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Determinants of Integrated Community Based Counselling To Improve Postnatal Maternal Mental Health Among Single Mothers In Ruhango District, Rwanda, 2026

[1]Benimana Francine Fridaus, [2]Dr. Maurice Silali, (PhD)

[1&2]School of Health Sciences, Mount Kigali University

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Abstract: **Postnatal maternal mental health is an important public health concern, particularly among single mothers who may face economic hardship, social stigma, and limited support. This study assessed the determinants of integrated community-based counselling for improving postnatal maternal mental health among single mothers in Ruhango District, Rwanda. Specifically, it examined the availability of counselling services, associated socioeconomic and sociocultural factors, and the relationship between counselling and maternal mental health. The study was guided by Social Ecological Theory and Interpersonal Theory of Depression. A descriptive research design using a mixed-methods approach was adopted. The study involved 130 participants, selected through a census approach, comprising 84 single mothers, 40 community-based counselling facilitators, and six healthcare counsellors. Purposive sampling was used to select healthcare counsellors and community-based counselling facilitators, while simple random sampling was applied to select single mothers. Data were collected using questionnaires and interview guides. Instrument reliability was assessed using Cronbach's alpha, with a threshold of 0.70, while validity was established through expert judgement. Quantitative data were analyzed using the Statistical Package for the Social Sciences (SPSS), employing descriptive statistics and regression analysis, while qualitative data were analyzed thematically. The findings indicated that integrated community-based counselling was generally available to single mothers in Ruhango District, although barriers related to rural accessibility and inflexible scheduling persisted. Socioeconomic factors were positively associated with improved postnatal maternal mental health, while sociocultural factors demonstrated a slightly stronger relationship. The findings also revealed a close relationship between socioeconomic and sociocultural conditions, suggesting that both influence access to counselling and maternal mental health outcomes. The study concludes that integrated community-based counselling can provide valuable support for single mothers, particularly when services are accessible, affordable, culturally appropriate, and supported by regular follow-up and strong community networks. It recommends that the Ministry of Health, district authorities, healthcare providers, and community health workers strengthen mental health screening, counselling, referral services, and stigma-reduction initiatives. Further research should investigate the long-term effectiveness, sustainability, and cost-effectiveness of community-based counselling interventions among single mothers in Rwanda.**

Keywords: **Integrated community-based counselling; Postnatal maternal mental health; Single mothers; Determinants; Ruhango District, Rwanda.**

1. INTRODUCTION

Maternal mental health is an essential component of public health, with postnatal depression representing a significant concern because of its potential consequences for mothers, children, and families. Postnatal depression is a depressive disorder that may develop following childbirth and is characterized by persistent sadness, loss of interest, emotional distress, and difficulties in daily functioning. When left unaddressed, it can affect maternal well-being, impair mother–infant

bonding, and interfere with caregiving practices and early childhood development (Fisher et al., 2022; World Health Organization [WHO], 2023; Patel et al., 2024). Globally, postnatal depression is estimated to affect approximately 10–20% of women after childbirth, although prevalence varies considerably across populations depending on socioeconomic circumstances, access to healthcare, exposure to stressful life events, and the availability of social support. Evidence from different settings suggests that timely identification, psychosocial support, and appropriate mental health interventions can help reduce the burden of postnatal depression and improve maternal well-being. In particular, community-based interventions can complement facility-based maternal healthcare by providing accessible, socially responsive support to women experiencing psychological distress during the postnatal period (WHO, 2023).

In low- and middle-income countries, the burden of postnatal mental health problems is often compounded by poverty, limited access to specialized mental health services, gender inequalities, and inadequate social support. These challenges are particularly relevant in sub-Saharan Africa, where women may experience additional psychological distress associated with financial insecurity, relationship difficulties, caregiving responsibilities, and sociocultural expectations surrounding motherhood. Studies conducted in countries such as Nigeria, Kenya, and Uganda have reported substantial levels of depressive symptoms among postpartum women, with social isolation and socioeconomic vulnerability frequently identified as contributing factors (Ndetei et al., 2022; Rahman et al., 2021; Afolabi et al., 2024).

In this context, community-based psychosocial interventions, including peer support, group counselling, and task-sharing approaches, have been promoted as potential strategies for improving access to mental health support. Such interventions can provide opportunities for women to share experiences, develop coping strategies, strengthen interpersonal relationships, and access support within their communities. Integrating these approaches into maternal and child health services may therefore help address some of the social and psychological factors associated with postnatal depression, particularly in settings where specialist mental health services are limited (WHO, 2023).

