COMMUNITY-BASED STRATEGIES FOR PERINATAL MENTAL HEALTH SERVICES IN LOW-MIDDLE INCOME COUNTRIES: SCOPING REVIEW

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ABSTRACT

Introduction: Perinatal mental health is critical to the well-being of both mother and child, influencing maternal quality of life and child development. Community-based approaches have proven effective in enhancing service accessibility and quality while also reducing maternal morbidity.

Objective: This scoping review aims to identify and explore scientific evidence regarding strategies for delivering community-based perinatal mental health services in developing countries.

Method: This study employed a scoping review design guided by the Population–Concept–Context (PCC) framework. Literature searches were conducted across PubMed, ScienceDirect, Cochrane Library, EBSCO, and gray literature sources, including Google Scholar. Selected articles were critically appraised using the JBI Critical Appraisal Tools and the Mixed Methods Appraisal Tool (MMAT).

Results: Out of 726 records screened, 9 articles met the inclusion and exclusion criteria. The analysis revealed four central themes: (1) community-based mental health service strategies, (2) instruments used to detect perinatal mental health disorders, (3) enabling and limiting factors in implementing community-based services, and (4) the benefits of community-based mental health interventions.

Conclusion: Community-based mental health strategies are widely adopted in developing countries to address service gaps, particularly in settings with limited resources and access. However, challenges such as insufficient policy support, inadequate funding, limited training for healthcare providers, and persistent social stigma continue to hinder implementation.

INTRODUCTION

Maternal mental health during the perinatal period—defined as the time spanning pregnancy through the first year postpartum—is a critical public health concern, as it represents a particularly vulnerable phase for women's psychological well-being (1) . According to the World Health Organization, one in five women will experience a mental health condition during pregnancy or within the first year following childbirth (2). Research indicates that women in low- and middle-income countries are twice as likely to suffer from perinatal mental health disorders compared to those in high-income countries (1). he perinatal stage is frequently marked by elevated risks of mental health conditions such as depression, anxiety, and stress (3). These issues are often compounded by factors such as educational attainment, social and spiritual influences, economic status, cultural context, the level of social support, and a prior history of depressive symptoms (4,5).

Perinatal mental health disorders are frequently underdiagnosed or overlooked altogether (6). These conditions can contribute to maternal mortality and have detrimental effects on neonatal, infant, and child health outcomes (6,7). In resource-constrained settings, key barriers include limited access to quality mental health services, pervasive stigma surrounding mental illness, and underdeveloped health systems that lack sufficient workforce capacity and sustainable funding mechanisms (8).

Psychological evaluation during pregnancy presents a vital window for identifying mental health concerns and ensuring that pregnant women receive timely and appropriate intervention when necessary (9). Both the World Health Organization (WHO) and national health systems such as the United Kingdom's National Health Service (NHS) endorse routine psychological screening, underscoring the necessity of universal assessments to detect and manage mental health issues in pregnant women at least once during the antenatal period (2,10).

In this context, community-based strategies have emerged as a promising approach to enhance both access to and the quality of maternal mental health services (3). Initiatives involving community health workers, participatory music interventions, and social support networks have demonstrated effectiveness in alleviating depressive symptoms and promoting emotional well-being among mothers. For instance, programs incorporating the cultural practices of the Kanyeleng groups in Gambia have supported perinatal women through uplifting songs and traditional rituals. Similarly, community health worker initiatives in Tanzania and Bangladesh have demonstrated success in integrating mental health services into routine maternal care, serving as key strategies for enhancing emotional support and promoting shared decision-making within families (3–5).

Although community-based interventions yield positive outcomes, their implementation requires comprehensive training for community health workers, the establishment of referral pathways for severe cases, and sustained funding to enable broader application (11). As such, a holistic and culturally responsive approach—anchored in strong policy support—is essential to ensure the effectiveness of perinatal mental health strategies in developing countries (12). The scoping review approach was chosen because this study aims to map and explore various community-based strategies in perinatal mental health services. Scoping reviews are beneficial in mapping diverse evidence and identifying gaps in the literature that require further research. This approach allows for the inclusion of various types of studies and sources, providing a comprehensive understanding of the strategies implemented in developing countries. It is critical to understand how these community-driven strategies can be implemented effectively, including efforts that engage local populations, build healthcare provider capacity, and integrate mental health services with the specific needs of women during the perinatal period. This scoping review aims to identify and explore empirical evidence on community-based approaches to perinatal mental health service delivery in low- and

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middle-income countries. Through these coordinated efforts, community-based approaches can make a meaningful contribution to sustainable perinatal mental health care in low-resource settings.

METHOD

This study is a scoping review that focuses on community-based strategies for delivering perinatal mental health services in low- to middle-income countries. According to the Canadian Institutes of Health Research, a scoping review is an "exploratory project" that systematically maps the available literature on a given topic by identifying key concepts, theoretical frameworks, sources of evidence, and gaps in the research (13). The review process followed the framework developed by Arksey and O'Malley, which includes the following steps: identifying the research question, identifying relevant studies, selecting studies, charting the data, and collating, summarizing, and reporting the results (14).

Identifying the research question

This scoping review employs the PCC framework—Population, Concept, and Context—to guide the selection of studies for inclusion. The central research question addressed is: "What are the community-based strategies for delivering perinatal mental health services in low- and middle-income countries?"

