

SYSTEMATIC REVIEW

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Evidence mapping on barriers in accessing prenatal healthcare services among homeless women: a scoping review

Monsurat Adepeju Lateef^{1*} and Julian David Pillay¹

Abstract

Introduction Prenatal care is crucial, but accessing healthcare services has been a challenge for pregnant homeless women in Africa. The majority in this marginalised group are not screened for common pregnancy complications such as preeclampsia, infection, and stillbirth. Therefore, this scoping review aims to explore the barriers to accessing prenatal healthcare services for pregnant homeless women in Africa.

Methods This scoping review was conducted using the methodological framework developed by Arksey and O'Malley. Four electronic databases: CINAHL complete, Scopus, PubMed and Web of Science were searched. In addition, a manual search was done on Google Scholar and other websites for grey literature. The search was confined to 20 years (2004 to 2024). The reference lists of the articles searched and included in the study were examined for additional titles that satisfied the inclusion criteria.

Results Out of 3910 titles screened, only three ($n=3$) studies met the eligibility inclusion criteria in this study. Two out of the three studies that were included were conducted in Ethiopia while one was conducted in South Africa. All of the studies used qualitative research methods. Across the 3 studies, the ages of the participants ranged from 15 to 45 years. Two major themes were identified, namely: Theme 1: the barrier to accessing prenatal healthcare services and Theme 2: Social Support needs. Theme 1 has four categories that emerged: lack of awareness; fear of stigma and discrimination; previous negative experiences; and financial constraints. Theme 2 emerged with two categories: psychological and emotional needs; and nutritional needs during pregnancy.

Conclusion This study identified barriers and facilitators to access prenatal healthcare services among pregnant homeless women as a multifaceted issue, rooted in stigma and discrimination, lack of awareness, and negative experiences with healthcare providers. There is a need for interventions to improve access, health and well-being for this marginalised group—from the government, stakeholders, and nongovernmental organisations.

Keywords Prenatal, Homeless women, Healthcare services, Barriers in accessing care

Background

Homelessness denotes a social classification of individuals who lack a stable and permanent place of residence [1]. Homelessness is acknowledged as a significant global social challenge that impacts millions of individuals worldwide [2, 3]. The prevalence of homelessness during pregnancy has deteriorated significantly “between 2016 and 2020 by 70%” during these years [4]. The issue of lack of access to stable and permanent housing due to

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poverty [5], presents a multifaceted challenge for pregnant women and has been linked to maternal and neonatal adverse health outcomes [6].

Pregnant women experiencing homelessness are vulnerable to adverse maternal and neonatal risks [6–10]. This is primarily because they do not have access to a stable and suitable place to stay at night [6]. The lack of a secure place to sleep contributes to their vulnerability, compounded by insufficient access to nutritious food and necessary prenatal care [1, 11].

“While pregnancy should be a time of immense hope and a positive experience for all women, it is tragically still a shockingly dangerous experience for millions around the world who lack access to high quality, respectful health care,” [12]. Complications associated with pregnancy and childbirth can lead to the death of women, with many of these issues developing during the pregnancy itself. A considerable number of these complications are preventable or can be treated effectively. Complications such as haemorrhage, infection, pre-eclampsia and eclampsia account for nearly 75% of maternal mortality [13]. In 2020, an estimated 287,000 maternal deaths were reported as a result of pregnancy and childbirth-related issues globally. It is important to highlight that nearly 95% of these maternal deaths occurred in low and lower-middle-income countries, and a substantial number of these cases could have been avoided [13].

This special group is particularly vulnerable, as they often lack a secure and appropriate living environment [14]. Their situation further exposes them to various challenges, including substance misuse [10], poor nutrition [1], heightened stress, with less or no access to basic reproductive healthcare [14]. As a result, homeless women face an increased risk of complications during pregnancy, contributing to the increased number of maternal morbidity and mortality. Although several studies have been conducted on homelessness globally, yet there is limited information about pregnant homeless women's access to prenatal care in the context of Africa. Thus, this scoping review aimed to explore the barriers to accessing prenatal healthcare services for pregnant homeless women in Africa.