In Rwanda, maternal mental health is an increasingly important consideration in efforts to improve maternal and child health outcomes. Research conducted in the country has reported depressive symptoms among postpartum women and identified factors such as inadequate social support, stressful life experiences, and relationship-related difficulties as potential contributors to psychological distress (Mukamana et al., 2023; Ntakirutimana et al., 2022). These challenges may be particularly pronounced among single mothers, who can face the combined pressures of providing for their children, managing household responsibilities, and navigating social expectations associated with raising children without a partner. Depending on their circumstances, single mothers may have limited access to emotional, financial, and practical support, potentially increasing their vulnerability to postnatal mental health difficulties.

Poor maternal mental health may, in turn, affect caregiving practices, family relationships, and children's early developmental experiences. Addressing the psychological and social needs of single mothers is therefore important not only for improving maternal well-being but also for supporting healthier family environments and child development.

One community-based approach with potential relevance to these challenges is Community-Based Sociotherapy (CBS), a structured group intervention developed in Rwanda to support psychosocial recovery, rebuild interpersonal trust, and strengthen social cohesion. The approach provides a facilitated environment in which participants can discuss shared experiences, develop mutual understanding, address interpersonal difficulties, and build supportive relationships within their communities. Evaluations and programme reports have associated sociotherapy with improvements in psychosocial well-being, self-esteem, interpersonal trust, and social connectedness among participants (Betancourt et al., 2020; CBS Rwanda, 2021). These features suggest that CBS may offer a relevant framework for addressing some of the social and emotional difficulties experienced by vulnerable mothers. Through facilitated group participation, women may gain opportunities to express their concerns, learn from others facing similar challenges, strengthen their sense of belonging, and develop coping strategies that support their psychological well-being. However, evidence of the broader psychosocial benefits of community-based sociotherapy should not be interpreted as conclusive evidence of its effectiveness in preventing or reducing postnatal depression among single mothers.

Despite the potential relevance of community-based psychosocial interventions, the specific contribution of CBS to postnatal maternal mental health among single mothers remains insufficiently documented in the available literature, particularly in Ruhango District, Rwanda. There is a need to establish whether participation in CBS is associated with improvements in postnatal maternal mental health and to understand how its group-based processes may influence emotional well-being, social support, and coping among single mothers. Examining this relationship could generate context-specific evidence to inform the design of community-based interventions, strengthen collaboration between sociotherapy

facilitators and maternal healthcare providers, and guide programmes addressing the psychosocial needs of vulnerable mothers. Accordingly, this study focuses on the contribution of Community-Based Sociotherapy to postnatal maternal mental health among single mothers in Ruhango District, Rwanda, with the aim of generating evidence that may inform locally appropriate approaches to maternal mental health promotion and support.

2. METHODOLOGY

2.1 Research Design

The study adopted a descriptive design, which allowed systematic observation and documentation of naturally occurring relationships between integrated community-based counselling and postnatal maternal mental health without manipulating variables.

2.2 Location of the Study

The study was conducted in Ruhango District, Rwanda, focusing on community health centers and outreach programs where integrated community-based counselling for postnatal mothers was implemented.

2.3 Target Population

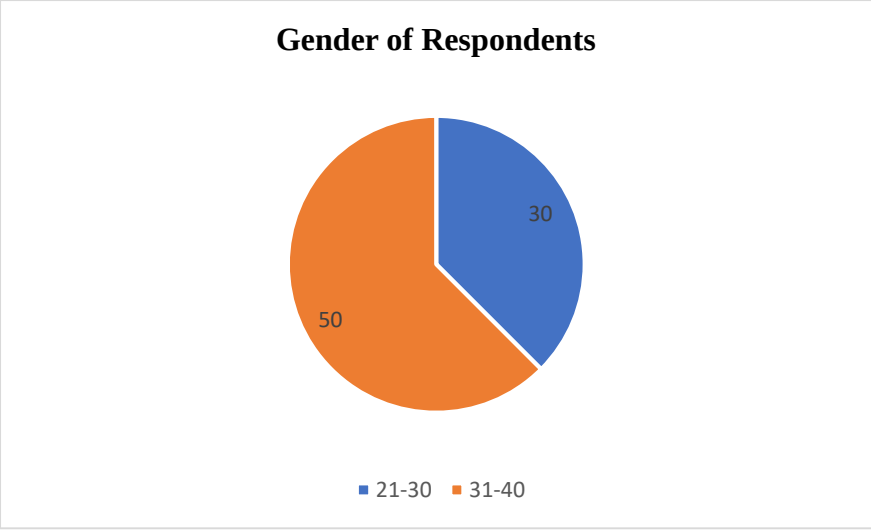
The study targeted single mothers, community-based counselling facilitators, and healthcare counsellors in Ruhango District, Rwanda. These participants were selected because of their direct involvement in integrated community-based counselling programs aimed at improving postnatal maternal mental health among single mothers.

