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Factors Facilitating and Challenges Facing Community-based Interventions in Improving Antenatal Care in Rural Tanzania

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Abstract

The improvement of antenatal care has remained a topical global concern as signalled by maternal deaths, which have remained unacceptably high, especially in low- and middle-income countries. In response to this concern, community-based interventions through women's groups have been implemented to improve antenatal care; and have shown promising results in rural settings. However, factors contributing to the success or failure of these interventions vary across geographical settings, thereby necessitating area-specific considerations. This paper sets out to unveil significant facilitators and barriers to the implementation of women's group interventions in Tanzania. A qualitative case study design was employed involving interviews, focus group discussions, and documentary review in Kilolo and Mufindi districts. Eighty-six participants were interviewed and six small focus group discussions were conducted. Findings show that several factors facilitated the implementation of community-based interventions. These included recruitment and selection of the women's groups, readiness among the women's groups, support of the local administrative systems, and inclusive monitoring and evaluation process. On the other hand, the implementation process was constrained by insufficient logistical supplies, multiple workloads, and the desire for allowances. It is concluded that increased uptake and sustainability of antenatal care can potentially be attained through an understanding of both facilitators and barriers during the planning, development and implementation of the interventions of women's groups.

Keywords: *facilitators and barriers, community based interventions, women groups, antenatal care, Tanzania*

Introduction

The improvement of maternal and child health (MCH) has remained a global and national priority. Globally, maternal deaths have sharply declined by 44% from 385 to 216 deaths per 100,000 live births between 1990 and 2015, though the rates are still appallingly high in low- and middle-income countries (LMICs) (Earsido et al., 2015; Tuncalp et al., 2017). For example, of the 287,000 women who die due to pregnancy-related complications annually at the global level, 99% are from LMICs, with the Sub-Saharan Africa (SSA) accounting for almost 66% of all the maternal deaths (Kalipeni et al., 2017). The situation in Tanzania is also not promising as maternal mortality rate (MMR) stood at 556 per live

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births in 2015 (MoHCDGEC, 2016). This has also been confirmed by the Ministry of Health (MoH) in Zanzibar, the National Bureau of Statistics (NBS), Office of the chief government statistician (OCGS) and ICF (2016). This raises a concern as to whether Tanzania will achieve the SDG Number 3, which asserts that no country should have MMR above 140 per 100,000 live births by 2030. It is asserted that ensuring pregnant women attend antenatal care (ANC) has the potential to improve MCH since almost 25% of maternal deaths occur during the prenatal period, mainly due to pre-eclampsia and antepartum haemorrhage (Scott et al., 2017). Specifically, ANC can improve MCH outcomes because it provides critical services during pregnancy, such as health education, disease monitoring, prevention and treatment (Gong et al., 2019; Haruna, 2019).

Adherence to the ANC procedure is critical for better MCH outcomes for a pregnant mother and the new-born. In 2016, the World Health Organisation (WHO) developed a new model that requires pregnant women to make a minimum of eight (8) ANC visits, including one visit in the first trimester, two visits in the second trimester, and five visits in the third trimester (WHO, 2016). This new model replaced the former one that demanded pregnant women to make four visits if not diagnosed with complications (Gong et al., 2019). Nonetheless, some countries—including Tanzania—are still implementing the previous model requiring at least four ANC visits (Bintabara et al., 2019). The rate of adherence to ANC services among pregnant women in LMICs is consistently reported to be unsatisfactory, culminating in the prevalence of adverse effects of pregnancy complications. For instance, the percentage of pregnant women who visit ANC at least once in LMICs is approximated to 71%, with 47% completing four ANC visits, whereas 24% start early ANC visit within the first trimester. This is in contrast with 81% in high-income countries (Moller et al., 2019; Woldie et al., 2019). In 2015, only 24% of pregnant women in Tanzania started ANC within the first trimester; and only 51% of them completed the recommended four visits (MoHCDGEC, 2016; NBS, 2016; OCGS, 2016; ICF, 2016).

To address the identified challenges, significant efforts have been made to improve ANC in LMICs, but with varying outcomes. The efforts have particularly included addressing the shortage of health personnel, constructing more health facilities, as well as improving the availability of medical supplies (MoHCDGEC, 2015; Jaribu et al., 2018). While these efforts are commendable, empirical studies have recommended the implementation of community-based interventions (CBIs) through women's groups (WGs), especially in resource-constrained countries (Prost et al., 2013; Gram et al., 2018). These interventions have demonstrated varying outcomes in different countries. For instance, the Maikhanda Programme in Malawi averted 933 perinatal and 384 neonatal deaths (Colbourn et al., 2013). Similarly, the Makwanipur Programme in Nepal reduced maternal mortality by 80% (Lassi & Bhutta, 2013). Conversely, the interventions implemented through WGs in Bangladesh from 2005-2007 in Prohjanmo District did not yield the expected outcomes (Azad et al., 2010).

