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Systematic review and narrative synthesis of the key barriers and facilitators to the delivery and uptake of primary healthcare services to women in Pakistan

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ABSTRACT

Objectives The objective of this review is to (1) identify barriers and facilitators with respect to women's health services at a primary care level based on a systematic review and narrative synthesis and (2) to conclude with recommendations for better services and uptake.

Design Systematic review and narrative synthesis.

Data sources PubMed, BMC Medicine, Medline, CINAHL and the Cochrane Library. Grey literature was also searched.

Eligibility criteria Qualitative, quantitative and mixed studies were included in the review.

Data extraction and synthesis The search took place at the beginning of June 2021 and was completed at the end of August 2021. Studies were included in the review based on the Sample, Phenomenon of Interest, Design, Evaluation, Research type criteria. The quality of the included studies was assessed using the Mixed Methods Appraisal Tool. Data were synthesised using a narrative synthesis approach.

Results A total of 33 studies were included in the review. We identified six barriers to the delivery of effective primary healthcare for women's health which have been organised under two core themes of 'service barriers' and 'family/cultural barriers'. Ten barriers to the uptake of primary healthcare for women have been identified, under three core themes of 'perceptions about healthcare service', 'cultural factors' and 'practical issues'. Three facilitators of primary healthcare delivery for women were identified: 'motivating community health workers (CHWs) with continued training, salary, and supervision' and 'selection of CHWs on the basis of certain characteristics'. Five facilitators of the uptake of primary healthcare services for women were identified, under two core themes of 'development of trust and acceptance' and 'use of technology'.

Conclusions Change is needed not only to address the limitations of the primary healthcare services themselves, but also the cultural practices and limited awareness and literacy that prevent the uptake of healthcare services by women, in addition to the wider infrastructure in terms of the provision of financial support, public transport and child care centres.

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STRENGTHS AND LIMITATIONS OF THIS STUDY

⇒ The Mixed Methods Appraisal Tool was used to assess the quality of the included studies.
⇒ Narrative synthesis allowed us to analyse heterogeneous data from qualitative, quantitative and mixed-methods research.
⇒ The search strategy was limited to the English language and barrier and facilitators to delivery and uptake at primary level. We did not include studies of the tertiary sector, which may have contained relevant information about liaison with primary care.

INTRODUCTION

Pakistan has an estimated population of 112 million women,[1] the majority of whom are poor[2] and do not have access to out-of-pocket expenses for health.[3] Achieving the health-related Sustainable Development Goals is not possible without full coverage of this population by a comprehensive set of primary healthcare services and equitable health access for all women.[4] The state-run primary health services for women are managed by women community health workers (CHWs), which includes: (1) lady health workers (LHWs) and female health visitors, (2) community midwives (CMWs) and (3) traditional birth attendants (TBAs). The main services that LHWs provide include family planning, maternal and reproductive health services, vaccination and counselling. CMWs are trained by the government for a few months and are then free to practice privately; whereas TBAs are also trained briefly for safe delivery, provided with safe delivery packages and are then free to practice privately within the community. The main investment in recruitment to date has been for the LHW programme, with approximately 110 000 deployed across the country,

followed by 5000–6000 CMWs.[5] There are no estimates of how many TBAs have been trained by the state. LHWs are delivered at community basic health units (BHUs) or rural health centres (RHCs), but also serve clients directly on their door-step. Similarly, CMWs and TBAs provide door-to-door services.

Although the LHW programme is considered a success in improving contraception uptake and supporting reproductive health,[6 7] on the whole maternal health indicators in the country are still unsatisfactory.[8] This reflects a number of structural problems in terms of both the delivery and uptake of primary healthcare services including the fact that the overall health budget for Pakistan is less than 0.8% of gross domestic product.[9] Other known barriers to the delivery of effective primary healthcare services in developing regions include: (1) a lack of training for health professionals with significant skills gaps,[10] (2) low allocation of funds for identified priorities[11] and (3) inadequate service planning and delivery.[12] Other problems such as insufficient incentivisation, staffing shortages, inadequate supplies and unfavourable work environments also represent significant barriers to delivery.[13 14]

In addition to the LHW programme, the Sehat Sahulat Programme was launched in Pakistan to provide a health card to poor populations, and covers hospitalisation costs up to PKR460 000/US$2076.75 per year,[15] and universal health coverage in the Khyber Pakhtunkhwa (KPK) province.[16] Although, the programme claims to have benefited 7.2 million families, there is no evidence about outreach to women beneficiaries, or plans to scale up the programme for the wider population of women in Pakistan.

In terms of uptake, one of the major problems is that women have little autonomy as regards the decision to use primary care services and very little knowledge about the importance of health-seeking.[17] Many women, especially younger and unmarried women, do not have permission from the family to access primary healthcare services,[17] and when women do have permission, they are hampered from doing so by distance, lack of time and domestic burdens.[18] For specific health problems such as family planning and mental health, women face considerable barriers due to stigmatisation and religious beliefs, compelling them to either abandon their healthcare needs or to seek services from faith healers.[19] In addition to cultural restrictions, there is also a lack of trust and acceptance of physicians and CHW, contributing to significant barriers to uptake of health services.[20 21] Conversely, known facilitators of primary healthcare service uptake in conservative regions include: (1) health provider communication and nativity[22] and (2) social support and encouragement from significant others.[19]

Aim of the review

Ultimately, primary healthcare services are central to improving the health and well-being of the women of Pakistan and improving preventive health practices. Identifying the known barriers and facilitators to primary healthcare is vital in order to enable prudent planning and reform for the health sector.[23] Although research on the barriers and facilitators to the uptake and delivery of primary care services for women in Pakistan has developed apace over the past decade, there are currently no systematic reviews that have synthesised this literature. Therefore, the aim of this study is to systematically review barriers and facilitators to the delivery of primary healthcare services for women in Pakistan and to advise recommendations for improved services.

METHODS

Search strategy

A systematic review and narrative synthesis was undertaken. The following electronic databases were searched: PubMed, BMC, Medline, CINAHL and Cochrane Library. The grey literature search was conducted using the following databases: Google, Google Scholar, WHO website and Government of Pakistan Health Ministry websites. Detailed information about the search strategy, search terms, inclusion and exclusion criterion, and methods for this study can be found in the published protocol.[24] A summary of the search terms and database search results can be found in online supplemental file 1. The search was initiated at the beginning of June 2021 and was completed at the end of August 2021. All published data prior to August 2021 was searched.

In accordance with the stated eligibility criteria, studies were included in the review based on the following criteria which have been formulated using the Sample, Phenomenon of Interest, Design, Evaluation, Research type framework[25]: (1) Sample: women using primary healthcare services or providers of primary healthcare to women in the community; (2) Phenomenon of Interest: primary healthcare service delivery for women. Studies not at primary or community level, or including analysis at tertiary level, were excluded; (3) Design: published literature in peer-reviewed academic journals and with a clearly stated research design; (4) Evaluation: identification of the barriers and facilitators to the delivery of primary healthcare services; (5) Research type: qualitative, quantitative and mixed studies were included in the review. Interventions, case–control studies and prospective studies were excluded from this review. Language was restricted to English.

Initial screening

An initial screening of studies was undertaken by the lead investigator for this study based on titles. In the second screening, titles and abstracts were evaluated.

Data extraction

The following information was abstracted by SRJ and reviewed by JB from the studies that met our study criteria: study design, setting, participant type, sample size, aim, barriers and facilitators.

Critical appraisal

The quality of the articles was assessed using the Mixed Methods Appraisal Tool (MMAT) by SRJ and reviewed by JB.[26] All the studies had a high MMAT score, except two studies, which were of medium quality. These studies (one mixed methods and one quantitative) were poorly written and had weak data analysis, but they were included in the review as they had clearly identified barriers and facilitators to delivery. The appraisal of the included studies has been summarised in online supplemental file 2.

Data synthesis

Studies from databases were transferred into EndNotes Software. After exclusion of duplicates, studies were transferred to an Excel template for data extraction and organisation of data. Following the final selection of included studies, separate tabs were created for organisation in the following steps: step 1—extraction of study characteristics; step 2—extraction of barriers and facilitators from each study and step 3—grouping of barriers and facilitators under common and similar codes to create overarching themes. A detailed summary of the data extracted in terms of the individual barriers and facilitators identified by each study are reported in online supplemental file 3. The preliminary narrative synthesis was undertaken independently by the lead author and then discussed and agreed with the second author. To further minimise bias, findings were discussed with the following health experts: three female medical physicians with experience in community health and public health services; two currently practising LHWs; and three officers from the Primary and Secondary Healthcare Department, Punjab. Everyone was in agreement with the findings.

Patient and public involvement

No patient or public was involved in this study. This study is a systematic literature review.

RESULTS

Study characteristics

A total of 127 337 publications were identified, of which 22 715 were duplicates. After duplicates were removed 104 621 hits remained and were screened based on their titles. All studies not related specifically to Pakistan were removed and a review of the abstracts of 243 publications was undertaken. Twenty-one studies met all the study criteria and were included in the review. The search results and details have been reported using the Preferred Reporting Items for Systematic Reviews and Meta-Analyses flow chart, presented in figure 1.

Included studies were published between the years 2003 and March 2021, of which: (1) 3 studies included both qualitative and quantitative data—mixed-method studies; (2) 16 studies included qualitative data and (3) 2 studies included only quantitative data. Online supplemental file 4 includes information about the complete study citation, research design, study aim, sampled participants and the setting of the data collection. The included studies described barriers and facilitators from the perspective of the following groups: (1) LHWs alone (n=1); (2) women clients and different CHWs (n=02); (3) women clients and spouse (n=02); (4) women alone (n=03); (5) women, spouse and CHWs (n=03); (6) CHWs and district-level managers of primary health and maternal health programme (n=04) or (7) women, their family members (husband, mothers-in-law), healthcare providers (HCPs) and CHWs (n=06).