3. RESULTS

This section presents the study findings on the determinants of integrated community-based counselling in improving postnatal maternal mental health among single mothers in Ruhango District, Rwanda. The results are based on quantitative and qualitative data, organized according to the study objectives and supported by descriptive statistics and insights from key informant interviews.

3.1 Gender of Respondents

Figure 1: Gender of Respondents



Regarding age, the majority of respondents, 65 (50.0%), were aged between 31 and 40 years, followed by 39 (30.0%) aged between 21 and 30 years, while 26 (20.0%) were aged between 41 and 50 years, reflecting respondents with direct experience of postnatal challenges and maternal mental health issues.

3.2 The Prevalence of Integrated Community Based Counselling to Improve Postnatal Maternal Mental Health

In order to assess the the prevalence of integrated community-based counselling to improve postnatal maternal mental health, participants were asked to provide responses via a questionnaire.

Table 1: Prevalence of Integrated Community-Based Counselling

Statement/Item	Yes N (%)	No N (%)	Mean	Std. Dev.
Counselling services for postnatal mothers are readily available in the community.	33 (82.5)	7 (17.5)	1.1750	0.38481
Most single mothers in the district have access to community-based counselling services.	27 (67.5)	13 (32.5)	1.3250	0.47434
Counselling sessions are held frequently enough to meet the needs of postnatal mothers.	26 (65.0)	14 (35.0)	1.3500	0.48305
Awareness campaigns ensure that single mothers know about available counselling services.	28 (70.0)	12 (30.0)	1.3000	0.46410
Community health workers regularly follow up with mothers after counselling sessions.	27 (67.5)	13 (32.5)	1.3250	0.47434
The range of counselling services covers multiple aspects of maternal mental health.	32 (80.0)	8 (20.0)	1.2000	0.40510
Services are equally accessible to mothers in both urban and rural areas of the district.	21 (52.5)	19 (47.5)	1.4750	0.50574
The scheduling of counselling sessions accommodates the availability of single mothers.	23 (57.5)	17 (42.5)	1.4250	0.50064

The findings from Table 1 indicated that community-based counselling services were generally available to single mothers, although some accessibility gaps persisted. The majority of respondents, 33 (82.5%), reported that counselling services for postnatal mothers were readily available in the community (M = 1.1750, SD = 0.38481). Similarly, 32 (80.0%) indicated that counselling services covered multiple aspects of maternal mental health (M = 1.2000, SD = 0.40510). Awareness campaigns were reported to ensure that single mothers knew about available counselling services by 28 (70.0%) of respondents (M = 1.3000, SD = 0.46410).

Furthermore, 27 (67.5%) respondents reported that most single mothers had access to community-based counselling services (M = 1.3250, SD = 0.47434), while the same proportion, 27 (67.5%), indicated that community health workers regularly followed up with mothers after counselling sessions (M = 1.3250, SD = 0.47434). Counselling sessions were considered sufficiently frequent by 26 (65.0%) respondents (M = 1.3500, SD = 0.48305).

However, some limitations were identified. Only 21 (52.5%) respondents reported that counselling services were equally accessible to mothers in urban and rural areas, compared with 19 (47.5%) who reported otherwise (M = 1.4750, SD = 0.50574). Similarly, 23 (57.5%) indicated that counselling schedules accommodated the availability of single mothers, while 17 (42.5%) disagreed (M = 1.4250, SD = 0.50064).

However, the mean scores ranged from 1.1750 to 1.4750, with standard deviations ranging from 0.38481 to 0.50574. Since Yes = 1 and No = 2, the lower mean scores indicate stronger agreement with the availability and accessibility of counselling services. The relatively low standard deviations indicate that responses were fairly consistent. The findings therefore suggest that availability and service coverage were relatively strong, but unequal geographical access and inflexible scheduling remained important barriers to effective community-based counselling and improved postnatal maternal mental health among single mothers.

3.3 Socio-Economic Factors of Integrated Community Based Counselling to improve Postnatal Maternal Mental Health

In order to assess socio-economic factors of integrated community-based counselling to improve postnatal maternal mental health, participants were asked to provide responses by filling in a questionnaire.

