JHWCR JOURNAL OF HEALTH, WELLNESS AND COMMUNITY RESEARCH 3007-0570

https://doi.org/10.61919/42yw5h34

Original Article

Community Perceptions and Experiences of Contraceptive Use in Rural Sindh, Pakistan: A Qualitative Assessment

Maqbool Ahmed Rahu[1], Qamarrudin Shaikh[1], Noor Baloch[1], Zulfiqar Sario[1], Parkash Malhi[1], Shahida Perveen[1,2]

[1] HANDS Welfare Foundation, Gadap Road, Karachi-75340, Pakistan
[2] HANDS Institute of Development Studies, Gadap Road, Karachi-75340, Pakistan

***Corresponding author: Shahida Perveen, shahida.perveen@hands.org.pk**

"Cite this Article" Received: 13 December 2025; **Accepted**: 11 March 2026; **Published**: 30 March 2026

Author Contributions: Concept and design: MAR, QS, SP; data collection: NB, ZS, PM; data analysis and interpretation: MAR, QS, SP; manuscript drafting: MAR, NB, SP; critical revision: QS, ZS, PM, SP; final approval: all authors. **Ethical Approval**: HANDS Welfare Foundation, Gadap Road, Karachi-75340, Pakistan. **Informed Consent**: Written informed consent was obtained from all participants; **Conflict of Interest**: The authors declare no conflict of interest. **Funding**: No external funding; **Data Availability**: Available from the corresponding author on reasonable request; **Acknowledgments**: NA

ABSTRACT

Background: Despite national efforts to improve reproductive health services, contraceptive uptake in Pakistan remains below the national target, particularly in rural and underserved communities where misinformation, gendered decision-making, and limited access to commodities continue to restrict family planning use. Objective: This study explored community perceptions and experiences of contraceptive use and family planning services delivered through Marvi workers in rural districts of Sindh, Pakistan. Methods: An interpretivist qualitative assessment was conducted from October to December 2024 in Umerkot, Dadu, Sanghar, and Ghotki. Data were collected through 13 in-depth interviews with Marvi workers, District Project Managers, and District Programme Women Development Officers, and 12 focus group discussions with married women of reproductive age and male community members. Audio-recorded data were transcribed, translated, cross-verified, and analysed using thematic analysis. Results: Participants perceived Marvi workers as trusted local female intermediaries who improved access to family planning information, supported household-level counselling, and facilitated local availability of contraceptive commodities through Marvi houses and Business-in-a-Box service points. Reported facilitators included cultural familiarity, repeated counselling, community trust, and supervision mechanisms, while persistent barriers included myths, religious concerns, spousal hesitation, gendered decision-making, and worker safety concerns. Conclusion: Marvi worker–delivered family planning services were perceived as acceptable and valuable in rural Sindh, but sustained training, supervision, male engagement, commodity availability, and support for frontline workers are required to strengthen continuity and community acceptability. Keywords: Contraceptive use; family planning; community health worker; reproductive health; rural Sindh; married women of reproductive age; qualitative research

INTRODUCTION

Pakistan, with a population exceeding 241.5 million, is the fifth most populous country globally and the second largest Muslim-majority country, making population health, fertility regulation, and equitable reproductive health access major national priorities (1). Although the national fertility rate has declined substantially from approximately six live births per woman in 1994 to 3.6 in 2024, contraceptive uptake remains insufficient to meet Pakistan's reproductive health and population stabilization targets (2–4). This gap is particularly important in rural and underserved communities, where women and couples often face persistent barriers related to limited service availability, low literacy, misinformation, gendered household decision-making, sociocultural concerns, and restricted access to modern

contraceptive commodities. These barriers directly affect women's ability to make informed reproductive choices and limit progress toward national and global commitments for universal access to sexual and reproductive health services.

Family planning is central to achieving Sustainable Development Goal targets related to universal access to sexual and reproductive health care, reproductive rights, maternal health, and gender equity (5). Modern contraceptive methods support healthy birth spacing, reduce unintended pregnancies, and contribute to improved maternal, neonatal, and child health outcomes when couples are able to choose and use methods according to their reproductive intentions (6). Access to reproductive health commodities is also closely linked with women's autonomy and the broader goal of enabling individuals and couples to exercise informed reproductive rights (7). Globally, many women seek modern contraception to avoid unintended pregnancy and maintain adequate interbirth intervals, while financial constraints, limited service access, and household-level power dynamics continue to reduce use among women from low-income and underserved settings (8,9). In Pakistan, modern contraceptive use remains low, with national estimates around 34% and lower reported use among married women of reproductive age in some settings, while the government has set a target to increase the contraceptive prevalence rate to 50% by 2030 (10,11).