Table 1. *PCC Framework*

Population	Concept	Context
Women in the perinatal period (from pregnancy through postpartum)	Community-based mental health service strategies targeting perinatal women	Low-middle income countries

Identifying relevant studies

The databases utilized in this scoping review include PubMed, ScienceDirect, Cochrane Library, EBSCO, and gray literature sources such as Google Scholar. During the article search process, various search strategies were employed, including the use of truncation symbols (*, #) and Boolean operators (OR, AND). The keywords used in this review include:

Table 2. Keywords

Population	Concept	Context
perinatal wom?n OR pregnan* wom?n OR antenatal wom?n OR postpartum wom?n OR Pregnan* Postpartum Period OR Perinatal Care	mental health servic* OR psychological support OR maternal mental health	All research articles related to Community-Based Strategies for Perinatal Mental Health Services in low-middle income countries
AND	AND	

The inclusion and exclusion criteria for this study are outlined in the following table:

Table 3. Article Criteria

Inclusion criteria	Exclusion criteria
Peer-reviewed research articles published in English	Review Article
Publications dated from January 2020 to December 2024	Meta-analysis of articles
Original research	Protocol Review
Studies focusing on community-based mental health service strategies for perinatal women in Low-middle income countries as defined by the World Bank based on Gross National Income (GNI) per capita	

Study Selection

The study selection process was documented using the PRISMA 2020 flow diagram for systematic reviews, which outlines the identification of records through database searches and registries. The article selection process was carried out using Rayyan, where two researchers independently screened the articles based on the predefined inclusion and exclusion criteria. Articles that met the criteria were then moved to the full-text assessment stage. In cases of conflicts during article selection, discrepancies were resolved through discussions between the two researchers to reach a consensus. This process ensures

transparency,   objectivity,   and   consistency   in   the   selection   of   relevant   studies.
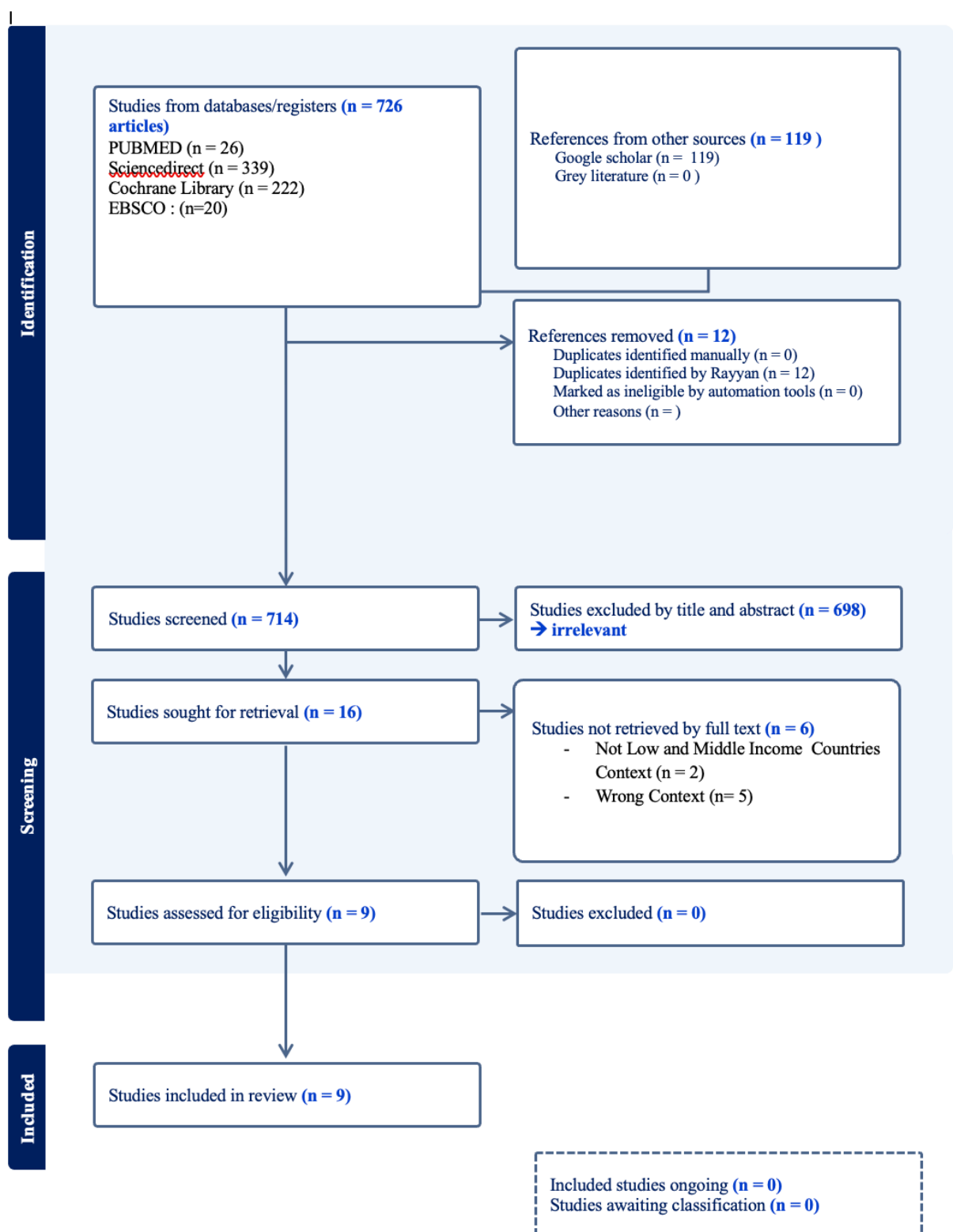

Figure 1. PRISMA Flow Diagram

Charting the data

Data extraction refers to the process of identifying, collecting, and organizing relevant information from selected sources of evidence for research or review (13). The results of the data charting process are presented in the following table.

