Rural and Remote Health www.rrh.org.au
James Cook University ISSN 1445-6354

REVIEW ARTICLE

Access to maternal health services for Indigenous women in low- and middle-income countries: an updated integrative review of the literature from 2018 to 2023

AUTHORS

Julia Morgan[1] PhD, Associate Professor Public Health and Wellbeing *

Genevieve M Breau[1] PhD, Lecturer in Public Health

CORRESPONDENCE

*Dr Julia Morgan j.e.morgan@greenwich.ac.uk

AFFILIATIONS

[1] School of Human Sciences, University of Greenwich, Old Royal Naval College, Park Row, Greenwich, London, SE10 9LS, UK

PUBLISHED

25 May 2024 Volume Issue

HISTORY

RECEIVED: 14 June 2023

REVISED: 28 January 2024

ACCEPTED: 21 February 2024

CITATION

Morgan J, M Breau G. Access to maternal health services for Indigenous women in low- and middle-income countries: an updated integrative review of the literature from 2018 to 2023. Rural and Remote Health 2024; : 8520. https://doi.org/10.22605/RRH8520

ETHICS APPROVAL

No ethical approval needed as integrative review.

ABSTRACT:

Introduction: Ninety-seven per cent of Indigenous Peoples live in low-and middle-income countries (LMICs). A previous systematic integrative review of articles published between 2000 and 2017 identified numerous barriers for Indigenous women in LMICs in accessing maternal healthcare services. It is timely given the aim of achieving Universal Health Coverage in six years' time, by 2030, to undertake another review. This article updates the previous review exploring the recent available literature on Indigenous women's access to maternal health services in LMICs identifying barriers to services.

Methods: An integrative review of literature published between 2018 and 2023 was undertaken. This review followed a systematic process using Whittemore and Knafl's five-step framework for integrative reviews and Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines. A total of 944 articles were identified from six databases: Academic Search Premier, MEDLINE, Psychology and Behavioral Sciences Collection, APA PsycInfo, CINAHL Plus with Full Text and APA PsycArticles (through EBSCOhost). The search was undertaken on 16 January 2023. After screening of the title/abstract and the full text using inclusion and exclusion criteria 26 articles were identified. Critical appraisal resulted in 24 articles being included in the review. Data

were extracted using a matrix informed by Penchansky and Thomas's taxonomy, extended by Saurman, which focused on six dimensions of access to health care: affordability, accessibility, availability, accommodation, acceptability and awareness. Ten studies took place in Asia, 10 studies were from the Americas and four studies took place in the African region. Seventeen articles were qualitative, two were quantitative and five were mixed methods. The methods for the integrative review were prespecified in a protocol, registered at Open Science Framework.

Results: Barriers identified included affordability; community awareness of services including poor communication between providers and women; the availability of services, with staff often missing from the facilities; poor quality services, which did not consider the cultural and spiritual needs of Indigenous Peoples; an overreliance on the biomedical model; a lack of facilities to enable appropriate maternal care; services that did not accommodate the everyday needs of women, including work and family responsibilities; lack of understanding of Indigenous cultures from health professionals; and evidence of obstetric violence and mistreatment of Indigenous women.

Conclusion: Barriers to Indigenous women's access to maternal health services are underpinned by the social exclusion and marginalisation of Indigenous Peoples. Empowerment of Indigenous women and communities in LMICs is required as well as initiatives to challenge the stigmatisation and marginalisation that they face. The importance of community involvement in design and interventions that support the political and human rights of Indigenous Peoples are required. Limitations of this review include the possibility of missing articles as it was sometimes unclear from the articles whether a particular group was from an Indigenous community. More research on access to services in the postnatal period is still needed, as well as quality quantitative research. There is also a lack of research on Indigenous groups in North Africa, and in sub-Saharan Africa – especially hunter-gatherer groups – as well as the impact of COVID-19 on access to services.

Keywords:

access to services, antenatal care, childbirth, Indigenous women, low- and middle-income countries, maternal health services, postnatal care.

FULL ARTICLE:

Introduction

Indigenous Peoples, compared to non-Indigenous Peoples, have poorer access to health care, are more likely to live in ill health and have lower life expectancies at birth[1]. There is no one accepted definition of Indigenous Peoples due to their diversity, but the UN highlights the importance of self-identification and acceptance by their Indigenous community as one of the key elements to Indigenous identity and ethnicity[2]. Other key aspects include relationships to their lands, traditions, resources, territories, culture, language and ancestors[3]. Globally, there are approximately 476.6 million Indigenous Peoples representing 6.2% of the world's population, with approximately 97% of Indigenous Peoples living in low- and middle-income countries (LMICs)[3]. High levels of poverty, discrimination and marginalisation are evident; this is especially the case for Indigenous women, who may be faced with inequities because of the intersection of being both a woman and Indigenous[3].

In relation to access to maternal health services, defined as services for antenatal care, postnatal care and childbirth, a previous integrative review found numerous barriers for Indigenous women in LMICs and highlighted the need for more research on access issues in relation to delivery and postnatal care[4]. These barriers included the 'top-down nature' of interventions, a lack of cultural awareness from providers, language barriers, cost, poor awareness of services, and geographical barriers such as distance and transport[4]. It is timely, given the WHO aim of 'leaving no-one behind' by achieving Universal Health Coverage (UHC) by 2030, to undertake another review to explore how far the identified barriers to access remain and to describe, using contemporary research, any further barriers that have been identified. This is important as it has been highlighted how initiatives such as UHC with their focus on 'financial risk protection, access to quality essential healthcare services, and access to safe, effective, quality, and affordable essential medicines and vaccines for all'[5] 'do not reflect the realities faced' by Indigenous populations where social exclusion and marginalisation make it more likely they will receive poor quality services[6]. Moreover, indicators that track UHC, for example service coverage indexes[7], do not effectively consider within-country inequalities and differences in coverage of and access to health services between different groups. For example, Thailand's high service coverage index obscures differences in access to health services between Indigenous Hill Tribes and the rest of the population, with poverty, lack of citizenship, social exclusion, marginalisation and discrimination impacting on Indigenous Peoples' access to health services[8]. This is compounded by the lack of data on Indigenous Peoples' health and needs[2]. Reviewing the updated literature on Indigenous women's access to maternal health services will further illustrate the specific issues that face Indigenous women and may also be of relevance to other marginalised groups in rural and remote settings, including nomadic peoples.