Community-based service delivery has been one of Pakistan's key approaches to improving access to reproductive health information and services. The Lady Health Worker programme has contributed to household-level health education and family planning counselling, particularly in rural and remote areas, but gaps remain in coverage, monitoring, commodity access, and sustained community engagement (12–14). In this context, the Marvi worker model implemented by HANDS Welfare Foundation represents a locally embedded, culturally sensitive approach to family planning service delivery in rural Sindh. Marvi workers are women from local communities who provide door-to-door counselling, facilitate small community discussions, support access to contraceptive commodities, and operate through Marvi houses or Marvi Markaz as trusted spaces where women can discuss reproductive health concerns with greater comfort. This model is designed not only to improve awareness but also to reduce access barriers by linking counselling with community-based availability of family planning commodities, including oral pills, condoms, injections, and referral support for services such as intrauterine contraceptive devices.

Despite continuing national investment in family planning programmes, there remains limited qualitative evidence on how rural communities perceive Marvi worker–delivered family planning services, how women and men experience these services, and what barriers and facilitators influence acceptability and continued engagement in underserved districts of Sindh. Understanding these perceptions is important because contraceptive behaviour is shaped not only by availability of services but also by trust, cultural acceptability, family negotiation, gender norms, perceived safety, religious interpretations, and the credibility of the person delivering counselling. Qualitative assessment is therefore useful for examining how community members interpret the role of Marvi workers, whether Marvi houses are perceived as acceptable access points, and what implementation factors may support or limit the sustainability of this community-based model.

This study aimed to explore community perceptions and experiences of contraceptive use and family planning services delivered through Marvi workers in rural districts of Sindh, Pakistan. Specifically, it examined the perceived contribution of Marvi workers to family planning awareness and service access, identified barriers and facilitators influencing contraceptive acceptability and use, and explored participant perspectives on service quality, community satisfaction, and factors relevant to the continuity of Marvi worker–based family planning service delivery.

MATERIAL AND METHODS

This study used an interpretivist qualitative design to explore community perceptions, service experiences, and implementation-related factors associated with Marvi worker–delivered family planning services in rural Sindh, Pakistan. The qualitative approach was selected because the study sought to understand how married women of reproductive age, male community members, Marvi workers, and district-level programme personnel perceived family planning counselling, contraceptive access, community acceptability, service quality, and barriers to sustained use within their local sociocultural context. Data collection was conducted from October to December 2024 across four underserved districts of Sindh: Umerkot, Dadu, Sanghar, and Ghotki, where Marvi workers provide household-level counselling and community-based family planning support through Marvi houses and related service delivery mechanisms.

Participants were selected purposively to capture perspectives from groups directly involved in or exposed to the Marvi worker family planning intervention. Married women of reproductive age aged 16–49 years were eligible if they had received family planning services through Marvi workers and were current contraceptive users. Male community members were included to explore household and community-level perceptions of family planning, gendered decision-making, and acceptability of Marvi worker services. Marvi workers were included because they were directly involved in counselling, community mobilization, household visits, and commodity-related support. District Project Managers and District Programme Women Development Officers were included to provide programme-level perspectives on implementation, supervision, monitoring, and operational challenges. Participants were recruited with the support of Marvi workers and community focal persons to ensure inclusion of individuals with direct experience of family planning service delivery in the selected communities.

A total of thirteen in-depth interviews and twelve focus group discussions were conducted. The in-depth interviews included eight Marvi workers, three District Project Managers, and two District Programme Women Development Officers. The focus group discussions included eight groups of married women of reproductive age and four groups of male community members, with approximately 8–12 participants in each group and an overall estimated sample of approximately 130 participants. This combination of in-depth interviews and focus group discussions enabled the study to capture both individual implementation experiences and shared community-level perceptions of family planning services, contraceptive use, barriers to uptake, and satisfaction with Marvi worker support.

Data were collected using semi-structured interview and focus group guides designed to encourage open discussion while ensuring coverage of key domains, including awareness of family planning, perceptions of contraceptive methods, access to commodities, experience with Marvi worker counselling, role of Marvi houses, household decision-making, myths and misconceptions, male involvement, perceived service quality, monitoring processes, and suggestions for programme improvement. Interviews and focus group discussions were conducted in local language using culturally appropriate and easily understandable terminology to promote participant comfort and clarity. All sessions were conducted after obtaining participant permission and were audio-recorded for transcription. Each focus group discussion lasted at least 30 minutes. Data collection continued until thematic saturation was reached, meaning that subsequent interviews and discussions were no longer producing substantially new codes, concepts, or explanatory insights relevant to the study objectives.