Table 4. Charting The Data

No	Title/Author/Year	Objective	Country	Method	Results
A1	The experience of maternal mental distress in The Gambia: A qualitative study identifying idioms of distress, perceptions of contributing factors and the supporting role of existing cultural practices. (1)	The study aimed to explore women's experiences of psychological distress during the perinatal period in Gambia.	Gambia	1. This qualitative study employed purposive sampling, with data collected through focus group discussions. 2. A total of 115 participants were involved in the study, comprising 39 pregnant women, 27 healthcare professionals (midwives, physicians, and other medical staff), and 49 cultural leaders and community members (griots, Kanyeleng performers, and community birth companions), organized into multiple focus group discussion (FGD) groups. 3. The primary data collection instrument was focus group discussions (FGDs). 4. The data were analyzed using reflexive thematic analysis, guided by the approach of Braun and Clarke (2006).	1. The study identified six key themes that influence maternal mental health during the perinatal period in The Gambia: deficiencies in the healthcare system, shifts in cultural context, economic hardship, social factors, spiritual beliefs, and cultural practices involving music. 2. Community-based strategies for Addressing Perinatal Mental Health Challenges included Musical Practices and cultural rituals. Music was used to support maternal mental well-being through uplifting songs, prayers, and rituals intended to soothe, energize, and protect mothers from spiritual harm. Musical rituals also served as a medium for delivering health advice. Social Empowerment – Kanyeleng groups actively functioned as health communicators, using songs to disseminate health information within the community.
A2	Effect of a lay counselor delivered integrated maternal mental health and early childhood development group-based intervention in Siay (15)	This study aimed to assess the impact of the Integrated Mothers and Baby Course/Early Childhood Development (iMBC/ECD), a group-based cognitive-behavioral intervention, on maternal depression and early childhood socio-emotional development in Siaya County, Kenya.	Kenya	1. This study employed a longitudinal quasi-experimental design with a total of 417 participants, divided into an intervention group (193 women from 23 intervention groups) and a control group (224 women from 30 control groups). 2. Data were collected using structured questionnaires. Maternal depression was assessed using the PHQ-9, while children's social and emotional development was measured using the ASQ-SE-2. 3. Data analysis included Propensity Score Weighting to address potential bias and linear mixed-effects models. Linear regression was used to analyze group-level data. Semi-structured interviews were also conducted with 39 participants and program stakeholders, and the qualitative data were analyzed using rapid content analysis.	1. The iMBC/ECD program did not produce a significant overall effect on reducing maternal depression or improving early childhood socio-emotional development. 2. However, the intervention demonstrated more favorable outcomes among specific subgroups, including mothers with lower levels of education, those with more children, and those not experiencing intimate partner violence. 3. The program enhanced maternal engagement with health services, which significantly supported early recognition and management of mental health symptoms. 4. Program effectiveness was significantly influenced by maternal attendance; mothers with higher participation rates exhibited greater reductions in depressive symptoms compared to those with lower attendance rates.

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No	Title/Author/Year	Objective	Country	Method	Results
A3	Effectiveness of a peer-delivered, psychosocial intervention on maternal depression and child development at 3 years of age: a cluster randomized trial in Pakistan (12)	This study aimed to evaluate the impact of a peer-delivered psychosocial depression intervention on maternal depression and child development outcomes at three years of age.	Pakistan	1. This study employed a cluster-randomized controlled trial design, with 40 villages randomized at the cluster level into intervention and control groups (20 villages each). 2. A total of 1,154 pregnant women were enrolled, including 570 women with moderate to severe depressive symptoms and 584 women without depression. 3. The data collection instruments included the PHQ-9, SCID, and WHO-DAS for maternal assessment, the SDQ and BSITD for child development, and physical growth measurements using Z-scores. 4. Data were analyzed using linear mixed-effects models for continuous outcomes and generalized estimating equations (GEE) for binary outcomes. All analyses followed an intention-to-treat approach.	1. The community-based psychosocial intervention delivered by peers showed no significant differences in reducing maternal depression or improving child development outcomes compared to the control group. 2. Although depressive symptoms declined in both groups, persistent social and contextual barriers—such as poverty, domestic violence, and limited access to healthcare—continued to impede maternal recovery and child development. 3. Maternal attendance rates declined over time, with only 63% completing follow-up sessions beyond six months postpartum. A noticeable drop in peer provider competence and motivation was observed during the implementation phase, particularly after 12 months, due to a reduction in supervision frequency from monthly to bimonthly.
A4	Effectiveness of a package of community-based mental healthcare services to address perinatal mental disorders in Bangladesh: A cluster-randomized controlled trial (3)	This study aimed to develop a community-based mental health service package and evaluate its effectiveness in reducing depression, anxiety, and stress among mothers during the perinatal period.	Bangladesh	1. This study was a cluster randomized controlled trial (cRCT) conducted between 2017 and 2018 to evaluate the effectiveness of a community-based mental health service package. 2. A total of 1,215 pregnant women participated in the study, with 605 assigned to the intervention group and 610 to the control group. Out of 23 community clinics, 22 were randomly selected and allocated into 11 intervention clusters and 11 control clusters. 3. Data collection instruments included the DASS-21, EQ-5D-3L, and a sociodemographic questionnaire. Trained enumerators conducted the data collection. 4. Data analysis was performed using STATA 13, employing descriptive statistics, paired sample t-tests, and generalized linear mixed-effects models.	1. The Community-Based Maternal Mental Health Care (CBMHC) service package, developed as the core intervention, proved to be moderately effective in reducing stress among women during the perinatal period. 2. Improvements in quality of life, as measured by the EQ-5D-3L index, were observed in both groups; however, the intervention group experienced greater gains in quality of life. 3. The study highlights the potential for integrating mental health services into routine maternal care within rural communities in Bangladesh. 4. The mental health-focused community intervention also contributed to increased maternal attendance at primary healthcare facilities, ensuring that women received care tailored to their mental health needs.
A5	Engaging women and men in the gendersynchronised, community-based Mbereko+Men intervention to improve maternal mental health and perinatal care-seeking in Manicaland, Zimbabwe: A cluster-randomised controlled pragmatic trial (16)	This study aimed to evaluate the effectiveness of a community-based intervention (Mbereko+Men) that engaged both men and women in supporting maternal mental health and improving the uptake of perinatal services in rural areas of Zimbabwe.	Zimbabwe	1. This study utilized a cluster-randomized controlled trial design involving postpartum women (0–6 months) and their male partners. 2. The total sample size included 457 women and 242 men at pre-intervention and 433 women and 273 men at post-intervention. 3. Data collection instruments included structured questionnaires such as the Edinburgh Postnatal Depression Scale (EPDS) and the Gender Equitable Men Scale.	1. The average EPDS score among women decreased by 34% more in the intervention group compared to the control group. 2. Structural barriers, with inadequate infrastructure and limited transportation posing challenges to service access, significantly influenced maternal mental health and care-seeking behaviors. 3. Male support for mothers and infants increased, including presence during childbirth and encouragement of breastfeeding. Additionally, women's participation in household decision-making also improved.
A6	Community psychosocial music intervention (CHIME) to reduce antenatal common mental disorder symptoms in The Gambia: a feasibility trial (5)	Tujuan dari penelitian ini adalah untuk mengevaluasi kelayakan Intervensi Kesehatan Masyarakat melalui Keterlibatan Musik di Gambia untuk mengurangi gejala	Gambia	1. This study utilized a stepped-wedge cluster randomized trial design. 2. The sample consisted of 120 pregnant women aged 14–24, divided into 60 participants in the control group and 60 in the intervention group.	1. The study demonstrated that community-based music interventions are feasible and show potential in reducing symptoms of common mental disorders among pregnant women. The average reduction was 2.13 points on the SRQ-20 and 1.98 points on the EPDS.

