

Stakeholder Experiences of Community-Linked Group Antenatal Care in Rural Northern Uganda: A Qualitative Study

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Background: Group antenatal care (G-ANC) combines shared learning and peer support with antenatal services. Evidence on stakeholder experiences of community-linked models in post-conflict settings remains limited. This study explored the experiences of pregnant women, Village Health Team (VHT) members and facility midwives participating in or implementing G-ANC in Kole District, Northern Uganda.

Methods: An exploratory qualitative study conducted in June 2024 included nine key-informant interviews with four VHT members and five facility midwives, and four focus-group discussions with 33 pregnant women. Audio-recorded data were transcribed and analysed using a combined deductive-inductive thematic approach supported by ATLAS.ti version 23.

Results: Five themes concerned education and services, acceptability and perceived benefits, implementation and access challenges, cultural and gender influences and conditions for continuation. Participants valued shared discussion, peer reassurance, health information, and encouragement to attend care. VHT members described mobilization, education, and referral support, while midwives described clinical oversight and staffing pressures. Group-specific constraints included insufficient meeting space, materials, and facilitator capacity. Medicine shortages, provider absence, and transport difficulties affected the linked routine antenatal care pathway. Participants identified training, supervision, reliable clinical services, community engagement, and district integration as conditions for continuation.

Conclusion: Participants perceived community-linked G-ANC as acceptable and supportive of learning, peer support and motivation to attend care. This study did not measure changes in knowledge, attendance or clinical outcomes, or demonstrate effectiveness or long-term sustainability. Implementation requires support for group facilitation alongside reliable facility-based antenatal services.

Keywords: prenatal care, pregnant women, community health workers, midwifery, social support, Uganda, group antenatal care

Background

Antenatal care (ANC) provides information, preventive services and clinical assessment during pregnancy. Women in rural and underserved communities may face distance, transport costs and other barriers to facility-based care.¹ Maternal mortality remains a major public-health concern globally and in sub-Saharan Africa.² In Uganda, national demographic and health surveys document progress in maternal health alongside continuing needs for accessible, high-quality maternity services.^{3,4} These needs are relevant to Sustainable Development Goal 3.1, which aims to reduce global maternal mortality to fewer than 70 deaths per 100,000 live births by 2030.⁵

Group antenatal care brings women at similar stages of pregnancy together for facilitated education, discussion and peer support, alongside individual clinical care. Published models differ in their organization, staffing and relationship to clinical assessment.^{6–10} Facility-based models commonly combine group activities and individual assessments within

health facilities. The model examined here was community-linked: Village Health Team (VHT) members organized education and peer discussion in selected communities, with facility midwives providing technical and clinical support and women continuing to use health facilities for clinical services. Community sessions therefore complemented the facility ANC pathway rather than replacing skilled clinical care. The programme description below reflects the implementation reported in this study; the cited literature provides context for G-ANC models rather than evidence of this local programme's schedule.

Child Hug Uganda (CHU) implemented the model in selected communities in Kile District. Groups of approximately 10 pregnant women with similar expected delivery dates attended a programme of 8–10 sessions, each lasting approximately 90 minutes. VHT members met groups twice monthly, while midwives participated once per quarter. Sessions used the local language and included health education, peer discussion, nutrition counselling, birth preparedness, recognition of pregnancy danger signs and appointment planning. Trained VHT members identified and mobilized pregnant women, organized groups, communicated meeting dates, delivered approved health information, facilitated discussion, recorded attendance, provided reminders, helped coordinate transport and referred women with health concerns. Midwives provided technical guidance and supervision, conducted clinical assessments, arranged preventive services and managed referrals. These roles were complementary: VHT education and referral support did not substitute for midwife-led clinical assessment or management. Women's reports of blood-pressure checks, vaccination and testing are interpreted as experiences of the linked ANC pathway; they do not establish that each clinical service was delivered during community group sessions.

Northern Uganda's history of conflict and poverty provides an important context for understanding community and health-service relationships.^{11,12} Community-linked education and mobilization may be relevant where households face practical barriers to facility attendance. However, the present study did not measure conflict exposure or establish that reported constraints resulted from conflict. It explored how pregnant women, VHT members and facility midwives experienced G-ANC in Kile District, with attention to perceived benefits, stakeholder roles, implementation constraints and conditions for continuation.