All audio recordings were transcribed verbatim and translated into English before analysis. To maintain accuracy and data integrity, transcripts were reviewed and cross-verified against the original audio recordings by the research team. Thematic analysis was conducted using a structured six-phase process involving familiarization with the data, generation of initial codes, identification of candidate themes, review of themes against the dataset, definition and naming of themes, and preparation of the final analytical narrative. Coding focused on participant perceptions of access, acceptability, counselling

experience, household negotiation, community trust, service quality, monitoring, barriers, facilitators, and sustainability of the Marvi worker model. To enhance credibility and reduce individual interpretive bias, two members of the research team independently reviewed a subset of transcripts, compared coding interpretations, and resolved discrepancies through discussion and consensus. Emerging themes were supported with representative quotations from different participant groups to preserve closeness to the data and reflect variation across community and programme perspectives.

Several steps were incorporated to strengthen trustworthiness. Credibility was supported through the use of multiple participant groups, inclusion of both community and programme-level perspectives, audio-recording of interviews and focus group discussions, transcript verification, and peer debriefing during analysis. Dependability was addressed by following a consistent semi-structured data collection approach across districts and applying a systematic thematic analysis process. Confirmability was strengthened through team-based review of transcripts and coding decisions. Transferability was supported by describing the study setting, participant groups, intervention context, and service delivery model in sufficient detail to allow readers to assess relevance to similar rural and underserved settings.

Potential sources of bias were considered during study design, analysis, and interpretation. Because participants were recruited with support from Marvi workers and community focal persons, the sample may have included individuals with greater exposure to or more favorable experiences of the programme. In addition, the affiliation of researchers with HANDS Welfare Foundation, the organization implementing the intervention, may have contributed to social desirability bias in participant responses. These risks were addressed by using open-ended questioning, encouraging participants to describe both positive and negative experiences, including multiple participant groups, cross-verifying transcripts, and interpreting findings cautiously as participant-reported perceptions and experiences rather than objective measures of contraceptive uptake or intervention effectiveness.

Ethical approval was obtained from the Ethical Review Committee of HANDS Welfare Foundation before initiation of the study under reference number HANDS/ERC/02/08-2024. Written and verbal informed consent was obtained from all participants before data collection. For participants aged 16–17 years, written consent was obtained from a parent or legal guardian in addition to participant assent. Participation was voluntary, and all participants were informed about the study objectives, procedures, confidentiality protections, audio-recording, and their right to withdraw at any stage without consequences. Participant anonymity and confidentiality were maintained throughout data collection, transcription, analysis, and reporting.

RESULTS

A total of thirteen in-depth interviews and twelve focus group discussions were conducted across four rural districts of Sindh, including Umerkot, Dadu, Sanghar, and Ghotki. In-depth interviews were conducted with Marvi workers, District Project Managers, and District Programme Women Development Officers, while focus group discussions were conducted with married women of reproductive age and male community members. The findings are presented as qualitative themes reflecting participant perceptions and experiences of Marvi worker–delivered family planning services, including access to information and commodities, acceptability of counselling, household decision-making, perceived quality of services, monitoring processes, and sustainability needs.

Table 1. Participant Groups and Data Collection Methods

Participant Group	Data Collection Method	Number of IDIs	Number of FGDs	Approximate Participants per FGD	Approximate Total Participants
District Project Managers	IDI	3	0	—	3
District Programme Women Development Officers	IDI	2	0	—	2
Marvi Workers	IDI	8	0	—	8

Participant Group	Data Collection Method	Number of IDIs	Number of FGDs	Approximate Participants per FGD	Approximate Total Participants
Married Women of Reproductive Age	FGD	0	8	10	80
Male Community Members	FGD	0	4	10	40
Overall	IDI and FGD	13	12	8–12	Approximately 130

IDI, in-depth interview; FGD, focus group discussion.

The participant structure allowed triangulation across community members, frontline workers, and district-level programme staff. Most community-level data were obtained through focus group discussions with married women of reproductive age and male community members, while implementation-level insights were obtained through interviews with Marvi workers and district programme personnel. The approximate total sample was 130 participants, based on the reported number of focus groups and average group size.

Table 2. Main Qualitative Themes, Subthemes, and Supporting Participant Groups

Theme	Subthemes	Supporting Participant Groups
Improved access to family planning information and commodities	Door-to-door counselling; local availability of contraceptive commodities; reliance on Marvi workers as trusted sources	MWRAs, male community members, Marvi workers, DPMs
Marvi workers as culturally acceptable community intermediaries	Local female worker identity; comfort discussing reproductive health; trust in Marvi Markaz	MWRAs, Marvi workers, male community members
Persistent barriers to contraceptive acceptability	Myths about family planning; religious concerns; hesitation in spousal communication; gendered decision-making	MWRAs, DPMs, Marvi workers
Perceived quality and community value of Marvi services	Respect for Marvi workers; household counselling; support for birth spacing; broader health education	Male community members, MWRAs, DPWDOs
Monitoring, supervision, and service continuity	Monthly work planning; register checking; client verification; commodity follow-up	DPMs, Marvi workers
Sustainability and programme strengthening needs	Refresher training; financial support; male engagement; expansion of BiB model	DPMs, DPWDOs, Marvi workers, community participants