The capacity of WGs' interventions to achieve targeted goals is determined by different factors that are nested within the contextual setting in which the interventions are implemented (George et al., 2016; Glenton et al., 2013). Therefore, an understanding of the interaction between WGs' interventions and contexts is needed to enhance the

interventions, and thus achieve the intended outcomes (Glasgow, 2008; Hesse-Biber & Johnson, 2015). Studies have, for instance, found that community ownership positively influences the adoption of interventions (Blanchet et al., 2014; Iwelunmor et al., 2016). Similarly, the sense of volunteerism facilitates effective implementation of interventions (Jacobs et al., 2018). Also, a systematic review by Lassi and Bhutta (2015) unveiled that training of implementers significantly increases the chances of effective implementation of interventions, particularly in relation to safe deliveries.

The implementation of WGs' interventions has also been found to be constrained by geographical conditions (Jacobs et al., 2018; Indriani, 2012). For instance, in 2007, one of the intervention areas in Bangladesh was severely affected by floods, thereby preventing facilitators from attending WGs' meetings (Kok et al., 2015). The implementation of WGs' interventions is also inhibited by insufficient integration of socio-cultural aspects before and during the execution of interventions.

Research Problem and Objectives

While WGs' interventions have been credited for improving ANC, there has been consistent concentration on the end results of interventions, rather than on contextual factors (Colbourn et al., 2013; Prost et al., 2013). Thus, there is a scanty critical analysis of contextual factors that either facilitate or inhibit the implementation of WGs' interventions (Ngilangwa et al., 2018; Mpembeni et al., 2015; Geldsetzer et al., 2019). Most CBI reports in LMICs omit details about how implementation processes were undertaken in particular settings (Miltenburg et al., 2019). In Tanzania, for instance, there is a limited knowledge about contextual factors that facilitate or constrain the implementation of WGs' interventions to improve ANC services. This paper, therefore, analyses the major factors that facilitate or constrain the implementation of WGs' interventions in rural Tanzania. It is the assumption of the authors that interventions can potentially achieve better and sustainable results through in-depth understanding of the facilitating and constraining factors during the planning, development and implementation of WGs' interventions.

2. Methods

2.1 The IMCHA Project in Iringa Region

The findings reported herein are nested within a large project known as 'Innovating for Maternal and Child Health in Africa' (IMCHA) programme, which was implemented in Kilolo and Mufindi districts in Iringa Region, Tanzania. The IMCHA programme, which extended from September 2015 to March 2020, aimed to improve maternal, new-born, and child health outcomes. This was to be achieved by strengthening health systems to make them more equitable, using primary healthcare as the entry point (Maluka et al., 2020). The IMCHA project was implemented through participatory action research (PAR), whereby the implementation research team (IRT) worked with community members to address MCH challenges, including ANC. The PAR was implemented through a series of meetings with WGs, men and other stakeholders in which barriers to ANC services were identified, and strategies to improve ANC were designed. The PAR was facilitated by the IRT from the University of Dar es Salaam, and health managers from Iringa Region. The phases and series of meetings are illustrated in Figure 1.

