancy and childbirth was encouraged by weekly social mobilization activities**,** carried out in nine different communities over a period of 3 months. These communities were situated within 10 km of the selected health centers assigned to the intervention group (being CS Marracuene and CS Ricathla). Activities consisted of sensitizing communities about the importance of male involvement in maternal health and gender issues. This was done by film screening sessions with debates during community meetings. The film that was screened is 'A gravidez é nossa', a participatory film about men's roles in maternal health in Portuguese

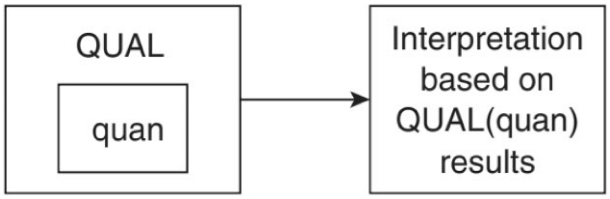


Figure 2. Embedded mixed method design.[17]

and the local language (Changana). The film was the result of a participatory film project, which has been documented elsewhere.[16]

At health system level, couple consultations were introduced at a fixed day in the week in the two selected health centers in the intervention group. Prior to the implementation, all health providers involved in maternity care of the selected healthcare centers received a 1-day training session on how to conduct these couple consultations. Training topics included: gender equality; making a birth plan with the couple; counseling men about the importance of their involvement; encouraging the reporting of problems such as danger signs during pregnancy and steps to follow in emergencies; encouraging fathers to support exclusive breastfeeding; and counseling on postpartum care and family planning. Couple consultations were scheduled on fixed days, which was communicated to the surrounding communities prior to and during implementation. In addition, the waiting area was expanded and improved (i.e. extra benches, posters with health information, painting).

Design

For this study, an embedded mixed method design was chosen (Figure 2). Both quantitative and qualitative data were collected; but the quantitative data played a supplemental role because the sample size was small and the project was considered to be a pilot study. The quantitative data were collected in all health centers, while the qualitative data were only collected at the intervention sites. This article focuses on the qualitative component, aiming at understanding why and how the intervention worked.

The intervention was evaluated after 6 months of implementation in a qualitative manner by collecting (a) photovoice data from couples, (b) conducting focus group discussions with health providers and (c) in-depth interviews with women.

Data collection and recruitment

(a) Photovoice data from couples

Photovoice was used as a data collection method to explore experiences and acceptance of the intervention for men and women, and to explore persistent barriers to male involvement in maternal health. Photovoice uses reflective photography to enable people to record and reflect community strengths and concerns, promote knowledge and critical dialogue about community issues and their impact on individuals through group discussion of image and reach and inform policymakers to bring about change.[18] A purposive sample of five couples, each experiencing a pregnancy (at least 12 wk gestation) and having received couple consultations at the intervention sites, was selected. Potential participants were selected by the community leaders of the surrounding communities; participants were purposively selected to include couples with different sociodemographic characteristics (age, number of pregnancies, socioeconomic status). Potential participants were approached by the research team, who explained the project and asked for their informed consent prior to participation. This process was repeated until five couples were identified. All participants received an individual camera and were asked to take pictures regarding their experience with the couple consultations specifically and the role of men during pregnancy in general. They handled the camera themselves and were asked to take at least five pictures every week.

The couples participated in group meetings with 2-wk intervals: one introductory session and three reflective sessions with a discussion of the photographs taken of all participants. During these discussions, participants were asked to explain the meaning of the pictures to the group and discuss these interpretations. Discussions were organized separately for men and women in the first three sessions, to maximize openness in the discussions. Group discussions were organized until data saturation was reached, meaning that no new themes emerged during the discussions. In the last session the two groups were brought together to share the generated themes and ideas.

(b) Focus group discussions with health providers

In addition, focus group discussions with health providers took place in the participating health centers in the intervention group. Focus group discussions with health providers were planned together with the head of the health center after working hours. Health providers were asked about their experiences with the intervention in terms of feasibility and challenges encountered. We planned 2–5 focus group discussions, depending on data saturation.