The thematic analysis identified six interrelated areas describing how participants perceived the Marvi worker model. Across participant groups, Marvi workers were described as accessible and trusted providers of family planning information, particularly in communities where alternative sources of reproductive health counselling were limited. However, participants also described persistent barriers, including myths, hesitation in couple communication, gendered decision-making, and the need for greater male engagement. Programme personnel emphasized monitoring, supervision, worker support, and refresher training as important for continuity of services.

Theme 1: Improved Access to Family Planning Information and Commodities

Participants described Marvi workers as important local sources of information about family planning and contraceptive methods. Married women of reproductive age reported that Marvi workers conducted awareness sessions in villages and explained available methods in culturally understandable terms. Participants also indicated that access to family planning commodities through Marvi houses and Business-in-a-Box shops improved convenience and reduced dependence on distant or less trusted sources of services.

Table 3. Representative Findings on Access to Family Planning Information and Commodities

Subtheme	Participant Group	Representative Quotation
Awareness through community sessions	Current user, Dadu	"Yes, a Marvi worker conducted multiple sessions in our village to provide awareness to married women for family planning and child spacing. She informed all participants clearly regarding all methods of FP."
Change in understanding of family planning	DPM, Dadu	"In the past, their perception was 'FP means no more childbirth' and 'FP is a sin.' Since now Marvi and the health organization have reached to uncovered areas, they now know about the benefits of family planning."
Marvi workers as available service contacts	DPM, Sanghar	"Marvi always plays her role effectively. However, there are some people who do not listen to her. In such situations, Marvi asks us to accompany her, and together we conduct meetings on family planning."
Local access to commodities	Community and programme participants	Participants reported availability of family planning commodities through Marvi houses and Business-in-a-Box shops.

These findings indicate that participants perceived Marvi workers as improving local access to family planning information and commodities. The data suggest that household visits, village-level sessions,

and Marvi Markaz-based service points increased the visibility and acceptability of family planning discussions. However, these findings reflect perceived access and awareness rather than independently measured contraceptive uptake.

Theme 2: Marvi Workers as Culturally Acceptable Community Intermediaries

Participants emphasized that Marvi workers were women from local communities, which made them more acceptable for discussing reproductive health topics with married women. Women reported greater comfort in discussing family planning with Marvi workers compared with other sources. The Marvi Markaz was described as a supportive space where women could discuss family planning and reproductive health without hesitation.

Table 4. Representative Findings on Trust, Comfort, and Cultural Acceptability

Subtheme	Participant Group	Representative Quotation
Comfort discussing family planning	Current user, Umerkot	"People of our village never thought about FP. Marvi's counseling changed this. Women of our village feel comfortable now."
Reduced hesitation in reproductive health discussions	Current user, Umerkot	"Before meeting Marvi, they all were thinking about FP, but hesitated in discussing the idea with their husbands."
Personal motivation of Marvi workers	Marvi worker, Ghotki	"If I speak about myself, I used these methods too, as I got married at a young age, my first child had a weakness, so I thought that keeping the interbirth gap of 2 years was necessary."
Community trust in Marvi role	Male FGD, Sanghar	"The Marvi worker plays a good role as a health worker. She provides all the facilities regarding FP to our women and informs them about the available resources at the Marvi Markaz."

Participants' accounts suggest that cultural acceptability was closely linked to the local identity, gender, and familiarity of Marvi workers. Women appeared to value Marvi workers as approachable counsellors, while male participants also acknowledged their role in providing information and support. These findings indicate that trust and social proximity were central to the perceived usefulness of the Marvi worker model.

Theme 3: Persistent Myths, Religious Concerns, and Gendered Decision-Making

Although participants reported improved awareness, several accounts indicated that family planning remained influenced by myths, religious concerns, and household decision-making patterns. Some community members associated family planning with permanent limitation of childbirth or viewed it as religiously inappropriate. Married women also described hesitation in discussing contraceptive decisions with husbands, highlighting the importance of gendered communication and spousal support.

Table 5. Representative Findings on Barriers to Family Planning Acceptability

Barrier	Participant Group	Supporting Evidence
Misconception that family planning means no further childbirth	DPM, Dadu	"FP means no more childbirth."
Religious concern regarding family planning	DPM, Dadu	"FP is a sin."
Hesitation in spousal discussion	Current user, Umerkot	Women were thinking about family planning but hesitated to discuss it with their husbands.
Resistance from some community members	DPM, Sanghar	"There are some people who do not listen to her."
Safety and mobility concerns for Marvi workers	Marvi worker, Umerkot	"Considering the safety in our rural areas and political influences, I prefer someone to accompany me."