A majority of the studies sampled participants from one city or district town (n=10). Five studies sampled participants from multiple districts or cities within one province, while another five studies sampled multiple districts from two provinces. One study was nationally representative and collected data from multiple districts across all four provinces of the country. Whereas, nine, eight and seven of the studies collected data from Sindh, Punjab and KPK provinces, respectively. Only one study collected data from Balochsitan. There was no sampling or representation in the included studies for the province of Gilgit Baltistan or the Pakistan administered Azad Kashmir.

Barriers to the delivery of primary healthcare services

Barriers to delivery

We identified six barriers to the delivery of effective primary healthcare services for women's health, which have been organised under two core themes: (1) Service barriers—(a) inadequate training; (b) centre unresponsiveness and inefficient monitoring; (c) employment and contractual problems; (d) BHU provider teamwork and communication problems and (e) distance and coverage. (2) Family/cultural barriers—(f) family restrictions including perceptions about safety and work–family conflict in CHWs.

Service barriers

Inadequate training

TBAs who are young and inexperienced were perceived to have insufficient understanding about treatment management and to be in need of more comprehensive and ongoing training to deliver services.[27] Similarly, village-based family planning volunteers who are deployed after just 7 months of preparation, were perceived to have been insufficiently well trained to deal with other maternal health issues with which clients requested help.[28] The LHWs who received a longer period of training (ie, 15 months) were also perceived to be insufficiently well trained and lacking ongoing support in terms of having up-to-date information about the health needs of women.[28] Other training needs that were identified included managing client records efficiently in terms of facilitating coordination with other HCPs.[28] CMWs themselves felt that although their theoretical knowledge was sound, they needed more practical training for skill development and for ongoing lectures to be more regular and conducted in their local language (ie, not in the English language).[29]

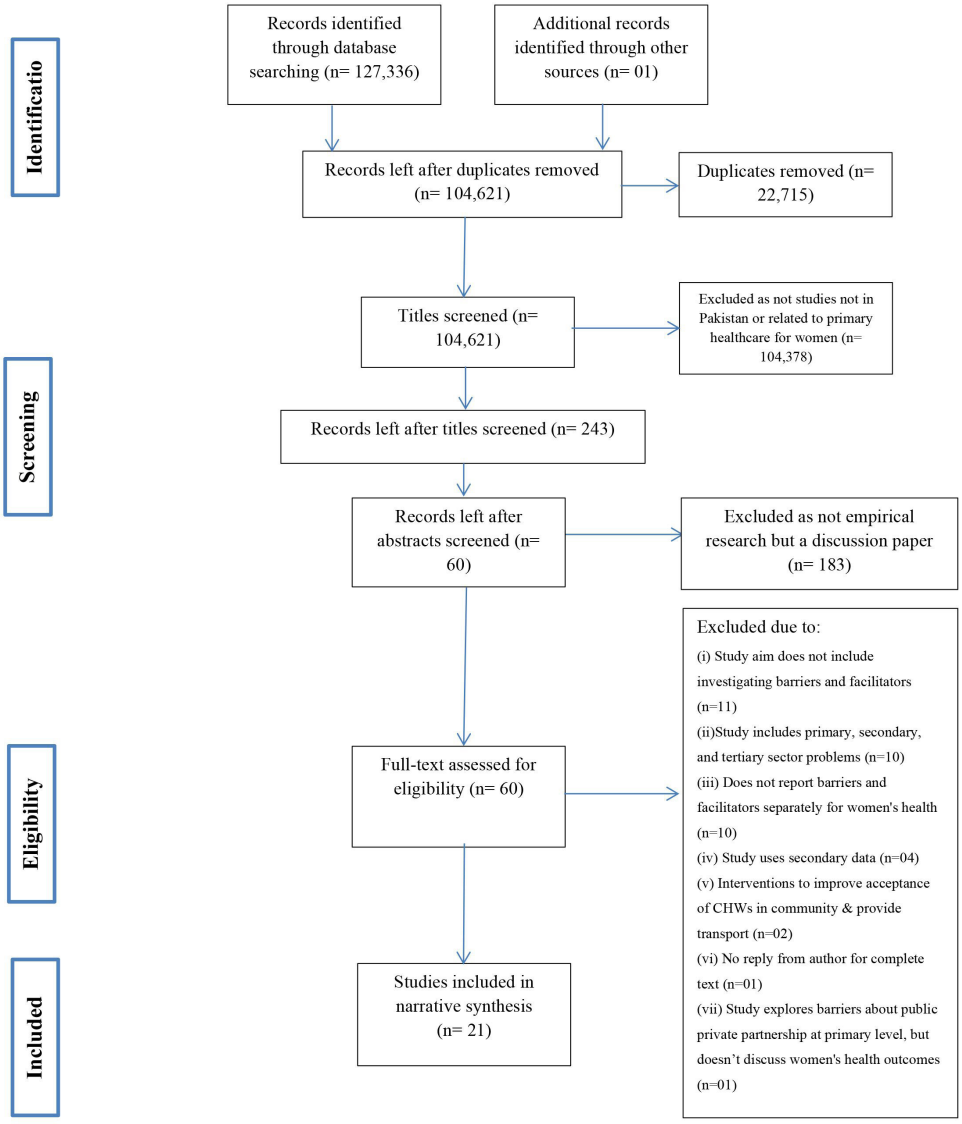

Figure 1 Preferred Reporting Items for Systematic Reviews and Meta-Analyses flow chart. CHWs, community health workers.

Centre unresponsiveness and inefficient monitoring

There was perceived to be inadequate support from the district health department that supplies resources and supervises the BHUs, and problems were identified relating to a lack of response and support from the centre. First, there was felt to be a lack of or shortage of supplies and major delays in their delivery,[29–31] specifically for family planning supplies[32] and injectables.[33] Second, an inefficient response for referrals to the secondary and tertiary care providers was identified,[29 31 34] which prevents or significantly delays services for critical health needs, including mental health.[35] Other studies confirmed an absence of response to requests for information and updated knowledge to support women's health needs[28 30 36] and requests for much needed resources, supplies and training to provide services for emergency obstetric care, female adolescent health and teenage pregnancies.[28]

Lack of monitoring and inefficient policy-making from the centre was also perceived to result in many of the HCPs working at the BHU setting up private facilities, thus compromising their service delivery and ethics.[36] This was felt to be due to the fact that HCPs are perceived to have low attendance at the BHUs when they engage in dual practices, and that they also pay less attention to public sector clients and try to coerce them to visit the private facilities to gain remuneration. Although CMWs have been trained by the district health office, they are not monitored for active practice, and one study reports that only eight out of the 38 CMWs sampled are active providers in the community.[7] Lack of monitoring and quality services have led to significant under-utilisation of public facilities, with many women clients opting for private healthcare services if they can afford it, or choosing local and cheap providers or home remedies for the relief of health problems.[37]

Employment and contractual problems

BHU providers described facing significant employment problems causing a great deal of stress and job insecurity.[36]

Many CHWs complained of a lack of role clarity and difficulty in understanding the range of services they are expected to provide.[36] The BHU providers, especially the LHWs and CMWs described receiving very low salaries, which in turn was felt to adversely affect their job commitment and satisfaction levels.[29 36] Some interviewees described staff as being underpaid[31 36] and being paid irregularly due to mismanagement or fund release issues from the centre,[28 31] forcing staff to take on other jobs or small contracts to make ends meet. Staffing shortages and an overwhelming workload, were perceived by many CHWs as preventing them from providing the range of services expected.[28 33 36] In addition, excessive workload was also described as preventing them from delivering services to their entire caseload, or the need to deliver infrequent, rushed and suboptimal door-to-door services.[38]

BHU provider teamwork and communication problems

The BHU team described an absence of teamwork and communication problems as preventing them from delivering services based on coordinated planning and effective feedback.[36] Conflict and improper power distribution were also highlighted, leading to an unwillingness to communicate and work together for patient management and care plan development.[36] Women HCPs working at the BHU described disrespect from male colleagues.[31]

Distance and coverage

BHU locations are expected to cover a large population area, up to 25 000 people in one community, creating challenges for CHWs in reaching and delivering door-to-door services to women clients who are living far from the BHU.[38 39] Similarly, women clients are described as being less likely to visit distant BHUs, as the majority do not have time for travel, or transport facilities are not available.[17] Some women clients who have to pay for transport and travel long distances for primary healthcare, end up opting for private facilities or then visiting tertiary care services instead, as they believe their time and finances are better spent on services that provide them with better quality care.[40]

Family/cultural barriers

Family restrictions included perceptions about safety and work–family conflict in CHWs

Specifically, CMWs described restrictions from family members in delivering services, including visiting the home of clients as part of home delivery of services.[30] A number of family members, including the spouse and in-laws, were described as preventing the CMWs from continuing practice or delivering services. CMWs also described being prevented by family members from travelling long distances within the community and from continuing work during their own pregnancies. This was perceived to make the development of trust and the provision of a continuum of care with clients difficult for CMWs. LHWs also described the conflict between family and work responsibilities, explaining how not attending family gatherings due to work was not regarded as being culturally acceptable and led to breaks in family ties and estranged relations with family members.[31]

CMWs complained that they were either prevented by their family from travelling alone and travelling after dusk due to concerns by male partners about their safety and security,[30 33] especially during emergencies[30]; alternatively, they were required to be accompanied by their father or husband.[31] This was more frequently referred to by CMWs from underserved regions, with less patrols and higher crime rates.

Barriers to uptake

Ten barriers to the uptake of primary healthcare for women were identified, under three core themes: (1) Perceptions about healthcare service—(a) preference for traditional services; (b) mistrust of biomedically based services; (c) perceptions about provider inefficiency; (d) low health literacy. (2) Cultural factors—(e) decision-making in families; (f) stigma and cultural disapproval; (g) role of religion; (h) chaperoning issues. (3) Practical issues—(i) transport, time and finances.