Access to health care

Improving access to quality health care, to achieve 'health for all' through UHC, is said to be one of the objectives of all health systems[9]. However, defining what is meant by access to health care is open to debate; with several different models of access apparent[10,11]. Access is often linked to the performance of health systems[10], and the term may be used interchangeably with concepts such as 'coverage'. However, understanding the factors that impact on access to health services often goes beyond a focus on coverage in relation to numbers of people reached (population coverage), the range of 'essential' services offered (scope of coverage) and breadth of coverage, which includes factors related to out-of-pocket costs[12]. Access also relates to potential barriers to the delivery of services, including whether services are person-centred; whether there is an understanding of the user experience; the quality of services provided; and services being responsive to the social, cultural and health needs of communities[10,13,14]. Penchansky and Thomas define access as 'the degree of fit between the clients and the system'[15] and theorised a taxonomy

of access to health care that contained five dimensions (affordability, accessibility, availability, accommodation/adequacy and acceptability). This was extended by Saurman to include a sixth factor (awareness) (Table 1)[16]. These domains of access are said to be interconnected[15] and the targeting of one domain may not necessarily bring about significant improvements in access to health services. For example, the introduction of health insurance, which targets affordability, may not necessarily mean that women will access maternity services if the services that are offered are culturally unacceptable; conversely, the availability of health services is of no good if no-one can afford to pay for them.

Given the difficulty in defining access, Saurman's[16] and Penchansky and Thomas'[15] models of the six dimensions of access to health services offer clarity and are utilised in this integrative review as a conceptual framework.

Table 1: Conceptual framework: dimensions of access[13,15,16]

Dimension of access	Definition
Accessibility	Proximity and ease of access in terms of location, time, and distance to get there plus geography.
Availability	There are sufficient health services and resources (including workforce) available to meet community needs and these services can be accessed in a timely fashion. Related to supply and demand.
Acceptability	Services provided are culturally and socially acceptable. Refers to traditional versus biomedical approaches, how groups and communities are treated, service user preferences for female health workers. Quality of health service is a key aspect of acceptability as poor-quality services may be a barrier to accessing services [ref. 13].
Affordability	Payment for services does not lead to catastrophic health costs: costs are fair.
Accommodation	Well organised health services which respond to service user lifestyles and personal needs, for example wheelchair access and out-of-hours services
Awareness	Effective communication from health providers about health services, considering health literacy and the local context. Awareness can also refer to how well a health system has awareness of and information about all communities.

Adapted from refs 15,16.

Methods

An integrative review that followed a systematic process was undertaken to explore and evaluate the extent of the published literature on Indigenous women's access to maternal health services in LMICs from 2018 to 2023. Integrative reviews enable a range of diverse research designs and methodologies to be integrated in a search for literature[17] and can inform evidence-based practice as well as develop or test theories[18]. The review followed Whittemore and Knafl's five-step framework for integrative reviews, which focused on problem identification, a literature search, data evaluation, data analysis and presentation of findings[19]. Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines were also used[20]. The protocol for the integrative review was registered on Open Science Framework (https://osf.io/gxkfz) and there were no deviations from the protocol.

Problem identification

The research question was developed following the 'participants, concept and context' (PCC) approach:

- P (types of participants): Indigenous women
- C (concept): factors impacting access to maternal health services
- C (context): low- and middle-income countries

The research review question was 'What are the factors that impact on Indigenous women's access to maternal health services in LMICs?'

Literature search

We were interested in all published empirical studies that focused on the research question, and we searched the following electronic databases: Academic Search Premier, MEDLINE, Psychology and Behavioral Sciences Collection, APA PsycInfo, CINAHL Plus with Full Text and APA PsycArticles (through EBSOhost). The search was performed on 16 January 2023 for articles published between 2018 and 2023. All articles that were retrieved were transferred to Endnote and duplicates removed. Table 2 outlines the search terms.

Two researchers independently screened abstracts and titles for eligibility. Full texts were then screened to identify the final articles according to the inclusion and exclusion criteria (Table 3). The two researchers reviewed each other's abstract/title and full-text screening, and reached consensus, through discussion, regarding which texts should be excluded and which should be included.

The PRISMA diagram in Figure 1 outlines each stage and the reasons for exclusion.

Table 2: Search Terms

Indigenous terms aborigin* OR Indigen* OR"Indigenous people*"OR trib* And **Perinatal terms** perinat* OR childbirth OR pregnan* OR antenat* OR prenat* OR postnat* OR prepart* OR postpart* OR peripart* OR antepart* OR intrapart* OR prepart* OR puerper* OR matern* OR obstetric* And **Access terms** "access to care" OR "access to health*" OR "access to service*" OR "health access*" OR "health services accessibility" OR utili* OR "healthcare disparit*" OR equit* OR inequit* OR disparit* OR access* OR quality OR aware* OR afford* OR avail* OR accept* NOT America OR "United States" OR "New Zealand" OR Australia OR Canada OR "North America" OR US OR USA*

† We carried out the search first using the terms "low-income countries" OR "middle-income countries"; this produced very few results. We redid the search (second search) without any countries, and this produced substantially more results. On examining these results, US, New Zealand, Australia and Canada were the high-income countries that were included; we therefore redid the search with NOT America OR "United States" OR "New Zealand" OR Australia OR Canada OR "North America" OR US OR USA to remove these articles (third search). Countries in Europe did not feature in the second search, so we did not include these countries in the third search, which excluded high-income countries.

Table 3: Literature review inclusion and exclusion criteria

Inclusion criteria	Exclusion criteria
Primarily focus on the experiences of Indigenous women in low- and middle-income countries. All empirical study designs with primary data including quantitative, qualitative, and mixed methods. Text available in English. Articles published since 2018. Articles related to access to perinatal and maternal care services.	Full texts of the article not available. Articles published before 2018. Articles that report on non-Indigenous women, or that are not primarily on Indigenous women. Articles not written in English. Articles not focused on access to maternal health care. Articles related to higher income countries. Systematic reviews, other literature reviews, and commentaries.