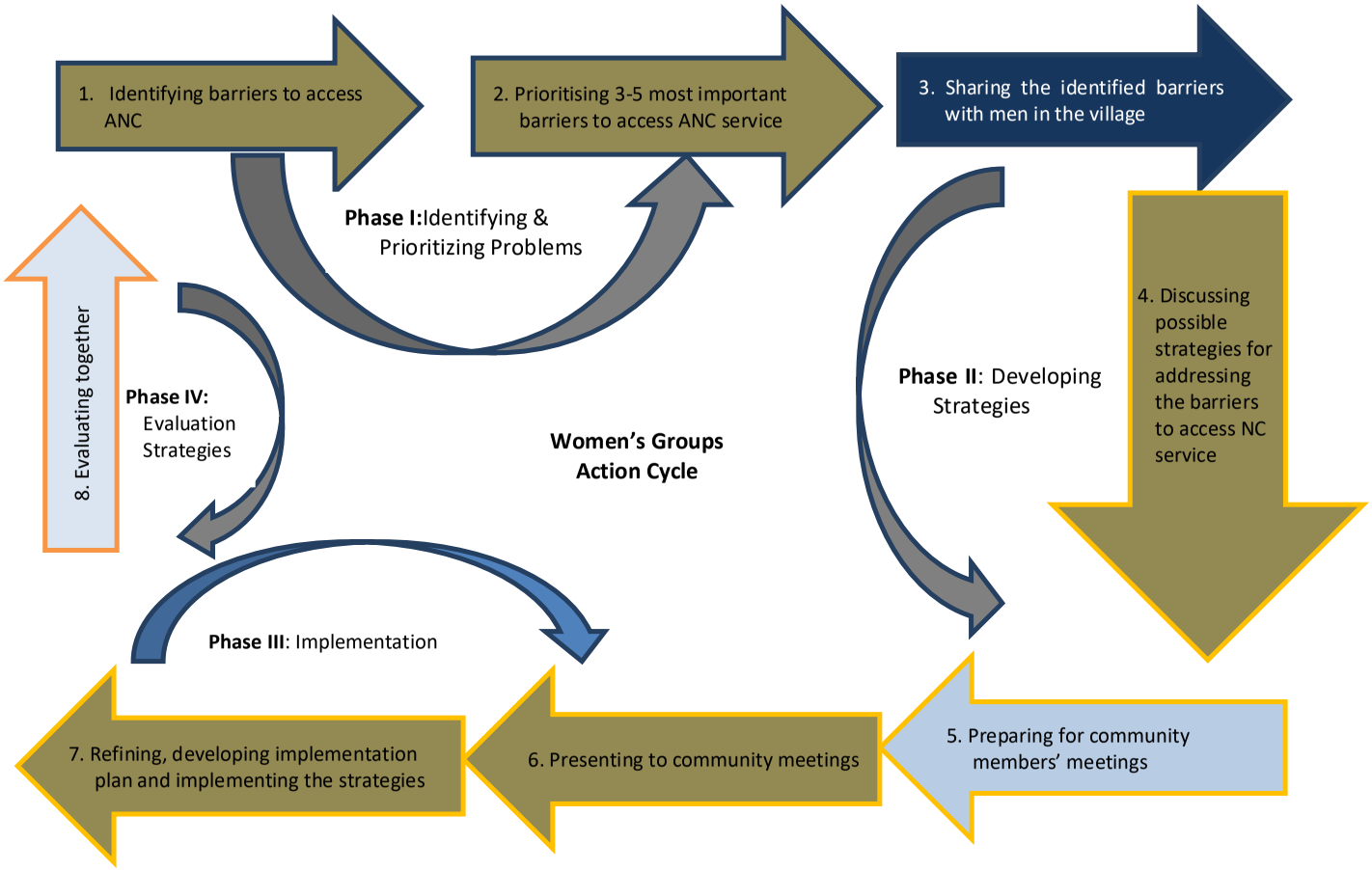


Figure 1: *Women Groups Participatory Action Cycle*

Figure 1 shows the four phases covered during the PAR. Phase I focused on the identification of barriers to access ANC services in the respective villages, and prioritisation of the major 3-5 ANC barriers. Phase II involved the development of strategies to address the prioritised barriers. The proposed strategies were presented in community meetings, involving different stakeholders such as government and community leaders, religious leaders, healthcare providers and members of health facility (user) committees. In phase III, WGs developed plans and led the implementation of the strategies to improve ANC; whereas in Phase IV, WGs evaluated the effectiveness and sustainability of the implemented strategies.

2.2 Study Design and Setting

This study employed a qualitative exploratory case study design (Yin, 2009). The exploratory case study design was relevant in this study because the implementation of community-based interventions is characterised by the lack of detailed preliminary research, especially formulated hypotheses that could be tested. Mufindi and Kilolo districts were purposively selected because they were implementing the IMCHA project. The two districts are predominantly rural, and the majority of the population relies on agriculture for subsistence. Also, the two districts experienced a high rate of delayed utilisation of ANC services, and failure to complete four ANC visits. Table 1 shows the key characteristics of the study settings.

Table 1: Key Characteristics of the Study Settings

	Kilolo District	Mufindi District
Population	218,130	265,896
Division	3	5
Wards	22	28
Villages	106	121
Public Hospitals	0	0
Health Centres	2	8
Dispensaries	56	45
Health Workers	61%	62%
Shortage of Health Workers	39%	38%
ANC Attendance within first trimester as of 2016	16.8%	27%
Four ANC completion as of 2016	27.1%	23%

Source: Mufindi CCHP, 2018 and Kilolo, CCHP, 2018

Respondents for this study were purposively sampled to include mainly those who directly participated during the implementation of the community-based interventions through WGs. The study participants comprised of WG members, women's group supervisors (WGS), village management teams (VMTs), health care workers (HCWs), community gatekeepers (CGs), council health management teams (CHMTs) and the implementation research team (IRT). Table 2 shows the distribution of participants across the study settings.