Perceptions about healthcare service

Preference for traditional services

Women were viewed as preferring to receive services from traditional providers within the community, who are known to them and accepted by their family and in-laws.[30] Local providers and TBAs are trusted for being experienced, having delivered the children of relatives and neighbours and being a part of the community, despite their lack of licensing; they are also accepted as skilled and empathetic providers.[31] Many women were also perceived to prefer the TBA, as there is no requirement for prenatal checkups and registration, and the TBAs can be called on immediately prior to the delivery.[39] Local providers are as such viewed as being less problematic and time-consuming, and the management of pregnancy and the delivery are consistent with what mothers and mothers-in-law did in the past.[39]

Mistrust of the biomedical model

There is great fear with respect to biomedical health services, and what are perceived to be unnecessary recommendations for surgery by HCPs.[33 41] Local unlicensed providers are preferred because they only prescribe medicines and are not known to offer surgical interventions. There is also mistrust of the HCPs with respect to time management and the prescribing of medicines and tests.[34] The belief is that the HCPs are trained through the biomedical model to prescribe multiple tests and medicines regardless of disease type or severity. Due to this fear and mistrust, many women prefer to access state provided primary care services only as a last resort.

Perceptions about provider inefficiency

Women's uptake of healthcare is significantly influenced by perceptions about provider inefficiencies

and shortfalls. Many women complain that the communication level of providers is inadequate as they do not understand guidance or instructions, and as such they are unable to provide follow-up.[33] Women clients in particular find it difficult to: (1) share their symptoms and medical history, (2) understand instructions for family planning and (3) follow guidelines for when and where to seek referrals.[33] There are also complaints with regard to non-availability of staff at the BHU and poor quality of care when HCPs are present.[38] Many women who visit the BHUs have to turn to private facilities due to unavailability of HCP or poor quality of services.[39]

Low health literacy

The literature suggests that there is very little awareness on the part of women about the necessity of healthcare being provided by trained maternal health staff,[27 38] or the importance of family planning[33] and basic health issues such as influenzas and viruses.[42] One study found that even women who had a child aged 5 years or younger, were not aware of the recommended minimum number of antenatal care visits to be made during pregnancy.[39] Due to the lack of health literacy, there is also limited recognition of early symptoms or the need for early healthcare.[34] One study identified that awareness and ability to recognise depression and mental health problems was very low in women, leading to its progression and health-seeking only when symptoms are advanced and prognosis is poor.[35] Indeed, one study found that most women believed that trained providers and BHUs were only to be approached in the event of an emergency or major health problem.[39] As such, early check-ups are not common, and pregnant women typically only visit health facilities if they experience complications or danger signs, such as heavy bleeding or headaches.[37] This low awareness and literacy was perceived to be a significant factor in the lack of engagement and active involvement in their own healthcare.[43]

Cultural factors

Decision-making in families

Many of the women are not able to make their own decisions with regard to the management of their own health and do not have approval from family members to access services.[27 34 40 43] Permission and final decision-making for health is mostly controlled by husbands, and mothers-in-law,[37 39–42] followed by sisters-in-law and other elders in the home.[33] Some of the underpinning reasons for the above include: (a) it is not culturally acceptable for women to travel alone[17] or access services outside the home[34 41]; (b) a cultural belief that women should not control decision-making with regard to health[34 35]; (c) low literacy and awareness on the part of husbands about women's health needs and the risks to their health[32] and (d) a lack of finances allocated for women's health within the family.[17]

Stigma and cultural disapproval

Women's health needs and health-seeking is associated with stigma and cultural disapproval.[43] In most families, women are considered to be inferior and their health needs to be the cause of shame.[32] This prevents women from sharing their health needs or seeking healthcare for early signs of disease. Stigma and shame also lead many women to seek healthcare clandestinely or from faith healers located conveniently within the community.[35] Cultural disapproval for health-seeking in women, especially for maternal health, which is considered a normal and private process, is part of the socialisation of family members. Younger women who are not married are especially prevented from seeking healthcare or visiting practitioners, as news of any health problems may compromise their ability to receive the best and timely marriage proposals.[17] Vaccine hesitancy and refusal to take vaccines are also associated with cultural disapproval and uncertainty about long-term side effects on women's fertility.[42] There is cultural disapproval for the use of condoms as it is associated with promiscuity and sexually transmitted diseases in men.[33] Thus, the overall culture is for health to be left in 'the hands of God' and 'the divine master plan', and for women to remain passive as opposed to active in health-seeking.

Role of religion

The role of religious beliefs and religious clergy in the health-seeking behaviour of women also appears to be significant. One study identified that many religious leaders do not allow family planning or postabortion care services, with some religious leaders claiming that accessing such] services is a 'sin'.[38 41] Almost one-third of women do not use family planning because they believe it is prohibited by their religion.[32] Communities with a higher ratio of religious clerics and local Imams (religious leaders) report the lowest uptake of family planning and reproductive health services.[33] One study also identified that religious leaders promote the ideology that the use of family planning services and biomedical healthcare is a Western agenda aimed at eroding family values and adversely impacting fertility in Muslim populations.[33]

Chaperoning issues

When transport is available, many women are nevertheless still prevented from taking up health services due to the unavailability of chaperones, which have to be Mehrams (male members of family with whom marriage would be considered illegal in Islam and with whom veiling is not necessary).[37] Mehrams include only the father, husband, brother or son. Many women who are married and living with husbands do not have chaperones, as their husbands are usually working during the day and may not have the time to take their wives for health visits, unless it is an emergency and they are given leave from work. Another study mentioned that the presence of a 'companion' was important when women left the home and if none was available, then women did

not have permission from husband or in-laws, even for health visits.[44]

Practical issues

Transport, time and finances

There is very little access to public transport for women attempting to access health services that are not within walking distance from their home.[27 33 41] Even when roads and infrastructure exist, there is poor availability of public transport, especially in remote and rural locations.[37] One study found that women were perceived to have very little time to access health services due to the unequal division of labour within the household.[27] Women spend their day fulfilling their responsibilities for the home, children and other dependents living in the house, such as the ageing, sick and disabled. The fact that women are busy performing household chores and fulfilling childcare routines, was perceived by interviewees in another study to be a significant factor in the failure to detect early signs of health problems or to take time out for healthcare.[39]

Women reported not having money with which to access healthcare.[27] Though primary level healthcare services are free of cost, women still need money for prescription drugs, transport, secondary or tertiary care referrals, and lab tests.[27 41] Contracted BHUs to the private sector were described in one study as administering fees for services that the centre is not funding, such as for example antenatal services, delivery registration and additional diagnostics, and these user charges are serving as a deterrent for utilisation in women.[40] Many women are also unable to access family planning products free of cost, despite the government claim that they are available free.[33]

Overall, household poverty negatively influences the decision in women and families to access early and preventive health services such as prenatal and postnatal care, and postabortion care.[41] This is why many families choose to deliver the child at home with the help of a Dai (a local unlicensed midwife), as the cost is 1/10th than that of natural delivery at a public healthcare institute.[34 38] The cost of travelling to a private clinic or healthcare unit for delivery is even more expensive and may require repeat visits of multiple family members, and thus home delivery by a local midwife is preferred over incurring transportation costs.[34 39] Affordability is a major issue which prevents women from seeking healthcare until the last possible resort or when there is a health emergency.[35] Where poor-class and middle-class families have limited finances available for healthcare, women's health is not prioritised for financing and this money is saved for male members of the family due to the patriarchal culture.[37]

Facilitators of the delivery of primary healthcare services

Two facilitators of primary healthcare delivery for women were identified: (1) motivating CHWs with continued training, salary and supervision and (2) selection of CHWs on the basis of certain characteristics.

Motivating CHWs with training, salary and supervision

Peer volunteers are an important resource in the community setting in terms of the delivery of maternal health services because they are known and accepted by local women, but they need to be trained adequately and provided with ongoing professional development.[43] Furthermore, peer volunteers were perceived to need to be appropriately incentivised with adequate supervision and satisfactory salaries to keep them motivated to deliver optimal services.[43] Most CHWs were working due to household poverty, and so adequate salary and appropriate increments were important for their retention.[7]

Selection of CHWs on the basis of particular characteristics

A number of studies identified factors that appear to be associated with a higher level of motivation to continue to deliver services. First, CMWs who are from poor families and are primary income-earners for their families are known to remain in the profession and continue to deliver good services that are respected.[7] Second, better quality services are delivered by CMWs who have 'intrinsic individual characteristics' in terms of (1) knowing how to establish and maintain a private practice, (2) having a strong business sense; (3) professionalism and (4) providing maternity care in a respectful manner.[7] Third, CMWs who receive family support and approval to remain in their profession and continue their service delivery, were also perceived to be more motivated and committed providers.[7] Motivation to work and provide better services in CHWs was also influenced by receiving support from their family for housework and childcare.[43]

Facilitators of uptake

Five facilitators of the uptake of primary healthcare services for women were identified, under two core themes: (1) Development of trust and acceptance: (a) hiring of local CHWs who are married and have children; (b) use of culturally sensitive methods; (c) development of community-based savings groups (CBSGs); (d) securing the support of wider family. (2) Use of technology.

Development of trust and acceptance

Hiring of local CHWs who are married and have children

CHWs and peer volunteers from within the community were perceived to be more generously accepted by women clients as there is greater association and trust.[39 43] Local CHWs have the advantage of language matching and speak the exact same dialect with a familiar accent, which makes them more appealing to the women clients.[43] Due to greater trust and belief that community women will not harm them or give them ill advice, more referrals for consultancy and testing is taken up.[35] A majority of women are also willing to accept guidance and recommendations for vaccine coverage and immunisation when recommended by a trusted local CHW.[42]

CHWs who are married and have children are perceived to be more acceptable to women clients as they are found to be more empathetic and respectful providers.[43]

Married CHWs who have children are able to build friendships with the women clients and share experiences of motherhood and delivery.[43] This helps women clients to build trust with the CHW and to look forward to visits and the maintenance of the relationship for ongoing health management and preventive services.