Methods

To comprehend the condition of pregnant homeless women in accessing prenatal healthcare services in Africa, a scoping review was undertaken— to map evidence by synthesising a variety of evidence to illustrate the depth and breadth of the field according to Levac, Colquhoun [15]. Our study employed Arksey and O'Malley and Levac, Colquhoun and O'Brien established methodological framework [15, 16]. When conducting

a scoping review, adhering to established guidelines enhances the reporting and transparency of the scoping review. Additionally, a framework specifically designed for scoping reviews offers suggestions that ensure clarity throughout the steps, thereby promoting consistency [15]. In this study, five essential steps for conducting a scoping review were utilised: (1) formulating the research question; (2) identifying relevant studies; (3) selecting the studies; (4) charting the data which encompasses data extraction and analysis; and (5) collating, summarising, and reporting the findings [15, 16]. Formulating the research question offers “a roadmap for subsequent stages. Research questions are broad and seek to provide a breadth of coverage” [15]. The research question that guided this review is: what are the barriers to accessing prenatal healthcare services for homeless women in the African region? This scoping review adhered to the Preferred Reporting Items for Systematic Reviews and Meta-analyses (PRISMA) guidelines [17].

Search strategy

The development of search strategies preceded the identification of relevant studies, detailing the specific key terms to use, the electronic database sources to search, the time frame, and the language to include, following Levac, Colquhoun [15] guidelines. These multiple strategies were implemented to identify relevant articles and documents on this topic. The first step was the selection of keywords and Mesh terms associated with prenatal care and homelessness were applied to increase the effectiveness of retrieving relevant studies. Four electronic databases were identified and searched using our search strategy string to find published articles in the following databases: PubMed, CINAHL Complete, Web of Science, and Scopus. The following search strings were then used in PubMed: ("Prenatal Care"[Mesh] OR "Antenatal care" OR "Maternal health services") AND (Homeless AND Women) AND (Africa), which was modified for other databases.

In addition, a manual search was done on Google Scholar and Google for grey literature. The search was confined to 20 years (2004 to 2024). The last 20-year period was searched to ensure that the review captures the trends and developments in prenatal care utilisation service among homeless pregnant women seeing that African countries have their unique challenges which have worsened in recent years due to the COVID-19 pandemic and climate change. We conducted comprehensive searches across different databases that offer varying search capabilities to ensure the inclusion of all relevant studies and to minimize the potential for bias. The application of Boolean operators and targeted field searches allowed for the customisation of our inquiries in

alignment with specific subject thesauri, thereby enhancing the precision of our searches.

The reference lists of the articles that were included in the study were examined for additional titles that satisfied the inclusion criteria. Key terms were primarily formulated from MeSH Headings (MH) in conjunction with customized keywords, ensuring compatibility with the search strategies employed by different databases. The following search strings were then used in PubMed: ("Prenatal Care"[Mesh] OR "Antenatal care" OR "Maternal health services") AND (Homeless AND Women) AND (Africa), which was modified for other databases. (Supplementary File 1). The search strategy was conducted by MA in collaboration with AH, MA searched for articles and documents across the various databases.

Study selection for eligibility criteria

Studies deemed potentially eligible based on the search strategy string were exported to the Endnote library, and duplicates were systematically identified and removed. The article selection process was conducted independently by two reviewers, for title and abstract screening. In this study, the following inclusion criteria were used: peer-reviewed articles on prenatal care and homeless women in Africa, published in English between 2004 and 2014. Exclusion criteria included discussion papers, reviews and peer-reviewed articles of studies conducted outside of Africa and published in languages other than English. Based on the exclusion criteria, the removal of all irrelevant citations was done. Full-text articles were retrieved and screened separately by two reviewers. All disagreements in the study selection process were addressed through discussion between the two reviewers. The selection of articles was informed by established inclusion and exclusion criteria.