Table 2: Socio-Economic Factors of Integrated Community Based Counselling to Improve Postnatal Maternal Mental Health

Statements	SD (N, %)	D (N, %)	N (N, %)	A (N, %)	SA (N, %)	Mean	Std
Mothers with higher income levels are more likely to access counselling services.	0 (0.0)	0 (0.0)	0 (0.0)	20 (50.0)	20 (50.0)	4.5000	0.50637
Employment status affects the ability of single mothers to attend counselling sessions.	0 (0.0)	3 (7.5)	0 (0.0)	15 (37.5)	22 (55.0)	4.4000	0.84124
Counselling services are affordable and financially accessible to all mothers.	0 (0.0)	0 (0.0)	0 (0.0)	19 (47.5)	21 (52.5)	4.5250	0.50574
Lack of transport or financial resources limits attendance at counselling sessions.	0 (0.0)	3 (7.5)	0 (0.0)	19 (47.5)	18 (45.0)	4.3000	0.82275
Financial support programs improve mothers' access to counselling services.	0 (0.0)	0 (0.0)	0 (0.0)	25 (62.5)	15 (37.5)	4.3750	0.49029
Economic empowerment initiatives encourage mothers to seek mental health support.	0 (0.0)	0 (0.0)	0 (0.0)	18 (45.0)	22 (55.0)	4.5500	0.50383
Free or subsidized counselling sessions increase service utilization among single mothers.	0 (0.0)	1 (2.5)	0 (0.0)	19 (47.5)	20 (50.0)	4.4500	0.63851
Household financial stability influences adherence to counselling follow-ups.	0 (0.0)	0 (0.0)	0 (0.0)	26 (65.0)	14 (35.0)	4.3500	0.48305

The findings in Table 2 indicate that socio-economic factors strongly influenced access to and utilization of integrated community-based counselling services among single mothers. All eight statements recorded high mean scores, ranging from 4.3000 to 4.5500, indicating generally positive perceptions among respondents.

The highest-rated factor was that economic empowerment initiatives encourage mothers to seek mental health support, with 40 (100.0%) respondents agreeing or strongly agreeing (M = 4.5500, SD = 0.50383). This was followed by the view that counselling services are affordable and financially accessible, reported by 40 (100.0%) respondents (M = 4.5250, SD = 0.50574). Similarly, 40 (100.0%) agreed that higher income levels increase mothers' likelihood of accessing counselling services (M = 4.5000, SD = 0.50637).

Furthermore, 39 (97.5%) respondents agreed or strongly agreed that free or subsidized counselling increases service utilization (M = 4.4500, SD = 0.63851), while 40 (100.0%) indicated that financial support programs improve access to counselling (M = 4.3750, SD = 0.49029). Household financial stability was also considered important, with 40 (100.0%) agreeing that it influences adherence to counselling follow-ups (M = 4.3500, SD = 0.48305). In addition, 37 (92.5%) respondents agreed or strongly agreed that lack of transport or financial resources limits attendance (M = 4.3000, SD = 0.82275), while 37 (92.5%) indicated that employment status affects mothers' ability to attend counselling sessions (M = 4.4000, SD = 0.84124).

Qualitative Results

The qualitative findings revealed that socio-economic conditions significantly influenced single mothers' access to and participation in integrated community-based counselling. Healthcare counsellors identified poverty, transportation costs, employment commitments, and household responsibilities as major barriers to regular attendance. One counsellor explained:

"Some single mothers have financial difficulties, and they may fail to come for counselling because they cannot afford transport or because they have to look for money to support their children."

Similarly, single mothers highlighted the challenges of balancing employment and childcare responsibilities with counselling attendance. One participant stated:

"When I have work, I cannot always leave it to attend counselling because if I miss work, I lose the money I need to provide for my child."

Another participant added:

"Most of my time is spent looking after my child and doing household activities, so it becomes difficult to attend counselling regularly."

Counsellors also observed that mothers experiencing financial difficulties often prioritized their immediate household needs over mental health support. As one counsellor noted:

"For mothers with limited income, food, housing, and childcare come first, while counselling may be considered less urgent."

Overall, these findings demonstrate that financial insecurity, competing work demands, and childcare responsibilities constrained single mothers' participation in community-based counselling, potentially limiting their access to essential postnatal mental health support.