No	Title/Author/Year	Objective	Country	Method	Results
		gangguan mental umum pada wanita hamil.		3. Common mental disorder (CMD) symptoms were assessed using the Self-Reporting Questionnaire (SRQ-20) and the Edinburgh Postnatal Depression Scale (EPDS). Data were also collected through semi-structured interviews and focus group discussions (FGDs). 4. Data analysis included descriptive statistics, linear mixed-effects regression, and thematic analysis of the interviews and focus group discussions (FGDs).	2. Both participants well received the intervention and the broader community. Women reported feeling calmer and happier after the music sessions, gaining social support from peers, and learning strategies to cope with pregnancy-related challenges. The Kanyeleng groups, who led the sessions, also noted a positive impact of the program within the community.
A7	Effectiveness of a group intervention led by lay health workers in reducing the incidence of postpartum depression in South India (17)	This study aimed to assess the effectiveness of a group-based intervention led by community health workers (non-professionals) during pregnancy in reducing the incidence of postpartum depression at 6 to 12 weeks after childbirth..	India	1. This study was conducted as a randomized controlled trial (RCT). 2. The sample consisted of 202 pregnant women divided into three groups: active intervention (69 participants), positive control (75 participants), and negative control (70 participants). 3. The instruments used included CIS-R, EPDS, and GAF to assess social functioning. Assessments were conducted between 6 and 12 weeks postpartum. 4. Data were analyzed using Chi-square tests, Kruskal-Wallis tests, and Mann-Whitney U tests to compare outcomes across groups.	1. The group-based intervention led by community health workers resulted in a reduction in postpartum depression and improved maternal social functioning. The prevalence of postpartum depression was 14.1% in the active intervention group, compared to 24.7% in the positive control group and 20.0% in the negative control group. 2. Social functioning, as measured by the Global Assessment of Functioning (GAF) scale, showed that only 14.1% of mothers in the intervention group experienced impaired functioning (GAF < 70), compared to 21.9% in the positive control group and 26.2% in the negative control group.
A8	Effects of a community health worker delivered intervention on maternal depressive symptoms in rural Tanzania (4)	This study aimed to evaluate the effectiveness of a home visit-based intervention delivered by community health workers (CHWs) on maternal depressive symptoms in rural Tanzania.	Tanzania	1. This study was a cluster randomized controlled trial (cRCT) with three arms: the CHW group received health, nutrition, and responsive stimulation interventions through home visits; the CHW + CCT group received the same intervention along with conditional cash transfers (CCT); and the control group received standard clinic-based healthcare. 2. The sample included 593 pregnant women and mothers with children under 12 months of age across 12 villages in rural Tanzania. 3. Data collection was conducted using the Hopkins Symptom Checklist-25 (HSCL-25). 4. Data were analyzed using linear mixed-effects models to estimate differences in HSCL-25 scores between groups.	1. The community-based intervention delivered by community health workers led to a reduction in depressive and anxiety symptoms, with average decreases in Hopkins Symptom Checklist-25 (HSCL-25) scores of 0.37 points at 9 months and 0.31 points at 18 months compared to the control group. The most notable improvements were observed in depressive symptoms. 2. The involvement of community health workers contributed to improved maternal mental health, enabling women to manage daily stress better and lowering the risk of maternal depressive symptoms. 3. Factors influencing depression among pregnant women and mothers of young children in rural Tanzania included marital status, education level, availability of social support, socioeconomic conditions, and a history of depressive symptoms.
A9	Effect of a lay counselor-delivered integrated maternal mental health and early childhood development group-based intervention in Northern Ghana: a cluster-randomized controlled trial (18)	The objective of this study was to evaluate the impact of the group-based intervention Integrated Mothers and Babies Course and Early Childhood Development (iMBC/ECD) on:	Ghana	1. This study was a cluster randomized controlled trial involving 32 groups, evenly divided into 16 intervention clusters and 16 control clusters. 2. Data were collected using the Patient Health Questionnaire-9 (PHQ-9) to assess maternal depression and the Ages & Stages Questionnaires: Social-Emotional, Second Edition (ASQ\:SE-2) to evaluate children's social-emotional development.	1. No significant difference was observed in the reduction of PHQ-9 scores between the intervention and control groups. Depressive symptoms declined in both groups from baseline to eight months post-intervention. Following the intervention, the prevalence of moderate to severe depression dropped to just 3% in both groups. 2. The PeARS program effectively addressed several barriers commonly faced by women in accessing services related to social deprivation. It also enhanced women's engagement with

No	Title/Author/Year	Objective	Country	Method	Results
		1. Maternal mental health among mothers with children under the age of two 2. Children's social-emotional development		3. Data analysis was conducted using linear mixed-effects models to account for clustering and assess the effectiveness of the intervention.	local services and supported the implementation of individualized, needs-based care plans.