2.3 Data Collection Techniques

Three data collection techniques were employed to triangulate the findings of the study. Firstly, face-to-face interviews were conducted with key respondents from June to September, 2019, in the participants' residences or offices.

Table 2: Participants in the Study

Category of Selected Participants	Number of Key informants per districts	
	Kilolo	*Mufindi*
Women Groups	15	15
Male Champions	5	5
Women Groups Supervisor	5	5
Community Gatekeepers	3	3
Health Care Workers	4	4
Village Management Team	5	5
Council Health Management Team	4	4
Implementation Research Team	2	2
Total	**43**	**43**

Respondents in the interviews were purposefully selected by the virtue of their participation in the implementation of WGs' interventions. Interview guides were developed after reviewing IMCHA technical reports, monthly reports, and the grant proposal. Interview guides were developed to suit each category of the participants; and lasted between 45 minutes and 1 hour.

Secondly, six FGDs were conducted, three (3) in each district, which involved WGs and WGS who were actively involved during the implementation of WGs' interventions. FGDs were conducted to triangulate the information collected from interviews. Each FGD comprised of 8 to 10 members. The data enlisted from the FGDs revolved around the important factors that facilitated the implementation of WGs' interventions. The specific information collected included the readiness of the WGs to implement the interventions, and the role of local administrative systems.

Thirdly, various policy documents and the IMCHA implementation reports were reviewed to assess the design and process of implementation of WGs' interventions. The key documents that were reviewed included health sector strategic plans, comprehensive council health plans (CCHPs), and the IMCHA project strategic and action plans. Other documents included reports pertaining to programme meetings, formative research, workshops and project progress reports. These documents were obtained from district health managers and the IMCHA project principal investigator. The analysis of these documents provided a good opportunity to compare, triangulate and confirm the findings generated through in-depth interviews and FGDs.

2.4 Data Management and Analysis

Data were analysed using the thematic approach (Braun & Clarke, 2006). Data were transcribed verbatim in Kiswahili. Initially, researchers read the transcribed interviews to familiarise with the data. Then a code manual was developed in relation to the objectives of the study, and the interview and FGD guides. Data were thereafter coded manually in accordance with the identified codes. Any additional code that emerged during the coding process was included. Summaries from the document reviews were coded along the data from interviews and FGDs. After the coding process, the research team sorted and grouped data under patterns to make them generalisable.

2.5 Ethical Issues

Prior to data collection, participants were briefed about the purpose of the study, and informed consent and voluntary participation were ensured. The consent for participation was verbal because it was important to ensure the confidentiality of the participants. The University of Dar es Salaam provided the research clearance letter, Number AB3/14 (B). Also, the regional and district authorities in the respective administrative units approved the research. Interviews were audio-recorded after obtaining consent from the participants. The transcripts were only accessible to the team members.

3. Findings

The findings are organised according to the key objectives that guided the study, and the additional themes and sub-themes that emerged during the data coding process.

3.1 Factors Facilitating Implementation of WGs' interventions

In this section we analyse an array of factors that facilitated the implementation of WGs' interventions to improve ANC services. The analysis is divided into four major sub-themes: levels of readiness among WGs, the role of local administrative systems, recruitment and selection of WGs, and inclusive monitoring and evaluation.

3.1.1 Levels of Readiness Among WGs

The findings demonstrated the importance of readiness among WGs to implement interventions as they displayed passion and enthusiasm to accomplish the required tasks. This was manifested in the keenness to attend community sensitisation meetings, tracing and visiting pregnant women, accompanying pregnant mothers to health facilities, and attending health emergencies and issues as testified by one participant:

> *Whenever our supervisors gave us a plan of the activities that we were supposed to accomplish in a given period, we organized ourselves to implement the given task….and in many times we did not have to wait for instructions from the supervisors. For instance, if there was a pregnant woman in the village who needed to be accompanied to a health facility for emergency attention, we would take the woman to the facility* (IDI with WGs, in Kilolo).

To add on the sense of readiness, one village management team member attested:

> *When I came to this village, it was my first appointment; I met WGs in their third phase of the cycle. When it came to implementing actual interventions, these women worked very hard, and so they kept me engaged in what they were doing. We walked all around the hamlets of this village together; even during night hours* (IDI with VMT, in Mufindi).

Readiness to serve was also exhibited in several cases where WGs performed duties beyond their schedules. It was said that they even worked at night to support pregnant women with health emergencies in most of the villages.

A further analysis of data revealed different factors for WGs readiness to implement interventions. One of the factors was their involvement in the implementation of the interventions as they actively identified, prioritised, and proposed solutions to ANC problems. Other factors for their readiness included the sense of ownership of the strategies

to address ANC problems, eagerness to serve community members, as well as technical support from healthcare workers. Moreover, the WGs participated in a series of review meetings with different stakeholders at the village, ward, and district levels. This encouraged them to serve diligently during interventions. Again, community responsiveness to adopt interventions and share experiences with other intervention villages that were performing better built a strong sense of readiness among the implementers of interventions.