3.4 Socio- Cultural Factors of Integrated Community Based Counselling to Improve Postnatal Maternal Mental Health

In order to assess socio- cultural factors of integrated community-based counselling to improve postnatal maternal mental health, participants were asked to provide responses via a questionnaire

Table 3: Socio- Cultural Factors of Integrated Community Based Counselling to Improve Postnatal Maternal Mental Health

Statements	SD (N, %)	D (N, %)	N (N, %)	A (N, %)	SA (N, %)	Mean	Std
Community beliefs and norms influence mothers' willingness to attend counselling.	0 (0.0)	0 (0.0)	0 (0.0)	17 (42.5)	23 (57.5)	4.5750	0.50064
Social support from family members encourages participation in counselling sessions.	0 (0.0)	0 (0.0)	0 (0.0)	23 (57.5)	17 (42.5)	4.4250	0.50064
Stigma associated with postnatal mental health affects mothers' attendance at counselling.	0 (0.0)	0 (0.0)	0 (0.0)	20 (50.0)	20 (50.0)	4.5000	0.50637
Religious and cultural leaders play a role in promoting counselling services.	0 (0.0)	3 (7.5)	0 (0.0)	15 (37.5)	22 (55.0)	4.4000	0.84124
Mothers feel comfortable discussing mental health issues in community settings.	0 (0.0)	0 (0.0)	0 (0.0)	19 (47.5)	21 (52.5)	4.5250	0.50574
Peer support groups positively influence mothers' engagement with counselling.	0 (0.0)	3 (7.5)	0 (0.0)	19 (47.5)	18 (45.0)	4.3000	0.82275
Community attitudes towards single mothers affect access to mental health services.	0 (0.0)	0 (0.0)	0 (0.0)	25 (62.5)	15 (37.5)	4.3750	0.49029
Awareness and education reduce negative cultural perceptions of mental health counselling.	0 (0.0)	0 (0.0)	0 (0.0)	18 (45.0)	22 (55.0)	4.5500	0.50383

The findings in Table 3 indicate that socio-cultural factors strongly influenced integrated community-based counselling for improving postnatal maternal mental health among single mothers. All eight statements recorded high mean scores, ranging from 4.3000 to 4.5750, indicating strong agreement among respondents.

The highest-rated factor was that community beliefs and norms influence mothers' willingness to attend counselling, with all 40 (100.0%) respondents agreeing or strongly agreeing (M=4.5750, SD=0.50064). This was followed by the view that awareness and education reduce negative cultural perceptions of mental health counselling, also supported by 40 (100.0%) respondents (M=4.5500, SD=0.50383).

Similarly, all 40 (100.0%) respondents agreed that mothers feel comfortable discussing mental health issues in community settings (M=4.5250, SD=0.50574). The findings further showed that stigma associated with postnatal mental health affects mothers' attendance at counselling, with all 40 (100.0%) respondents agreeing or strongly agreeing (M=4.5000, SD=0.50637). Community attitudes towards single mothers were also perceived to affect access to mental health services, as all 40 (100.0%) respondents agreed or strongly agreed (M=4.3750, SD=0.49029). In addition, 40 (100.0%) respondents

indicated that social support from family members encourages participation in counselling sessions (M=4.4250, SD=0.50064).

Furthermore, 37 (92.5%) respondents agreed or strongly agreed that peer support groups positively influence mothers' engagement with counselling, while 3 (7.5%) disagreed (M=4.3000, SD=0.82275).

Likewise, 37 (92.5%) respondents agreed or strongly agreed that religious and cultural leaders play a role in promoting counselling services, compared with 3 (7.5%) who disagreed (M=4.4000, SD=0.84124).

Qualitative Results

Qualitative findings indicate that socio-cultural beliefs, stigma, family relationships, and community attitudes influenced single mothers' willingness to seek and participate in counselling. Health care counsellors reported that some mothers feared being judged by community members because of their status as single mothers or because they were experiencing emotional difficulties. One counsellor stated, **"***Some single mothers are afraid that people will talk about them or judge them if they are seen seeking counselling, so they prefer to keep their problems to themselves."*

Single mothers also described the influence of stigma and community perceptions. One participant stated, **"***Sometimes I fear that people will think I am weak or that I cannot manage my own problems if they see me going for counselling." Another single mother explained, "Some family members tell us that problems after childbirth are normal and that we should just be strong instead of seeking counselling*."

However, positive family and community support was reported to encourage counselling participation. A counsellor explained, **"***Mothers who have supportive family members or community health workers are more willing to attend counselling because they feel understood and encouraged.***"** Similarly, one single mother stated, **"***When the community health worker encouraged me and listened to me without judging me, I became more comfortable attending counselling."* These findings demonstrate that stigma and negative social perceptions could discourage counselling uptake, whereas supportive relationships facilitated participation.

3.5 The Level of Community Based Counselling associated with Improved Postnatal Maternal Mental Health

In order to assess the level of Community Based Counselling associated with Improved Postnatal Maternal Mental Health, participants were asked to provide responses via a questionnaire.