Assessment of Quality Article with the Critical Appraisal tool

Critical appraisal is the process of carefully and systematically evaluating research to assess its trustworthiness, value, and relevance within a specific context. In this scoping review, the quality of the included studies was assessed using the Joanna Briggs Institute (JBI) Critical Appraisal Tools for randomized controlled trials and quasi-experimental studies, as well as the Mixed Methods Appraisal Tool (MMAT) for qualitative research. A total of 9 articles underwent the critical appraisal process, all of which were rated as high quality (Grade A). The JBI and MMAT tools assess criteria such as methodological rigor, sample size, data collection methods, and relevance to the research question. Discrepancies in assessment were resolved through discussions between the two independent reviewers, ensuring consistency and objectivity. All articles met the high standards set by these tools, which is why they were rated as Grade A.

RESULTS AND DISCUSSION
Article Characteristics
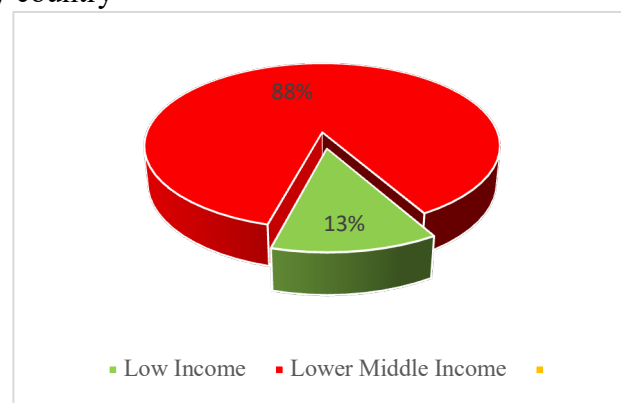Characteristics of articles by country

Chart 1. Article By Country

In this scoping review, the research articles analyzed originated from various countries, including India, Kenya, Pakistan, Bangladesh, and several Sub-Saharan African nations such as The Gambia, Kenya, Zimbabwe, Tanzania, and Ghana.

The characteristics of the articles, based on the research designs employed, are presented in Chart 2.
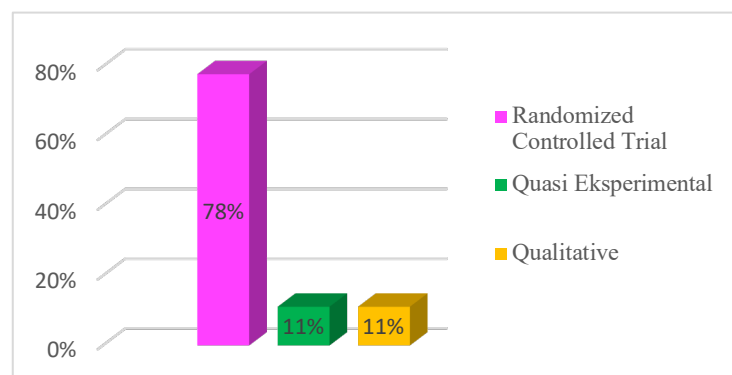

Chart 2. Article based on the research design

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A total of 9 articles were included in this scoping review. The studies comprised one quasi-experimental study, one qualitative studies, and seven randomized controlled trials (RCTs).

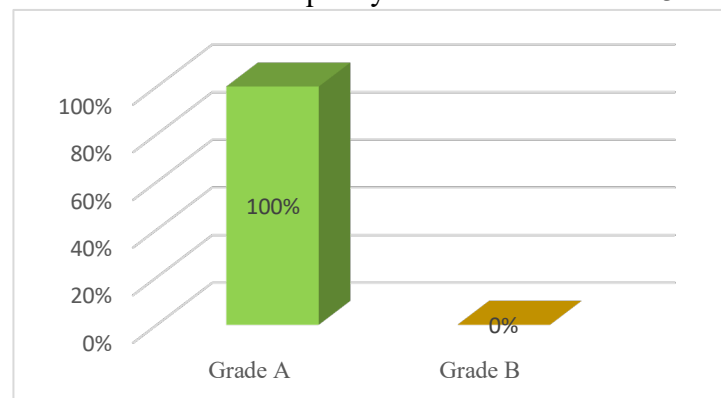Characteristics of the articles based on quality can be seen in Chart 3.

Chart 3. Articles based on quality

Of the 9 articles critically appraised in this study, all were rated as high quality (Grade A).

Based on the analysis of article themes conducted after data extraction and quality assessment of the selected research articles, themes were identified. These themes were developed through an inductive approach, where recurring patterns and concepts related to community-based mental health strategies were coded and grouped into broader categories. Three independent researchers carried out the identification process to ensure consistency and reduce bias. Any discrepancies in theme identification were resolved through discussions and consensus.

Based on thematic analysis conducted after data extraction and quality appraisal of 9 articles on community-based mental health service strategies, three primary approaches were identified. The first approach is culturally based, inutilizingusic and rituals to support maternal mental health. This strategy appeared in 20% of the articles (A1, A6). The second approach involves community health worker engagement, such as home visits and routine accompaniment, which serve as a core component of community-based mental health services. This was identified in 30% of the articles (A4, A8). The third and most frequently observed strategy is group-based interventions, which utilize peer and community support. This approach was found in 50% of the articles (A2, A3, A5, A7, A9). These strategies reflect the diverse models employed to deliver mental health care at the community level.

In addition to the identified strategies, the analyzed articles also highlighted the use of various instruments for detecting maternal mental health disorders. The Edinburgh Postnatal Depression Scale (EPDS) was the most frequently utilized tool, appearing in 30% of the articles (A5, A6, A7), to screen for postpartum depressive symptoms. The Patient Health Questionnaire-9 (PHQ-9) was also used in 30% of the articles (A2, A3, A9), measuring depression severity based on DSM-IV criteria. The Self-Reporting Questionnaire (SRQ-20) appeared in 10% of the articles (A6) as a tool for identifying common mental disorders. Additional instruments included the Hopkins Symptoms Checklist-25 (HSCL-25) (A8), the Clinical Interview Schedule–Revised (CIS-R) (A7), and the DASS-21 (A4), each of which was used in one study. These tools reflect the diverse and context-specific approaches applied in identifying maternal mental health concerns within community settings.