3.1.2 The Role of Local Administrative Systems

Cooperation of local administration has the potential to influence the implementation of community programmes. In the present study, it was affirmed by participants that WGs' interventions hinged greatly on the existing local leadership of a village management team, which comprised of village executive officers as well as village and hamlet chairpersons. These leaders were actively involved in all phases of the implementation of interventions. Local leaders played different roles during interventions, including (i) introducing WGs to the community members during sensitisation meetings; (ii) organising meetings in their areas of jurisdiction for implementers to deliver their ANC messages; (iii) providing moral and material support to WGs, especially meeting space and such necessary supplies as stationeries; (iv) prioritising and integrating ANC issues in village development plans; (v) recognising and appreciating activities implemented by WGs; (vii) providing security to WGs, especially when visiting pregnant women at night; and (viii) introducing WGs to nearby villages for the delivery of ANC messages. One of the participants elaborated as follows:

> *Our village leaders accorded us all the necessary assistance we needed from them. Whenever we went to their offices or called them on the phone, they were always ready to help us. Our local leaders, especially the VEO, would even provide us with security in case we wanted to check on pregnant women at night* (IDI with WG member, in Mufindi).

The IRT also had this to say regarding local leadership:

> *Local leaders were important during the implementation of the interventions. Given the fact that we involved them from the beginning of the interventions; it was very easy for them to give all that was in their capacity to ensure that interventions got the right guidance* (IDI with IRT).

The study participants further stated that local administrative systems were an important mechanism to increase the demand for, and access to, ANC in the two districts. The findings revealed that the engagement of local administration in the interventions not only simplified the responsibility of WGs and HCPs, but also encouraged the community at large to seek ANC services.

3.1.3 Recruitment and Selection of WGs

The criteria for recruiting WGs to participate in the implementation of the interventions played a significant role in the performance of the interventions. The analysis of the project reports revealed that the selection process started with public meetings in each intervention village. In average, 150 adult women and men attended the meetings during which the IMCHA project was introduced. Attendees were then tasked to select potential WG members and supervisors. The selection criteria for women included: (i) women who were permanent

residents of respective villages; (ii) women of reproductive age (between 15 and 49 years), and who had also given birth in their lifetime; (iii) women with public speaking skills and confidence; and (iv) representatives of all hamlets. Many villages had between 4 and 5 hamlets, and since 20 women per village were required, each hamlet had to produce four (4) WG members. Attendees were allowed to select members who they thought were responsible even if they were not present during the meetings, as long as attendees unanimously nominated them. This was confirmed by one of the WG members:

> *I got information about the public meeting but I didn't attend; however, I was informed by our village leader that participants had nominated me to serve as a WG member. I did not reject since my community members had confidence and trust in me that I would manage the task (*IDI with WG, in Mufindi).

The adopted selection criteria enabled representation of all village hamlets, and this made the implemented interventions an integral part of the community, thereby contributing to the community ownership of the implemented interventions. During IDIs and FGDs, participants expressed satisfaction with the selection process, as one participant puts it:

> *Of all women in this village, only a few of us were selected to form women's groups. Community members ensured that all selected women were capable of executing the tasks ahead of them. As we continued implementing the interventions, this was reflected among us as each one was passionate and dedicated to implement the designed strategies. We showed the best example in the village, and we were committed not to disappoint the people who had trust in us. After all, this project was meant to serve the community needs* (IDI with WG, Kilolo).

The criteria applied in the selection of participants were also commended by the VMTs as they revealed that selecting WGs from all the hamlets simplified the coordination of the activities of WGs. One VMT was quoted saying:

> *Each hamlet was represented, and this was a very strategic decision in this project. You know, most of the meetings are convened at the hamlet level, on a monthly basis; while at the village, meetings are held after every three months. Thus, by having a member at the hamlet, it was easy to know when the meetings were to be held* (IDI with VMT, in Kilolo).

Furthermore, findings revealed that the recruitment of WGs ensured representation of all villages and the selection of implementers with the right credentials that would smoothen the implementation of interventions. It was also stated that effective involvement of community members in the recruitment process contributed to the community ownership of the implemented interventions, and this also enhanced trust in the intervention strategies.