Table 4: Level of Community Based Counselling associated with Improved Postnatal Maternal Mental Health

Statements	SD (N, %)	D (N, %)	N (N, %)	A (N, %)	SA (N, %)	Mean	Std
Counselling sessions are intensive enough to address postnatal mental health concerns.	0 (0.0)	1 (2.5)	0 (0.0)	19 (47.5)	20 (50.0)	4.4500	0.63851
Regular follow-up support is provided to mothers after counselling sessions.	0 (0.0)	3 (7.5)	0 (0.0)	15 (37.5)	22 (55.0)	4.4000	0.84124
Referral linkages to specialized mental health services are available when needed.	0 (0.0)	0 (0.0)	0 (0.0)	19 (47.5)	21 (52.5)	4.5250	0.50574
Counselling interventions have improved mothers' emotional well-being.	0 (0.0)	3 (7.5)	0 (0.0)	19 (47.5)	18 (45.0)	4.3000	0.82275
Mothers feel less anxious and stressed after participating in counselling programs.	0 (0.0)	0 (0.0)	0 (0.0)	25 (62.5)	15 (37.5)	4.3750	0.49029
Postnatal depression levels decrease with consistent counselling support.	0 (0.0)	0 (0.0)	0 (0.0)	18 (45.0)	22 (55.0)	4.5500	0.50383
Counselling enhances mothers' coping strategies and resilience.	0 (0.0)	1 (2.5)	0 (0.0)	19 (47.5)	20 (50.0)	4.4500	0.63851
The overall quality of community-based counselling meets the mental health needs of single mothers.	0 (0.0)	0 (0.0)	0 (0.0)	26 (65.0)	14 (35.0)	4.3500	0.48305

The findings in Table 4 indicate that the level of community-based counselling was generally high and was associated with improved postnatal maternal mental health among single mothers. The mean scores ranged from 4.3000 to 4.5500, indicating strong agreement with all the statements.

The highest-rated statement was that postnatal depression levels decrease with consistent counselling support, with all 40 (100.0%) respondents agreeing or strongly agreeing (M=4.5500, SD=0.50383). This was followed by referral linkages to specialized mental health services are available when needed, where all 40 (100.0%) respondents agreed or strongly agreed (M=4.5250, SD=0.50574). Similarly, all 40 (100.0%) respondents agreed or strongly agreed that counselling sessions are intensive enough to address postnatal mental health concerns (M=4.4500, SD=0.63851) and that counselling enhances mothers' coping strategies and resilience (M=4.4500, SD=0.63851).

The findings further showed that regular follow-up support is provided to mothers after counselling sessions, with 37 (92.5%) respondents agreeing or strongly agreeing and 3 (7.5%) disagreeing (M=4.4000, SD=0.84124). All 40 (100.0%) respondents also agreed or strongly agreed that mothers feel less anxious and stressed after participating in counselling programs (M=4.3750, SD=0.49029). Likewise, all 40 (100.0%) respondents agreed or strongly agreed that the overall quality of community-based counselling meets the mental health needs of single mothers (M=4.3500, SD=0.48305). Although rated lowest, counselling interventions have improved mothers' emotional well-being still received strong support, with 37 (92.5%) respondents agreeing or strongly agreeing and 3 (7.5%) disagreeing (M=4.3000, SD=0.82275).

4. DISCUSSION OF FINDINGS

4.1 Prevalence of Integrated Community-Based Counselling

The findings revealed that integrated community-based counselling was relatively well established among single mothers in Ruhango District, although some accessibility challenges remained. The availability and accessibility of counselling-related services ranged from 52.5% to 82.5%. The availability of counselling services for postnatal mothers recorded the highest proportion (82.5%), followed by the integration of multiple aspects of maternal mental health (80.0%). Awareness campaigns reached 70.0% of respondents, while access to community-based counselling and regular follow-up by Community Health Workers (CHWs) each accounted for 67.5%. However, equal accessibility between urban and rural areas was relatively low (52.5%), and only 57.5% reported that counselling schedules accommodated single mothers' availability. These findings suggest that geographical disparities and inflexible schedules continued to limit effective service utilization.

These findings are consistent with Tachibana et al. (2020), who emphasized the importance of home visits, mental health screening, and multidisciplinary follow-up in improving postpartum mental health. Similarly, Tenaw et al. (2024) demonstrated that psychosocial interventions, including counselling, can reduce postpartum depressive symptoms. Sinha et al. (2021) and Hosseini et al. (2025) also highlighted the effectiveness of community-based and home-based supportive interventions in addressing postpartum depression.