The analyzed articles also identified several enabling and limiting factors that influence the success of community-based mental health services. Participant attendance and motivation were reported as key facilitators in 20% of the studies (A2, A3). Social support—from both family and the broader community—was highlighted as essential in 30% of the articles (A1, A5). Adequate policy support and funding emerged as critical factors in 30% of the studies (A4, A5, A8), while human resource capacity, including the training of community health workers, was noted in 20% of the articles (A3, A8). Access to

mental health services was also emphasized in 30% of the studies (A3, A4, A5). On the other hand, several barriers were identified. Stigma and sociocultural constraints were reported in 20% of the articles (A1, A5), while socioeconomic challenges, such as poverty and low educational attainment, were noted in 30% of the studies (A1, A3, A8). These findings highlight the complex interplay of contextual factors that either support or hinder the implementation of community-based mental health services.

The benefits of these services were also well-documented across the reviewed articles. One of the most frequently reported outcomes was the improvement in perinatal maternal mental health, mentioned in 40% of the studies (A4, A6, A8, A9). In addition, enhanced social connectedness through group support was observed in 50% of the articles (A1, A5, A6, A7). Finally, increased access to mental health care facilitated through community engagement was cited in 40% of the studies (A2, A4, A5, A8). These findings offer valuable insights for the future development of similar programs and highlight the strategic role of community involvement in enhancing maternal mental health during the perinatal period.

Theme 1: Community-Based Mental Health Service Strategies
Culturally-Based Approaches

Cultural practices play a vital role in shaping community-based mental health strategies. In The Gambia, traditional music is employed not only as a form of entertainment but also as a culturally sensitive psychosocial intervention to support maternal mental health (1). Music is used to enhance emotional well-being through uplifting songs, prayers, and rituals intended to calm, energize, and protect mothers from perceived spiritual harm. These musical rituals also serve as a vehicle for health education and social empowerment (1). Moreover, culturally embedded approaches have been shown to improve community acceptance and engagement with mental health interventions (5).

Engaging Community Health Workers in Mental Health Services

One of the key strategies for advancing community-based mental health care involves engaging Community Health Workers (CHWs), as demonstrated in Tanzania and Ghana. In these settings, CHWs deliver community-based counseling designed to support maternal mental health while simultaneously promoting early childhood stimulation (4,18). This approach aligns with the findings of (11) who reported that interventions delivered by community health workers (CHWs)—integrating emotional support, health education, and practical caregiving—can positively influence women's pregnancy experiences in South Africa. The role of CHWs has been shown to strengthen maternal mental health by helping women manage daily stressors and reduce the risk of depressive symptoms during the perinatal period (4).

Group-Based Interventions (Peer Support Groups)

Another effective strategy within community-based mental health care is the implementation of group-based interventions (18). One example is a psychosocial depression intervention delivered by peers in Pakistan, which targeted maternal depression and child development at age three (12). Evidence suggests that such programs can significantly reduce maternal depressive symptoms and improve children's social-emotional development (15). In Ghana, a group-based intervention incorporating cognitive behavioral therapy (CBT) alongside early childhood development education demonstrated reductions in maternal depression and enhanced maternal caregiving capacity (16). These peer support groups not only offer emotional support but also provide a safe space for mothers to share experiences, build social connections, and foster mutual support networks (5).

Theme 2: Instruments Used to Detect Perinatal Maternal Mental Health Disorders

A variety of tools are employed to identify mental health disorders among perinatal women, reflecting the diverse approaches used across community settings. The Edinburgh Postnatal Depression Scale (EPDS) is the most commonly used instrument for screening postpartum depression, particularly in countries such as Zimbabwe, The Gambia, and India (5,16,17). The Patient Health Questionnaire-9 (PHQ-

9) is frequently used to assess the severity of depressive symptoms in line with DSM-IV criteria and has been applied in Kenya, Pakistan, and Ghana (12,15,18). The Self-Reporting Questionnaire (SRQ-20) has been utilized to identify general mental health disorders, as observed in community-based interventions in The Gambia (5). In Tanzania, the Hopkins Symptoms Checklist-25 (HSCL-25) has been applied to assess both anxiety and depression in mothers participating in community programs (4). In India, the Clinical Interview Schedule–Revised (CIS-R) was used as a structured interview tool to detect common mental disorders (17). while the **DASS-21** was implemented in Bangladesh to measure stress and anxiety among perinatal women involved in community-based health interventions (3). These instruments reflect the wide range of screening tools tailored to various cultural and resource settings, highlighting the flexibility required to assess maternal mental health effectively across different community contexts. Of the nine studies included in this review, three studies reported a significant reduction in EPDS scores, indicating improvements in perinatal mental health. Three other studies reported reductions using the PHQ-9, while the remaining studies employed screening tools such as the SRQ-20, DASS-21, and the Hopkins Symptoms Checklist-25 (HSCL-25) to assess perinatal mental health.

Theme 3: Enabling and Inhibiting Factors in the Success of Community-Based Mental Health Services

Attendance and Motivation

Participant attendance and motivation are crucial to the success of community-based mental health interventions. Mothers with higher attendance levels demonstrated greater reductions in depressive symptoms compared to those with lower attendance (15). However, some studies have reported a decline in session completion rates, with only 63% of mothers continuing to participate beyond six months postpartum. This decline was accompanied by a reduction in competence and motivation among peer volunteers, particularly due to decreased supervision over time (12).