Methods

Study Design

The Consolidated Criteria for Reporting Qualitative Research (COREQ) was used to organize transparent reporting of interviews and focus groups.¹³ Some reporting items remain unavailable in the study documentation; a separate reporting checklist identifies these gaps. Use of the checklist does not imply that COREQ guided the original study design.

This exploratory qualitative study examined the experiences of pregnant women, VHT members and facility midwives participating in or implementing community-linked G-ANC. The study was conducted in June 2024 and used key-informant interviews and focus-group discussions to explore education, peer interaction, care-seeking, implementation challenges and stakeholder roles. It was designed to understand experiences, not to estimate intervention effectiveness or long-term sustainability.

Study Setting

The study took place in selected G-ANC implementation communities in Kile District, Northern Uganda. CHU was the local implementing partner supporting community-linked ANC. Participants included pregnant women from these communities, VHT members involved in delivery and midwives supporting the programme from health facilities. Farming was the predominant occupation among the pregnant women in the study sample (Table 1).

Study Participants and Sample Size

The sample comprised 33 pregnant women, four VHT members and five facility midwives. Including these stakeholder groups enabled comparison of user and provider perspectives. Sample adequacy was considered through ongoing review of recurring and emerging accounts relevant to the study objectives. With only four VHT members and five midwives, recurrence within these interviews should not be interpreted as evidence that the full range of provider experiences was exhausted.

Table 1 Sociodemographic Characteristics of Participants

Variable	Category	Frequency (n=33)
Pregnant women		
Age category	18-24	20
	25-29	2
	30-34	7
	≥35	4
Education level	None	4
	Primary	20
	Secondary	8
	Tertiary	1
Occupation	Peasant farmer	30
	Tailor	2
	Nurse	1
Marital status	Married	29
	Single	3
	Divorced	1
VHT members and midwives (combined)		(n=9)
Age category	30-40	5
	≥41	4
Cadre	VHT	4
	Midwife	5
Years of experience	0-9 years	4
	10-19 years	3
	≥20 years	2

Notes: Frequencies are counts. Maternal age categories are descriptive; the ≥35-year group combines the original 35–39-year and ≥40-year groups (1 + 3 = 4). The aggregate 18–24-year category cannot be split to identify women aged 18–19 years without participant-level data. Provider age and years of experience are pooled because cadre-specific values were not supplied. Experience refers to the respective role, not necessarily duration implementing G-ANC.

Abbreviations: G-ANC, group antenatal care; VHT, Village Health Team.

Participant Inclusion and Exclusion Criteria

Pregnant women were eligible if they were aged 18 years or older, resided in a selected G-ANC implementation community in Kole District, had participated in at least one G-ANC session and provided informed consent. VHT members and facility midwives were eligible if they had directly participated in implementing or supervising G-ANC in the selected communities and consented to an interview. The stated provider eligibility criteria were based on direct involvement and did not specify a minimum duration of G-ANC experience.

Individuals were excluded if they had not participated in or implemented G-ANC, were unable to complete an interview or focus-group discussion because of illness or communication difficulties, or declined or withdrew consent.

Data Collection and Researcher Reflexivity

The authors developed semi-structured interview and focus-group guides covering ANC knowledge, G-ANC experiences, community attitudes, challenges and stakeholder roles ([Supplementary Material 1](#)). Two female research assistants with social-science backgrounds conducted the sessions. CHU assisted with identifying eligible participants. The research assistants had no prior personal or professional relationships with participants and were not involved in delivering G-ANC. Nine individual interviews were conducted with four VHT members and five midwives, and four focus-group discussions, each with eight or nine participants, involved 33 pregnant women. Sessions were audio-recorded with consent and transcribed verbatim. Field notes documented non-verbal communication, context and emerging ideas. No repeat interviews were conducted, and transcripts were not returned to participants for validation. Luo-language accounts were translated into English, with bilingual verification against recordings, as described in the study's translation procedures.