Identifying gaps in the literature with a well-defined research question is essential for conducting any type of review—it aids in pinpointing and articulating the existing knowledge gaps [18]. PICOTS framework provided clarity and specificity which guided the keywords used to formulate the research question and the inclusion criteria of the study [18]. Using the PICOTS framework by Hosseini, Jahanshahloo, Akbarzadeh, Zarei and Vaez-Gharamaleki. Hosseini, Jahanshahloo [18], where Population (P)—studies involving homeless women; Intervention/Exposure (I)—Prenatal healthcare services; Comparison (C)—not applicable; Outcome (O)—not applicable; Timeframe (T)—Study from 2004–2024 and Study design (S)—quantitative, qualitative and mixed method [18]. This study was guided by the framework of Arksey and O'Malley and Levac, Colquhoun and O'Brien [15, 16] in mapping evidence from empirical studies whether quantitative, qualitative, mixed-method

or thesis research studies. However, other sources of evidence such as systematic review, meta-analysis, guidelines and other types of synthesis were only used in the background of the study and discussion of the findings. Additionally, is to minimise the bias of publications and replicating studies which have been conducted. A scoping review, according to Arksey and O'Malley, however similar to a systematic review, does not involve quality assessment of the primary studies [16], other authors [15, 19] who have written about scoping review methodology agree with this. Our review focuses on countries within the African region, as identified by the World Health Organisation classification chart. Only articles published in English were considered for inclusion. The criteria for selecting relevant articles were aligned with the recommendations provided by Levac, Colquhoun [15], which indicate that the selection should be based on established inclusion and exclusion criteria, and the researcher's specific research questions. Table 1 shows the eligibility criteria of the study.

Charting the data

Independent data extraction from the included studies was conducted by two reviewers. The extraction encompassed study characteristics which included the author/year, study location, aim of the study, design, and key findings of the study. For thematic analysis, data were exclusively extracted from the results section of the papers, with focused attention on participants identified as homeless and an intervention i.e., prenatal healthcare services (Fig. 1).

Collating, summarising, and reporting the findings

The methodology of thematic synthesis, as defined by Thomas [21] was applied in this review. This approach is comprised of a three-step procedure. The first step involves a comprehensive line-by-line coding of the data extracted from the key findings of the primary studies. The second step focuses on the categorisation of the codes into related themes, resulting in the creation of 'descriptive' themes. In the third step, these descriptive themes are subjected to iterative scrutiny and comparison to elucidate their relationships, leading to the formulation of analytical themes that provide deeper insights beyond the descriptive level, addressing the review question. The analysis was conducted by a single reviewer who performed multiple readings of the included studies while adhering to the aforementioned three steps. To enhance the reliability of the analysis, a second reviewer independently reviewed all studies to ensure the accuracy of the coding and the themes that were developed. A descriptive narrative for each theme was performed. The findings of our review were reported using the preferred

Table 1 Eligibility criteria of the study section using PICOTS

Population	Intervention	C	O	S	T
Homeless pregnant women —women without permanent and regular residence	Prenatal OR antenatal OR— refers to access to and engagement with healthcare throughout preg- nancy, which allows pregnant women to receive important interven- tions that are vital for their health and the health of their babies	Not applicable	Not applicable	All primary studies with quantitative, qualitative and mixed-method study	Studies within the last 20 years (2004–2024)