Use of culturally sensitive methods

The design and use of culturally sensitive methods was perceived in some studies to add to the legitimacy and credibility of health services and to encourage family-level support for women's uptake of services. For example, in group educational sessions including women, husbands and mothers-in-law, one study found that pictorial illustrations of women in local dress performing safe maternal health practices facilitated acceptance and uptake.[43] Another study found that printed material and Television programmes about health awareness in local languages facilitated uptake, as familiarity with language helped women to consider the health directive to be part of the regional culture[35]

Development of CBSGs

The complex financial issues facing women in the community pertain not just to family poverty, but also debt burden and high dependency ratios within the household. CBSGs have been found to support women not just to pool their money, but also to facilitate the sharing of information and discussion of issues related to reproductive health, including the benefits of skilled delivery and the important role of CMWs.[45] It was also found that women members of CBSG were more likely to seek healthcare from TBAs and other skilled providers, and have higher utilisation of maternal and neonatal health services.[45] Another study found that women were more likely to be able to access emergency healthcare when they had personal savings or were involved in informal savings groups and good relations with their friends and neighbours.[38]

Securing the support of wider family

Uptake of health services is strongly influenced by the support of family members, friends and local trusted LHWs.[45] When family and community members encourage and support health-seeking, women clients find it easier to receive and follow-up with healthcare appointments.[37 39]

Use of technology

As a result of the COVID-19 pandemic, some LHWs were provided with smartphones to facilitate women clients being referred to specialist providers. These telehealth services were not only accepted by women in the community, but satisfaction with services and clinical outcomes were also found to be favourable.[46] In another study, an international funding agency delivered telehealth services to rural women in a one-off project, linking them with underemployed female doctors in major cities and supporting them with digital X-rays at their homes.[17] However, limitations were highlighted: (1) LHWs in rural areas are not provided with smartphones by the employer, (2) most women clients do not have access to independent technological equipment (computer or smartphone) or consistent internet to utilise telehealth services without the help of the LHW[46] and (3) there are no government plans for upscale, maintenance and financing of telehealth services in Pakistan.[17]

DISCUSSION

Summary of review

The development and delivery of an effective primary healthcare system has not to date been a priority in Pakistan, and as such there have been limited attempts to synthesise what is known about the barriers and facilitators to effective service delivery.[47] This is the first systematic review of the literature aimed at addressing this gap. Reviews of this nature are essential to better policy planning within the primary healthcare sector, especially in developing regions.[48] It is also the case that country-specific systematic reviews are best able to identify regional barriers and facilitators to guide national health policy.[49] We have been able to identify important barriers and facilitators to delivery and uptake, and thereby to develop some recommendations for reform from the reviewed studies.

The key barriers in terms of the uptake of primary healthcare services related not only to misperceptions about the healthcare service, and to practical issues related to having the time and means to access the services but also cultural factors in terms of the limited health decision-making rights of women, stigma and cultural disapproval with regard to matters related to women's health, and religious edicts preventing health-seeking behaviours. Issues related to the development of trust and acceptance, including the use of culturally sensitive methods and attempts to secure support for primary healthcare from the wider family, in addition to a more effective use of technology were identified as key facilitators of the uptake of primary healthcare services for women.

The most significant barriers to the delivery of effective primary healthcare in terms of improving women's health were not only service related, but also related to wider family/cultural issues. So, while many interviewees identified problems relating to inadequate training; centre unresponsiveness and inefficient monitoring etc, wider problems related to perceptions about safety and work–family conflict in CHWs, mistrust of biomedically based services; perceptions about provider inefficiency; low health literacy, and restrictions by their families preventing CHWs from travelling alone to deliver services and travel after dusk were also identified as important barriers.

The key facilitators of more effective primary healthcare delivery for women were largely staff related in terms of the perceived need to better motivate CHWs through

the provision of continuing professional development, better salaries and improved supervision, and also for the selection process to be focused on recruiting CHWs who better represent the women they will be serving in terms of them being local, married and having children of their own.

Although a fairly large number of studies were identified none had assessed barriers and facilitators related to: (1) the service management of BHUs and RHCs; (2) services for a comprehensive primary care model for women—which includes services for mental health, ageing women, young females not of reproductive years (below the age of 18 years), special needs females and women bearing chronic disease burdens; (3) supervision and accountability of primary care services or (4) client satisfaction with existing Sehat Sahulat cash transfers for women's health. Our findings are limited to assessing barriers and facilitators with respect to maternal health services and the reproductive health of women. Health services for other groups, such as ageing women, unmarried women, disabled and displaced women, may have different barriers and facilitators. Additionally, the included studies did not provide any significant representation from the provinces of Balochistan, and no representation from Gilgit Baltistan or the Pakistan administered Azad Kashmir. Thus, we are unable to comment on any additional barriers and facilitators faced by the women and HCPs in these regions. While this review synthesised information about the barriers and facilitators that were identified in the included studies, we did not attempt to evaluate which factors may be more or less influential in terms of their impact.

The findings of this review suggest that in order to improve the health of women in Pakistan there are significant changes needed not only to the delivery of healthcare services but to the wider cultural context in which such services are delivered. For example, unless social interventions are planned to improve the asymmetrical household assistance and the time poverty experienced by women, neither uptake or delivery within the primary healthcare sector will improve. There is also a need for family-level cultural interventions to improve acceptance and support for practising women CHWs. Along with work–family balance, there is a need to introduce interventions to counter the chaperoning issues, such as options for mobile health units visiting women's homes, female drivers for transport and women community volunteers to accompany women for health visits. Similarly, there is a need to improve health literacy and awareness on the part of women and their families about the benefits of licensed providers and to reduce fear and misconceptions about the biomedical model, through a collaborative approach by social workers, religious leaders and community notables—with the latter two groups having more influence in the country on women's health behaviour and family support for women's health-seeking.

Overall, therefore, our synthesis suggests that critical investment and efforts are needed to improve resources, infrastructure, staffing, work culture and employment benefits for women CHWs in Pakistan. Services that are accessible in terms of distance and cost, need careful planning. It is often argued that high-quality service outreach will increase uptake; however, our synthesis also suggests that improving utilisation in conservative countries such as Pakistan is only possible with investment and interventions to raise awareness and health literacy, and to promote cultural reform. Major gaps exist with respect to services for all non-reproductive health related matters, including preventive health, female adolescent health and mental health.

For a country such as Pakistan that faces multiple challenges in administrative coordination, financing and a regressive culture, it is important that multiple stakeholders from the private and public sector and community are involved in strengthening, building and expanding the primary health sector. Multisector collaboration and social policy interventions are also needed to support the primary health sector, including efforts by the finance sector for health subsidisation, the industrial sector for public transport for women, and the education or informal sector for child daycare centres. Finally, greater supervision and accountability is needed in terms of policies, protocols, budget allocation and service delivery, if the primary sector is to effectively support women's health in a sustainable manner.

Limitations

This review of barriers and facilitators is limited in terms of the studies that have been conducted so far and that only one author conducted the search, screening and data extraction. There were no studies that assessed barriers and facilitators related to: (1) service management of BHUs and RHCs; (2) services for a comprehensive primary care model for women; (3) supervision and accountability studies of primary services or (4) client satisfaction with existing Sehat Sahulat cash transfers for women's health. Our findings are limited to assessing barriers and facilitators with respect to maternal health services and the reproductive health of women. Health services for other groups, such as ageing women, unmarried women, disabled and displaced women, may have different barriers and facilitators. Additionally, the included studies did not include any significant representation from the provinces of Balochistan, and no representation from Gilgit Baltistan or the Pakistan administered Azad Kashmir. Thus, we are unable to comment on any additional barriers and facilitators faced by the women and HCPs in these regions. Finally, while this review synthesised information about the barriers and facilitators that were identified in the included studies, we did not attempt to evaluate which factors may be more or less influential in terms of their impact.

Conclusion

Although there are a fairly large number of studies evaluating the barriers and facilitators to the uptake and

effectiveness of primary healthcare services for women in Pakistan, these are focused on a limited number of areas within primary care and on women with very specific healthcare needs. The findings suggest that many of the barriers to both uptake of primary healthcare services and their effectiveness are not limited to the healthcare system itself but to the wider social/cultural factors within which primary healthcare services are located. Improvements to the health of women will require changes that address factors not only at the level of the service, but to the subordinate position of women within the family and wider society.

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Contributors SRJ and JB conceptualised the study, designed the methodology and wrote the manuscript. SRJ performed the literature search and interpreted the data. JB supervised the process and contributed to the interpretation. SRJ is the gurantor of the study.

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Patient consent for publication Not applicable.

Provenance and peer review Not commissioned; externally peer reviewed.

Data availability statement Data sharing not applicable as no datasets generated and/or analysed for this study. Data sharing not applicable as no datasets generated and/or analysed for this study. All data relevant to the study are included in the article or uploaded as online supplemental information.