CHU implemented the intervention, assisted with participant identification and was represented among the authors. These relationships may have favoured recruitment of engaged participants and positive interpretations of the programme. Research assistants documented observations and debriefed with investigators to consider the influence of their backgrounds, assumptions, questioning and CHU's involvement. Interviewers encouraged critical and negative accounts. These practices supported reflexivity but could not eliminate selection, social-desirability or interpretive bias. Interviews and discussions were scheduled flexibly, including during off-peak hours.

Sampling Criteria

Purposive maximum-variation sampling sought participants with direct experience of G-ANC and variation in age, education, occupation, professional role and experience, where applicable. CHU assisted in identifying eligible participants, and research assistants conducted data collection. Eligible participants received information about the study and provided written informed consent before interviews or focus-group discussions. Participation was voluntary, and participants could decline or withdraw without penalty. Emerging data were reviewed during recruitment. The small provider samples and recruitment through the implementing organization limit the range of perspectives represented.

Data Management and Analysis

Interviews and focus-group discussions were audio-recorded with participants' consent and transcribed verbatim. Audio recordings from the key-informant interviews and focus-group discussions were transcribed verbatim, checked for accuracy, assigned unique identification numbers, and stored on password-protected devices accessible only to the research team. Luo-language accounts were translated into English by a translator. A bilingual researcher checked the English translations against the recordings for accuracy, preservation of meaning and appropriate interpretation of local expressions. Verified transcripts were imported into ATLAS.ti version 23 to support data organization, coding, and retrieval.

Analysis combined deductive and inductive coding. First, researchers repeatedly read transcripts to become familiar with the accounts. Initial codes reflected the study objectives and interview guides; further codes were developed from the data. A preliminary codebook was tested on three transcripts (two interviews and one focus-group discussion) and revised as concepts emerged. Two experienced researchers coded transcripts, compared coding and resolved differences through discussion, referring unresolved differences to the principal investigator. Related codes were grouped into subthemes and themes through research-team discussion. Quotations were selected to illustrate the interpretation. In reporting, accounts of group interaction, mobilization and facilitation were distinguished from accounts of the linked routine ANC pathway and wider household or health-system conditions.

Results

Sociodemographic Characteristics of the Respondents

The study included 42 participants: 33 pregnant women in four focus-group discussions, four VHT members and five facility midwives in nine interviews. Most pregnant women were aged 18–24 years, had primary education, were married and worked as peasant farmers. Four women were aged 35 years or older. Provider age and experience were available only in aggregate for the nine VHT members and midwives, so these characteristics are not attributed to either cadre separately ([Table 1](#)).

Table 2 Themes and Subthemes Describing Stakeholder Experiences of G-ANC

Theme	Subthemes	Description
1. Experiences of G-ANC education and services	Health education; role of VHTs as information sources; linkage to clinical services	Women described receiving information on nutrition, hygiene, pregnancy danger signs, birth preparedness and facility delivery. VHTs mobilized and educated women, while G-ANC linked participants to facility-based assessments and preventive services.
2. Acceptability and perceived benefits of G-ANC	Peer support; shared learning; motivation to attend ANC; perceived influence on health practices	Pregnant women valued learning with others at similar pregnancy stages. Women, VHTs and midwives perceived that group interaction reduced isolation, encouraged participation and supported healthier pregnancy practices.
3. Challenges in implementing and accessing G-ANC	Group-delivery constraints; wider facility-service constraints; transport and referral support	Insufficient space, materials and facilitator capacity affected group delivery. Medicine shortages, provider absence and transport barriers affected the linked routine ANC pathway.
4. Cultural, social and gender influences	Traditional beliefs; preferences for home delivery; community acceptance; male-partner involvement	Cultural beliefs, household expectations and partner support shaped ANC use generally; the study did not establish differences between group and individual ANC.
5. Perceived requirements for continuation of G-ANC	Staff and VHT training; supportive supervision; infrastructure and supplies; community engagement; financing and district integration	Participants recommended strengthening staff capacity, medicine and supply systems, session spaces, referral and transport arrangements, community outreach, male engagement and integration into routine district health services.

Notes: Perceived benefits and requirements for continuation were not evaluated as measured intervention effects or demonstrated sustainability.

Abbreviations: ANC, antenatal care; G-ANC, group antenatal care; VHT, Village Health Team.