(c) In-depth interviews with women

In-depth interviews were conducted with women who attended ANC alone (outside the hours of the scheduled couple consultations). Single women were purposively selected, based on their availability. A member of the research team waited outside the ANC room, approached the potential participants individually and explained about the study and the criteria for participation. After providing information, each woman was invited to participate. Those who agreed to take part could participate in an interview scheduled according to their preference (i.e. location and timing). All women chose to participate on the day itself and in a quiet private room, inside the health facility area. Efforts were made to have a proportional sample size for the two intervention sites. Women were interviewed to ask about their experiences with care at the intervention sites and to explore potential unintended negative side effects for this group. Individual interviews were planned until the point of data saturation.

Table 1. Sociodemographic data of study participants

Participants Photovoice	Village	Age (y)	Gender	Education	Profession
1	Ricathla	39	F	Secondary School	Homemaker
2	Ricathla	38	F	Secondary School	Homemaker
3	Ricathla	27	F	Primary School	Homemaker
4	Ricathla	22	M	Secondary School	Hairdresser
5	Ricathla	18	F	Secondary School	Student
6	Ricathla	27	F	Secondary School	Homemaker
7	Ricathla	40	M	Primary School	Bricklayer
8	Ricathla	21	M	Higher education	Student
9	Ricathla	25	M	Secondary School	Commercial trader
Participants Focus group discussions	**Health Center**	**Age (y)**	**Gender**	**Degree**	**Working experience in maternal and infant health**
1	Maraccuene	47	F	Professional nurse	15
2	Maraccuene	52	F	Nurse assistant	24
3	Maraccuene	36	F	Advanced nurse practitioner	13
4	Maraccuene	40	F	Professional nurse	8
5	Ricatlha	36	F	Professional nurse	6
6	Ricatlha	21	F	Professional nurse	1
7	Ricatlha	31	F	Professional nurse	2
8	Ricatlha	33	F	Professional nurse	2
9	Ricatlha	30	F	Professional nurse	8
Participants individual interviews	**Village**			**Education**	**Gestational age (wk)**
1	Maraccuene	33	F	Secondary School	24
2	Maraccuene	34	F	Secondary School	35
3	Maraccuene	40	F	Primary School	35
4	Maraccuene	25	F	Secondary School	28
5	Maraccuene	28	F	Secondary School	24
6	Maraccuene	24	F	Secondary School	28
7	Ricatlha	32	F	Secondary School	35
8	Maraccuene	21	F	Secondary School	35
9	Ricatlha	23	F	Higher Education	28
10	Ricatlha	16	F	Secondary School	28

Integrated data analysis

All group and individual interviews were recorded and transcribed, together with note taking.

Photos were analyzed by the participants themselves using an inductive thematic approach. Photos were discussed in groups and during the last session ordered into themes. These analyses were complemented by the interviews with single women and the focus group discussions. Data analysis was carried out by AG, MSB and EM by adhering to the principles of reflexive thematic analysis of Braun and Clarke in six steps.[19] Hereby inductive analysis was used and semantic coding, meaning the authors stayed close to the original wording of the participants.[20] RQDA (R package, version 2:01:01, University of Auckland) software was used for assigning codes to the data and creating a code tree.

Ethics

Ethical approval for data collection was granted by the bio-ethical committee of the Faculty of Medicine/Hospital Central de Maputo and the National Bio-ethical Committee (Ref: 523/CNBS/21). All participants received information regarding data collection, data-handling (use of photos) and dissemination plans both orally and in writing and all participants gave their written consent. Participation was voluntary and no incentive was provided.