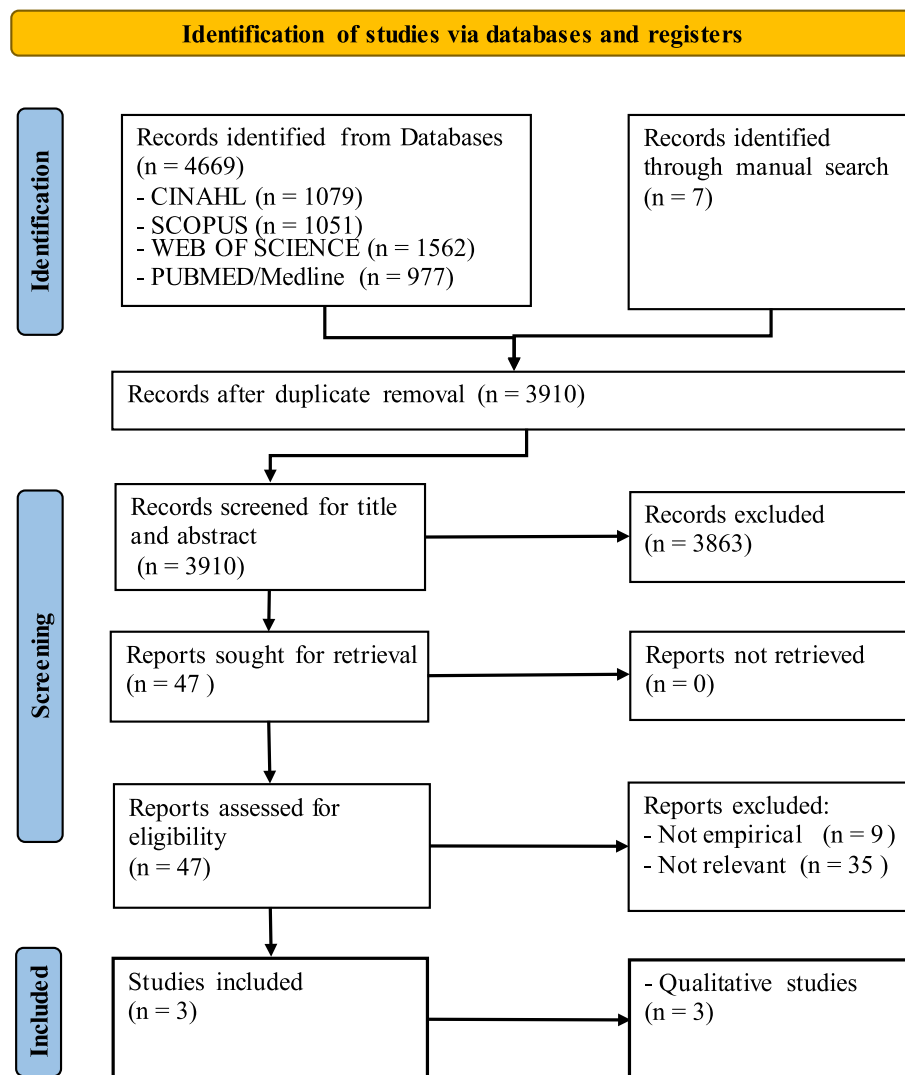


Fig. 1 PRISMA guideline flow chart using the preferred reporting items for systematic reviews and meta-analyses extension for scoping reviews (PRIS-MA-ScR) [20]

reporting items for systematic reviews and meta-analyses extension for scoping reviews (PRIS-MA-ScR) [20].

Results

Characteristics of the study

Despite having conducted an extensive literature search in different electronic databases around this topic[20], very few studies met our inclusion criteria ($n=3$). Two out of these three studies that were included were conducted in Ethiopia while one was conducted in South Africa. All of the studies used a qualitative research approach. Across the 3 studies, the ages of the participants ranged from 15 to 45 years. Table 2: Characteristics of the study with key findings.

Two major themes: (i) barriers to accessing prenatal healthcare services and (ii) Social Support needs. Each of these themes included some interconnected categories that highlighted specific challenges and supports needed by these marginalised groups of women. Table 3 presents the summary of the data analysis with themes and categories.

Barriers to accessing prenatal healthcare services

All of the studies ($n=3$) reported barriers hindering access to prenatal care [1, 22, 23]. Four categories emerged from theme 1: Lack of awareness; fear of stigma and discrimination, previous negative experiences and financial constraints. The most stressed barrier was the fear of stigma and discrimination, and previous negative