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Supplementary File 1-

Search Terms and Database Results

Search terms

1. primary health OR community health AND Pakistan AND women

2. primary healthcare OR primary health care OR primary service delivery OR primary health service* OR primary health evaluation OR program* OR polic* OR delivery OR service delivery OR uptake OR utilization AND Pakistan AND women

3. primary health OR community health OR wom#n OR mother OR maternal OR women's health OR maternal health OR reproductive health AND Pakistan AND women

4. primary health OR community health OR barrier OR challenge OR limitations OR facilitator OR cross-sectional OR mixed methods OR quantitative OR qualitative AND Pakistan AND women

5. primary health OR community health OR (lady health worker OR LHW) OR (community health worker OR CHW) OR (community midwife OR CMW) OR (traditional birth attendant OR TBA) AND Pakistan AND women

Table:
Summary of results from databases searched, as at March 24th 2022

Search Term	PubMed	BMC	Medline	CINAHL	Cochrane Library	Total
1.	4,593	2,720	296	1,756	1,679	11,044
2.	4,160	1,572	9,892	2,522	2,438	20,584
3.	4,999	2,720	296	2,686	2,597	13,298
4.	5,191	2,608	15,524	7,819	7,688	38,830
5.	4,627	2,720	32,453	1,931	1,849	43,580
Total	23,570	12,340	58,461	16,714	16,251	127,336

Supplementary File 2-

MMAT assessment for included studies

MIXED STUDIES				SCREENING QUESTIONS		5. MIXED METHODS STUDIES					COMMENTS
RefID	First author	Year	Citation	S1. Are there clear research questions?	S2. Do the collected data allow to address the research questions?	5.1. Is there an adequate rationale for using a mixed methods design to address the research question?	5.2. Are the different components of the study effectively integrated to answer the research question?	5.3. Are the outputs of the integration of qualitative and quantitative components adequately interpreted?	5.4. Are divergences and inconsistencies between quantitative and qualitative results adequately addressed?	5.5. Do the different components of the study adhere to the quality criteria of each tradition of the methods involved?	
1	Azmat	2012	Azmat, S. K., T SHAIKH, B. A. B. A. R., Mustafa, G., Hameed, W., & Bilgrami, M. (2012). Delivering post-abortion care through a community-based reproductive health volunteer programme in Pakistan. Journal of biosocial science, 44(6), 719-731.	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
2	Khan	2012	Khan, A. W., Amjad, C. M., Hafeez, A., & Shareef, R. (2012). Perceived individual and community barriers in the provision of family planning services by lady health workers in Tehsil Gujar Khan. J Pak Med Assoc, 62(12), 1318-22.	Yes	Yes	Yes	Yes	No	No	No	This is a poorly written article and data analysis && interpretation is weak. However salient findings are important, related to barriers facing LHWs in delivery family planning services.
3	Shaikh	2021	Shaikh, I., Küng, S. A., Aziz, H., Sabir, S., Shabbir, G., Ahmed, M., & Dabash, R. (2021). Telehealth for addressing sexual and reproductive health and rights needs during the COVID-19 pandemic and beyond: a hybrid telemedicine-community accompaniment model for abortion and contraception services in Pakistan. Frontiers in Global Women's Health, 48.	Yes	Yes	Yes	Yes	Yes	Yes	Yes	

QUALITATIVE STUDIES				SCREENING QUESTIONS		1. QUALITATIVE STUDIES					COMMENTS
RefID	First author	Year	Citation	S1. Are there clear research questions?	S2. Do the collected data allow to address the research questions?	1.1. Is the qualitative approach appropriate to answer the research question?	1.2. Are the qualitative data collection methods adequate to address the research question?	1.3. Are the findings adequately derived from the data?	1.4. Is the interpretation of results sufficiently substantiated by data?	1.5. Is there coherence between qualitative data sources, collection, analysis and interpretation?	

1	Ahmed	2017	Ahmed, J., Rehman, S. U., & Shahab, M. (2017). Community midwives' acceptability in their communities: a qualitative study from two provinces of Pakistan. Midwifery, 47, 53-59.	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
2	Ariff	2020	Ariff, S., Mir, F., Tabassum, F., Raza, F., Habib, A., Turab, A., LeFevre, A., Bartlett, L.A., Soofi, S.B. and Bhutta, Z.A. (2020) Determinants of Health Care Seeking Behaviors in Puerperal Sepsis in Rural Sindh, Pakistan: A Qualitative Study. Open Journal of Preventive Medicine, 10, 255-266. https://doi.org/10.4236/ojpm.2020.109018	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
3	Asim	2021	Asim, M.; Saleem, S.; Ahmed, Z.H.; Naeem, I.; Abrejo, F.; Fatmi, Z.; Siddiqi, S.WeWon't Go There: Barriers to Accessing Maternal and Newborn Care in District Thatta, Pakistan. Healthcare 2021, 9, 1314. https://doi.org/10.3390/ healthcare9101314	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
4	Atif	2016	Atif, N., Lovell, K., Husain, N., Sikander, S., Patel, V., & Rahman, A. (2016). Barefoot therapists: barriers and facilitators to delivering maternal mental health care through peer volunteers in Pakistan: a qualitative study. *International journal of mental health systems*, *10*(1), 1-12.	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
5	Batool	2015	Batoola, F., Boehmera, U., Feeleya, F., & Fostera, S. (2015). Nobody told me about it! A qualitative study of barriers and facilitators in access to mental health services in women with depression in Karachi, Pakistan. *Journal of Psychosomatic Research*, *78*, 588-634.	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
6	Habib	2021	Habib, S. S., Jamal, W. Z., Zaidi, S. M. A., Siddiqui, J. U. R., Khan, H. M., Creswell, J., ... & Versfeld, A. (2021). Barriers to access of healthcare services for rural women—Applying gender lens on TB in a rural district of Sindh, Pakistan. International Journal of Environmental Research and Public Health, 18(19), 10102.	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
7	Haider	2019	Haider, S., Ali, R. F., Ahmed, M., Humayon, A. A., Sajjad, M., & Ahmad, J. (2019). Barriers to implementation of emergency obstetric and neonatal care in rural Pakistan. PloS one, 14(11), e0224161.	Yes	Yes	Yes	Yes	Yes	Yes	Yes	7
8	Islam	2002	Islam, A., Malik, F. A., & Basaria, S. (2002). Strengthening primary health care and family planning services in Pakistan: some critical issues. Journal of Pakistan Medical Association, 52(1).	Yes	Yes	Yes	Yes	Yes	Yes	Yes	

9	Memon	2015	Memon, Z., Zaidi, S., & Riaz, A. (2015). Residual barriers for utilization of maternal and child health services: community perceptions from rural Pakistan. *Global journal of health science*, *8*(7), 47.	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
10	Mumtaz	2003	Mumtaz, Z., Salway, S., Waseem, M., & Umer, N. (2003). Gender-based barriers to primary health care provision in Pakistan: the experience of female providers. Health policy and planning, 18(3), 261-269.	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
11	Mumtaz	2015	Mumtaz, Z., Levay, A. V., & Bhatti, A. (2015). Successful community midwives in Pakistan: An asset-based approach. PloS one, 10(9), e0135302.	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
12	Nisar	2016	Nisar, Y. B., Aurangzeb, B., Dibley, M. J., & Alam, A. (2016). Qualitative exploration of facilitating factors and barriers to use of antenatal care services by pregnant women in urban and rural settings in Pakistan. BMC pregnancy and childbirth, 16(1), 1-9.	Yes	Yes	Yes	Yes	Yes	Yes	Yes	12
13	Qureshi	2016	Qureshi, R. N., Sheikh, S., Khowaja, A. R., Hoodbhoy, Z., Zaidi, S., Sawchuck, D., ... & von Dadeslzen, P. (2016). Health care seeking behaviours in pregnancy in rural Sindh, Pakistan: a qualitative study. *Reproductive health*, *13*(1), 75-81.	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
14	Rehman	2015	Rehman, S. U., Ahmed, J., Bahadur, S., Ferdoos, A., Shahab, M., & Masud, N. (2015). Exploring operational barriers encountered by community midwives when delivering services in two provinces of Pakistan: A qualitative study. Midwifery, 31(1), 177-183.	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
15	Riaz	2015	Riaz, A., Zaidi, S., & Khowaja, A. R. (2015). Perceived barriers to utilizing maternal and neonatal health services in contracted-out versus government-managed health facilities in the rural districts of Pakistan. International journal of health policy and management, 4(5), 279.	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
16	Shaikh	2017	Shaikh, B. T., Noorani, Q., & Abbas, S. (2017). Community based saving groups: an innovative approach to overcome the financial and social barriers in health care seeking by the women in the rural remote communities of Pakistan. Archives of Public Health, 75(1), 1-7.	Yes	Yes	Yes	Yes	Yes	Yes	Yes	

QUANTITATIVE STUDIES				SCREENING QUESTIONS		4. QUANTITATIVE DESCRIPTIVE STUDIES					COMMENTS
RefID	First author	Year	Citation	S1. Are there clear research questions?	S2. Do the collected data allow to address the research questions?	4.1. Is the sampling strategy relevant to address the research question?	4.2. Is the sample representative of the target population?	4.3. Are the measurements appropriate?	4.4. Is the risk of nonresponse bias low?	4.5. Is the statistical analysis appropriate to answer the research question?	
1	Ayub	2014	Ayub, A., Kibria, Z., & Khan, F. (2014). Evaluation of Barriers in Non-Practising Family Planning Women. Journal of the Dow University of Health Sciences (JDUHS), 8(1), 31-34.	Yes	Yes	Yes	Yes	No	Can't tell	No	Poorly written overall. The analysis of quantitative data is superficial (descriptive statistics only), and discussion and interpretation is weak. However, the findings confirm salient barriers facing women in the community pertaining to uptake.
2	Khan	2015	Khan, A. A., Varan, A. K., Esteves-Jaramillo, A., Siddiqui, M., Sultana, S., Ali, A. S., ... & Omer, S. B. (2015). Influenza vaccine acceptance among pregnant women in urban slum areas, Karachi, Pakistan. Vaccine, 33(39), 5103-5109.	Yes	Yes	Yes	Yes	Yes	Yes	Yes	

Supplementary File 3:

Details of specific barriers and facilitators extracted from included studies

APA	Research Design	Aim	Sample	Setting	Barrier to delivery	Barrier to uptake	Facilitator to delivery	Facilitator to uptake
Ahmed, J., Rehman, S. U., & Shahab, M. (2017). Community midwives' acceptability in their communities: a qualitative study from two provinces of Pakistan. Midwifery, 47, 53-59.	Qualitative	Understand how the CMWs their acceptability and community related barriers to their practice of maternal and child health care services.	34 IDIs and 9 FGDs with 100 participants, including CMWs, LHSs, & Managers in maternal neonatal and child health (MNCH) program	Four districts, two from each province, Punjab (Kasur & Okara) and KPK (Swat & Mardan).	- CMWs experienced restrictions from their families, especially husbands and in-laws, to be independently available to attend to women during pregnancy and delivery. - Communication between the communities and MNCH program was found to be weak therefore CMWs had to struggle to win the trust of and persuade pregnant women to use their services. - Fears of lack of safety for women in many conflict-hit areas affected CMWs' mobility within their own communities which affected the access of rural women to skilled maternal and childcare.	- Low utilization of CMW services by women was due to inherent taboos prevalent in the communities under which they relied more on unskilled traditional birth		
Ariff, S., Mir, F., Tabassum, F., Raza, F., Habib, A., Turab, A., ... & Bhutta, Z. A. (2020). Determinants of Health Care Seeking Behaviors in Puerperal Sepsis in Rural Sindh, Pakistan: A Qualitative Study. Open Journal of Preventive Medicine, 10(9), 255-266.	Qualitative	Identify barriers to care seeking for puerperal sepsis among recently delivered women	Recently delivered women with and without sepsis and their family members (20 interviews); healthcare providers and TBAs (14 interviews)	District Matiari, Sindh province	- The healthcare providers' understanding of the seriousness of PS was directly proportional their age and clinical experience. Younger and less experienced providers had less awareness and understanding about the seriousness of PS.	- Recently delivered women, their family members and traditional birth attendants were unaware of the word PS or the local translated term for PS. - The most common barriers to care seeking was the division of labor within the household, obtaining permission from the primary decision maker, access to transportation, lack of financial resources and support from family members.		