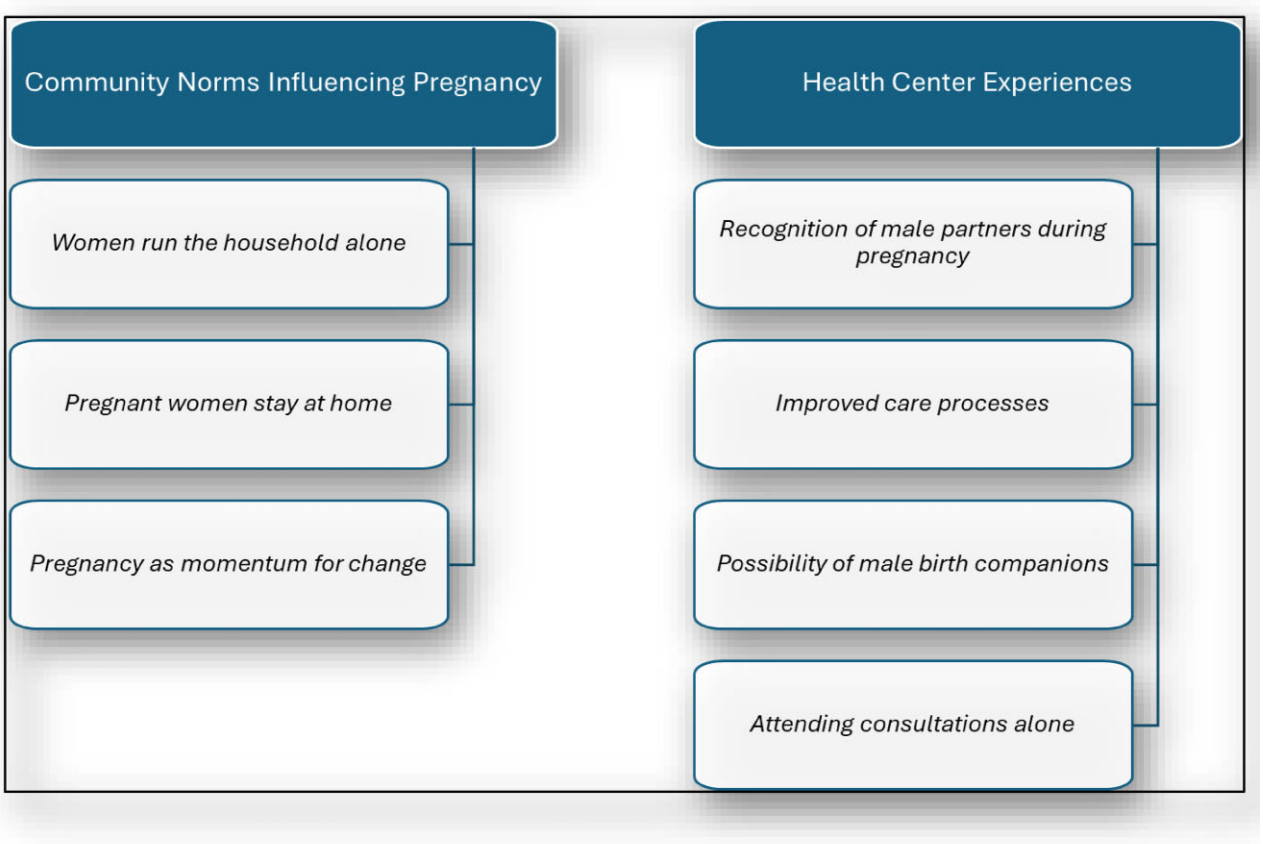


Figure 3. Themes and subthemes.

Results

Sociodemographic data of participants

(a) Photovoice data from couples

Five couples were invited to participate in the photovoice project, but in the end only four couples and one woman participated. One woman agreed to participate with her male partner, but when the photovoice project started her partner was abroad. Because she had attended the scheduled couple consultations with her partner, it was decided she could still participate.

(b) Focus group discussions with health providers

Nine health providers from two different health centers participated in two different focus group discussions.

(c) In-depth interviews with women

Lastly, nine single women, pregnant at the time of data collection, were asked via an individual in-depth interview about their experiences (Table 1). Five out of nine single women had a partner working and living in another area (being in the capital, Maputo; and across the border, in South Africa), while four women were currently not in a relationship.

Sociodemographic data of all participants can be found in Table 1.

Two overall themes arose during analysis of the data: health center experiences and community norms about pregnancy (Figure 3). Within these themes several subthemes were identified with quotes to illustrate the wording of the participants.