Table 2 Characteristics of the study with key findings

Authors/year	Country	Aim	Study design	Population/Sample	Key findings
Mwanda [22]	South Africa	"To provide a gendered perspective on the lived experiences of homeless women living in shelters, with a specific focus on SRHR."	Qualitative	Homeless women (n = 11)	<ul style="list-style-type: none"> – Access to prenatal care was hindered by a lack of information about available services, logistical challenges like transportation costs, and stigma impacting pregnancy and homelessness – Participants reported dissatisfaction due to negative experiences with healthcare services and the stigma associated with being homeless – Many women reported feelings of vulnerability and anxiety regarding their ability to care for a child while experiencing homelessness – Homeless women did not use basic maternity health care services, including antenatal care due to a lack of awareness – Lacked information about the importance and availability of maternity care services – Fear of being stigmatized and discriminated against by healthcare providers and the community along with poor socioeconomic status prevented them from seeking care – Past negative experiences with maternity care services, such as poor treatment and long waiting times, discouraged future use – Homeless women need physical, emotional, and material support during pregnancy, childbirth, and post-delivery – Some of these women rely on prayer and traditional practices instead of seeking medical care – Poor approaches of health care providers were reported by the participants
Gebreyesus, Mamo [1]	Ethiopia	"To explore the experience of homeless women on maternity healthcare service utilization and associated challenges in Aksum Town, Northern Ethiopia"	Qualitative	Homeless women (n = 22)	<ul style="list-style-type: none"> – Pregnant women living on the street face numerous hardships, including inadequate nutrition, lack of clean water, and insufficient healthcare, all of which are critical for their health and the health of their babies – Barriers to accessing sexual and reproductive health services, such as lack of awareness, discrimination, and stigma, hinder homeless women from seeking care – Experiences of humiliation and disrespect from medical staff are another challenge reported. "For instance, one participant recounted a negative experience with a healthcare professional who verbally abused her". <p>The study found that the majority of homeless pregnant women go through a lot of stress due to poor living conditions in addition to pregnancy challenges which may cause mental and psychological problems</p>
Assegid, Abera [23]	Ethiopia	"To explore pregnancy and sexual-related problems among women living on the street in Dire Dawa city, Eastern Ethiopia 2021"	Qualitative	Homeless women (35)	

Table 3 Data analysis with theme and categories

Themes	Categories	Extracts
Barriers to accessing prenatal healthcare service	Lack of awareness	Homeless women lacked information about the importance and availability of maternity care services. This lack of information is a critical barrier that prevents them from seeking help when needed
	Fear of stigma and discrimination	The study highlighted the fear of being stigmatised and discriminated against by the healthcare providers and the community to prevent them from seeking prenatal care. For example, verbal abuse, and disrespect lead many pregnant homeless people to avoid health facilities altogether
	Previous negative experiences	The study found that the treatment received by homeless women from some health-care professionals was unwelcoming. This negative interaction contributes to a lack of trust in the healthcare system, making women less likely to seek necessary medical attention Sexual and physical abuse during pregnancy
	Financial constraints	"I spend my time caring for my children and in begging practices; my life is hand-to-mouth. Therefore, though I know the presence of a healthcare facility, I do not have time to go there."
Social Support need	Psychological and emotional needs	Homeless women lacked physical, emotional, and material support during pregnancy. The psychological impact of homelessness can exacerbate the challenges associated with pregnancy
	Nutritional needs during pregnancy	Pregnant women living on the street face numerous hardships, including inadequate nutrition, lack of clean water, and insufficient healthcare, all of which are critical for their health and the health of their babies

experiences across the three studies [1, 22, 23]. The fear of being stigmatised and discriminated against by the healthcare providers and the community was reported as a factor that prevented pregnant homeless women from seeking prenatal care in the study conducted by [1]. Mwanda [22] study highlighted that stigma is associated with being homeless [22]. Homeless women are hindered from seeking sexual and reproductive healthcare services due to discrimination, and the stigma burden faced by these marginalised groups of women causing them to avoid health facilities altogether according to Assegid, Abera [23] study in Ethiopia [23]. All three studies highlighted the lack of awareness as a barrier [1, 22, 23]. Mwanda [22] and Gebreyesus, Mamo [1] reported on the lack of information about the availability and importance as a hindrance to accessing prenatal care services. Gebreyesus, Mamo [1] study further emphasises that basic maternal healthcare services such as antenatal care (ANC) were not utilised by homeless pregnant women due to a lack of awareness [1]. Assegid, Abera [23] reported the barrier of accessibility to sexual and reproductive healthcare services to be related to a lack of awareness along with other factors [23]. These critical challenges prevent many homeless women from seeking help when needed [1, 22, 23].