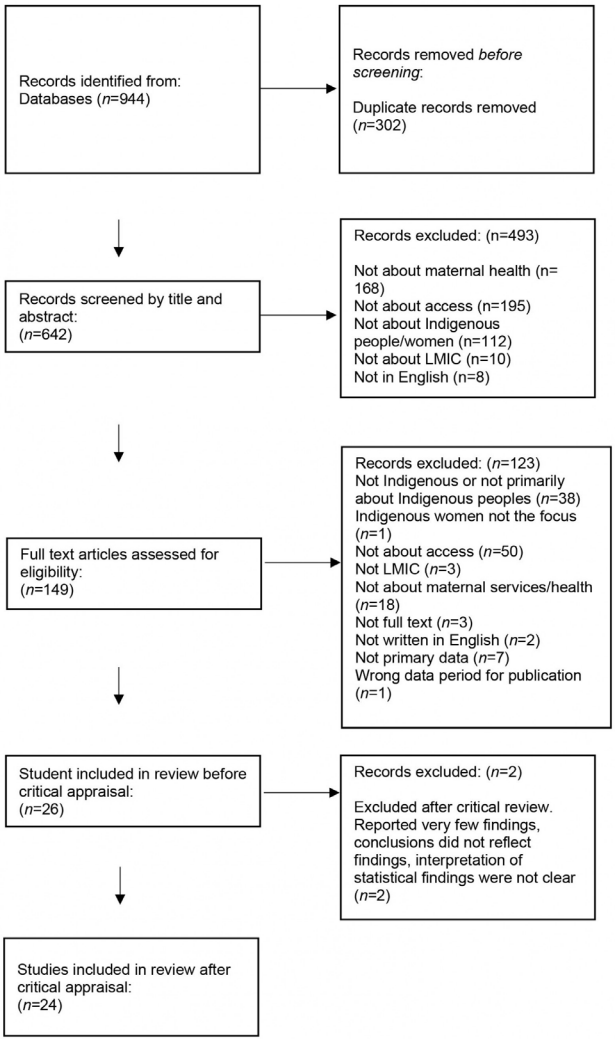

Figure 1: PRISMA diagram for literature review.

Data evaluation

A total of 26 articles underwent critical appraisal independently by the two reviewers, with disagreements negotiated using CASP Critical Appraisals Tools (CASP)[21]. CASP, however, does not have critical appraisal tools for cross-sectional studies nor quasi-experimental designs and in these instances Joanna Briggs Critical Appraisal Tools (Joanna Briggs Institute)[22] were used. Where methods were mixed, we utilised the Mixed Methods Appraisal Tool (MMAT)[23] because it considers the specific nature of mixed methods. Two articles did not meet critical appraisal quality standards for the following reasons: conclusions did not come from the results, there was unclear interpretation of the statistical findings and very few results were evident. These two articles were not included, and this resulted in 24 articles in the final review.

Data analysis

The final included studies (*n*=24) were then read again, and two researchers independently and manually extracted information from the articles, which was presented in a matrix. Data extracted were then compared and negotiated by the two researchers. The following information was extracted: authors/date/title, theoretical/conceptual frameworks, research aim(s)/question /hypothesis, study design, methods/analysis, demographics/sample/setting/country, accessibility findings, availability findings, acceptability findings, accommodation findings, awareness findings and study limitations. The dimensions of access conceptual framework were utilised in the matrix as a conceptual framework[15,16].

Presentation of findings

The findings were analysed, thematically, in relation to the dimensions of access conceptual framework. Thematic analysis of the extracted data was undertaken independently by the two researchers, and results were discussed and compared.

Results

A summary of included studies is presented in Table 4.

Table 4: Description of included studies

Authors	Year	Country	Purpose/aim	Sample	Research design	Research method	Findings: access dimension
Akter et al [24]	2022	Bangladesh	Explore Indigenous communities' perspectives on challenges and opportunities for maternal and child health.	8 key informant interviews with Indigenous leaders and health professionals	Qualitative	Key informant interviews	Accessibility Availability Acceptability Affordability Adequacy/ accommodation Awareness
Akter et al [25]	2020	Bangladesh	Determine the knowledge of delivery services at primary healthcare facilities and identify factors associated with accessing these facilities.	438 Indigenous women	Quantitative	Cross-sectional survey	Availability Acceptability Affordability Awareness
Austad et al [26]	2021	Guatemala	Explore the role of Obstetric Care Navigators in facilitating antenatal care access.	17 mothers and 13 staff	Qualitative	Semi-structured interviews	Availability Acceptability Adequacy/ accommodation Awareness
Austad et al [27]	2020	Guatemala	Investigate traditional birth attendants using mHealth to detect high-risk pregnancies and birth complications.	467 women	Quantitative	Health data: electronic record and brief structured interview	Accessibility Availability
Carpio-Arias et al [28]	2022	Ecuador	Describe the challenges of Indigenous pregnant women as rightsholders through the experiences and perceptions of health professionals as guarantors of rights.	15 healthcare staff	Qualitative	Semi-structured interviews	Accessibility Availability Acceptability Affordability Adequacy/ accommodation Awareness
Contractor et al [29]	2018	India	Explore perspectives and practices related to pregnancy and childbirth and their experiences with government-funded antenatal care.	45 key informant interviews (*n*=9) and in depth interviews with women (*n*=36). Group discussions with women (*n*=3 groups)	Qualitative	Unstructured group discussions, key informant interviews, observations, in depth interviews and fieldnotes	Accessibility Availability Acceptability Affordability Adequacy/ accommodation Awareness
Dehury [30]	2022	India	Critically examine the functionality of the Janani Suraksha Yojana maternal health program in a vulnerable area.	30 tribal women aged between 20 to 45 years. Health workers interviewed – number not stated	Qualitative	Interviews and focus groups	Accessibility Availability Acceptability Affordability Adequacy/ accommodation Awareness
Del Mastro [31]	2022	Peru	Examine how professionals provide culturally competent care and facilitate patients' use of medical services.	Medical professionals, traditional healers and women living in Indigenous communities who had recently given birth (*n*=50).	Qualitative	Ethnographic observations and interviews	Accessibility Availability Acceptability Affordability Adequacy/ accommodation Awareness
Gamlin and Holmes [32]	2018	Mexico	Understand how structural violence operates in both interpersonal relationships and the structure of health services provision to put Indigenous women and their babies at risk.	62 women	Qualitative	Interviews and ethnographic observation	Accessibility Availability Acceptability Affordability
Gamlin and Osrin [33]	2020	Mexico	Explore how ongoing frictions between Indigenous communities and the state, which are a consequence of colonial history, continue to operate via the health system.	67 women at baseline followed up after birth with 62 women	Qualitative	Semi-structured interviews	Availability Acceptability Affordability Awareness
Ibrahima [34]	2021	Ethiopia	Using Indigenous approaches, examine the gaps in maternal health policies and programs.	27 Indigenous women	Qualitative	Semi-structured interview/ visual dialogue including use of photographs/ drawings and observations	Accessibility Availability Acceptability Adequacy/ accommodation
Juarez-Ramirez et al [35]	2020	Mexico	Understand hurdles in medical care that hinder access and lead to complications during pregnancy and childbirth that result in maternal deaths, and what universal access to healthcare services means in the indigenous context.	459 health care workers and Indigenous women. 355 completed questionnaires and 104 took part in interviews. Of these, 294 questionnaires were completed by women and 55 women took part in interviews	Mixed methods	Questionnaires and semi-structured interviews	Accessibility Availability Acceptability Affordability Adequacy/ accommodation Awareness
Jungari and Paswan [36]	2020	India	Examine role of male involvement in antenatal care, and healthcare providers' attitudes to male involvement.	385 men whose wives had delivered a child within the previous 2 years completed a questionnaire 3 focus groups with men – sample size not stated 15 semi-structured interviews with women, health workers and key informants	Mixed methods	Semi-structured interviews, focus groups and questionnaires	Awareness
Jungari and Paswan [37]	2019	India	Examine the men's knowledge and awareness of pregnancy complications and maternal health service utilisation.	385 men	Quantitative	Cross-sectional descriptive community survey	Awareness
Mulikabert et al [38]	2022	Thailand	Understand stigma and its impact on maternal child health service and outcomes including experiences and expectations.	61 Indigenous women who were post-delivery	Qualitative	Interviews (structured interview guide)	Acceptability Awareness
Munro et al [39]	2022	West Papua, Indonesia	Investigate how a frontier context shapes childbirth and maternity care.	60 interviews (6 men and 54 women) who identified as Indigenous Papuan and who had given birth or whose wife had.	Qualitative	Interviews and ethnographic research	Availability Acceptability Awareness
Nair et al [40]	2021	India	Examine male involvement in access to antenatal care.	Women (*n*=36) Men (*n*=35) Health workers (*n*=8)	Qualitative	Focus groups and key informant interviews	Accessibility Acceptability Affordability Adequacy/ accommodation Awareness
Ombere et al [41]	2021	Kenya	Explore cultural practices and contexts of birthing and how such practices may affect maternal and neonatal outcomes.	40 mothers and 5 traditional birth attendants	Qualitative	Focus groups, interviews, and ethnography	Acceptability Affordability