Health center experiences

Recognition of male partners during pregnancy

Both health providers and couples explained that the project resulted in more rewards and recognition for male partners to be fully present during the pregnancy, both physically and emotionally. Health providers explained that via dedicated couple consultations male partners became more convinced of their importance and felt they were really needed there. This was echoed by a woman throughout the photovoice project (Figure 4), who took a photo of herself with her partner attending the couple consultations.

Also, other participants agreed that couple consultations can have a strong impact on the overall role of the male partner beyond the consultation. The couple consultations resulted in male



Figure 4. 'He became more interested in the pregnancy and consultations itself and understood my difficulties.'

partners being more aware of the importance of their family and to always put their family first. In the final photovoice session this was expressed by a photo collection called 'Importance of the family' (Figure 5).

Improved care processes

Health providers found it more practical to work with the couples directly than with women alone. The presence of the male partner made it easier to treat infections; for example:

> *For us as providers, the couple consultations have various advantages… talking about STIs for example, couple consultations decreased recurrent STIs because when the wife is just asked to bring the partner and pass information, the partner does not come and the result is recurrent infections, but when they are together as [a] couple in the ANC, we can treat immediately and the problem is over* (female health provider during the focus group discussions).

They also explained that passing information to the couple is advantageous for the health of the woman and her pregnancy. Women are not always believed when they pass on the information from health providers, so it is necessary to give the information directly to the partner:

> *If that woman has hypertension and she always comes alone, and receive[s] information and goes back home and gives feedback to [her] partner, he will go against her. But when he also receives the information and sees that what she was saying was not from her mouth but from the providers, he starts to give more support and affection to his wife…This is a win for us as providers because we are able to prevent many problems for these women* (female health provider during the focus group discussions).

Possibility of male birth companions

In the intervention sites the presence of the partner during childbirth was allowed and supported, which was perceived as positive by both the women and their male partners. One male partner, participating in the photovoice project, attended the childbirth and described this as being a very important moment in fatherhood and a positive experience that he wants pass on to his young brothers:

> *… I am the oldest son from my mother, as the older brother I want to pass these good examples to my younger brothers, for them to take care of their families* (male partner during the photovoice project).

The male partner attending childbirth also encountered challenges. He felt he was not always welcome in the health center. He explained that several times he heard people saying that he did not belong in the maternity ward as a man:



Figure 5. 'Attending consultations together helped to put the family first.'

> *I often heard people saying: 'what is he doing here, this place is not for men'. Luckily my own family encourage me to be involved, especially my sisters and mother-in-law* (male partner during the photovoice project).

Also, health providers were positive about allowing male partners but explained this was only possible in certain circumstances. Crowded rooms made it sometimes challenging and caused other patients to be hostile towards men in the maternity ward, due to a lack of privacy.

Attending consultations alone

Women who attended the antenatal consultations alone had very different reasons for not bringing a partner. Some women had a partner working abroad, while others were not in a relationship. One woman explained she felt supported by her partner, but just in another way than attending consultations with her (Figure 6).

Overall, women without a current partner did not have a negative experience at the health center. They attended the regular antenatal consultations and were treated with respect:

> *We are all women and they treat us all the same, with or without [a] partner* (female participant in the in-depth individual interviews).

However, one woman explained that men in general are attended to before women, which was perceived as an injustice:



Figure 6. 'My husband is often away but I don't feel alone. He supports by working for us.'

The only thing that bothers me is that men can go in any time for consultations, while we have to wait the whole day (female participant in the individual interviews).

Community norms influencing pregnancy

Women run the household alone

Despite positive changes, traditional gender roles are still impacting the behavior of both men and women during pregnancy. In the community there is a belief that pregnant women should stay at home and take care of the domestic tasks and/or other children. During the photovoice session with women, it became clear that women feel alone when managing household tasks and taking care of the children (Figure 7). Men explained during their sessions that they try to help their pregnant partners, but the overall responsibility stays with women.