Previous negative experiences were reported in all three studies [1, 22, 23]. It was found that the treatment received by homeless women from some healthcare professionals was unwelcoming. Assegid, Abera [23] study identified humiliation and disrespect from healthcare providers as reported by the participants

in the study. "For instance, one participant recounted a negative experience with a healthcare professional who verbally abused her"[23]. Gebreyesus, Mamo [1] study also reported on the poor treatment experienced from healthcare providers along with long waiting times to further discourage the use of prenatal healthcare services among homeless women [1]. Mwanda [22] reported dissatisfaction expressed by the participants due to negative experiences with healthcare providers [22]. The negative interaction from the healthcare providers contributes to a lack of trust in the healthcare system, making homeless women less likely to seek basic prenatal healthcare services during pregnancy [1, 22, 23].

Two studies [1, 22] reported financial constraints as a significant barrier contributing to homeless women not accessing and utilising healthcare services, particularly prenatal care. Lack of financial resources is a key factor that hinders many homeless women's ability to transport themselves to seek healthcare even if they want to seek prenatal healthcare [1, 22]. Gebreyesus, Mamo [1], many homeless women were reported to struggle to meet their basic daily needs, making it difficult to prioritise healthcare. As one homeless woman expressed, "I spend my time caring for my children and in begging practices; my life is hand-to-mouth. Therefore, though I know the presence of a healthcare facility, I do not have time and means to go there." The studies established that some homeless women reported being unable to reach healthcare facilities due to a lack of transportation and or funds. Even when able to access care, these

marginalised groups may face challenges returning afterwards due to transportation costs [1].

Social support need

All of the studies ($n=3$) reported on the social support needs of homeless pregnant women [1, 22, 23], and the most reported support needed by these marginalised groups is physical, psychological and emotional support. These women were reported to lack physical, emotional, psychological and material support during pregnancy. Gebreyesus, Mamo [1] study conducted in Ethiopia reported on physical, emotional, and material needs during pregnancy [1]. Assegid, Abera [23] highlighted that the psychological impact of homelessness can exacerbate the challenges associated with pregnancy [23]. Assegid, Abera [23] also identified the need for nutritional support during pregnancy as one of the key areas lacking support among homeless women in Africa [23]. Nutrition is a form of physical and material area where homeless women need the assistance and support of government, NGOs and the community at large [23]. This is because pregnant homeless women living on the street face numerous hardships, including inadequate nutrition, lack of access to clean water, and insufficient healthcare, all of which are critical for their health and the health of their babies [23].

Discussion

In this scoping review, three studies were included that focused on homeless pregnant women accessing prenatal healthcare services in Africa. There is limited literature on homeless pregnant women in African regions. The comprehensive thematic synthesis yielded two major themes: (a) Barriers to accessing prenatal healthcare services and (b) Social Support needs. Women who are pregnant and homeless, form a special vulnerable group that faces a significant risk of negative maternal and foetal health outcomes. However, Begun [24] revealed that women in this situation often struggle to access and utilise prenatal care [24]. Thus, this review brings to light the challenges of access to prenatal healthcare services for pregnant homeless women.

Lack of awareness

Lack of awareness was identified as a key barrier to prenatal healthcare in this study. Not being aware of prenatal services was the main barrier to getting care for this marginalised group. The adverse effects of homelessness on pregnant women are evident in their limited information with maternal health-related information. Moreover, their inability to access mass media resources, such as television, radio, and social media, further complicates the situation by depriving them of essential health-related

information. Our findings corroborate prior research studies conducted in the United States, Malawi, China, and Ethiopia that identified a significant barrier for homeless women—the insufficient awareness regarding the critical role of antenatal care services throughout their pregnancy periods [25–28]. Similarly, Nisar et al. (2016) reported that the absence of adequate information about maternal healthcare serves as a barrier for pregnant women in accessing prenatal care services [29].

Fear of stigma and discrimination

Fear of stigmatisation and discrimination is a major barrier to pregnant homeless women. The experiences of this group are highlighted in feelings of unequal treatment, a perception of stigmatisation, and a lack of respect from healthcare professionals. Research indicates that stigmatisation is rooted in genuine prejudice and stigmatising attitudes present within services [2]. The correlation between stigma associated with homelessness was reported in similar studies [30, 31], Schmidt, Wingo [32] also stated that the factors of stigma and discrimination are pivotal in dissuading individuals from seeking care [32]. Intervention programmes are needed from both government and other stakeholders, those who are trying to reduce stigmatisation and discrimination against this marginalised group.