Five themes emerged: experiences of G-ANC education and services; acceptability and perceived benefits; challenges in implementing and accessing G-ANC; cultural, social and gender influences; and perceived requirements for continuation (Table 2). The accounts distinguish group-specific experiences from routine ANC services and the wider conditions affecting access. The study did not directly compare participants receiving G-ANC with women receiving individual ANC.

Theme 1: Experiences of G-ANC Education and Services

Pregnant women described information on nutrition, hygiene, danger signs, disease prevention, birth preparedness, ANC attendance and facility delivery. These topics are also part of individual ANC; their content alone does not establish a distinctive benefit of G-ANC. The group-specific features were shared discussion, opportunities to learn from other women's experiences and VHT-led mobilization, described below and under Theme 2. Women perceived the information as useful for understanding care and recognizing concerns, but knowledge change was not measured.

You are taught how to keep safe as a pregnant mother, and you should feed well and how to prevent some of the diseases that affect pregnant women. (FGD Participant 1, Group 1)

Midwives reported that health education was a central component of the community sessions, particularly information concerning pregnancy danger signs, timely ANC attendance, and delivery with a skilled health worker.

...at the community level, we were mostly giving them health education, and we tell them about the basic danger signs in pregnancy, the importance of attending ANC, and the importance of delivering in the hands of trained health workers. (KII Midwife, Aboke HC IV)

VHTs were an important link between pregnant women, community G-ANC sessions, and health facilities. Women reported that VHTs identified pregnant women, provided information about upcoming sessions, and mobilized them to attend as groups.

The knowledge that I get, first I get it from the Village Health Team...when they notice any pregnant woman, they come and start mobilizing people in the community, saying there is ANC and we should be in groups. (FGD Participant 6, Group 1)

Participants also described clinical services within the broader ANC pathway, including blood-pressure measurement, fetal-heart assessment, tetanus vaccination and malaria and HIV testing. The quotation below refers to ANC generally. It illustrates the connection to routine clinical services rather than a service unique to group care or evidence that these procedures occurred during community sessions.

During ANC, they check our blood pressure, give us tetanus injections, and test for diseases such as malaria and HIV. (FGD Participant 7, Group 4)

Theme 2: Acceptability and Perceived Benefits of G-ANC

Pregnant women, VHTs, and midwives generally described G-ANC positively. The group model created opportunities for women to meet others at similar stages of pregnancy, exchange experiences, ask questions, and receive encouragement. Pregnant women particularly valued the reassurance of learning that other women faced similar concerns.

We discuss our experiences and support each other in going for ANC visits; it makes us feel like we are not alone. (FGD Participant 7, Group 2)

The social interaction within the groups appeared to make ANC less intimidating and encouraged women to participate. Some women reported that seeing others attend ANC and hearing their positive experiences increased their own motivation to seek care.

Seeing other women in the community attending ANC and hearing their positive experiences motivates me to go as well. (FGD Participant 3, Group 3)

VHTs and midwives similarly perceived that shared learning and peer support encouraged attendance and engagement. However, these findings represent participants' perceptions, as the study did not independently measure changes in attendance or health outcomes.

The mothers have gained a lot in the group ANC. They can share experiences, learn from each other, and it has improved their attendance. (KII VHT 2, Amola)

Participants also perceived that the education received through G-ANC encouraged healthier practices during pregnancy and enabled women to share maternal-health information with family and community members.

When mothers are healthy and informed, the whole community benefits. They pass on what they learn to others. (KII VHT 1, Kicarwot)

Theme 3: Challenges in Implementing and Accessing G-ANC

Despite its perceived benefits, participants identified several challenges affecting the implementation of G-ANC. VHTs and midwives emphasized inadequate space, insufficient seating and educational materials, limited staffing, and increased workloads. These constraints made it difficult to accommodate groups and provide sessions as intended.

We need more space and materials to conduct these sessions properly. Sometimes we have too many mothers and not enough room. (KII VHT 3, Atek)

Midwives described difficulties managing group sessions alongside routine individual ANC responsibilities. They believed that additional trained staff and regular refresher training were required to maintain service quality.

We need more staff. The current staff is overstretched, and managing both individual and group sessions is challenging. (Midwife KII 8, Aboke HC IV)

Pregnant women also reported medicine shortages and absent health workers at facilities. These are wider constraints on routine ANC rather than challenges unique to G-ANC. They affected women's experience of the facility care to which community groups linked them, sometimes requiring private purchases and additional expenditure.