Pregnant women stay at home

If pregnant women continue working outside the house or study, a female participant explained the community will gossip and regard this as something negative. She struggled with these community norms and her own desire to continue studying. While she tried to ignore the beliefs and comments of other people, she found this difficult. Also, several other participants explained the community belief that pregnant women should dedicate their time to their family and running the household. Actively seeking a job or starting new activities (such as studying) during pregnancy are not supported, and regarded as unhealthy for the baby (Figure 8).

Gossiping in the community often makes it difficult for women to follow their own path (Figure 9). Especially when they are pregnant, they are confronted with strong rooted norms regarding motherhood in the community, making it difficult to make their own choices; they are often expected to dedicate their lives to raising children. In light of these norms, it is difficult for women to continue studying or to try and build a career.

Pregnancy as momentum for change

All of the participants saw pregnancy and childbirth as a new beginning with new possibilities and paths. They raised their young sons to be responsive and care for their families. They strongly believed in future generations where men are more involved in taking care of the children and performing household tasks. They also tried to educate their boys to take up a role as caretaker in the family. These findings were grouped in a photo board in the last session (Figure 10).

Discussion

The qualitative evaluation of this pilot study showed promising results for improving male involvement in maternal health by organizing scheduled couple consultations during pregnancy in rural Mozambique. The findings showed that couple consultations can result in more recognition of the male partner during preg-



Figure 7. 'When I am doing these tasks I often feel alone because my husband is not there or does not help.'

nancy, causing male partners to be more interested in the pregnancy and to take up a more active role. Also, health providers reported positive experiences with the couple consultations in terms of better care processes, for example, in preventing and treating STIs.

In this study, community beliefs seem to be very strong on imposing traditional gender roles, despite a desire for change among participants. Results show an attitude change among men regarding their role during pregnancy, but other norms regarding women as being responsible for household tasks seemed to persist. Within this project community sensitization activities were conducted, but these were short term and on a small scale. For questioning and potentially changing gender norms within these communities, more long-term interventions, involving stakeholders from different levels, will be needed.[21] Evidence regarding gender norms also show that interventions starting at a younger age show promising results for promoting gender equality.[21,22] This also links to our results where participants foresee a promising future for their children. They believe in more equal gender roles, where men participate in household tasks and help raise the children. By passing this message to their children, they have a positive future in mind with more support in the household. This shows that pregnancy can be considered as a window of opportunity for addressing harmful gender norms within communities.

Potential negative side effects of the intervention on single women were explored. While the intervention did not seem to affect their experience with pregnancy care, a persistent longer waiting time for single women in general was reported. This seems to signal that there is still a practice of attending to men (or women accompanied by a partner) more quickly than to women, although this project wanted to remove this practice by scheduling the couple consultations on fixed days (instead of giving couples priority). We do not have hard evidence on waiting times for single women, but these forms of gender discrimination at health center level should be examined further. Longer waiting times for single women signal a deep-rooted problem, whereby gender is a fundamental factor that shapes healthcare quality and broader health systems and outcomes.[23]

In this research project, the use of photos clearly helped participants to express their feelings concerning motherhood and male involvement. Barriers to male participation in maternal healthcare (such as the strong influence of the community) were identified using pictures and reflection. We believe



Figure 8. 'For me my pregnancy is not a barrier, I want to continue studying.'

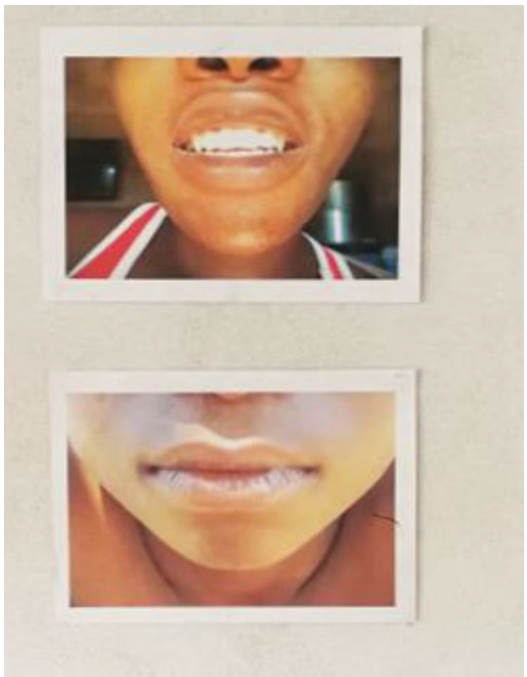


Figure 9. 'People should mind their own business and keep their mouth shut.'

research examining personal and sensitive themes (such as gender and motherhood) can benefit from art-based techniques and visual materials. Participatory approaches, including photovoice and arts-based research, should be integrated more into traditional academic research including the voices of communities.