Previous negative experiences

Previous negative experiences are highlighted as a category under barriers to prenatal care among homeless women [1, 23]. The poor approach of health care providers and negligence were key barriers among homeless pregnant women [1, 23]. The poor attention and the use of derogatory terms by healthcare professionals when dealing with homeless women in need of maternity services were reported to have negatively shaped their views on attending healthcare services [1, 23]. A study conducted by Bloom et al. in the United States supported our finding that the negative attitude of healthcare workers towards homeless pregnant women is associated with the poor use of prenatal care services [31]. Gordon, Lehan [33] identified mistrust and fear of child loss to social services, also affect homeless women's interactions with healthcare providers and access to necessary holistic care [33], this report is a divergence from our findings that highlighted the connection between negative experiences of homeless pregnant and poor access to healthcare services. Biederman and Nichole, 2014 and Kumbani et al. 2013 also reported on the experiences of homeless women and the health professionals' attitudes which negatively influence this vulnerable group and discourage them from seeking prenatal care at healthcare facilities [25, 34, 35]. The World Health Organisation

recommends that all pregnant women should receive prenatal care services to identify early pregnancy-related complications and improve the health and well-being of both the mother and the foetus [36]. Thereby contributing to achieving sustainable development goals 3, 1 and 2 in reducing the maternal and infant mortality death rate. It is important to identify and address changes that are affecting accessing prenatal healthcare services for homeless women. There is a further need for transformation of the care environment, that allows more comfortable and welcoming spaces for patients in healthcare facilities.

Financial constraints

Financial resources and transportation costs were associated with seeking healthcare [22]. This vulnerable population without means of transportation, health insurance or financial empowerment could not access healthcare services [1, 22]. Many homeless women struggle to meet their basic daily needs, making it difficult for them to prioritise health care [1, 22]. The overall socioeconomic vulnerability of homeless women exacerbates these financial constraints. Similarly, the study conducted in Iran and San Francisco on the experience of homeless women [22], reported on the link between financial barriers among pregnant homeless women and access to the healthcare system [32, 37]. Their study further indicated the need for health insurance for pregnant homeless women [32, 37]. Other studies reported that homeless women encounter a scarcity of resources [38], leading many of them to prioritise competing needs such as securing food, shelter, and personal safety, over accessing healthcare, primarily because most of their pregnancies were unplanned [35, 37, 38]. There is a need to improve maternal health outcomes among this marginalised group, for example, government and partnering organisations could provide empowerment programmes and opportunities to provide financial empowerment.

Psychological and emotional

The critical role of social support requirements was highlighted across all three studies. Homeless pregnant women face significant health risks and psychological challenges, requiring continuous specialised support and interventions that recognise their gender-specific needs. This is because psychological and emotional issues have a direct link to mental health outcomes. Therefore, social support care is an important source of help, creating a therapeutic community that can reduce psychological distress and improve outcomes for homeless women. Organising educational initiatives and the involvement of support individuals have been shown to alleviate psychological distress [39]. Additionally, these efforts have contributed to enhanced self-esteem and a reduction in

substance use, including drugs and alcohol, albeit with certain limitations [39] — Their finding is in line with our report. Sowmya and Suman [40] and Crawford, Trotter [41] studies reported similar findings that homeless women experience mental health-related issues, substance abuse, and trauma [40, 41]. Esen [42] reported similar findings on the need for social support for homeless women who are pregnant to prevent complications [42]. By creating social support that is needed among homeless pregnant women, they can safely go through the pregnancy stage and consequently, this will contribute to improving maternal and child health in Africa.

Nutritional needs during pregnancy

Nutritional needs during pregnancy were another social support need identified in our findings. Food and nutrition during pregnancy are important for the health and well-being of both the women and the developing foetus. This review demonstrated the importance of supplying homeless women with essential food parcels, particularly to pregnant women to prevent pregnancy-related complications due to hunger and starvation. Previous research on homeless pregnant women is consistent with our findings that reported a link between nutritional needs and health risks among pregnant women [8, 23]. This is because these women often have poor nutritional status, with inadequate intake of fruit, vegetables, and micronutrients [8]. Another study stated that homeless women are more likely to be underweight or obese, smoke, and lack prenatal care due to the scarcity of food [27].