Peca and Sandberg [42]	2018	Mexico	Examine how women's experiences of institutional childbirth and their perceptions of others' institutional childbirth influence their intention to give birth at a facility.	654 women	Mixed methods	Population-based household survey with open and closed questions – qualitative data collected from open questions	Accessibility Acceptability
Perry et al [43]	2021	Guatemala	Explore the decision by women to remain at home or seek care at a medical facility for obstetric complications.	14 Indigenous women who had received care from a traditional birth attendant partnered with Maya Health Alliance	Qualitative	Semi- structured interviews	Availability Acceptability Affordability Adequacy/ accommodation Awareness
Sacks et al [44]	2022	Mexico	Examine barriers to care-seeking for obstetric and neonatal care in health facilities.	74 women who gave birth, male partners, and traditional birth attendants and 27 interviews with health facility and hospital staff	Qualitative	Semi-structured interviews	Accessibility Availability Acceptability Affordability Adequacy/ accommodation Awareness
Sahoo and Pradhan [45]	2021	India	Examine social factors responsible for neonatal deaths.	194 women who had delivered children in the last 5 years.	Sequential exploratory mixed methods study design	Structured interview, focus groups	Accessibility Availability Acceptability Affordability Awareness
Steele et al [46]	2021	Uganda	Barriers characterising antenatal care attendance patterns.	Key informant interviews with 9 healthcare providers) and 16 focus group discussions (120 Batwa and Bakiga women)	Community based mixed methods	Administrative data collection, interviews, focus groups	Accessibility Acceptability Affordability Awareness
Wilson et al [47]	2019	Uganda	Understand the experiences of antenatal care and antenatal care recommendations for Indigenous and non-Indigenous women.	38 Indigenous Batwa and non-Indigenous Bakiga women from four matched communities and three healthcare providers	Qualitative	Focus groups and key informant interviews	Acceptability Affordability Adequacy/ accommodation Awareness

Description of included studies

Of the regions where the studies were conducted, the largest number of studies (10) took place in Asia – India[24-29], Bangladesh [30,31], Thailand[32] and Indonesia[33] – and the Americas: Mexico[34-38], Guatemala[39-41], Peru[42] and Ecuador[43]. Four studies took place in the African region: Uganda[44,45], Ethiopia[46], and Kenya[47]. Sixteen articles reported using qualitative methods (Table 4), three articles used quantitative methods and five articles used mixed methods. The most common research methods reportedly used included focus groups, key informant interviews and ethnographic observation, and the participants included women, family members and healthcare providers. Overall, there was a lack of good quality quantitative studies, and those studies focused on the African context.

Thematic analysis

The following section explores the main findings for each of the six dimensions of access.

Accessibility: The most common barrier to maternal health care access related to accessibility was distance from the facility, which was cited by 14 of the 24 articles[24,25,28-30,34,36-38,40,42-44,46]. While distance was the most cited barrier, issues associated with large distances from the facility were the lack of availability and affordability of transport to the facility. Lack of accessible or affordable transportation was cited by six articles[28,30,34,36,38,46] with the cost of transportation to a health facility often being prohibitive[38,44]. Some authors also reported that, even when government-funded transportation was provided, ambulance drivers often asked for fees to utilise the ambulance[29]. Other barriers related to distance from the facility were the loss of wages and time due to travelling[25,38,43]. One study also found that women may be reluctant to travel long distances because of a fear of giving birth while in transit[46]. Armed conflict preventing travelling[38], or needing to walk long distances[30], were also barriers. While women might try to overcome the barrier of distance by staying close to the facility prior to giving birth, including in maternity homes/rooms (which will be explored later), the accommodation costs associated with this meant it was not always feasible[34]. Barriers to accessibility were often heightened for Indigenous migratory women, internally displaced Indigenous women and Indigenous women in very remote areas[25,29,30].

There were some facilitators that would overcome the barriers according to accessibility. Providing transportation or having healthcare workers cover the cost of the transportation upfront[40,42] to overcome accessibility barriers was reported as a potential solution. Moreover, some healthcare workers explained that they gave priority and earlier (in the day) appointments to women travelling long distances to help make it easier for them to attend facilities, and in some cases would pay the costs associated with travel up-front[42]. Improving geographic and economic access[38] and providing more support by healthcare providers[40] were also cited as facilitators, as well as living closer to the hospital[34,37,44].