3.1.4 Inclusive Monitoring and Evaluation

Two forms of monitoring and evaluation were undertaken to facilitate the implementation of the interventions: monthly reports, and review meetings. Mentoring and evaluation were conducted twice a year. Monthly reports were prepared by women group leaders in collaboration with IRTs. Every month WGs held a meeting to discuss implemented activities, and also to prepare monthly reports. The reports documented major achievements such as the number of sensitisation meetings held, and the pregnant women visited in their households. The reports also captured the challenges encountered

in the implementation process, and plans to overcome the challenges. This helped in tracking the project progress, devising solutions for mitigating challenges, and enhancing recorded success. One of the respondents contended thus:

> *The monthly reports helped us to assess ourselves in terms of what we had done. Because we were striving to do better every month, we had to strategize how to work harder to achieve the changes we desired* (IDI with WGS, in Kilolo).

The IRT reported that monthly reports were important as they enabled the team to assess progress, but also determine villages that needed to put more efforts and/or required support. In addition, the information captured from the monthly reports was crucial as it could be discussed with other stakeholders during the review meetings.

The second form of monitoring and evaluation process pertained to review meetings that were convened mostly after every three months. The meetings involved all stakeholders from the village, ward and district levels. The smallest group had 80 participants, and the largest had 90 participants. Each meeting involved between three and four intervention villages in which WGs shared experiences while implementing interventions. The four major agenda covered during the review meetings included accomplished activities and significant achievements made; challenges encountered; and the way forward. Stakeholders also provided their views on how each village had implemented the activities. Lastly, the IRT provided advice on how to better implement interventions.

3.2 Factors Constraining the Implementation of WGs' Interventions

While the implementation of CBIs through WGs had made progress, several impediments were analysed, including: insufficient logistics and supplies, multiple workloads among WGs, and desire for allowances.

3.2.1 Insufficient Logistics and Supplies

Respondents reported that women group members and male champions faced a critical shortage of logistics and supplies, and this affected smooth implementation of interventions. The needed supplies included counter books, t-shirts, brochures, pens, reams of papers, and bags to keep these items. In addition, during rainy seasons, the implementers required raincoats, gumboots and umbrellas; and at night they required torches as they visited pregnant women. The lack of these items disrupted smooth accomplishment of some of the planned activities. This is elaborated by one participant thus:

> *We worked under difficult conditions, especially during the rainy seasons. At times, we had to postpone some meetings in this village as we lacked appropriate protective gadgets during sensitisation meetings* (IDI with WGS, in KDC).

As meetings continued, there appeared to be a shortage of leaflets as all those who attended wanted some leaflets to read at home, as expressed by one participant:

> *It was a challenge to us when those who attended meetings demanded leaflets. The leaflets we received from the researchers were few and not enough for all those who attended sensitization meetings. However, community members still insisted to be given some of the leaflets* (FGD with WGs, in Kilolo).

The lack of essential items was also affirmed by village leaders, as the text below illustrates:

> *Women group members occasionally came to me asking for papers on which to write their songs, poems and drama; especially when attending sensitisation meetings. The leaflets were also few because in the meetings that I attended many people asked for fliers but did not get any* (IDI with VMT, KDC).

Participants also reported the need for means of transportation like bicycles, which could simplify movements within the villages. The need for transport was spearheaded by the fact that some WGs had to walk long distances to reach pregnant women, as well as attend public sensitisation meetings at the hamlet level. Other participants revealed a shortage of files for record-keeping. It was important to ensure that important information was well-kept.

3.2.2 Multiple Workloads among WGs

Findings showed that WGs were burdened with heavy workloads. This potentially lowered the expected performance of the implemented interventions. It was reported that during the implementation of interventions, WGs had to: (i) participate in sensitisation meetings; (ii) attend community gatherings in churches and other informal gatherings; (iii) identify pregnant women in their respective areas; (iv) visit identified pregnant women and those who had recently delivered; (v) provide counselling to pregnant mothers; and (vi) accompany pregnant mothers to health facilities, particularly those who felt shy to go to the facility after delayed ANC. WG supervisors had additional roles that included: (i) liaising with the VMT to organise sensitisation meetings; (ii) coordinating and assigning WGs to the households to be visited; and (iii) liaising with the IRTs and health care workers to accomplish any emerging issues pertaining to the improvement of ANC services.

All the described assignments collided with social and personal commitments that they had to fulfil in their own families and the community. For instance, participants reported that during the peak of farming seasons, attending meetings and home visiting of pregnant women proved difficult. WGS complained more about the unavailability of WGs when they were urgently required. It was also revealed that many WGs participated in other community development activities like the construction of classes and dispensaries, attending to the sick, and attending weddings and funerals. One participant reaffirmed how they grappled with workload challenges:

> *Most of us already have families and other community responsibilities. The added task to implement the designed strategies somehow interfered with our normal routines. Sometimes you would find that you are unable to attend a meeting because you are more obliged to go to the* shamba*, especially during the peak of planting or harvesting season* (IDI with WG, in MDC).