Nevertheless, the accessibility gaps identified in the present study reflect challenges reported by Bah et al. (2025), who associated poverty, low literacy, and limited healthcare access with reduced utilization of perinatal counselling. Therefore, strengthening community outreach, introducing flexible counselling schedules, and improving follow-up mechanisms are essential to ensuring equitable access to mental health services among single mothers.

4.2 Socio-Economic Factors Influencing Integrated Community-Based Counselling and Postnatal Maternal Mental Health

The findings demonstrated that socio-economic conditions significantly influenced access to and utilization of integrated community-based counselling. All eight indicators recorded high mean scores, ranging from M = 4.3000 to M = 4.5500. Economic empowerment initiatives recorded the highest mean (M = 4.5500), followed by counselling affordability (M = 4.5250) and the influence of income on access to counselling (M = 4.5000). Other important factors included subsidized counselling, employment status, financial assistance, household financial stability, and transportation costs. These results highlight the importance of economic security in facilitating access to maternal mental health services.

Regression analysis confirmed a strong positive relationship between socio-economic factors and postnatal maternal mental health improvement ($R = .763$, $R^2 = .582$, $F(1, 38) = 52.865$, $p < .001$). The regression coefficient was statistically significant ($B = .640$, $\beta = .763$, $t = 7.271$, $p < .001$), indicating that favourable socio-economic conditions were associated with improved maternal mental health. The model explained 58.2% of the variation in the outcome.

These findings agree with Manzouri et al. (2025), who associated low income, unemployment, inadequate housing, and household debt with postpartum depression and anxiety. Similarly, Modjadji and Mokwena (2020) emphasized the relationship between low household income and postnatal depression. Bah et al. (2025) also identified poverty and limited healthcare access as barriers to perinatal counselling. These findings correspond with the qualitative results of the present study, which identified transportation expenses, employment commitments, and childcare responsibilities as barriers to regular counselling attendance.

However, Shoaib et al. (2025) found that household income and husbands' employment were not significant predictors of postpartum depression, suggesting that emotional support and maternal decision-making power may also influence mental health outcomes. Overall, the findings emphasize the need for economic empowerment, affordable counselling, financial assistance, and reduced transportation barriers to improve single mothers' access to community-based mental health services.

4.3 Socio-Cultural Factors Influencing Integrated Community-Based Counselling and Postnatal Maternal Mental Health

The findings revealed that socio-cultural factors were strongly associated with improvements in postnatal maternal mental health. The eight indicators recorded mean scores ranging from M = 4.3000 to M = 4.5750. Community beliefs and norms recorded the highest mean (M = 4.5750), followed by awareness and education to address negative cultural perceptions (M = 4.5500) and mothers' comfort in discussing mental health issues within community settings (M = 4.5250). Stigma, family support, peer support, and the involvement of religious and cultural leaders were also identified as important factors.

The regression analysis established a strong positive relationship between socio-cultural factors and postnatal maternal mental health improvement ($R = .771$, $R^2 = .595$, $F(1, 38) = 55.714$, $p < .001$). The regression coefficient was statistically significant ($B = .720$, $\beta = .771$, $t = 7.464$, $p < .001$), indicating that socio-cultural conditions were significant predictors of the outcome. The model explained 59.5% of the variation in postnatal maternal mental health improvement.

These findings are consistent with Balogun et al. (2025), who established that cultural expectations, spiritual interpretations, and stigma influenced psychological distress and help-seeking behaviours. Similarly, Tembo et al. (2025) highlighted the influence of family relationships, cultural practices, and community norms on maternal well-being. Alfayumi Zeadna et al. (2025) also demonstrated the potential of culturally adapted peer-support interventions in improving postpartum depression outcomes.

The qualitative findings further reinforced these relationships by highlighting fear of judgment and negative social perceptions as barriers to counselling participation. Overall, the findings demonstrate that effective community-based counselling should address stigma, strengthen family and peer support, promote community awareness, and involve religious and cultural leaders in delivering culturally appropriate maternal mental health interventions.

4.4 Level of Community-Based Counselling Associated with Improved Postnatal Maternal Mental Health

The findings indicated that the level of community-based counselling was generally high and positively associated with improved postnatal maternal mental health among single mothers. The eight indicators recorded mean scores ranging from M = 4.3000 to M = 4.5500. Reduced postnatal depression through consistent counselling recorded the highest mean (M = 4.5500), followed by the availability of referral linkages to specialized mental health services (M = 4.5250). Improved coping strategies, counselling intensity, regular follow-up, and reduced anxiety and stress also received high ratings. These findings highlight the perceived contribution of consistent counselling, appropriate referrals, and follow-up support to maternal mental health improvement.