Availability: Sixteen articles focused on the availability of maternal health services for Indigenous women. Of those 16 articles, 11[25,29,30,34-36,38,39,41,43,46] highlighted a lack of facilities in rural primary health posts/community clinics/referral centres, which were often not equipped to carry out antenatal tests or support childbirth. This resulted in an increase in home visits or referrals to other health centres, which were often a considerable distance away. Lack of facilities included no water or electricity to run refrigerators for medication as well as buildings with cracks and mud floors, which enabled snakes and rats to come into the facility – all of which impacted on women's attendance and their perceptions of the quality of services[30,46]. Other articles highlighted limited physical space, which meant that women were unable to have birthing companions present[38]; shortages of equipment, such as ultrasound machines and laboratory testing facilities; and necessities such as medicines, gloves, bed linen, towels, gowns and cleaning supplies[35,36,46].

Twelve of the 16 articles[24,25,29-31,34,35,38,40-42,46] highlighted issues with the availability of staff. These included staff not being in the facility on the days that they should have been, even when women had appointments, and medical staff shortages including a lack of skilled birth attendants, community care providers and staff with specialist skills[23,25,35,38,41,46]. Absent staff and staff shortages impacted on women's trust in the facility and contributed to long

waiting times[29,38]. In some cases, health workers had to travel with women who were being referred to other health centres, which resulted in no cover in the local health centre[42]. When this did occur, staff reported having to pay for their own accommodation as well as the cost of fuel to transport their patient. Terms and conditions for medical staff in rural posts were also highlighted as being problematic, which contributed to staff leaving and staff shortages[34]. Staff training and the availability of trained staff were also an issue, with health staff such as Accredited Social Health Activists giving out poor advice[25] and traditional birth attendants, because of limited medical training and knowledge, being unable to recognise, refer and manage maternal health complications[46].

Acceptability: Twenty-one articles reported acceptability barriers to accessing maternal health services[24,25,28-39,41-47]. This included a lack of fit between the biomedical procedures offered in health facilities and community cultural, social and religious traditions around childbirth. For example, women were apprehensive about using antenatal care services in case their spirits were displeased and reported beliefs about the predetermined nature of death, putting their faith in God to protect them during childbirth[46]. In addition, women reported that their pregnancy outcome would have not been any different if they had attended the facility[41], with beliefs such as 'evil eye' resulting in visits to traditional healers before visiting the health facility[29], leading to delays in accessing emergency medical care. This meant that for many women the biomedical construction of childbirth and the services offered were not seen as aligning with their expectations.

Moreover, there was limited engagement from maternal health services, with community preferences for traditional healers and home births rarely incorporated into the biomedical health model[25,29,42]. Many of the practices in health facilities did not fit women's cultural understandings of acceptable birthing practices such as the use of horizontal as opposed to traditional Indigenous vertical birthing positions, not being allowed to have their relatives in the room and being denied the use of other cultural traditions such as incense, herbal teas, special foods and rituals around the placenta[38,44,47]. Moreover, previous experiences of what was perceived as poor-quality care were reported, including a lack of physical support, with women being left alone during childbirth, which was seen as significantly different to the care that they would have received at home with their family[38,41]. Fear of surgery and being away from other children, family and work meant that home birth was preferred to facility birth in many cases, and concerns were raised about who would look after their children or households if they were away from home[41]. In addition, the use of male health practitioners was problematic and made women embarrassed and fearful of using health facilities[32,46]. The limited responsiveness to the women's cultural needs and lack of involvement of the communities in planning and designing services made it more likely that women would give birth at home so that they could have the birth that reflected their cultural and spiritual beliefs as well as Indigenous identities.

Another factor identified was that of obstetric violence arising from obstetric racism[33]. This resulted in women being treated poorly by staff, including a lack of respect shown towards them, verbal abuse and neglect[28,32,41,44]. It was reported that women were left in pain, shouted at, slapped, not listened to, humiliated and threatened, and had procedures (such as caesarean sections, episiotomies, and sterilisation) that they had not consented to[24,30,33-35,38,39,47]. Poor treatment was also evident, with bribes for treatment being requested for services that should have been free[29,30,37]. Some women stated that staff had intentionally tried to harm them by giving them the wrong dose of medication[38,45]. All of this contributed to a lack of trust between women and healthcare facilities, with quality of care being seen as poor and thus unacceptable.

Affordability: In total, 16 articles[24,25,28-31,34-36,38,41-45,47] had factors relating to the affordability of maternal care. The most common identified barrier was needing to pay additional costs to receive health care that they could not afford, cited by 13 articles[25,29-31,34,35,38,41-45,47]. Within this group of articles, paying additional costs for medication was a barrier[25,30,41,43,44] as was paying costs for additional services such as unexpected surgical costs[25,31,38,47] or needing to pay bribes to healthcare staff to stay at facilities or receive care[29,30]. Participants also described needing to pay out-of-pocket costs such as paying for food and/or accommodation[30,34,35,42,44,45], needing to pay for transportation to and from facilities[30,31,34,35,38,44,45] and the issue of potential wage loss occurring if they and their partners attended antenatal services away from their homes[28]. Some participants also discussed the additional costs (such as food, accommodation and/or transportation costs) of paying for family members to accompany them to a facility to give birth[28,30,34,35]. There were a few cases where services were provided at reduced or no costs to patients, either by the government services or a non-governmental organisation[24,36].

Accommodation: Twelve articles reported barriers to maternal health services accommodating the needs of Indigenous women[24,25,28,30,36,38,39,41-43,45,46]. This included the limited opening hours of services, for example in some cases facilities open between 9 am and 3 pm, which was not conducive to women and men working[25,28], and services that were not open all the time or during bank holidays[30,38,46]. However, there were also reports of staff changing the opening hours to accommodate the community and medical staff undertaking non-clinical roles to alleviate barriers to access[42]. Language was also an issue as well as a lack of Indigenous staff, with many of the staff not being able to speak Indigenous languages, which increased confusion and made communication including sharing of information difficult[30,39-41,43]. This was exacerbated in many cases by a lack of interpreters. However, in some cases there were reports of Accredited Social Health Activists[24] and other community health workers[39] who spoke a range of languages, and this was said to facilitate a better understanding of the hospital regime and enable the women to ask questions, bringing about a reduction in their fear. Women reported feeling 'shame' and feeling 'ignored' for speaking an Indigenous language and not being able to speak the dominant language of the country[38].

