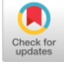

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ORIGINAL ARTICLE

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Family Planning Challenges During COVID-19: CHW and MWRA Perspectives from Rural Pakistan

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ABSTRACT

OBJECTIVES: The COVID-19 pandemic led to an overall disruption of essential health services especially in low-resource settings. The rural context around family planning (FP) services in Pakistan was greatly impacted, which advocates the need to find a way to comprehend the experiences and coping of frontline workers and the communities in the areas.

METHODOLOGY: During the period from July 2019 to December 2020, the study was carried out among CHW communities in the rural areas of the Badin district Sindh. Interviews were done with 20 community health workers (CHWs) and 20 females from 20 villages by using a purposive sampling technique. Evaluating the main themes from the data allowed us to learn how FP services, behavior and communities adjusted during the pandemic.

RESULTS: CHWs faced foremost challenges in enduring door-to-door FP counselling due to the COVID-19 SOPs, where they were largely unable to conduct door-to-door counselling of FP. Due to the fear of unplanned pregnancies, FP services experienced heightened demand whereby new clients required these services due to a need to avoid such a risk. FP counselling received both positive and negative responses, with MWRAs observing decreased access, as well as depending on mobile communication and referrals. Further remote services of CHWs were welcome. Such perceptions, as well as access to supplies, affected choices of methods: approximately 25% of respondents moved to short-term methods, and 60% chose IUDs or injectables to minimize visits to health care services during lockdowns.

CONCLUSION: The study highlights the adaptability of both CHWs and MWRAs in maintaining FP access during the COVID-19 crisis. Strengthening remote counselling, ensuring supply continuity, and promoting flexible service delivery models are critical to building resilient FP systems in future emergencies.

Keywords: COVID-19, Family Planning, Community Health Workers, Health System Disruption, Women's Health, Health Service Delivery

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INTRODUCTION

Pandemics, natural disasters and situations of conflict commonly make it difficult to provide both sexual reproductive health and family planning services, preventing routine access to such services.[1,2] Because of the COVID-19 pandemic and restrictions worldwide, approximately 47 million women in poor and middle-income countries were denied access to modern contraception.3 In the case of the Ebola emergency, such disruptions caused maternal deaths and unplanned pregnancies to increase.[4,5] Pakistan is among the countries with a high maternal mortality burden and critical shortages in family planning (FP) services. According Pakistan Demographic and Health Survey PDHS 2017-18,the maternal mortality ratio stands at 186 deaths per 100,000 live births, modern contraceptives were used by only 25% of people and in rural Sindh, the need for contraception remained especially high, at 22%.[6,7] Meeting the FP2020 and SDG 3 goals became even more difficult because the pandemic caused health systems to become overstretched and restricted people's access to care where it was most needed.[8]

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The government's Lady Health Worker program only helps about 60% to 70% of hill areas, with many remote villages in Badin District excluded.9 In this situation, Community Health Workers (CHWs), who operate outside of the government, provide a vital but missing link for health services.[10,11]

Research done in Bangladesh, Nigeria and Brazil indicates that when the health system fails, CHWs take on key roles in public health by supplying contraceptives, giving counseling and earning community trust.[12,13,14] In the Philippines and India, people relied on CHWs to combat rumors and promote steps to prevent COVID-19.[15,16] Most responses were reactive and implemented only after the event occurred, rather than being integrated into formal national disaster preparedness protocols. This highlights a critical omission in national emergency infrastructure: while frameworks like Pakistan's National Disaster Risk Reduction Strategy (2025–2030) and National Disaster Response Plan outline comprehensive risk mitigation and response strategies, they do not specifically incorporate proactive measures for family planning or reproductive health services in emergency settings.

Because of the pandemic, weaknesses in Pakistan's vertical health systems became more apparent and decentralized and community-based approaches were recognized.[17] Because of short supplies and poor training, CHWs found new ways to reach people, share messages and deliver services, following the constraints due to the pandemic.[18] It was challenging for people living in rural regions to receive FP services which became more necessary following temporary reductions in income and access to healthcare.[19]

We are investigating the impact of the COVID-19 disaster on providing FP services in rural Badin, how CHWs and MWRAs dealt with the disruption and what can be learned for better FP systems in the future. The rationale behind this study stems from the significant service disruptions experienced during the pandemic, which exposed vulnerabilities in community-based health systems. By exploring how Community Health Workers (CHWs) and Married Women of Reproductive Age (MWRAs) adapted to and managed these disruptions, we aim to identify systemic gaps and resilience strategies. The findings will inform the design of more adaptable and equitable FP delivery systems, especially in resource-constrained and crisis-prone settings.