Social Support

Social support from family members, partners, and the community proved to be a key facilitator of recovery. In South Africa, partner involvement was found to enhance mothers' engagement in programs and support their stress management (11). In The Gambia, community-based programs involving social groups, such as the *Kanyeleng*, fostered a sense of belonging that sustained intervention efforts (1). Similarly, the Mbereko+Men program in Zimbabwe engaged male partners, enhanced maternal social support, strengthened household relationships, and helped reduce the stigma associated with perinatal mental health issues (16).

Policy and Funding

Supportive policies and sustainable funding are essential for program implementation and scale-up. In Tanzania, the absence of integrated mental health policies within primary healthcare systems hindered early detection and access to appropriate care In other settings, such as Zimbabwe and Bangladesh, insufficient funding disrupted program continuity (16). In several cases, community-based services operated independently without clear referral pathways to primary or specialist care, thereby limiting access for mothers who required more advanced treatment (3).

Human Resources

Well-trained and committed community health workers are crucial to the effectiveness of programs. However, several studies noted that volunteer motivation declined over time in the absence of continuous training and supervision (12). In Tanzania, the limited number of trained community health workers (CHWs) and their heavy workloads were identified as key barriers to delivering consistent and high-quality care (4).

Access to Mental Health Services

Limited access to services remains a persistent challenge. In some regions, a lack of integration between community-based services and the primary health system impedes early detection and treatment

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(3). Poor infrastructure and transportation were also identified as significant barriers for mothers seeking care, especially in rural areas (16). In Pakistan, low access to health services was a significant obstacle to both maternal recovery and child development (12).

Stigma and Sociocultural Barriers

The stigma surrounding mental illness continues to prevent many mothers from seeking help. In certain cultures, mental health disorders are seen as personal weaknesses or attributed to spiritual causes (1). Additionally, restrictive gender norms and social expectations often inhibit women from accessing mental health services, exacerbating isolation and prolonging symptoms (16).

Socioeconomic Factors

Socioeconomic conditions—such as poverty and low levels of education—remain major barriers to the success of community-based mental health services (1,12). In Pakistan, women from low-income households were more vulnerable to mental health issues yet faced limited access to appropriate care (12). In The Gambia, high economic stress and limited access to basic needs heightened the risk of common mental disorders such as anxiety and depression (1). In Tanzania, economic barriers were compounded by dependence on informal employment, limiting mothers' availability for mental health sessions, while transportation costs posed additional challenges for those in remote areas (4).

Theme 4: Benefits of Community-Based Mental Health Services
Improved Perinatal Maternal Mental Health

One of the most significant benefits of community-based mental health services is the improvement in maternal mental health, reflected in reduced symptoms of depression, anxiety, and stress following participation in such programs. In Tanzania, support from Community Health Workers through psychoeducational counseling enabled mothers to manage psychological distress better while also increasing their confidence in parenting roles (4). Similarly, in Bangladesh, community-based interventions were found to effectively reduce stress levels among women during the perinatal period (3). In South Africa, CHW-led interventions that combined emotional support, informational guidance, and practical caregiving were found to have a positive influence on women's pregnancy experiences (11). Consistent findings were also reported in Ghana, where group-based interventions integrating mental health counseling and early childhood development education led to reductions in maternal depression and enhanced maternal engagement in caregiving (16).

Enhanced Social Relationships

Community-based programs also contributed to strengthened social relationships and increased emotional support within the community. Group-based interventions created safe spaces for mothers to share experiences and offer mutual support (1). Additional studies highlighted increased male involvement in maternal and child care, including attendance at childbirth and support for breastfeeding. Furthermore, women's participation in household decision-making was reported to improve (16). Group interventions led by community health workers were associated with reduced postpartum depression and improved social functioning among mothers (17). In The Gambia, the Kanyeleng traditional music groups played a dual role—providing entertainment while also strengthening social networks and reducing isolation among perinatal mothers (5). Emotional support from CHWs was also reported to reduce stress and equip mothers with coping strategies for managing mental, physical, and social challenges during pregnancy (11).

Improved Access to Mental Health Services

Community-based models significantly improved access to maternal mental health care. In Tanzania, CHW-led psychoeducational home visits facilitated early detection of perinatal mental disorders and expedited referrals to appropriate health facilities (4). Other studies echoed this finding, showing that community-based services increased maternal and child health service utilization. More women in

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intervention groups were reported to attend antenatal care during the first trimester and received timely postnatal care (16). Mental health interventions rooted in the community also contributed to higher attendance at primary healthcare facilities, ensuring women received timely and appropriate mental health services (3). In Kenya, peer-supported community programs enhanced maternal participation in healthcare services, helping mothers recognize and respond to early signs of mental distress (15).

DISCUSSION

Community-based perinatal mental health services have been recognized as a practical approach to improving access, affordability, and sustainability of mental health care, particularly in low- and middle-income countries (4,5,11). A primary goal of these services is to enhance access to mental health support for individuals, especially those living in remote areas or with limited resources (19). This approach offers practical solutions to the complex factors affecting perinatal mental health, including socioeconomic conditions, cultural influences, family support, health service access, and stigma related to mental disorders (1). In the context of rural Tanzania, several factors contribute to the high prevalence of depression among pregnant women and mothers with young children. These factors include marital status, education level, availability of social support, socioeconomic conditions, and the presence of previous depressive symptoms. Addressing these specific factors within community-based mental health programs could help improve outcomes and reduce maternal depression in such settings (4).

Programs involving community health workers (CHWs), culturally rooted and participatory music-based interventions, and community-led social support systems have been shown to reduce depressive symptoms and enhance maternal emotional well-being. In The Gambia, for instance, the *Kanyeleng* cultural group employs uplifting songs and ritual practices to assist women in coping with perinatal stress. Similarly, CHW-led programs in Tanzania and Bangladesh have successfully integrated mental health services into routine maternal care, serving as key strategies to strengthen emotional support and promote shared decision-making among families (3–5). In rural China, the Healthy Future program demonstrated that equipping community health workers (CHWs) with mobile health (mHealth) tools can bring services closer to pregnant and postpartum women (19).