This research project has several limitations. It was a small-scale project with limited generalizability. The experience of couples with scheduled couple consultations might be different in other contexts, depending on sociocultural norms and health system factors. The multilayered intervention, also consisting of a community component, makes it impossible to evaluate the different components of the intervention in isolation. Furthermore, this is a qualitative evaluation, and further quantitative analysis is needed for examining the effect on maternal healthcare uptake along the continuum of care. Lastly, our data collection methods (photovoice and the qualitative interviews) all required direct face-to-face contact with the research team, which might introduce a social desirability bias. On the side of the researchers, personal beliefs and values might have played a role in data collection, analysis and reporting. The research team carrying out the research activities in the field were all Mozambican researchers (MSBM, EM, DA, TK, MM) familiar with the local context and language. The study coordinator (AG) overseeing the scientific evaluation lived in Mozambique for many years prior to this study, conducting extensive research on the topic. Reflexivity was actively practiced among the

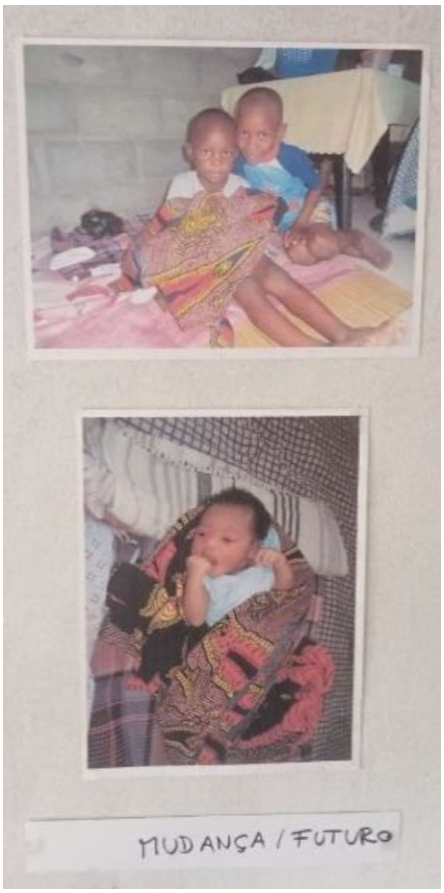


Figure 10. 'My boys grow up learning to take care of their younger sister and they love it.'

research team by weekly meetings, while the results of the photovoice were manufactured and interpreted by the participants themselves.

Conclusion

Implementing scheduled couple consultations at health center level, supported by social mobilization activities, is a promising strategy for stimulating male involvement in maternal health. However, deep-rooted gender norms around pregnancy and domestic tasks seem to persist and will need more multilevel long-term interventions. Participatory approaches, including photovoice, are a powerful method for echoing the voices of communities.

Authors' contributions: AG, DA and TK conceived the study; AG, EM and MBM designed the study protocol; DA and TK led the photovoice study; EM and MBM collected the data; AG, EM and MBM analyzed and interpreted the data. AG drafted the manuscript; EM, MBM, DA, MDM and TK critically revised the manuscript for intellectual content. All authors read and approved the final manuscript. AG, EM and MBM are guarantors of the paper.

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Competing interests: All authors declare they do not have competing interests.

Ethical approval: Ethical approval for the study was granted by the bioethical committee of the Faculty of Medicine/Hospital Central de Maputo and the National Bio-ethical Committee (Ref: 523/CNBS/21).

Data availability: The datasets used in the current study are available from the corresponding author upon reasonable request.

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