METHODOLOGY

A qualitative, exploratory design were used for this study. Researchers worked in communities outside of the LHW areas—places where state reproductive health services were very limited.

Data collection for the study started in July 2019 till December 2020, with two phases: before the pandemic (July 2019 – March 2020) and during the pandemic (April – December 2020). Because of this timeline, the researchers could examine differences in FP habits, thoughts and methods of delivery prior to and during COVID-19. CHWs and Married Women of Reproductive Age (MWRAs), between 15 and 49 years, were the population we studied. In order to show diversity, we recruited both CHWs and MWRAs from 20 different villages using a purposive sampling technique All data were gathered via face-to-face interviews by using two semi-structured interview guides, each one for CHWs and MWRAs (Tool A and Tool B). Among the explored ideas were disruptions in public health services, views on risks, switches between available FP techniques, strategies for adaptation and the level of trust the community has. A group of trained field investigators conducted the interviews with each respondent in either Sindhi or Urdu, each interview lasting about half an hour to forty minutes. All interviews were recorded so the participants could consent, fully transcribed as they were spoken and then translated for analysis.

The Institutional Ethics Review Board at SZABIST Karachi approved this study. All participants gave their informed, written consent and COVID-19 safety rules (wearing masks, being physically distant and washing hands) were upheld during the study.

Data were analyzed using thematic content analysis, supported by NVivo software. Transcripts were read repeatedly to develop initial codes, both deductively (from the interview guides) and inductively (emerging from the data and supporting literature). These codes were organized into thematic matrices to allow cross-comparison across participants and groups.

Parameters analyzed included:

- Barriers to FP service access
- Changes in contraception-seeking behavior
- Perceptions of counselling quality and delivery
- Adaptation strategies used by CHWs and MWRAs
- Influence of supply chain and service disruptions

No statistical tests were applied, as this was a qualitative study focused on capturing in-depth experiences rather than measuring variables. Data integrity and rigor were ensured through triangulation of interview data with field notes and weekly peer debriefing sessions among the research team.

RESULTS

In total, 40 In-depth interviews (IDIs) were conducted with two categories of respondents: 20 Community Health Workers

(CHWs) and 20 Married Women of Reproductive Age (MWRAs) in the age range of 18–49 years from 20 villages of non-Lady Health Worker (non-LHW) areas of rural Badin district, with a mean age of CHWs was 36.4 years (SD ± 4.2) and MWRAs was 30.8 years (SD ± 5.6). All CHWs were mobilized to deliver family planning (FP) services at the community level in their catchment areas during the COVID-19 pandemic. The majority of CHWs were secondary educated with a passed matriculation, intermediate diplomas in community midwifery or adult literacy program certificates. The majority of 15 out of 20 MWRAs (75%) had not attended school or had only completed education up to the primary level.

At the local level, there were Community Health Workers (CHWs) who received door-to-door training on family planning, and they also operated micro family planning counselling centers in the rural community. The sampled individuals were Married Women of Reproductive age (MWRAs) who were sampled among households to whom these services were provided. Respondents explained their behaviors and adjustments to the COVID-19 pandemic, especially regarding family planning access and its provision. According to the theme content analysis, there were two main themes, i.e. (1) the attitude of CHWs toward the disruption of service and improvising services during the COVID-19 pandemic as a public health problem, and (2) the experiences and perceptions of MWRAs of family planning services during the same period. Various subcategories supported each theme based on community-level experiences of fear and misinformation, adaptation and innovation in the delivery of services, shifts in contraceptive preference, and shifts in trust and trust-building between CHWs and community members. Before the pandemic, FP services were regularly provided during home visits and face-to-face counselling with constant levels of demand, and a desire for the method of provision. Nevertheless, with the pandemic, mobility restrictions and the fear of the virus caused the disruption of the service and CHWs switched to different tactics, including phone-based counselling. At the same time, the perceptions of MWRAs changed, and more of them preferred long-acting contraceptives such as IUDs and injectables to reduce interactions with medical professionals. In the following part, the reflection of the stories told by CHWs will be provided, which also demonstrates the importance of their presence, problems, and improvisation in terms of ensuring reproductive health services during an era of crisis.