Services were also said not to accommodate the cultural needs and preferences of Indigenous women, with inappropriate food being offered in the hospital as well as culturally irrelevant guidance and practices[43], with little attempt made to facilitate the women's cultural preferences[24]. When staff did attempt to make dietary recommendations relevant to Indigenous women, lack of money often precluded the women from following these instructions[45]. Moreover, the distance that women had to travel was also not considered by staff, and women were turned away from the hospital late at night because they were not yet ready to

give birth; this resulted in several cases where women gave birth on their way home by the side of a road[38]. Maternity waiting rooms may have overcome this situation[36]. Community views were not considered in the planning and design of maternal health services, and co-production of services was felt to be key to improving access to services[30].

Awareness: Nineteen articles reported that women (and their partners, including relatives) had limited awareness of the range of maternal health services available, including the benefits of these services[24-33,35,36,38,39,41-45]. Minimal knowledge around referrals, the purpose of maternity waiting rooms, that services were free, and what would take place during procedures was apparent, with women unsure about why their stomachs were being pressed during antenatal examinations and fearful that this would kill their baby[24,29,30,38,44]. Moreover, it was reported that women were not told about the benefits of nutritional supplements during pregnancy, with some women discarding the supplements they were given[43], as well as fears and a lack of information around episiotomies[35] and caesarean sections[30], which led to women avoiding the facilities[41]. This limited awareness may have been related to the lack of interpreters, including poor communication, but may also have been a result of the minimal respect shown towards Indigenous women and the primacy of the biomedical model where medical staff 'know best'. Moreover, women and their families tended to view maternal health services as being curative (provision of medicines) rather than about preventative care[45], and this was exacerbated by a lack of communication or mixed messages from health professionals, including health promotion 'cues to actions' about why preventative care was needed in pregnancy. This often resulted in women accessing services in emergency situations. Where health professionals did communicate information in an appropriate way – which considered literacy levels, language and was culturally sensitive, including relating preventative care to cultural ideas of safety – this was found to be empowering[39,42], but this information was not always taken up by the women if they could not see the relevance to their lives[30].

Women thus often relied on information from other women, including older women who had previously given birth but who may have had limited experience of hospitals and antenatal care[25,44]. The inclusion of men, community leaders and older women was said to be important in awareness-raising as studies identified a lack of empowerment of women, with decisions about the acceptability of health facility care being made by men, other family members or older women[25-28,41]. Insufficient communication and lack of awareness, therefore, was said to have led to poor pregnancy risk evaluation on the part of women and their communities, with pregnancy being equated with positive outcomes where there were minimal complications[29]. This resulted in pregnancy and issues such as oedema, headaches and high blood pressure being seen as 'routine' occurrences that did not require medical intervention[30,41]. While most of the articles focused on the lack of awareness of the women and their communities, it was reported that health providers had minimal knowledge of and training on Indigenous cultures and 'intercultural adapted childbirth'[43], and awareness of the needs of migrating Indigenous women was poor[25].

Discussion

This integrative review utilised a conceptual framework[15,16] of the six dimensions of access: accessibility, availability, acceptability, affordability, accommodation and awareness to explore Indigenous women's access to maternal services in LMICs. Barriers were found to exist across all six dimensions, and interventions should target all six dimensions due to the interconnected nature of these access barriers. This integrative review confirms the findings of a previous review[4], with the same barriers to accessing maternal health services remaining for Indigenous women. Moreover, it adds to the previous integrative review by showing how obstetric violence, lack of support from health professionals and abuse, as well as the biomedical nature of medical interventions, were a barrier to access. Additional payments (bribes) for services were also an issue, as was loss of wages in relation to accessing services. A focus on maternity services as curative rather than preventative was also of note, as was a lack of health professionals' knowledge of Indigenous cultures and childbirthing preferences.

Recommendations to improve access to maternity services for Indigenous women in LMICs include culturally sensitive and appropriate health literacy education that supports community understandings about service availability, free services and need for services including the importance of preventative care[27]. Targeted promotion of antenatal care and postnatal care by trained Indigenous healers/workers to build relationships with communities as well as more respectful co-working between traditional birth attendants and medically trained practitioners are also needed [46,48]. This could include the use of Indigenous advocates who can support women in accessing services to overcome fear, misunderstandings and language barriers[39,40]. The use of community waiting rooms that are responsive to women's cultural needs and the updating of poor facilities (including lack of essential medicines) within community health facilities are recommended. Terms and conditions of staff in Indigenous areas need to be reviewed to attract and retain staff, including budgets for transportation and accommodation when transferring women[42]. This should be coupled with poverty reduction initiatives to support women in accessing services, including the provision of emergency transport and payment for loss of earnings when accessing services[25]. Outreach services to reduce transport, childcare and geographical issues and improve access to antenatal care and postnatal care within the community are needed, especially in the remotest communities[42,44]. The use of mobile technology[43] and other methods of media communications[31] may be an asset in relation to health promotion text reminders and for raising concerns about possible complications.

Services need to 'think' Indigenous to ensure that they are responsive and accommodate the needs of communities. This includes the integration of traditional Indigenous birthing practices into the biomedical birthing model that are co-produced with Indigenous communities[24,25,30,47], including birthing centres run by trained traditional birth attendants[46] and recruitment of Indigenous staff. Increased training of health professionals on Indigenous cultural norms and traditions – including the importance of ancestral knowledge, birthing practices, respectful and non-abusive maternal care and improved cultural competency – is required[29,36,37,44], including the role of intercultural partnerships[48].

Interventions need to be situated within a model that focuses on

reducing the social exclusion and marginalisation of Indigenous Peoples, as access barriers often reflected the ongoing and historical discrimination, stigma and structural disempowerment that Indigenous Peoples face[6]. This was apparent in the lack of understanding about why Indigenous women did not use the facilities, and little attempt being made to explore why this was the case, with a deficit model of Indigenous cultures and peoples being evident. For example, health professionals reported that women often did not ask questions, with this being seen as a deficit in the women as opposed to a health system that was not responsive to the sociocultural and linguistic needs of Indigenous women[43]. Moreover, the introduction of policies that call for 'intercultural birthing' or strategies such as the WHO Traditional Medicine Strategy 2014–2023 are not enough if there is weak institutional support and training; the stigmatisation of traditional medicines, within a biomedical model, is a barrier to implementation[42,49]. Hence interventions need to not only reflect the sociocultural needs of Indigenous Peoples, including empowering Indigenous Peoples to be partners in the planning of appropriate services, but also actively challenge the marginalised and stigmatised positioning of Indigenous Peoples and their cultural knowledge. Without a focus on the latter, the aim of achieving UHC for Indigenous Peoples and improving access to health services may not be realised[5].