Detailed findings on the difficulties that WGs experienced are summarised in Table 3.

Table 3: Difficulties Experienced by WGs during Interventions

FGD with WGs & WGS in Kilolo DC	FGD with WGs & WGS in Mufindi DC
Majority of us were aware of what we were supposed to do. Persistent challenges were multiple responsibilities, farming, taking care of the family alongside attending the IMCHA programme.	Our village had a lot of community activities like building classes for primary schools and dispensary and then the IMCHA tasks also needed to be implemented.

During the peak of maize planting, very few people remain at home as maize is our staple food.	When communities developed more trust in us, they started assigning us other responsibilities like resolving family conflicts, which increased the workload and reduced our private time.
Sometimes you would receive a call in the late evening when you are preparing "ugali" for your family; that you are needed to accompany a pregnant woman to the facility.	Sometimes we got information very late to attend the meetings organised by the researchers, while at the same time we had already arranged for our private duties.

The findings revealed that participants had similar views regarding the activities they were supposed to accomplish to implement the designed strategies. They argued that when intervention activities collided with other commitments, WGs members would remain undecided. It was reported further that there was no specific time for them to implement intervention activities. As revealed, any time a supervisor could call and ask a member to go to a particular household once there was a pregnant woman who had not gone for ANC on time. This would also be done for pregnant women to ensure that they had prepared for safe birth.

3.3 Desire for Allowances

The failure to provide allowances to the implementers was a theme that kept recurring, and which constrained the implementation of the interventions. The findings revealed persistent feelings among WG members that they deserved to be given allowances for the hard task they were executing in their villages. Participants revealed that allowances would contribute significantly to the performance of interventions. They stated the different ways they would spend the money to implement interventions smoothly; including using it as fare from one hamlet to another, assisting pregnant women who were in serious need of help, and buying stationery and food before attending public meetings. The allowances could also enable them to buy drinking water and refreshments while attending meetings; and airtime to simplify communication amongst themselves. Thus, the failure to provide allowances was reported to have hindered effective implementation of the interventions as many WGs members were disappointed, especially when they faced some challenges. The lack of allowances was mentioned throughout the villages to have hindered the implementation of interventions.

Besides the support for intervention, the general feeling among the implementers of the interventions was that they deserved a token for the hard task they were executing in the villages. It was believed that the provision of allowances would facilitate effective implementation of WGs activities, and consequently lead to the improvement of the ANC status in the community. It was reported that, to some extent, WG members were on different occasions demoralized to continue implementing different strategies of interventions, and so opted to engage in personal undertakings.

4. Discussion

The improvement of MCH through increased ANC uptake is prioritised to catch up with the demand for achieving SDG-3. CBIs, through WGs, have been regarded as a crucial strategy to fulfil this, especially in resource-limited settings. Previous studies have

reported on the effectiveness of participatory WGs interventions in improving ANC care (Prost et al., 2013; Gram et al., 2018). This study focused on the implementation process by unveiling factors that facilitate or constrain the implementation of community-based interventions through participatory women groups. Below we discuss the key findings in the light of other studies conducted in low- and middle-income countries.

4.1 Factors Facilitating Implementation of WGs' interventions

The findings revealed that successful implementation of interventions owed much to the readiness of WGs. The readiness of WG members was mostly influenced by the desire to serve their society. While reasons for WGs readiness differ from one setting to another, there seems to be a consensus among some studies that most community-based interventions in low resource settings have benefited from the sense of readiness of the implementers of the interventions (George et al., 2016; Mushi et al., 2010; Sondaal et al., 2018). The findings in the present study corroborates the study conducted in rural Zambia, which realised that women volunteers exhibited their highest sense of readiness to the extent that they performed their duties beyond their normal schedules, including the provision of personalized care and marital counselling for vulnerable pregnant women (Jacobs et al., 2018). In a study conducted in Nepal, increased sense of readiness among volunteers after training was witnessed. The sense of readiness enhanced self-empowerment and care of volunteers and community members. Consequently, it resulted in positive outcomes of interventions (Panday et al., 2017). Similarly, George et al. (2016) found that strong cohesiveness in rural settings increased trust by the community, and encouraged inclusive decision-making and transparency that instilled a sense of readiness among women volunteers.