The findings show that improved counselling did not fully remove barriers to family planning. Participants described persistent misconceptions and reluctance among some community members, while Marvi workers reported challenges related to safety, mobility, and social resistance. These findings support the need for continued community engagement, male involvement, and context-sensitive counselling strategies.

Theme 4: Perceived Quality and Community Value of Marvi Services

Participants generally expressed satisfaction with Marvi worker services and described them as useful for women's health, family planning awareness, and birth spacing. Male community members acknowledged the role of Marvi workers in informing women about available resources. Participants also reported that Marvi workers provided education beyond contraceptive use, including menstrual hygiene, maternal and child health, household management, and general health-related guidance.

Table 6. Representative Findings on Service Quality and Community Value

Service Dimension	Participant Group	Representative Quotation or Evidence
Respect for Marvi workers	Male FGD, Sanghar	"Everyone respects the Marvi."
Perceived usefulness for women's health	Male FGD, Sanghar	"Her teachings have greatly helped in improving the health of our women."
Household-level counselling	Community participants	Marvi workers counselled current users, non-users, mothers-in-law, and spouses during household visits.
Broader health education	Community participants	Participants reported education on menstrual hygiene, maternal and child health, and household management.
Birth spacing message	Community participants	"Family planning and birth spacing are crucial for a healthy and flourishing family."

Community accounts indicate that Marvi services were valued not only for contraceptive counselling but also for broader reproductive and household health education. Male participants' positive descriptions suggest that the Marvi worker role had gained some community-level recognition. However, satisfaction should be interpreted as participant-reported experience rather than objective service quality measurement.

Theme 5: Monitoring, Supervision, and Service Continuity

District-level programme personnel described monitoring processes intended to support service quality and continuity. These included monthly work plans, advance communication with Marvi workers before field visits, review of registers and client tracking cards, verification of services with clients, and tracking of commodity-related records. Monitoring was presented as a mechanism to identify service gaps and ensure follow-up.

Table 7. Reported Monitoring and Supervision Processes

Monitoring Component	Reported Process	Participant Group
Monthly planning	Monthly work plan prepared before field visits	DPM
Advance coordination	Marvi workers informed before village visits	DPM
Register review	Marvi registers checked during monitoring	DPM
Client tracking	Client Tracking Cards maintained and reviewed	DPM
Commodity record verification	Pills, referral follow-up, client cards, and BiB entries reviewed	DPM
Client verification	Clients asked whether they received services or commodities	DPM
Follow-up for unavailable clients	Services offered during subsequent visit when client unavailable	DPM
Temporary migration follow-up	Marvi worker asked about delivery of required stock to migrated clients	DPM

Programme-level findings suggest that supervision was structured around record review, client verification, and commodity follow-up. The reported monitoring system may support continuity of family planning services, although the manuscript does not provide independent audit data or quantitative indicators of monitoring performance.

Theme 6: Sustainability and Programme Strengthening Needs

Participants and programme personnel identified several factors relevant to sustaining the Marvi worker model, including refresher training, financial support, commodity availability, expansion of the Business-in-a-Box model, and greater male engagement. Male involvement was repeatedly suggested as important because husbands and male family members often influence contraceptive decision-making. Marvi workers' motivation and ability to continue household visits were also linked to safety, mobility, supervision, and financial support.

Table 8. Programme Strengthening Priorities Identified From Participant Accounts

Priority Area	Suggested Strengthening Measure	Rationale From Findings
Marvi worker capacity	Regular refresher training	Updating knowledge of modern contraceptive methods and counselling skills
Worker motivation	Enhanced financial support	Supporting continuity of fieldwork and household visits
Myth reduction	Counselling focused on misconceptions	Addressing beliefs that family planning prevents all future childbirth or is religiously inappropriate
Male engagement	Additional strategies for male community education	Supporting spousal communication and household decision-making
Commodity access	Strengthening Marvi Markaz and BiB supply	Maintaining local availability of family planning commodities
Safety and mobility	Field support during visits to distant or politically sensitive areas	Reducing risks reported by Marvi workers during village outreach
Monitoring	Continued record review and client verification	Supporting service continuity and data accuracy

These findings indicate that the perceived sustainability of Marvi worker–delivered family planning services depends on both community trust and programme-level support. Participants valued the local accessibility of Marvi workers, but continued service delivery was linked to training, motivation, supervision, commodity availability, and culturally appropriate male engagement. The data suggest that strengthening these components may improve the continuity and acceptability of the model in similar rural settings.