Limitations of this integrative review include the possibility of missing articles, as it was sometimes unclear from the articles whether a particular group was from an Indigenous community. This was especially the case in relation to the term 'tribal' and sub-Saharan Africa and the use of 'caste' as a descriptor in Nepal. To try to mitigate this, we researched any groups concerned and followed up with Indigenous global organisations.

Furthermore, the exclusion of literature written in languages other than English meant that the review did not cover the full breadth of literature. This is potentially problematic as some literature on Indigenous women in LMICs was written in languages other than English.

More research on access to services in the postnatal period is still needed, as well as quality quantitative research. This could include a focus on the impact of COVID-19 on access to services for Indigenous women as well as the impact on outcomes for women and neonates [50].

There is a lack of research on Indigenous groups in North Africa and sub-Saharan Africa including groups such as the San and other hunter-gatherers. Moreover, there is a lack of research on Indigenous groups in South-East Asia including Cambodia, Malaysia, Myanmar, Philippines and Laos. In South America, a paucity of research in Brazil and Bolivia is of note.

Lastly, it is evident that more evaluations and research on successful interventions in LMICs that have improved access to maternal health services for Indigenous women, including interventions to empower communities and reduce social exclusion, are needed as well as research on workforce development initiatives in LMICs that aim to promote intercultural education and practices.

Funding

The authors report no sources of funding.

Conflicts of interest

The authors report there are no competing interests to declare.

REFERENCES:

1 United Nations. *State of the world's indigenous peoples: Indigenous peoples' access to health services.* New York: United Nations Department of Economic and Social Affairs, Secretariat of the Permanent Forum on Indigenous Issues, 2015.

2 United Nations. *Who are Indigenous peoples?* Available: web link (Accessed 6 March 2023).

3 International Labour Organisation. *Implementing the ILO Indigenous and Tribal Peoples Convention No. 169: Towards an inclusive, sustainable, and just future.* Geneva: International Labour Organisation, 2019.

4 Akter S, Davies K, Rich JL, Inder KJ. Indigenous women's access to maternal healthcare services in lower- and middle-income countries: a systematic integrative review. *International Journal of Public Health* 2019; **64:** 343-353. DOI link, PMid:30506363

5 United Nations. *Transforming Our World: The 2030 Agenda for Sustainable Development.* 2015. Available: web link (Accessed 14 January 2023).

6 Samuel J, Flores W, Frisancho A. Social exclusion, and universal health coverage: health care rights and citizen-led accountability in Guatemala and Peru. *International Journal for Equity in Health* 2020; **19(1):** 216. DOI link, PMid:33298093

7 World Health Organization. *Tracking Universal Health Coverage: 2021 Global monitoring report.* Geneva: World Health Organization, 2022.

8 Apidechkul T, Wongnuch P, Sittisarn S, Ruanjai T. Health situation of Akha Hill Tribe in Chiang Rai Province. *Journal of Public Health and Development* 2016; **14(1):** 77-97.

9 World Health Organization. *Everybody's business: strengthening health systems to improve the health outcomes, WHO's framework for action.* 2007. Available: web link (Accessed 24 January 2023).

10 Levesque JF, Harris MF, Russell G. Patient-centred access to health care: conceptualising access at the interface of health systems and populations. *International Journal for Equity in Health* 2013; **12:** 18. DOI link, PMid:23496984

11 Andersen MR. Revisiting the behavioural model and access to medical care: does it matter? *Journal of Health and Social Behaviour* 1995; **36:** 1-10. DOI link, PMid:7738325

12 European Observatory on Health Systems and Policies. *Coverage and access.* Available: web link (Accessed 1 May 2023).

13 Kieny MP, Evans TG, Scarpetta S, Kelley ET, Klazinga N, Forde I, et al. *Delivering quality health services: a global imperative for universal health coverage.* Washington, DC: World Bank Group, 2018.

14 Dawkins B, Renwick C, Ensor T, Shinkins B, Jayne D, Meads D. What factors affect patients' ability to access healthcare? An overview of systematic reviews. *Tropical Medicine and International Health* 2021; **26(10):** 1177-1188. DOI link, PMid:34219346

15 Penchansky R, Thomas WJ. The concept of access: definition

and relationship to consumer satisfaction. *Medical Care* 1981; **19(2):** 127-140. DOI link, PMid:7206846

16 Saurman E. Improving access: modifying Penchansky and Thomas's theory of access. *Journal of Health Services Research and Policy* 2016; **21(1):** 36-39. DOI link, PMid:26377728

17 Toronto EC. Overview of the integrative review. In: EC Toronto, R Remington (Eds). *A step-by-step guide to conducting an integrative review.* Cham: Springer, 2020; 1-9. DOI link

18 da Silva RN, Brandão MAG, Ferreira MA. Integrative review as a method to generate or to test nursing theory. *Nursing Science Quarterly* 2020; **33(3):** 258-263. DOI link, PMid:32605480

19 Whittemore R, Knafl K. The integrative review: updated methodology. *Journal of Advancing Nursing* 2005; **52(5):** 546-553. DOI link, PMid:16268861

20 Moher D, Liberati A, Tetzlaff J, Altman DG, PRISMA Group. Preferred reporting items for systematic reviews and meta-analyses: the PRISMA statement. *PloS Medicine* 2009; **6(7):** e1000097. DOI link, PMid:19621072

21 CASP. *CASP Checklists.* Available: web link (Accessed 24 April 2023).

22 Joanna Briggs Institute. *Critical appraisal tools.* Available: web link (Accessed 24 April 2023).

23 Hong QN, Pluye P, Fàbregues S, Bartlett G, Boardman F, Cargo M, et al. Mixed Methods Appraisal Tool (MMAT), v 2018. *Education for Information* 2018; **34(4):** 285-291. DOI link

24 Contractor S, Das A, Dasgupta J, Van Belle S. Beyond the template: the needs of tribal women and their experiences with maternity services in Odisha, India. *International Journal for Equity in Health* 2018; **17:** 134. DOI link, PMid:30244683

25 Dehury RK. Access and barriers to maternal health program: a community perspective in a tribal area of Odisha, India. *Asia Pacific Journal of Social Work and Development* 2022; **33(2):** 127-143. DOI link

26 Jungari S, Paswan B. Supported motherhood? An examination of the cultural context of male participation in maternal health care among tribal communities in India. *Journal of Biosocial Science* 2020; **52(3):** 452-471. DOI link, PMid:31599220