Theme 1: Perceptions of Community Health Workers (CHWs)

1. Initial Uncertainty and Risk Perception

At the beginning of the pandemic, CHWs talked about how people in the community felt full of fear and puzzlement. Officers said misinformation created distrust and changed their relationships with the communities they protected.

“People mentioned that if you went to the health center, you might never come back. They believed we had the virus and were passing it on to them.”

“At the start, people did not want their houses to be open. They were afraid of soldiers and other officials wearing uniforms or a health badge.”

2. Limited Preparedness and Rapid Learning

Many CHWs mentioned that they have not been trained very formally. Many community program managers used brief education talks or information sessions organized by residents. Still, they quickly caught on and began using what they had learned during the day.

“We didn't have any formal training. The LHV just explained handwashing and distancing and afterward, we focused on practice”.

“At the start, I too was scared because I wasn't sure what COVID meant. Immediately after being told how it is passed, I told others just like the experts had done”

3. Rapid Reconfiguration of Service Delivery

Since services had to remain continuous, CHWs moved from group counseling to seeing clients one at a time, stuck to the standard procedures and advised people to take contraceptives that work for a longer period.

“At the start, sessions were with 10 to 12 women, but during COVID, we had women come individually, following distance guidelines and using masks”.

“I informed women that IUCDs are safer and working well because they only need one visit—they don't need another appointment for a long time”.

“Before, we often just popped up on people's doors, but now we were much more cautious. We left the house even without masks some days.”

4. Use of Risk Communication Tools

CHWs used visual information, education, and communication (IEC) products to help low-literate clients understand FP messaging and COVID-19 safety.

"The chart was quite helpful. Women may not be proficient in reading, but they immediately catch the idea once they see an illustration of a mask or handwashing.

During trips, I used flipbooks and posters because our location lacked internet. It simplified counseling.

5. Community Outreach as Emergency Response

By doing outdoor hygiene demonstrations and open-air counseling, CHWs improvised outreach that helped remove

Preparedness Factor	Observed During COVID-19	Implication for Future Disasters
Frontline Worker Flexibility	CHWs adapted service delivery formats	Train CHWs in disaster response and flexibility
Community Engagement	Open-air sessions and visual tools used	Invest in IEC materials & community health education
Method Adaptation	Shift to long-acting contraception	Stock multiple FP methods at local levels
Behavioral Shifts	FP framed as protective health measure	Leverage this framing in disaster messaging
Trust in Local Providers	CHWs became preferred source of support	Empower CHWs through training & resources
Service Continuity Challenges	Lockdowns disrupted facility access	Develop mobile units, telehealth, or backup systems

misconceptions and restored trust.

"We showed good hand washing techniques while we were out in the street. This is also how the children also acquired it".

"People might gather near to the wells or common spaces, but there were no official sessions. We sent messages regarding FP and hygiene there".

6. Service Continuity Amid Systemic Constraints

healthcare workers were devoted to giving FP counseling as well as assistance to residents irrespective of a growing burden, limitations on travel, and infection risks.

"It was challenging. Even without assistance or transportation, we went to people's houses. Women needed us more because they were afraid of getting pregnant".

"I continued working because who else would go if we didn't? It is worthwhile even if only one woman receives assistance".

"Because government centers were closed, I was able to manage more clients than previously." First, people began coming to us".

Married Women of Reproductive Age (MWRAs)

1. Perception of Risk and Protective Behavior At first, MWRAs were not entirely aware of how serious COVID-19 was. Fear began to give access to active safeguards such as wearing masks, washing your hands, and social separation.

   "As things got worse I started washing my hands more, avoided crowds, and continuously wore a mask, although at first I was not sure how serious COVID-19 was."

   "After speaking with our local health specialists, I quickly recognized how important it is to follow security requirements."

2. Changes in FP Seeking Behavior Family planning (FP) facilities were not readily accessible partly because of lockdowns and virus threats. Despite obstacles, several women saw that FP was essential to family health in unpredictable times.

   "Because there were no transportation and everyone was afraid of getting the virus at clinics, it was exceedingly difficult to acquire family planning services during the lockdown."

   "But I began to realize that, in order to keep my family safe and healthy, family planning is more important now than ever."

3. Method Switching as Risk Mitigation While some women moved to tablets or abstinence to lower the chance of infection, many women went to long-acting FP techniques to cut down on clinic visits.

   "In order to avoid having to visit the clinic each month during COVID, I moved from injections to the IUCD."