Another effective strategy is group-based intervention. A study in Ghana found that integrative group models combining cognitive-behavioral therapy (CBT) and child development education reduced maternal depression and improved parenting capacities (16). Similarly, the DAISY trial in Canada found that culturally relevant peer support via telephone helped postpartum women feel accepted and less socially isolated (20).

Several instruments are used to screen for perinatal mental health issues. The Edinburgh Postnatal Depression Scale (EPDS) and the Patient Health Questionnaire-9 (PHQ-9) are among the most widely used tools, each with its diagnostic strengths and limitations (21). The PHQ-9 consists of nine items based on DSM criteria and is designed to detect depression quickly and efficiently, with a standard cut-off score of ≥10 (22,23). The EPDS, comprising ten questions tailored to screen for postpartum depression within the past week, is commonly used in both primary and hospital settings, with a cut-off score of ≥13 (24).

The EPDS and PHQ-9 differ in their sensitivity and specificity as screening tools for perinatal depression. The EPDS demonstrates higher sensitivity compared to the PHQ-9—91% in the study by (23). And 85% in the study by (25), indicating its strong ability to identify individuals with depression. However, its specificity varies more widely, reported at 67% by (23) and 84% by (25). In contrast, the PHQ-9 shows lower sensitivity—81% and 71% in the respective studies (23) (25). PHQ-9, while slightly less sensitive, shows more consistent specificity, reported at 84% in both studies (23,25).

Despite their promise, community-based interventions face several challenges. Resource limitations—particularly in workforce and funding—remain among the most significant barriers. A shortage of trained mental health professionals hinders the delivery of complex, specialized care, especially in resource-constrained environments (26). Effective implementation requires intensive Community Health

Worker (CHW) training, the development of referral pathways for severe cases, and sustained funding to enable large-scale adoption (11).

Program success also depends heavily on maternal participation. Women who attend sessions regularly show greater reductions in depressive symptoms compared to those with lower attendance (15). However, limited access to services remains a major obstacle in many low-income countries. In The Gambia and Tanzania, under-resourced health systems and a lack of trained professionals prevent many mothers from receiving adequate care, exacerbating their mental health conditions (1,4).

Socioeconomic factors, such as poverty and low educational levels, present additional barriers to successful implementation (1,12). Additionally, social support plays a crucial role in maternal mental health. A lack of support from partners or family often triggers psychological distress, whereas strong community or familial support can significantly reduce stress and depression (16). This is supported by (27) who found that social support directly contributes to the reduction of postpartum depression (27). Stigma and cultural beliefs also influence perceptions of mental illness. In many communities, mental disorders are viewed as personal weakness or spiritual affliction, leading many mothers to avoid seeking help (17). Participants' perceptions of healthcare system limitations, cultural context, and belief systems significantly impact their access to and utilization of mental health services (28).

Community-based mental health care improves service accessibility for pregnant and postpartum women, particularly in rural and underserved areas (4). In Tanzania, CHW training to deliver psychoeducational support during home visits enhanced early detection of perinatal mental disorders and facilitated referrals to formal health facilities (4). These models deliver care directly to individuals through home visits, peer support, and mHealth technologies, addressing geographical and financial barriers (4,19).

These services have demonstrated positive mental health outcomes, including reductions in depression, anxiety, and stress symptoms. Studies from Tanzania have shown that CHW-led psychoeducational counseling helps women manage mental pressure and improves their parenting confidence (4). Community-based programs consistently demonstrate that active participation leads to symptom reduction (15,27). In Ghana, group-based approaches combining mental health counseling and child development education were associated with improved maternal engagement and decreased depressive symptoms (16).

Another important benefit is the enhancement of social support systems. Community-based programs engage partners, families, and local networks in supporting mothers during the perinatal period (16). In Ghana, women reported feeling calmer and more joyful after participating in musical sessions, gaining peer support, and learning strategies for managing pregnancy-related challenges. Communities also acknowledged the broader positive impact of such programs (5). Women reported feeling valued, supported and cared for by their spouses, families, and communities, which led to improved self-worth and confidence (27).

Integrating maternal mental health into primary care is increasingly recognized as a viable strategy for expanding access to care in low- and middle-income countries (LMICs) (28). Community-based interventions are generally well-received by both participants and the communities they serve (5). They are often more cost-effective than hospital-based models, making them suitable for implementation in low-resource settings (26). Although community-based perinatal mental health interventions show promising results in improving mental health outcomes in low- and middle-income countries (LMICs), the transferability and generalizability of these findings remain limited. Interventions that are effective in urban areas may not succeed in rural settings, and the cultural diversity within LMICs suggests that approaches need to be adapted to local contexts. Furthermore, many studies lack long-term follow-up, making it difficult to assess the sustainability of the effects of these interventions. Future research should include more diverse populations, larger sample sizes, and more extended follow-up periods to evaluate the long-term impact of these interventions better.

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Conclusion

Many community-based perinatal mental health interventions incorporate peer group support and accompaniment by community health workers. These programs are often designed with sensitivity to the cultural and local contexts in developing countries, integrating elements such as traditional music, cultural rituals, and family-centered approaches to enhance community acceptance of mental health services. However, the implementation of these services continues to face significant barriers, including limited resources, persistent stigma, and sociocultural obstacles related to mental health, as well as the lack of integrated policy support. Early findings suggest that community-based strategies may offer potential solutions for addressing perinatal mental health needs in low-resource settings. However, further research is needed to fully assess their effectiveness and identify best practices for specific contexts. In the meantime, addressing these challenges requires targeted efforts, including increased funding, capacity-building for health workers, and the development of supportive policies to ensure the sustainability of community-based programs.

Author Contributions

All authors contributed to the study's conceptualization and design, identified the review question using the PCC framework, selected studies, organized the data, and were involved in data collection, synthesis, and reporting of the findings. Each author has read and approved the final manuscript.

ACKNOWLEDGEMENT

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