27 Jungari S, Paswan B. What he knows about her and how it affects her? Husband's knowledge of pregnancy complications and maternal health care utilization among tribal population in Maharashtra, India. *BMC Pregnancy Childbirth* 2019; **19:** 17. DOI link, PMid:30760234

28 Nair S, Adhikari T, Juneja A, Gulati KB, Kaur A, Rao MV. Community perspectives on men's role in the utilisation of maternal health services among Saharia Tribes in Gwalior, Madhya Pradesh, India: insights from a qualitative study. *Maternal and Child Health Journal* 2021; **25(5):** 769-776. DOI link, PMid:33215331

29 Sahoo M, Pradhan J. Using three delay model to understand the social factors responsible for neonatal deaths among displaced tribal communities in India. *Journal of Immigrant and Minority Health* 2021; **23(2):** 265-277. DOI link, PMid:32107720

30 Akter S, Davies K, Rich JL, Inder KJ. Community perspectives of barriers Indigenous women face in accessing maternal health care services in the Chittagong Hill Tracts, Bangladesh. *Ethnicity and Health* 2022; **27(5):** 1222-1240. DOI link, PMid:33356512

31 Akter S, Davies K, Rich JL, Inder KJ. Prevalence and factors associated with knowledge and access to delivery services at primary health care facilities amongst Indigenous women in Khagrachhari district Bangladesh – A cross-sectional study. *Midwifery* 2020; **90:** 102798. DOI link, PMid:32717661

32 Mulikaburt T, Apidechkul T, Wongnuch P, Kitchanapaibul S, Udplong A, Srichan P, et al. Components of stigma and its impact on maternal and child health service and outcomes: perspective of Akha hill tribe women in Thailand. *BMC Health Services Research* 2022; **22(1):** 1263. DOI link, PMid:36261838

33 Munro J, Katmo ETR, Wetipo M. Hospital births and frontier obstetrics in urban West Papua. *The Asian Pacific Journal of Anthropology* 2022; **23(4/5):** 388-406. DOI link

34 Gamlin J, Holmes S. Preventable perinatal deaths in Indigenous Wixárika communities: an ethnographic study of pregnancy, childbirth, and structural violence. *BMC Pregnancy Childbirth* 2018; **18:** 243. DOI link, PMid:29914405

35 Gamlin J, Osrin D. Preventable infant deaths, lone births, and lack of registration in Mexican Indigenous communities: health care services and the afterlife of colonialism. *Ethnicity and Health* 2020; **25(7):** 925-939. DOI link, PMid:29920122

36 Juárez-Ramírez C, Nigenda G, Sauceda-Valenzuela AL, Villalobos A. Lags in the provision of obstetric services to Indigenous women and their implications for universal access to health care in Mexico. *Sexual and Reproductive Health Matters* 2020; **28(2):** 1778153. DOI link, PMid:32757830

37 Peca E, Sandberg J. Modeling the relationship between women's perceptions and future intention to use institutional maternity care in the Western Highlands of Guatemala. *Reproductive Health* 2018; **15:** 9. DOI link, PMid:29325572

38 Sacks E, Alvarez MM, Bancalari P, Alegre JC. Traditions and trust: a qualitative study of barriers to facility-based obstetric and immediate neonatal care in Chiapas, Mexico. *Women's Health* 2022; **62(6):** 522-531. DOI link, PMid:35726714

39 Austad K, Juarez M, Shryer H, Hibberd PL, Drainoni ML, Rohloff P, et al. Improving the experience of facility-based delivery for vulnerable women through obstetric care navigation: a qualitative evaluation. *BMC Pregnancy Childbirth* 2021; **21(1):** 425. DOI link, PMid:34116648

40 Austad K, Juarez M, Shryer H, Moratoya C, Rohloff P. Obstetric care navigation: results of a quality improvement project to provide accompaniment to women for facility-based maternity care in rural Guatemala. *BMJ Quality and Safety* 2020; **29:** 169-178. DOI link, PMid:31678958

41 Perry FM, Coyote EI, Austad K, Rohloff P. Why women choose to seek facility-level obstetrical care in rural Guatemala: A qualitative study. *Midwifery* 2021; **103:** 103097. DOI link, PMid:34343832

42 Del Mastro NI. Providing culturally competent and universal health care in the Peruvian Amazon: The role of medical authority. *Social Science and Medicine* 2022; 315. DOI link, PMid:36410137

43 Carpio-Arias TV, Verdezoto N, Guijarro-Garvi M, Abril-Ulloa V, Mackintosh N, Eslambolchilar P, et al. Healthcare professionals' experiences and perceptions regarding health care of Indigenous pregnant women in Ecuador. *BMC Pregnancy Childbirth* 2022; **22(1):** 101. DOI link, PMid:35120490

44 Steele V, Patterson K, Berrang-Ford L, Nia K, Kulkarni M,

Namanya D, et al. Factors influencing antenatal care attendance for Bakiga and Indigenous Batwa women in Kanungu District, Southwestern Uganda. *Rural and Remote Health* 2021; **21(3):** 99-110. DOI link, PMid:34218663

45 Wilson M, Patterson K, Nkalubo J, Lwasa S, Namanya D, Twesigomwe S, et al. Assessing the determinants of antenatal care adherence for Indigenous and non-Indigenous women in southwestern Uganda. *Midwifery* 2019; **78:** 16-24. DOI link, PMid:31336220

46 Ibrahima AB. Exploring maternal health in Ethiopia using indigenous approaches: policy and practice implications. *Research on Social Work Practice* 2021; **31(4):** 343-350. DOI link

47 Ombere SO, Haller T, Nyambedha E, Merten S. Cultural practices during pregnancy and birth among the Giriama community in coastal Kenya: a qualitative study. *International Journal of Childbirth* 2021; **11(4):** 154-165.

48 Hitziger M, Berger Gonzalez M, Gharzouzi E, Ochaíta Santizo D, Solis Miranda R, Aguilar Ferro AI, et al. Patient-centered boundary mechanisms to foster intercultural partnerships in health care: a case study in Guatemala. *Journal of Ethnobiology and Ethnomedicine* 2017; **13(1):** 44. DOI link, PMid:28789670

49 World Health Organization. *WHO Traditional Medicine Strategy 2014-2023.* Geneva: World Health Organization, 2013. DOI link

50 Reinders S, Alva A, Huicho L, Blas M. Indigenous communities' responses to the COVID-19 pandemic and consequences for maternal and neonatal health in remote Peruvian Amazon: a qualitative study based on routine programme supervision. *BMJ Open* 2020; **10:** e044197. DOI link, PMid:33376182