Asim, M.; Saleem, S.; Ahmed, Z.H.; Naeem, I.; Abrejo, F.; Fatmi, Z.; Siddiqi, S.WeWon't Go There: Barriers to Accessing Maternal and Newborn Care in District Thatta, Pakistan. Healthcare 2021, 9, 1314. https://doi.org/10.3390/healthcare9101314	Qualitative	Explore the multifaceted barriers that inhibit women from seeking maternal and newborn health care in Thatta, Sindh, Pakistan	8 FGDs with men and women, and 6 IDIs with LHWs	Thatta, Sindh province	Ineffective referral systems	- Mistrust towards public health facilities - Inadequate symptom recognition - Aversion to biomedical interventions - gendered imbalances in decision making - women's restricted mobility - prohibitively expensive transportation services.		
Atif, N., Lovell, K., Husain, N., Sikander, S., Patel, V., & Rahman, A. (2016). Barefoot therapists: barriers and facilitators to delivering maternal mental health care through peer volunteers in Pakistan: a qualitative study. International Journal of Mental Health Systems, 10(1), 1-12.	Qualitative	Explore the facilitators and barriers to the acceptability of peer volunteers/ volunteer lay women from the community (for delivery of psychosocial interventions to reduce maternal depression)	Depressed mothers (21 interviews), PVs (8 interviews), primary health care staff (5 interviews), husbands (5 interviews) and mothers-in-law (10 interviews).	Rural subdistrict of Rawalpindi, Punjab		Barriers to uptake included women's lack of autonomy, certain cultural beliefs, stigma associated with depression, lack of some mothers' engagement, and resistance from some families	PVs' motivation was important for delivery, and factors influencing this were: appropriate selection; effective training and supervision; community endorsement of their role, and appropriate incentivisation.	- PVs from within the community are accepted as delivery agents due to being local and trustworthy - PVs' who are married with children are more accepted by women as they are more empathetic with similar experiences of motherhood - The perceived usefulness and cultural appropriateness of the intervention and linkages with the primary health care (PHC) system was vital to their legitimacy and credibility
Ayub, A., Kibria, Z., & Khan, F. (2014). Evaluation of Barriers in Non-Practising Family Planning Women. Journal of the Dow University of Health Sciences (JDUHS), 8(1), 31-34.	Quantitative	Identify common barriers in non-practising family planning services among married women	Married women (N=399)	Bhana Mari Union Council Peshawar, KPK	Non-availability of contraceptive services (54.5%)/ Lack of supply	- Gender inequality issues (43.3%), illiterate husbands (42.8%) and high cost of contraceptive devices (38%) - About 23.9% married women were against using contraception because of religious beliefs.		
Azmat, S. K., T SHAIKH, B. A. B. A. R., Mustafa, G., Hameed, W., & Bilgrami, M. (2012). Delivering post-abortion care through a community-based reproductive health volunteer programme in Pakistan. Journal of biosocial science, 44(6), 719-731.	Mixed	The aim of the study was to explore their perceptions of the barriers to accessing post-abortion services and to understand the challenges faced by RHVs.	- 8 FGDs with PAC clients and 15 IDIs with RHVs. - A quantitative exit interview questionnaire was administered to 76 PAC clients.	Three districts of Punjab province (Gujranwala, Faisalabad, & Bahawalpur) and 3 districts of Sindh (Hyderabad, Nawabshah & Larkana)		- Medical, rather than surgical, treatment for incomplete and unsafe abortions was preferred because it was perceived to cause less pain', was 'easy to employ' and 'having fewer complications. - Household economics & poverty influence women's decision-making on seeking post-abortion care. - Objection by husbands and in-laws, - Restrictions on female mobility, - The regressive views of religious clerics - Lack of transport		

Batoola, F., U. Boehmera, F. Feeleya, and S. Fostera. "Nobody told me about it! A qualitative study of barriers and facilitators in access to mental health services in women with depression in Karachi, Pakistan." Journal of Psychosomatic Research 78 (2015): 588-634.	Qualitative	Identifies the barriers and facilitators in access to mental health services for women with depression	Women with depression (29 interviews)	Karachi, Sindh province		- Awareness/ inability to recognize depression in self - severity of the symptoms - Affordability - Lack of awareness in families - Lack of referral and treatment from primary health care providers greatly delayed access to mental health care. - Lack of awareness led to perceived stigma and discouragement to seek mental health care causing many to visit faith healers - Women's inability to make a decision for themselves also delayed their access.		Women reported receiving a referral from health care providers
Habib, S. S., Jamal, W. Z., Zaidi, S. M. A., Siddiqui, J. U. R., Khan, H. M., Creswell, J., ... & Versfeld, A. (2021). Barriers to access of healthcare services for rural women—Applying gender lens on TB in a rural district of Sindh, Pakistan. International Journal of Environmental Research and Public Health, 18(19), 10102.	Qualitative	Identify barriers to women's access for TB healthcare services	6 FGDs with 36 women, including: younger lay community women aged 18 to 25 years; older lay community women aged 26 to 49 years; and community resource persons (CRPs) from the National Rural Support Programme (NRSP)	Tando Allahyar rural district, Sindh province		- Limited autonomy in household financial decision-making, - Disapproval of unassisted travel, - Long travel time - Lack of prioritization of spending on women's health -Inadequate presence of female health providers, - Lack of permission for younger women to access healthcare		- Lack of TB-related stigma, - Moderate knowledge about TB disease, and broad understanding of tuberculosis as a curable disease - Health facilities closer to the villages - Availability of higher quality services
Haider, S., Ali, R. F., Ahmed, M., Humayon, A. A., Sajjad, M., & Ahmad, J. (2019). Barriers to implementation of emergency obstetric and neonatal care in rural Pakistan. PloS one, 14(11), e0224161.	Qualitative	Identify barriers to implementation of EmONC in district Bahawalnagar (Pakistan).	79 HCPs (one executive district officer (EDO) health; two deputy district officers (health); one provincial and one district coordinator (IRMNCH & N): 14 in-charges; 54 LHVs; & six midwives).	District Bahawalnagar, Punjab province	- The results indicate that lack of teamwork, conflict management, communication, and improper power distribution are challenges facing the BHU team - Job insecurity, lack of pay & organizational culture, human resource deployment issues, and lack of role clarity were significant organizational-level barriers - Lack of target management, lack of resource availability, house job requirement, and dual practice issues were identified as major system-level barriers.			

Islam, A., Malik, F. A., & Basaria, S. (2002). Strengthening primary health care and family planning services in Pakistan: some critical issues. Journal of Pakistan Medical Association, 52(1).	Qualitative	Identify problems and barriers faced by the LHWs and VBFPWs in their routine work	LHWs (n=120), VBFPWs (N=80), Supervisors (n=45)	Four Cities- Faisalabad (Punjab), Peshawar (KPK), Quetta (Balochistan), & Mirpurkhas (Sindh)	- Population/health worker ratios vary considerably from one district to another, and overall are very large - The two categories of workers [The Lady Health Workers (LHWs) under the Ministry of Health and the Village-based Family Planning Workers (VBFPWs) under the Ministry of Population Welfare] differ considerably in terms of level of education, training and skills - There is lack of well-designed client record cards, proper training and backup support, including emergency obstetric care, to cover the range of essential services demanded by the consumers and a lack of information feedback. - Low salaries and lack of release of salary			
Khan, A. A., Varan, A. K., Esteves-Jaramillo, A., Siddiqui, M., Sultana, S., Ali, A. S., ... & Omer, S. B. (2015). Influenza vaccine acceptance among pregnant women in urban slum areas, Karachi, Pakistan. Vaccine, 33(39), 5103-5109.	Quantitative	Facilitators and barriers to influenza vaccination uptake in pregnant women of Pakistan.	Ethnically diverse, low-income, and pregnant women who were unvaccinated (283 respondents)	Karachi city, Sindh province		- Lack of awareness of symptoms typically associated with influenza - Intention to accept vaccine was associated with perceived vaccine safety, efficacy, and disease susceptibility - Parents-in-law and husbands were often considered the primary decision-makers for pregnant women seeking healthcare including vaccination		- Majority willing to accept vaccine, if recommended by physician or healthcare provider
Khan, A. W., Amjad, C. M., Hafeez, A., & Shareef, R. (2012). Perceived individual and community barriers in the provision of family planning services by lady health workers in Tehsil Gujar Khan. J Pak Med Assoc, 62(12), 1318-22.	Mixed	Identify individual and community barriers in the provision of family planning services by LHWs	LHWs (Survey, N=97); (2 FGDs)	Tehsil Gujar Khan, Rawalpindi, Punjab	LHWs were unable to provide optimal services due to: - Increased workload - National immunization days/sub-national immunization days, - Late supply, stock shortage (especially injectables), - No response to referrals - Lack of proper incentives.	- Religious barriers 69% (n=67), - Sociocultural barriers 58% (n=56), - transport 54% (n=52), - Communication and economic reasons 25% (n=24). - Female gender inexperience and low education.		