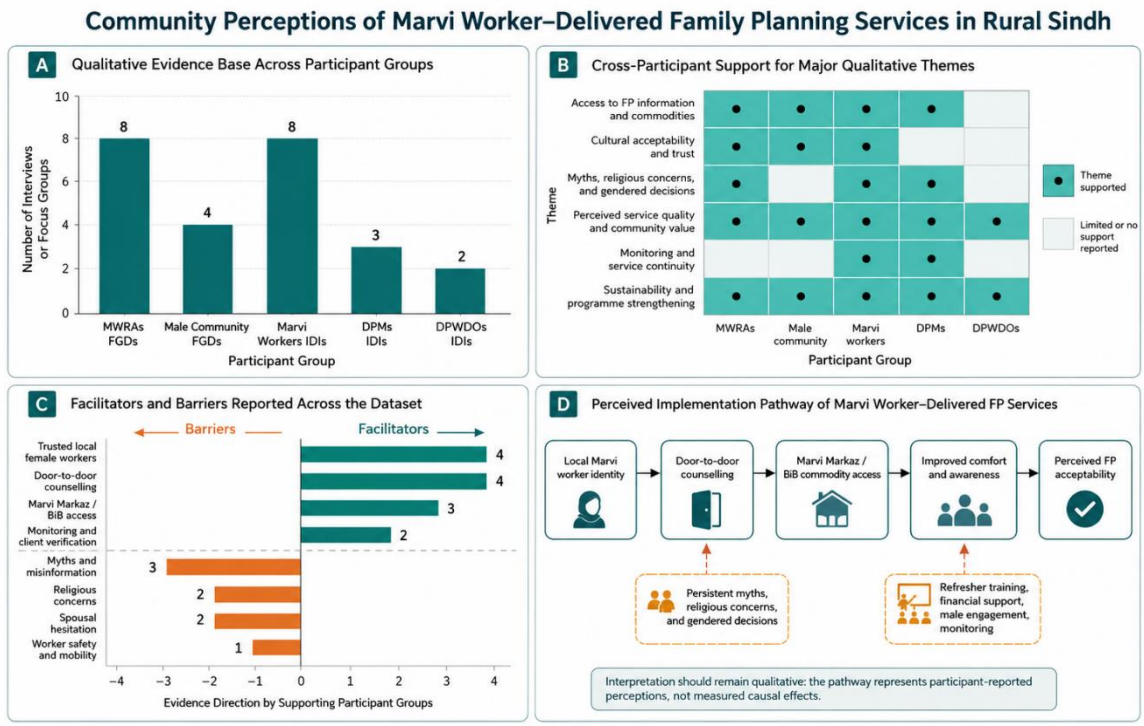

Figure 1 Panelled qualitative synthesis of community perceptions of Marvi worker–delivered family planning services in rural Sindh. Panel A shows the qualitative evidence base across participant groups. Panel B presents cross-participant support for the major themes identified in the dataset. Panel C summarizes reported facilitators and barriers according to the number of participant groups supporting each finding. Panel D illustrates the perceived implementation pathway linking local Marvi worker identity, household counselling, Marvi Markaz/BiB access, comfort in reproductive health discussion, and perceived family planning acceptability. Values in the figure represent source-group reporting within the manuscript and should not be interpreted as individual participant frequencies or measured intervention effects.

Overall, the qualitative findings show that participants perceived Marvi workers as trusted community-based providers of family planning counselling and commodity linkage in rural Sindh. The intervention was described as improving comfort in reproductive health discussions, increasing awareness of contraceptive options, and facilitating access to local service points. At the same time, myths, religious concerns, gendered decision-making, worker safety, and the need for sustained programme support remained important barriers. The results support the relevance of culturally embedded, door-to-door

family planning counselling models, while also highlighting the need to interpret findings as participant-reported experiences rather than objective evidence of contraceptive uptake or intervention effectiveness.

DISCUSSION

This qualitative assessment explored community perceptions and experiences of Marvi worker–delivered family planning services in four rural districts of Sindh. The findings suggest that participants perceived Marvi workers as trusted local intermediaries who improved access to family planning information, facilitated discussion of reproductive health issues, and strengthened community-level awareness of contraceptive options. The value of the model appeared to derive from several interconnected features: the local identity of Marvi workers, their ability to provide household-level counselling, the availability of Marvi houses as acceptable community spaces, and the linkage of counselling with access to family planning commodities. These findings are consistent with prior evidence from Pakistan indicating that contraceptive use is shaped not only by physical availability of services but also by trust, sociocultural acceptability, household negotiation, and community-level credibility of service providers (3,8,10,13).