Correlation analysis further revealed strong positive relationships between socio-economic factors and postnatal maternal mental health ($r = .763$, $p < .001$) and between socio-cultural factors and postnatal maternal mental health ($r = .771$, $p < .001$). Socio-economic and socio-cultural factors were also strongly correlated ($r = .938$, $p < .001$), suggesting that these dimensions are closely interconnected in influencing maternal mental health.

These findings are consistent with Hosseini et al. (2025), who demonstrated the effectiveness of home-based supportive counselling in reducing postpartum depression. Similarly, Surkan et al. (2024) found that the Happy Mother–Healthy Baby programme, which delivered structured cognitive behavioural therapy through non-specialist providers, significantly reduced postpartum anxiety and depression. These studies reinforce the importance of accessible, structured, and continuous community-based counselling.

The qualitative findings further supported these results, as healthcare counsellors and single mothers reported improvements in emotional well-being, stress management, coping abilities, and feelings of social support. Regular follow-up was also identified as important in maintaining counselling engagement and identifying mothers requiring additional assistance. Furthermore, Balogun et al. (2025), Tembo et al. (2025), Alfayumi Zeadna et al. (2025), Tessema et al. (2025), and Wang et al. (2025) highlighted the importance of culturally responsive interventions, peer support, psychoeducation, and family involvement in strengthening maternal well-being. Overall, the findings emphasize the need for consistent counselling, effective referral systems, and sustained community follow-up to improve postnatal maternal mental health among single mothers.

5. CONCLUSIONS

The study concluded that integrated community-based counselling played an important role in supporting postnatal maternal mental health among single mothers in Ruhango District. Although counselling services were generally available, geographical barriers and inflexible service schedules could limit access. Improving service accessibility and flexibility is therefore essential to ensure that counselling responds to the diverse needs and circumstances of single mothers.

The findings further indicated that socio-economic conditions influenced access to and continued participation in community-based counselling. Financial constraints, transportation costs, employment commitments, childcare, and household responsibilities could hinder participation, whereas affordable services, financial assistance, and economic empowerment could facilitate engagement. Integrating socio-economic support into maternal mental health interventions is therefore important for promoting equitable access and sustained participation.

The study also established that socio-cultural factors shaped the uptake and effectiveness of community-based counselling. Community beliefs, family attitudes, stigma, awareness, peer support, and the involvement of religious and cultural leaders influenced mothers' willingness to seek and continue counselling. Strengthening community awareness, reducing stigma, and promoting supportive family and peer relationships are consequently important for improving the acceptability and effectiveness of these services.

Furthermore, the study concluded that improving postnatal maternal mental health requires more than the provision of counselling sessions alone. Continuous counselling, regular follow-up by Community Health Workers, appropriate referral mechanisms, emotional support, and opportunities to develop coping skills and resilience are essential components of effective interventions. These services should be accessible, affordable, culturally appropriate, and responsive to the socio-economic and family circumstances of single mothers.

Overall, the study concluded that an integrated, community-based, and context-sensitive approach is essential for addressing postnatal maternal mental health challenges among single mothers in Ruhango District. Combining counselling with socio-economic support, family and community engagement, awareness creation, stigma reduction, regular follow-up, and effective referral services can strengthen continuity of care and support mothers in managing postnatal mental health challenges. This approach highlights the importance of coordinated and sustained interventions that address the psychological, social, cultural, and economic factors influencing maternal well-being.

6. RECOMMENDATION

Based on the study findings, the Ministry of Health and relevant district health authorities should strengthen the integration of maternal mental health counselling into routine postnatal and community health services. Particular attention should be given to single mothers and other vulnerable women by ensuring that counselling services are accessible, consistent, and incorporated into existing maternal and child health programmes.

Ruhango District health authorities should improve equitable access to counselling, particularly in underserved rural communities, through community outreach, flexible service schedules, and effective referral systems. Collaboration between maternal mental health services and social protection and economic empowerment programmes should also be strengthened. Affordable or subsidized counselling and support to reduce transportation costs would help vulnerable single mothers access services and maintain participation.

Furthermore, maternal mental health interventions should be culturally appropriate and sensitive to stigma. Health authorities and community stakeholders should engage families, religious leaders, and other community leaders in raising

awareness, challenging negative perceptions of single motherhood, and encouraging women to seek psychological support without fear of discrimination. These efforts would help create supportive community environments and improve the acceptance and utilization of counselling services.

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