Sometimes there are no medicines or the health workers are not available, which forces us to go to private clinics. (FGD Participant 2, Group 3)

Transport concerns likewise related to access to facility assessment and referral rather than exclusively to group meetings. Participants valued appointment reminders and help with transport coordination from VHT members. The quotation below illustrates this support; it does not demonstrate a consistent or universal programme transport service.

They help in organizing transport and reminding us of our ANC appointments, which is very helpful. (FGD Participant 2, Group 1)

Theme 4: Cultural, Social, and Gender Influences

Participants described cultural beliefs about maternity care, traditional birth attendants, home delivery, foods and activities during pregnancy. These accounts concerned the wider context of ANC and delivery decisions. They do not establish that such influences were unique to G-ANC, although they shaped the setting in which group education and community mobilization were delivered.

In our culture, some people believe in traditional birth attendants and prefer home deliveries, which can be risky. (FGD Participant 9, Group 4)

Accounts of male-partner support concerned ANC attendance generally. Some women described accompaniment and support in following health advice, while others described pregnancy care as being treated as women's responsibility. The data do not establish that partners attended group sessions or that their involvement differed between G-ANC and individual care.

My husband always accompanies me to ANC visits and supports me in following the advice given by the health workers. (FGD Participant 6, Group 3)

Some men do not see the need to accompany their wives to ANC, thinking it is only a woman's responsibility. (FGD Participant 5, Group 2)

Participants regarded partners' practical and emotional support as relevant to transport, attendance and household decisions. These findings describe conditions affecting the linked ANC pathway; they should not be interpreted as evidence that G-ANC changed gender relations or male involvement.

Theme 5: Perceived Requirements for Continuation of G-ANC

Across stakeholder groups, participants believed that sustaining G-ANC would require stronger health-system and community support. VHTs and midwives emphasized the need for reliable medicines and supplies, suitable spaces for group sessions, additional staff, facilitator training, supportive supervision, and financial resources.

Support in terms of infrastructure and training is crucial. We also need financial aid to keep these programmes running. (KII VHT 2, Amola)

Participants also recommended continued community outreach to improve awareness and participation. VHTs viewed regular community engagement as necessary for identifying pregnant women early, addressing misconceptions, and encouraging attendance.

We need to do more community outreach to educate people about the benefits of G-ANC. (KII VHT 3, Atek)

Midwives similarly emphasized collaboration with community leaders as a means of increasing acceptance and reaching pregnant women and their families.

Engaging community leaders and conducting awareness campaigns will help in getting more mothers to participate in G-ANC.
(Midwife KII 9, Aboke HC IV)

Participants considered G-ANC acceptable and identified conditions that they believed would support its continuation: facilitator capacity and supervision, suitable meeting space, dependable facility services, referral coordination and community engagement. These recommendations describe perceived implementation needs; the study did not follow the programme over time or evaluate its sustainability.

Discussion

Pregnant women, VHT members and midwives attributed the perceived value of community-linked G-ANC to shared learning, peer interaction, community mobilization and connection to facility care. The study's contribution is an implementation-focused account across three stakeholder groups, rather than evidence of improved clinical outcomes. Related studies from Tanzania, Nigeria, Kenya and Malawi describe participatory learning, supportive relationships and provider engagement.^{14–17} This community-linked model should be understood within its continuing dependence on facility ANC services.

Experiences of G-ANC Education and Services

Health education on nutrition, danger signs and birth preparedness is common to both group and individual ANC. In this study, the distinctive perceived contribution of the group format was the opportunity to discuss concerns, share experiences and receive reassurance from peers. Hearing other women's questions may broaden discussion beyond an individual consultation, while mutual encouragement may make care-seeking feel more achievable. These are interpretations of participants' accounts rather than demonstrated comparative advantages. Published G-ANC studies describe related participatory and relational mechanisms.^{10,14,18,19} The study does not establish use of PowerPoint, video or other specific teaching technologies. Future implementation should preserve interactive discussion and access to confidential individual clinical care.