Participants reported that family planning was previously associated with misconceptions, including the belief that it meant complete cessation of childbirth or that it was religiously inappropriate. These perceptions reflect persistent barriers described in earlier literature from Pakistan, where myths, misinformation, gender norms, and limited reproductive health literacy continue to restrict modern contraceptive use, particularly in rural and underserved settings (3,10,13). In the present study, Marvi workers were perceived as helping to reduce hesitation by explaining contraceptive methods in locally understandable terms and by repeatedly engaging women through village sessions, household visits, and Marvi Markaz-based interactions. However, the findings should not be interpreted as evidence that these barriers were eliminated. Rather, the data suggest that culturally familiar counselling may create opportunities for women and families to discuss family planning more openly.

A major finding was the importance of trust and cultural proximity. Because Marvi workers were women from the local community, participants described them as more approachable for discussing family planning, birth spacing, menstrual hygiene, maternal health, and related reproductive concerns. This is important in rural settings where women may face restrictions in mobility, discomfort discussing reproductive health with unfamiliar providers, and limited access to confidential counselling. Similar community-based models have been reported to improve acceptability of reproductive health interventions when service providers are embedded within the communities they serve and are able to engage women through repeated, respectful, and culturally appropriate contact (12–14). In this study, the Marvi worker role appeared to extend beyond commodity linkage and functioned as a bridge between formal programme structures and household-level reproductive decision-making.

The findings also highlight the continued influence of gendered decision-making. Although women reported greater comfort after counselling, some accounts indicated hesitation in discussing family planning with husbands. Male participants generally expressed respect for Marvi workers, but male engagement remained an area requiring further strengthening. This is particularly relevant because contraceptive decisions in many rural households are influenced not only by women's knowledge but also by husbands, mothers-in-law, family expectations, and wider social norms. Prior studies from Pakistan have similarly emphasized that male attitudes, household power relations, and spousal communication are important determinants of contraceptive acceptability and use (3,8,13). Therefore, future implementation of the Marvi worker model may benefit from structured male engagement strategies, including male-focused counselling sessions, couple-oriented education, and involvement of trusted male community facilitators where culturally appropriate.

Participants also described the Marvi Markaz and Business-in-a-Box model as important mechanisms for local access to family planning commodities. The availability of contraceptive supplies within or near the community may reduce practical barriers such as distance, cost, transport limitations, and discomfort in seeking services from unfamiliar health facilities. This is consistent with evidence that physical access to services remains an important predictor of modern contraceptive use among women in rural Pakistan (10). Nevertheless, the current qualitative data do not provide objective measures of commodity stock, service coverage, method continuation, or contraceptive prevalence. Therefore, claims should remain limited to participant-reported perceptions of improved access and acceptability. Future studies should combine qualitative inquiry with routine service statistics or longitudinal follow-up to assess whether perceived access translates into sustained contraceptive use.

The study further identified monitoring and supervision as important components of programme continuity. District-level personnel described monthly work plans, register review, client tracking cards, commodity-related entries, and client verification as mechanisms used to maintain service quality. These processes are important because community-based interventions depend on consistent supervision, accurate records, commodity availability, and timely follow-up. However, the manuscript does not include independent audit data or quantitative indicators of monitoring performance, and therefore these findings should be interpreted as programme staff descriptions rather than verified measures of implementation fidelity. Future programme evaluations should assess supervision quality, stock continuity, referral completion, and client follow-up through mixed-methods designs.

Sustainability emerged as a cross-cutting concern. Participants and programme staff suggested that Marvi workers require continuous refresher training, financial support, safety consideration during outreach, and programme-level encouragement to sustain motivation. These needs are especially relevant because Marvi workers may travel across villages, engage with households in socially sensitive discussions, and work in environments affected by political influence, mobility restrictions, and safety concerns. Capacity-building should therefore include updated information on contraceptive methods, counselling skills, myth correction, confidentiality, referral pathways, and strategies for engaging resistant households. Strengthening the Business-in-a-Box model may also support local trust and worker motivation if implemented with appropriate oversight.

This study has several strengths. It included multiple participant groups, including married women of reproductive age, male community members, Marvi workers, District Project Managers, and District Programme Women Development Officers, allowing triangulation across community and programme perspectives. The inclusion of four rural districts also provides insight into the perceived role of Marvi workers across diverse underserved settings in Sindh. The use of interviews and focus group discussions enabled exploration of both individual implementation experiences and shared community narratives. The study also contributes useful implementation evidence on a locally embedded family planning model in Pakistan, where qualitative research on community perceptions remains essential for improving reproductive health programming.