   "To avoid going to hospitals and running the danger of infection, "several of us stopped using injections and took tablets or decided to abstain for now."

4. Spousal Support and Decision-Making In the heat of the crisis, couples recognized their need for preventing unwanted deliveries and expanded their participation in FP decisions. In the absence of their partners, some women practiced solo agency.

   "During the pandemic, my husband and I had more conversations and decided that we should avoid getting pregnant unintentionally while things are uncertain."

   "Since it was important to my well-being, I sometimes made the decision to use contraceptive myself while my spouse wasn't present."

5. Trust in CHWs and Local Health Systems When professional health services were cut off, community health workers (CHWs) were seen as helpful and accessible, and were trusted

   "When the hospital was either closed or congested, I could only rely on the community health worker".

   "She gave me with the medicines I needed and free counsel, which was really helpful during the lockdown."

6. Community Recommendations for Future Crises In order to increase readiness and safety during emergencies, MWRAs underlined the necessity of enhanced resource availability (soap, vitamins, protective gear) at health centers.

   "So that we feel safe when we come for services, health centers should always have soap, vitamins, and masks

ready for us during crises."

"Women like me won't have to worry as much during any future crisis if they plan well with these items."

Theme 2: Lessons in Resilience – Building Disaster-Ready FP Services

The community's response to COVID-19 offers a blueprint for integrating family planning into broader disaster preparedness strategies:

DISCUSSION

The research reveals that, despite COVID-19 disrupting healthcare in Pakistan, it also allowed community health services to come forward. As global examples prove, using CHWs makes sure essential care continues if the main care centers become unavailable.[20,21]

In Badin, CHWs easily adapted; they now do individual counselling, use COVID-19 safeguards and say LARCs like IUCDs may help clients need fewer trips to the health centres. Their strategies are similar to practices in India, where health workers urged patients to try LARCs instead of regular checkups after lockdowns were put in place.22 Uganda and Ethiopia also discovered that community distributors of contraceptives lessened gaps in family planning services during emergency situations.[23,24]

MWRAs began to find FP helpful for both protecting their families and decreasing the number of their children. The new idea is supported by research in the Philippines and Kenya, in which concerns over costs and healthcare access during the pandemic made many people turn to family planning.[25,26] When people heard about risks from CHWs, their preferred actions and new habits were strongly tied to how they saw the risks.

The research pointed out certain issues with the present procedures. The limited training they got made CHWs feel uneasy about managing disasters. WHO supports adopting organized training for CHWs, especially in countries where the health system is not totally reliable.27 In addition, it was often challenging when couples used condoms, mostly as found in Nepal and Rwanda studies.[28,29]

In Badin, CHWs succeeded due to the use of simple notes and their close connection with local people. Because many participants did not own phones with internet, being able to use visual presentations and meeting outdoors was particularly helpful, as explained by recent studies.[30,31]

We must also look at how gender affects the situation. People were anxious about the economy during the pandemic, so many made decisions together about FP. Partners were generally involved and chose much of the direction, due to the prevalence of patriarchal values across South Asia.[32]

All of these findings show that FP should be part of community and national programs for preparedness. Increasing knowledge of CHWs, managing supplies more smoothly and picking the right ways to communicate will enable a health system to recover from any disaster.

CONCLUSION

The pandemic made it clear that FP services are very vulnerable in rural Pakistan—but it also highlighted the strength of community-based actions. Community health workers in Badin made sure that FP services continued by inventing ways, adapting and building trust. MWRAs began acting in different ways and took a bigger role in choosing to have children. Because of these findings, there is a trend toward decentralized care that includes family planning as a key part of planning for and responding to disasters.

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CONFLICT OF INTEREST
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NM: Conception, Design of the work, Data collection on, and Drawing, Reviewed, Final approval, Agreement to be accountable
SAR: Conception, Design of the work, Acquistion on, Data Analysis, and Drawing, Reviewed, Final approval, Agreement to be accountable.
STA: Conception, Design of the work, Interpretation on of data for the work, and Drawing, Reviewed, Final approval, Agreement to be accountable.
NS: Conception, Design of the work, Data collection on, and Drawing, Reviewed, Final approval, Agreement to be accountable .
FA: Conception, Design of the work, Data analysis, and Drawing, Reviewed, Final approval, Agreement to be accountable

DATA SHARING POLICY
The data that support the findings of this study are available from the corresponding author upon reasonable request.

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