Peer Support and Participation

Peer support was perceived as an important influence on women's motivation to participate in G-ANC. Bringing together women at similar stages of pregnancy may normalize pregnancy-related concerns, reduce feelings of isolation, and create mutual encouragement to attend care. This interpretation is consistent with qualitative studies and evidence syntheses showing that women participating in G-ANC value social connectedness, shared learning, active participation, and a sense of community.^{10,16,18,20,21} Trial evidence from Malawi also found greater peer connectedness, empowerment, satisfaction, and frequency of ANC contacts among women receiving group care.¹⁶ G-ANC implementation should therefore preserve stable groups, respectful facilitation, interactive learning, and opportunities for women to contribute voluntarily and safely; however, because the present study did not objectively measure attendance, peer support should be understood as a perceived influence on participation rather than a demonstrated effect.

VHT Roles and Boundaries

Participants described VHT involvement bringing community mobilization, health information, appointment reminders, and referral support closer to pregnant women, while midwives retained responsibility for clinical assessment and management. This task-sharing arrangement may improve access because VHTs are embedded in communities and can identify pregnant women early, reinforce health messages, and connect households with health facilities. Ugandan studies have similarly shown that VHT-led education, home visits, community dialogue, and referral can support ANC attendance and maternal care-seeking when VHTs are appropriately trained and linked to responsive facilities.^{22–25} Other research indicates that VHT programmes perform better when community workers receive regular supervision, job aids, transport support, supplies, and effective collaboration with facility-based providers.^{24,26–28} Programme planning should therefore establish a clear division of responsibilities: VHTs may mobilize, educate, remind, document attendance, and

refer, while midwives should conduct clinical assessments, provide preventive services and treatment, and manage pregnancy complications.

Health-System Constraints and Trust

Constraints with a direct bearing on group delivery included meeting space, seating, educational materials and the staffing capacity to manage groups alongside individual ANC. Medicine shortages, provider absence and transport barriers affected the wider clinical pathway and should not be attributed specifically to the group format. Their relevance is that community mobilization links women to services whose reliability shapes the overall care experience. Ugandan evidence and G-ANC implementation studies describe similar resource and access constraints.^{15,17,22,29} Programme support should therefore address both group facilitation and the readiness of receiving facilities. Privacy arrangements, session scheduling and actual group sizes warrant explicit assessment in future work because these were not sufficiently documented here.

Differences Among Stakeholder Perspectives

Pregnant women emphasized peer support, health information, medicine availability, provider presence, transport, cultural expectations and partner support. VHTs focused on community mobilization and the resources required to organize sessions, whereas midwives emphasized staffing, workload, training, clinical oversight and space. These differences suggest that G-ANC can be acceptable to women while remaining operationally difficult for community and facility providers to deliver consistently. Previous implementation research has likewise shown that service users tend to emphasize relationships and care experiences, while providers and programme managers place greater emphasis on workload, infrastructure, coordination, and resources.^{14,15,19} Planning and evaluation should therefore consider women's experiences, VHT implementation needs, and midwives' clinical and workload concerns rather than relying on the perspective of a single stakeholder group.

Cultural, Social, and Gender Influences

Traditional beliefs, home-delivery preferences, and partner support describe the broader social context of ANC use. The interviews did not establish whether these differed by care model or whether group participation changed them. A Ugandan review similarly identifies sociocultural beliefs, household decisions, partner support, costs, and distance as influences on care-seeking.²² Group discussions may provide a setting to consider such concerns, as described elsewhere,^{10,19,20} but this remains a plausible implementation pathway rather than an effect demonstrated here. Engagement with partners and community leaders should protect women's autonomy and should not make male attendance a condition of care.

Sustainability and Transferability

Because implementation was supported by Child Hug Uganda, sustainability under routine district conditions remains uncertain. External support may facilitate initial implementation, but long-term sustainability is less likely when financing, supervision, responsibilities, and accountability are not integrated into existing health-system structures. This interpretation is consistent with evidence showing that healthcare programmes are more sustainable when they have local ownership, stable financing, trained personnel, supportive leadership, monitoring systems, and alignment with routine services.^{18,28} Studies from Tanzania, Nigeria, Ghana, and Burkina Faso similarly show that G-ANC is often positively received but constrained by inadequate space, staffing, transport, session duration, and persistent weaknesses in routine services.^{15,17,19,20} District health authorities should therefore integrate G-ANC into routine workplans, define VHT and midwife responsibilities, provide predictable resources, and monitor implementation through existing health-information systems.