The study also has important limitations. First, all researchers were affiliated with HANDS Welfare Foundation, the organization implementing the programme under evaluation, which may have influenced participant responses and increased the likelihood of social desirability bias. Second, recruitment through Marvi workers and community focal persons may have preferentially included participants with more favorable exposure to services, while non-users, service refusers, and individuals with negative experiences may have been underrepresented. Third, data were collected within a limited time period across geographically dispersed districts, which may have restricted iterative sampling and deeper exploration of emerging themes. Fourth, the study was conducted only in communities where Marvi workers were active, and findings may not be transferable to areas without similar community-based service structures. Finally, as a qualitative study, the findings reflect participant-reported

perceptions and experiences at one point in time and should not be interpreted as objective evidence of increased contraceptive prevalence, continuation, or programme effectiveness.

CONCLUSION

This qualitative study suggests that Marvi worker–delivered family planning services were perceived by participants as acceptable, accessible, and valuable in rural communities of Sindh, particularly because Marvi workers were locally embedded female providers who could offer household counselling, reproductive health information, and linkage to family planning commodities through trusted community spaces. Participants described improved comfort in discussing family planning, greater awareness of contraceptive options, and appreciation for the role of Marvi workers in supporting birth spacing and women's health. However, persistent myths, religious concerns, spousal hesitation, gendered household decision-making, worker safety, and the need for sustained training, supervision, male engagement, and financial support remained important implementation challenges. The findings support the continued refinement of culturally sensitive, community-based family planning models while emphasizing that future evaluations should include non-users, negative cases, and quantitative service indicators to assess actual contraceptive uptake and continuation.

REFERENCES

1. Abdullah M, Bilal F, Khan R, Ahmed A, Khawaja AA, Sultan F, et al. Raising the contraceptive prevalence rate to 50% by 2025 in Pakistan: an analysis of number of users and service delivery channels. Health Res Policy Syst. 2023 Jan 12;21(1):4.

2. Ahmed A. Pakistan's fertility rate has declined, says UN [Internet]. 2025 [cited 2025 May 20]. Available from: https://www.dawn.com/news/1889376

3. Memon ZA, Mian A, Reale S, Spencer R, Bhutta Z, Soltani H. Community and health care provider perspectives on barriers to and enablers of family planning use in rural Sindh, Pakistan: qualitative exploratory study. JMIR Form Res. 2023;7. doi:10.2196/43494

4. United Nations Population Fund Pakistan. Pakistan amidst an eight billion planet [Internet]. [cited 2025 May 20]. Available from: https://pakistan.unfpa.org/en/news/pakistan-amidst-eight-billion-planet

5. Khan S, Zareen H, Razzaq A, Farooq MU. Current contraceptive prevalence rate and its correlates in an MCH covered community of Lahore. Esculapio-JSIMS. 2018;14(1):1-6. doi:10.51273/esc18.71411

6. World Health Organization. Family planning/contraception methods [Internet]. [cited 2025 May 20]. Available from: https://www.who.int/news-room/fact-sheets/detail/family-planning-contraception

7. Focus 2030. The access to contraception around the world: situational analysis and current challenges [Internet]. [cited 2025 May 20]. Available from: https://focus2030.org/the-access-to-contraception-around-the-world-situational-analysis-and-current

8. Saleem S, Rizvi N, Feroz AS, Reza S, Jessani S, Abrejo F. Perceptions and experiences of men and women towards acceptability and use of contraceptives in underserved areas of Karachi, Pakistan: a midline qualitative assessment of Sukh initiative, Karachi Pakistan. Reprod Health. 2020;17(1):95. doi:10.1186/s12978-020-00946-3

9. Jamali Y, Simon DJ. Modern contraception in Pakistan: a cross-sectional study. Popul Econ. 2024;8(1):77-96. doi:10.3897/popecon.8.e106872

10. Ali SA, Fatmi Z. Predictors of modern contraceptive usage among women in rural Pakistan: physical access to services still a major barrier. EC Gynaecology. 2017;4(1):24-33. Available from: https://ecommons.aku.edu/pakistan_fhs_mc_chs_chs/376

11. Khan MM, Khan MW, Qadir I, Ali ZC, Kamran M, Ghanni U. Status of modern contraceptive use among married women in Lahore, Pakistan. Pak J Med Health Sci. 2015;9(1):44-47.

12. Shah AM, Lee K, Mir JN. Exploring readiness for birth control in improving women health status: factors influencing the adoption of modern contraceptive methods for family planning practices. Int J Environ Res Public Health. 2021;18(22):11892. doi:10.3390/ijerph182211892

13. Shah NZ, Ali T, Jehan I, Gul X. Struggling with long-time low uptake of modern contraceptives in Pakistan. East Mediterr Health J. 2020;26(3):297-303. doi:10.26719/emhj.19.043

14. Rahu MA, Shaikh Q, Baloch N, Sario Z, Perveen S, Malhi P. Assessment of sexual and reproductive health interventions in rural Sindh: a community-based cross-sectional study. Avicenna J Health Sci. 2025;2(4):174-181. Available from: https://avicennajhs.com/index.php/ajhs/article/view/136/57