The role of local administrative systems was also a significant factor in our study. The more community leaders participated actively during the implementation of the interventions, the higher the performance of the intervention became. The importance of strong and stable community leaders is well articulated in different studies (Sondaal et al., 2018; Ahluwalia et al., 2010; Paxman et al., 2005). Specifically, local leadership has the potential to bridge the gap between implementers of interventions and health systems and, in turn, this increases the performance of the implemented interventions (Howard-Grabman, 2017). In a study conducted in India, community leaders reported that direct interaction with government officials on problems faced by healthcare providers and women increased openness among officials in resolving issues, and a greater willingness to accept feedback from the community (Howard-Grabman, 2017; Sinha, 2008). On the contrary, the implementations of some interventions were slowed down in settings with weak local administrative systems. This is substantiated by a case in Uganda where local leaders failed to offer the anticipated cooperation (Lassi & Bhutta, 2013; MacPhail, 2006).

4.2 Factors Constraining the Implementation of WGs' interventions

In any intervention, there are always both facilitating and constraining factors. In this study, contextual settings were found to have constrained the implementation of WGs' interventions. As aptly argued by Cole et al. (2017) and Dopson & Fitzgerald (2005), context is not merely a backdrop to implementation: it interacts, influences, modifies, facilitates or constrains interventions, and determines their effectiveness. As such, the

interventions implemented in Kilolo and Mufindi districts by WGs were highly entangled within the existing contexts which determined the performance. Since interventions are implemented within dynamic contexts, it makes existing boundaries between the intervention and context highly intertwined (Wells et al., 2012). In Kilolo and Mufindi districts, constraining factors included shortage of logistics supply, multiple workloads, and the desire for allowances by the implementers of the interventions.

The quest for sufficient logistic supplies was so high in this study, and when some of the demands were not addressed, the performance of the interventions was compromised. This study found that the implementers of the interventions lacked working gears that were so crucial for them to smoothly perform their functions when it was rainy or muddy. Stressing the importance of proper and effective supply of logistics, Kante et al. (2019) argued that if the deployment of volunteers is the focus of an intervention, chances are that the expected outcome will be compromised without adequate attention to logistics and supplies. Indeed, when supplies and logistics are not adequate, not only do productivity decrease, but also there may be other equally detrimental consequences such as losing respect from the community, thereby jeopardising the adoption of interventions. This is empirically proved by a study in five districts in Kenya, which revealed that some implementers of interventions dropped as they lacked essential supplies (Boakye, 2018). In another study conducted in rural Ghana, it was shown that implementers were not provided with logistical supplies like raincoats, torches and wellington boots, which resulted into a high rate of attrition among the interventionists (Chatio et al., 2019). However, there are some studies that did not establish the correlation of poor supply of logistics and poor motivation of interventionists (Jaskiewicz & Tulenko, 2012; Osawa et al., 2010).

Earlier studies reported that too many responsibilities by WGs may impair the performance of interventions; equally leading to demotivation (Scott et al., 2017; Jacobs et al., 2018; Kok et al., 2015). Such line of reasoning was well echoed in the present study as WGs complained to have been overburdened by heavy workloads, such that many of the tasks collided with their normal routines. The findings corroborate the interventions implemented in Kenya in which implementers complained that they worked day and night, which was tiresome; and which consequently hindered their concentration on farm and/or income-generating activities (Mannah, 2014). This problem was compounded by the lack of allowances which could have eased their readiness to perform the duties. This is to say, once implementers have clear roles and reasonable number of tasks, there is a higher chance for interventions to be well implemented (Jaskiewicz & Tulenko, 2012).

5. Limitations and Strengths of the Study

The major limitation of this study is the lack of independence in data collection. The researchers, who were part of the IMCHA implementation team, carried out the data collection. However, the data collectors had no motivation to consciously or subconsciously skew the responses in a particular direction, although errors in data collection will always be expected. Another limitation is that the sampled participants were only those who actively participated during the interventions, while WGs who dropped from the interventions were not included. Perhaps, if their views had been

captured, the validity of the findings could have increased. The fact that this study was conducted in two districts in Iringa Region cannot warrant the findings to reflect the experiences of other districts in Tanzania. In spite of these limitations, we are convinced that this study has successfully managed to shed light on the importance of considering the role of context during planning, development, and implementation of interventions.

6. Conclusion

This study aimed at exploring contextual factors that facilitated or constrained the implementation of CBIs through WGs to improve ANC in rural Tanzania. The paper has shown that, when implementing WGs' interventions, it is important to consider existing contextual factors that might facilitate or inhibit the implementation of WGs' interventions. Determining the existing factors that facilitate, as well as inhibit, implementation is crucial as it enables implementers to strengthen the facilitating factors, while avoiding the inhibiting factors during the planning, development and implementation of the interventions. This paper has shown that while implementing interventions, the focus should not only be on the outcome but rather on the entire implementation phases. This may warrant the sustainability of the interventions and better ANC performance. This is important as it can set the tone to replicate interventions in other settings that may display similar features.

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