The findings may be transferable to rural and post-conflict settings with similar VHT structures, transport barriers, workforce shortages, and community-based maternal-health programmes. Transferability is likely to depend on local facility readiness, cultural practices, community leadership, health-worker capacity, referral systems, and the availability of implementing-partner support. Evidence syntheses caution that G-ANC models require contextual adaptation because

their implementation and outcomes vary across health systems and populations.^{10,18,20} Wider adoption should therefore prioritize context-specific adaptation rather than direct replication, and future studies should assess implementation fidelity, confidentiality, referral completion, provider workload, costs, ANC attendance, and maternal and newborn outcomes under routine government conditions.

Overall, participants valued the educational and peer-support functions of community-linked G-ANC. Their recommendations identify priorities for implementation support. Whether those priorities enable long-term continuation, improve attendance or affect maternal and newborn outcomes requires prospective evaluation.

Limitations

The findings are context-specific and may not transfer to settings with different community-health structures or facility capacity. All pregnant participants had attended G-ANC; non-users and women who discontinued were not represented, potentially favouring positive accounts. CHU's implementation, recruitment and authorship roles created possible selection, social-desirability and interpretive biases. Independent interviewers, field notes, debriefing and dual coding supported critical reflection but could not remove these risks. Four VHT members and five midwives provided a limited range of provider perspectives, and claims of comprehensive saturation are not warranted. Questions framed around benefits may have encouraged positive responses; the original guide should be considered when interpreting the accounts. Focus groups may have discouraged dissent or disclosure of sensitive experiences. Luo-to-English translation may have altered culturally specific meanings despite bilingual verification. There was no individual-ANC comparison group, and some accounts could not be assigned exclusively to community sessions or routine facility care. Knowledge, attendance, intervention fidelity, referrals, privacy, safety, costs and clinical outcomes were not objectively assessed, and the study did not evaluate long-term sustainability.

Conclusion and Recommendations

Pregnant women, VHT members and midwives perceived community-linked G-ANC as acceptable and valued shared learning, peer support and encouragement to attend care. Group delivery required adequate space, materials and facilitator capacity, while the linked ANC pathway remained affected by medicine shortages, staffing and transport barriers. Cultural and partner influences concerned ANC more broadly. These findings identify perceived benefits and implementation priorities; they do not establish improved knowledge, attendance, clinical outcomes, effectiveness or long-term sustainability.

District health authorities and implementing partners should strengthen medicine and supply systems, provide suitable spaces for group sessions, train and supervise VHTs and midwives, establish clear referral and coordination mechanisms, and improve transport support for women requiring facility care. Community leaders and male partners should be engaged through culturally appropriate education, while routine monitoring should assess attendance, service quality, participant experience, clinical outcomes, costs, and sustainability before wider scale-up.

Abbreviations

ANC, Antenatal Care; CHU, Child Hug Uganda; CHWs, Community Health Workers; G-ANC, Group antenatal care; HMIS, Health Management Information System; MMR, Maternal Mortality Ratio; SDG, Sustainable Development Goal; USAID, United States Agency for International Development; VHT, Village Health Team; WHO, World Health Organization.

Data Sharing Statement

The interview and focus-group transcripts are not publicly available because they contain potentially identifiable qualitative information and participants did not consent to unrestricted sharing. De-identified data may be available from the corresponding author upon reasonable request and subject to ethics and institutional approval.

Ethics Approval and Consent to Participate

This study adhered to ethical principles and guidelines for research involving human subjects in accordance with the Declaration of Helsinki. Approval to conduct the study was obtained from the Lira University Research and Ethics

Committee (approval number LUREC-2024-240) prior to data collection. All participants provided written informed consent after receiving information about the study, voluntary participation, confidentiality, and their right to withdraw without penalty. They also consented to the publication of anonymized quotations. Identifying information was removed from the transcripts, and participant codes or general descriptors were used when reporting quotations. Consent for publication: this was deemed not applicable.

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Disclosure

The authors declare that they have no competing interests.

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