Memon, Z., Zaidi, S., & Riaz, A. (2016). Residual barriers for utilization of maternal and child health services: community perceptions from rural Pakistan. Global journal of health science, 8(7), 47.	Qualitative	Explore community barriers in accessing Maternal and Child Health (MCH) services	Mothers & fathers (of children under five) & LHWs (60 FGDs)	Ten districts of Sindh province: Badin, Jamshoro, Tharparkar, Umerkot, Nawabshah, Larkana, Shikarpur, Kamber, Kashmore and Ghotki	Clients residing in areas served by CHWs had better awareness only of ANC and family planning, while other MCH services were overlooked by the health worker program.	- Low awareness - Formidable distances - Expense - Poorly functional services - Cultural and religious restrictions were lesser reported.		
Mumtaz, Z., Salway, S., Waseem, M., & Umer, N. (2003). Gender-based barriers to primary health care provision in Pakistan: the experience of female providers. Health policy and planning, 18(3), 261-269.	Qualitative	Explore the gender-based barriers and constraints experienced by female staff working at the community level in delivering services.	LHWs (8 interviews), TBAs (5 interviews), LHVs (eight interviews), nurses (four interviews) and doctors (five interviews). 1 FGD with LHWs.	Tehsil Pindi Gheb, District Attock, Punjab	- Abusive hierarchical management structures; - Disrespect from male colleagues; - Lack of sensitivity to women's gender-based cultural constraints; - Conflict between domestic and work responsibilities; - Poor infrastructural support - Low / irregular pay encouraging malpractice & private practice			
Mumtaz, Z., Levay, A. V., & Bhatti, A. (2015). Successful community midwives in Pakistan: An asset-based approach. PloS one, 10(9), e0135302.	Qualitative	Explore the experiences of the Pakistani CMWs in delivering services	CMWs (38 interviews), other health care providers (45 interviews), policymakers (20 interviews), women (78 interviews), husbands (35 interviews) & 23 older women (23 interviews)	Districts Jhelum and Layyah, Punjab province	Our data showed that only eight 8 out of 38 CMWs sampled were active providers		- Poverty as a push factor to work and intrinsic individual-level characteristics that enabled the CMWs to respond successfully to the demands of the midwifery profession in the private sector emerged as the two key themes. - Household poverty pushed the CMWs to work in this perceived low-status occupation. Their families supported them since they became the breadwinners. - The successful CMWs also had an intrinsic sense of what was required to establish a private practice; they exhibited professionalism, had strong business sense and provided respectful maternity care.	

Nisar, Y. B., Aurangzeb, B., Dibley, M. J., & Alam, A. (2016). Qualitative exploration of facilitating factors and barriers to use of antenatal care services by pregnant women in urban and rural settings in Pakistan. BMC pregnancy and childbirth, 16(1), 1-9.	Qualitative	Explore facilitators and barriers to use of antenatal care services	Currently pregnant women (10 interviews), LHWs (6 interviews), doctors providing antenatal care services (4 interviews). 10 FGDs with women who had a child aged 5 years or younger	Three union councils in Swabi, KPK		- Women who had a child aged 5 years or younger, were not aware of the recommended minimum number of antenatal care visits to be made during pregnancy. Common barriers to visiting a health facility for antenatal care services were: - Financial limitations; - Perceived absence of any major health problems during pregnancy; - Difficulties in reaching the health facility; - Restriction from husband or mother-in-law; - Busy performing household chores; - No previous experience of antenatal care visits; and - Perceived unavailability of healthcare providers and/or services.		Facilitating factors to visit a particular health care facility were: - Availability of qualified healthcare providers (private facility); - Trust in healthcare providers; - Recommendation from a family member, friend or lady health worker (in rural areas); - Availability of good quality services including medical equipment and laboratory facilities; - Low cost (public facility); and easy access to the health facility (private facility).
Qureshi, R. N., Sheikh, S., Khowaja, A. R., Hoodbhoy, Z., Zaidi, S., Sawchuck, D., ... & von Dadeslzen, P. (2016). Health care seeking behaviours in pregnancy in rural Sindh, Pakistan: a qualitative study. Reproductive health, 13(1), 75-81.	Qualitative	Identify the barriers and facilitators that women and families encounter, when deciding to seek maternal care services.	26 in-depth interviews with mothers, male decision-makers, LHWs, LHSs, Women Mos, & TBAs. 33 FGDs with mothers, male decision-makers, and LHWs.	Two districts of Matiari and Hyderabad, Sindh	- private facilities were often preferred due to the superior quality of services	- Women usually visited health facilities if they experienced pregnancy complications or danger signs, such as heavy bleeding or headache. - The husbands and mothers-in-law as decision makers regarding health care utilization were primary. - Poor availability of transport, - Financial constraints and - Unavailability of male chaperones		
Rehman, S. U., Ahmed, J., Bahadur, S., Ferdoos, A., Shahab, M., & Masud, N. (2015). Exploring operational barriers encountered by community midwives when delivering services in two provinces of Pakistan: A qualitative study. Midwifery, 31(1), 177-183.	Qualitative	To explore barriers experienced by CMWs when delivering services for maternal, neonatal and child health	32 IDIs and 9 FGDs, including CMWs, LHSs, & managerial staff of the MNCH programme.	Two districts of Punjab province (Kasur and Okara) and 2 districts of Khyber Pakhtunkhwa province (Swat and Mardan)	- CMWs reported financial constraints - Training shortfalls - Difficulty with building relationships in the community - Lack of support in terms of logistics, essential supplies, and mechanisms for referral of complicated cases to higher-level health facilities			

Riaz, A., Zaidi, S., & Khowaja, A. R. (2015). Perceived barriers to utilizing maternal and neonatal health services in contracted-out versus government-managed health facilities in the rural districts of Pakistan. International journal of health policy and management, 4(5), 279.	Qualitative	Explore barriers to utilizing MNH services, in health facilities contracted out by government to NGO for service provision vs in those which are managed by government (non-contracted).	Mothers and their spouses (36 FGDs)	Two districts: Thatta (Sindh province) and Chitral (KPK province)		Despite contracting some barriers exist: - Physical distance, - User charges - Familial influences. - Decision-making patterns controlled by Spouses and mothers-in-law		Contracting out of health facility reduces supply side barriers to MNH services
Shaikh, B. T., Noorani, Q., & Abbas, S. (2017). Community based saving groups: an innovative approach to overcome the financial and social barriers in health care seeking by the women in the rural remote communities of Pakistan. Archives of Public Health, 75(1), 1-7.	Qualitative	Identify if community based savings groups overcomes financial and social barriers to facilitate use of CMW services	16 FGDs to reach the data saturation [4 each with women member CBSGs and their husbands; and 4 each with women non-members and their husband]	Four different sites of District Chitral, KPK province			-	- CBSG member women were far more aware on health issues. Information sought from these forums brought a noticeable change in the health seeking practices. Seeking care from a trained birth attendant in the community became easier. - Women associated with the CBSGs as members, expressed an increased access to money for utilizing the CMW services, better awareness on MNCH issues, and empowerment to decide for seeking care. CBSG have been an instrumental platform for social networking, helping each other in other household matters.
Shaikh, I., Küng, S. A., Aziz, H., Sabir, S., Shabbir, G., Ahmed, M., & Dabash, R. (2021). Telehealth for addressing sexual and reproductive health and rights needs during the COVID-19 pandemic and beyond: a hybrid telemedicine-community accompaniment model for abortion and contraception services in Pakistan. Frontiers in Global Women's Health, 48.	Mixed	Identify if services for sexual and reproductive health can be improved using telemedicine consultations through mobile devices of LHWs	176 women clients who used telehealth services and reported satisfaction levels and LHW interviews	Data was collected on an App via LHWs, exact locations of LHWs is not mentioned	Some women are still not comfortable accessing services via mobile and internet due to privacy issues and lack of physical contact	Barriers to digital health models include lack of and/or inconsistent internet access across underdeveloped areas of Pakistan, especially in rural settings		Women are satisfied and willing to consult with HCPs through LHW smartphone

Supplementary File 4:

List of included studies to review barriers and facilitators to the delivery and uptake of primary healthcare services to women in Pakistan

APA	Research Design	Study Aim	Sample	Setting
Ahmed, J., Rehman, S. U., & Shahab, M. (2017). Community midwives' acceptability in their communities: a qualitative study from two provinces of Pakistan. Midwifery, 47, 53-59.	Qualitative	Understand how the CMWs their acceptability and community related barriers to their practice of maternal and child healthcare services.	34 IDIs and 9 FGDs with 100 participants, including CMWs, LHSs, & Managers in maternal neonatal and child health program	Four districts, two from each province, Punjab (Kasur & Okara) and KPK (Swat & Mardan).
Ariff, S., Mir, F., Tabassum, F., Raza, F., Habib, A., Turab, A., ... & Bhutta, Z. A. (2020). Determinants of Health Care Seeking Behaviors in Puerperal Sepsis in Rural Sindh, Pakistan: A Qualitative Study. Open Journal of Preventive Medicine, 10(9), 255-266.	Qualitative	Identify barriers to care seeking for puerperal sepsis among recently delivered women	Recently delivered women with and without sepsis and their family members (20 IDIs); healthcare providers and TBAs (14 IDIs)	District Matiari, Sindh province
Asim, M.; Saleem, S.; Ahmed, Z.H.; Naeem, I.; Abrejo, F.; Fatmi, Z.; Siddiqi, S.WeWon't Go There: Barriers to Accessing Maternal and Newborn Care in District Thatta, Pakistan. Healthcare 2021, 9, 1314.	Qualitative	Explore the multifaceted barriers that inhibit women from seeking maternal and newborn health care in Thatta, Sindh, Pakistan	8 FGDs with men and women, and 6 IDIs with LHWs	Thatta, Sindh province
Atif, N., Lovell, K., Husain, N., Sikander, S., Patel, V., & Rahman, A. (2016). Barefoot therapists: barriers and facilitators to delivering maternal mental health care through peer volunteers in Pakistan: a qualitative study. International Journal of Mental Health Systems, 10(1), 1-12.	Qualitative	Explore the facilitators and barriers to the acceptability of peer volunteers/ volunteer lay women from the community (for delivery of psychosocial interventions to reduce maternal depression)	Depressed mothers (21 IDIs), peer volunteers (8 interviews), primary health care staff (5 IDIs), husbands (5 IDIs) and mothers-in-law (10 IDIs).	Rural subdistrict of Rawalpindi, Punjab
Ayub, A., Kibria, Z., & Khan, F. (2014). Evaluation of Barriers in Non-Practising Family Planning Women. Journal of the Dow University of Health Sciences (JDUHS), 8(1), 31-34.	Quantitative	Identify common barriers in non-practising family planning services among married women	Married women (N=399)	Bhana Mari Union Council Peshawar, KPK
Azmat, S. K., T Shaikh, B. A. B. A. R., Mustafa, G., Hameed, W., & Bilgrami, M. (2012). Delivering post-abortion care through a community-based reproductive health volunteer programme in Pakistan. Journal of biosocial science, 44(6), 719-731.	Mixed	The aim of the study was to explore their perceptions of the barriers to accessing post-abortion services and to understand the challenges faced by RHVs.	- 8 FGDs with women PAC clients and 15 IDIs with RHVs. - A quantitative exit interview questionnaire was administered to 76 PAC clients.	3 districts of Punjab province (Gujranwala, Faisalabad, & Bahawalpur) and 3 districts of Sindh (Hyderabad, Nawabshah & Larkana)
Batool, F., U. Boehmera, F. Feeleya, and S. Fostera. "Nobody told me about it! A qualitative study of barriers and facilitators in access to mental health services in women with depression in Karachi, Pakistan." Journal of Psychosomatic Research 78 (2015): 588-634.	Qualitative	Identifies the barriers and facilitators in access to mental health services for women with depression	Women with depression (29 IDIs)	Karachi, Sindh province