Poor nutrition and stress during pregnancy can adversely affect a child's brain development and immune system [43–45], leading to long-term health problems for the children, including developmental delays, chronic illness and higher risk of health problems throughout their lives [43, 45]. Based on these facts, pregnant homeless women need community support to play a crucial role in addressing their issue of nutritional needs by providing pregnant homeless women around them with essential food. Government and private volunteers can offer food and safe shelter which are vital for mothers and their children's wellbeing.

Conclusion

Our review observed that there is a research gap regarding homeless pregnant women, especially in the context of Africa. The barriers associated with homeless pregnant women and prenatal healthcare services are a multifaceted issue, rooted in stigma, and discrimination, lack of awareness, and negative experiences with healthcare providers. Fear of stigmatisation creates a barrier that prevents homeless women from using essential maternity health services, thereby increasing their vulnerability to

pregnancy and childbirth-related complications. Overall, the study highlights a need for interventions to improve the total well-being of this marginalised group, targeted interventions such as food, nutrition and shelter to better support during pregnancy. This may contribute to the reduction of maternal and neonatal mortality rates.

Recommendations

Our findings suggest the need for improved prenatal care services tailored to the unique needs of homeless women. An intervention project to enhance accessibility of services, providing comprehensive information about prenatal care. There is a need for massive awareness programmes on reproductive health systems to educate homeless women about prenatal care services, and pregnancy complications. This would help to improve knowledge and provide empowerment to reduce maternal and infant mortality rates which contribute to the target of sustainable development goal 3. In addition, the government should provide mobile maternity clinics for homeless women.

Addressing socioeconomic barriers is crucial for improving prenatal healthcare services and overall health outcomes among this marginalised population. Our study recommends that healthcare professionals be trained on ethical values with particular emphasis on respect and dignity of all, ensuring that healthcare providers are sensitive to the challenges faced by homeless women. Social support is essential among homeless pregnant women, to ensure the safety of both maternal and child during and after the pregnancy phase.

Limitations of the study

Despite having done an extensive literature search in different databases, only three studies ($n=3$) were relevant and met the inclusion criteria for this study, and all were qualitative studies. This limits the generalisability of the findings from this review to a larger scale population. Thereby, limiting the applicability of our findings to other settings. To mitigate these limitations, it is recommended that more investigation should be conducted around homeless women and maternal healthcare services particularly in African regions seeing that there is an evident paucity of research on this area, combine qualitative research with quantitative research within this continent. This mixed-methods approach can provide a more comprehensive understanding of this phenomenon by combining the strengths of both methodologies. Also, including only English publications, our study may have excluded valuable research and perspectives published in other languages.

Implications for future research

More future research is necessary around this topic, that would incorporate a quantitative approach and mixed methods to enhance understanding in the context of Africa. It is crucial to analyse the association between stigma, discrimination, and adverse mental and physical health outcomes. Additionally, more research focusing on existing interventions that pertain to homelessness and complications arising during pregnancy is warranted.

Abbreviations

PN	Prenatal care
ANC	Antennal care
SRH	Sexual and reproductive healthcare
WHO	World Health Organization

Supplementary Information

The online version contains supplementary material available at <https://doi.org/10.1186/s12913-024-12147-w>.

Supplementary Material 1.

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Authors' contributions

MA and JD designed and conceptualised the Study. Data collection conducted by MA while data analysis was done by MA and JD. Manuscript writing was done by MA while JD supervised and review the manuscript.

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Data availability

All data generated or analysed during this study are included in this article as a supplementary information files. Additional data would be available on reasonable request and after consultation with the team.

Declarations

Ethics approval and consent to participate

No ethical approval was applicable for the review study since the data were obtained from primary studies that were published. Consent to participate is not applicable.

Consent for publication

Not applicable.

Competing interests

The authors declare no competing interests.

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