Habib, S. S., Jamal, W. Z., Zaidi, S. M. A., Siddiqui, J. U. R., Khan, H. M., Creswell, J., ... & Versfeld, A. (2021). Barriers to access of healthcare services for rural women—Applying gender lens on TB in a rural district of Sindh, Pakistan. International Journal of Environmental Research and Public Health, 18(19), 10102.	Qualitative	Identify barriers to women's access for TB healthcare services	6 FGDs with 36 women, including: younger lay community women aged 18 to 25 years; older lay community women aged 26 to 49 years; and community resource persons (CRPs) from the National Rural Support Programme (NRSP)	Tando Allahyar rural district, Sindh province
Haider, S., Ali, R. F., Ahmed, M., Humayon, A. A., Sajjad, M., & Ahmad, J. (2019). Barriers to implementation of emergency obstetric and neonatal care in rural Pakistan. PloS one, 14(11), e0224161.	Qualitative	Identify barriers to implementation of EmONC in district Bahawalnagar (Pakistan).	79 HCPs IDIs- 1 executive district officer health; 2 deputy district officers (health); one provincial and one district coordinator (IRMNCH & N), 14 in-charges, 54 LHVs, & 6 midwives.	District Bahawalnagar, Punjab province
Islam, A., Malik, F. A., & Basaria, S. (2002). Strengthening primary health care and family planning services in Pakistan: some critical issues. Journal of Pakistan Medical Association, 52(1).	Qualitative	Identify problems and barriers faced by the LHWs and VBFPWs in their routine work	FGDs with LHWs (n=120), VBFPWs (N=80), Supervisors (n=45)	4 Cities- Faisalabad (Punjab), Peshawar (KPK), Quetta (Balochistan), & Mirpurkhas (Sindh)
Khan, A. A., Varan, A. K., Esteves-Jaramillo, A., Siddiqui, M., Sultana, S., Ali, A. S., ... & Omer, S. B. (2015). Influenza vaccine acceptance among pregnant women in urban slum areas, Karachi, Pakistan. Vaccine, 33(39), 5103-5109.	Quantitative	Facilitators and barriers to influenza vaccination uptake in pregnant women of Pakistan.	Ethnically diverse, low-income, and pregnant women who were unvaccinated (283 respondents)	Karachi city, Sindh province
Khan, A. W., Amjad, C. M., Hafeez, A., & Shareef, R. (2012). Perceived individual and community barriers in the provision of family planning services by lady health workers in Tehsil Gujar Khan. J Pak Med Assoc, 62(12), 1318-22.	Mixed	Identify individual and community barriers in the provision of family planning services by LHWs	LHWs (Survey, N=97); (2 FGDs)	Tehsil Gujar Khan, Rawalpindi, Punjab
Memon, Z., Zaidi, S., & Riaz, A. (2016). Residual barriers for utilization of maternal and child health services: community perceptions from rural Pakistan. Global journal of health science, 8(7), 47.	Qualitative	Explore community barriers in accessing Maternal and Child Health (MCH) services	Mothers & fathers (of children under five) & LHWs (60 FGDs)	10 districts of Sindh province: Badin, Jamshoro, Tharparkar, Umerkot, Nawabshah, Larkana, Shikarpur, Kamber, Kashmore and Ghotki
Mumtaz, Z., Salway, S., Waseem, M., & Umer, N. (2003). Gender-based barriers to primary health care provision in Pakistan: the experience of female providers. Health policy and planning, 18(3), 261-269.	Qualitative	Explore the gender-based barriers and constraints experienced by female staff working at the community level in delivering services.	LHWs (8 IDIs), TBAs (5 IDIs), LHVs (8 IDIs), nurses (4 IDIs), doctors (5 IDIs), & LHW (1 FGD)	Tehsil Pindi Gheb, District Attock, Punjab
Mumtaz, Z., Levay, A. V., & Bhatti, A. (2015). Successful community midwives in Pakistan: An asset-based approach. PloS one, 10(9), e0135302.	Qualitative	Explore the experiences of the Pakistani CMWs in delivering services	CMWs (38 IDIs), other health care providers (45 IDIs), policymakers (20 IDIs), women (78 IDIs), husbands (35 IDIs) & 23 older women (23 IDIs)	Districts Jhelum and Layyah, Punjab province

Nisar, Y. B., Aurangzeb, B., Dibley, M. J., & Alam, A. (2016). Qualitative exploration of facilitating factors and barriers to use of antenatal care services by pregnant women in urban and rural settings in Pakistan. BMC pregnancy and childbirth, 16(1), 1-9.	Qualitative	Explore facilitators and barriers to use of antenatal care services	Currently pregnant women (10 IDIs), LHWs (6 IDIs), doctors providing antenatal care services (4 IDIs) & 10 FGDs with women who had a child aged 5 years or younger	Three union councils in Swabi, KPK
Qureshi, R. N., Sheikh, S., Khowaja, A. R., Hoodbhoy, Z., Zaidi, S., Sawchuck, D., ... & von Dadelszen, P. (2016). Health care seeking behaviours in pregnancy in rural Sindh, Pakistan: a qualitative study. Reproductive health, 13(1), 75-81.	Qualitative	Identify the barriers and facilitators that women and families encounter, when deciding to seek maternal care services.	26 IDIs with mothers, male decision-makers, LHWs, LHSs, Women Medical Officers, & TBAs & 33 FGDs with mothers, male decision-makers, and LHWs.	2 districts of Matiari and Hyderabad, Sindh
Rehman, S. U., Ahmed, J., Bahadur, S., Ferdoos, A., Shahab, M., & Masud, N. (2015). Exploring operational barriers encountered by community midwives when delivering services in two provinces of Pakistan: A qualitative study. Midwifery, 31(1), 177-183.	Qualitative	To explore barriers experienced by CMWs when delivering services for maternal, neonatal and child health	32 IDIs and 9 FGDs, of CMWs, LHSs, & managerial staff of the maternal neonatal and child health (MNCH) program	2 districts of Punjab province (Kasur and Okara) and 2 districts of KPK province (Swat and Mardan)
Riaz, A., Zaidi, S., & Khowaja, A. R. (2015). Perceived barriers to utilizing maternal and neonatal health services in contracted-out versus government-managed health facilities in the rural districts of Pakistan. International journal of health policy and management, 4(5), 279.	Qualitative	Explore barriers to utilizing maternal and newborn healthcare services, in health facilities contracted out by government to NGO for service provision vs in those which are managed by government (non-contracted).	Women and their spouses (36 FGDs)	2 districts: Thatta (Sindh province) and Chitral (KPK province)
Shaikh, B. T., Noorani, Q., & Abbas, S. (2017). Community based saving groups: an innovative approach to overcome the financial and social barriers in health care seeking by the women in the rural remote communities of Pakistan. Archives of Public Health, 75(1), 1-7.	Qualitative	Identify if community-based savings groups overcome financial and social barriers and facilitate use of CMW services	16 FGDs- 4 each with women member CBSGs and their husbands; and 4 each with women non-members and their husband	4 different sites of district Chitral, KPK province
Shaikh, I., Küng, S. A., Aziz, H., Sabir, S., Shabbir, G., Ahmed, M., & Dabash, R. (2021). Telehealth for addressing sexual and reproductive health and rights needs during the COVID-19 pandemic and beyond: a hybrid telemedicine-community accompaniment model for abortion and contraception services in Pakistan. Frontiers in Global Women's Health, 48.	Mixed	Identify if services for sexual and reproductive health can be improved using telemedicine consultations through mobile devices of LHWs	176 women clients who used telehealth services and reported satisfaction levels and LHW interviews	Data was collected on an App via LHWs, exact locations of LHWs is not mentioned

List of abbreviations: Child Health & Nutrition Program; CMW- community midwives; FGD- focus group discussions; HCP—healthcare providers; IDI- In depth interviews; IRMNCH & N- Integrated Reproductive Maternal Newborn; KPK- Khyber Pakhtunkhwa; LHS- lady health supervisor; LHV- lady health visitor; LHW- lady health workers; NGO- non governmental organizations; RHV- rural health visitors; TBA- traditional birth attendant; VBFPW- village based family planning workers.