

Influence of Social and Cultural Practices on Maternal Mortality: A Qualitative Study from South Punjab, Pakistan

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Research

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Abstract

Background: A disproportionate high rate of maternal deaths are reported in developing and underdeveloped regions of the world. Much is associated with social and cultural factors which are barriers for women to utilise appropriate maternal health care. A huge body of research is available on maternal mortality in developing countries. Nevertheless, there is paucity of literature on socio-cultural factors leading to maternal mortality within the context of the Three Delay Model. The current study aims to explore socio-cultural factors leading to a delay in seeking care in maternal healthcare in South Punjab, Pakistan.

Methods: We used a qualitative method and performed three types of data collection with different target groups: i) 60 key informative interviews with gynaecologists, ii) four focus group discussions with Lady Health Workers (LHWs), and iii) ten case studies among family members of deceased mothers. The study was conducted in Dear Ghazi Khan, situated at South Punjab, Pakistan. Data was analysed with the help of thematic analysis.

Results: The study identified that delay in seeking care – and its potentially following maternal mortality – is more likely to occur due to certain social and cultural factors in Pakistan. Poor socioeconomic status, limited knowledge on maternal care, and financial constraints of rural people were the main barriers in seeking care. Low status of women and male domination keeps women less empowered. The preference of traditional birth attendants results into maternal deaths. In addition to that, early marriages and lack of family planning as deeply entrenched in cultural values, religion and traditions – e.g. the influence of spiritual healers – prevented young girls to obtain maternal health care.

Conclusion: The situation of maternal mortality is highly alarming in Pakistan. The uphill task of reducing deaths among pregnant women is deeply rooted in addressing certain socio-cultural practices, which are constraints for women seeking maternal care. The focus on reduction of poverty and enhancement of decision-making power is essential for approaching the right of medical care.

Plain English Summary

Globally, a high number of women is dying because of complications during pregnancy or at childbirth. These deaths are more frequent in developing and underdeveloped countries. Some reasons for this are related to social and cultural factors which are barriers for women to utilise appropriate maternal health care. Therefore, this study aims to explore socio-cultural factors leading to a delay in seeking care in maternal healthcare in South Punjab, Pakistan.

We interviewed a variety of persons to get an overview about this topic: 1) 60 interviews have been conducted with gynaecologists, 2) we performed four focus group discussions with eight to ten Lady Health Workers providing maternal health care, and 3) talked with family members of deceased mothers.

The study identified that delays in seeking care are associated with poor socioeconomic status, limited knowledge on maternal care, and financial constraints of rural people. Low status of women and male domination keeps women less empowered. In addition to that, early marriages and lack of family planning as deeply entrenched in cultural values, religion and traditions prevented young girls to obtain maternal health care.

The situation of maternal mortality is highly alarming in Pakistan. One of the major tasks for reducing deaths among pregnant women is deeply rooted in addressing certain socio-cultural practices. The focus on reduction of poverty and enhancement of decision-making power is essential for approaching the right of medical care.

Background

The reduction of maternal mortality is among the key determinants of development strategies of country all over the world [1]. Globally, every two minutes a pregnant woman dies, either due to complications during pregnancy or at childbirth [2]. Almost 300,000 women died due to pregnancy related complications in 2017. The great majority of these deaths (94%) occurred in countries with low resources [3]. With a population of approximately 204.6 million people, Pakistan is the sixth most populous country globally. In Pakistan, the maternal mortality ratio is 140 per 100,000 live births in 2017 [4]. Although there have been significant improvements in the country's healthcare system, Pakistan still faces many challenges in regards to its high population growth, infant and maternal mortality, and many infectious and non-infectious diseases [5]. In terms of development indicators, Pakistan has shown a poor performance and lags far behind, specifically with reference to maternal healthcare [6]. The maternal healthcare seeking behaviour in Pakistan, particularly in rural areas, is highly influenced and constrained by a series of religious and cultural factors [7].

Many studies have documented the association between religious, social and cultural beliefs and health risks in childbearing women [7, 8]. For example, some studies on Muslim women show that they usually opt for 'faith-based' healthcare services. These services include, to a large extent, incompetent spiritual healers with no legitimate academic background to support their business. Such women disregard proper medical attention during their pregnancy resulting in negative effects on their reproductive health [9]. Overall, the development of science and technology has helped to overcome these superstitious practises associated with pregnancy. However, in most developing countries, people living with low socioeconomic status continue to follow certain beliefs and cultural rituals despite of no scientific evidence available in their favour [10]. It has been significantly revealed that the societal norms, values and culture of any country has a substantial effect on its maternal mortality rate [10, 11]. All this is deeply rooted in the role and status of women in the society [12]. Women in Pakistan, particularly living in rural areas and urban slums, are perceived as second grade citizens, treated as subordinates and have limited or no say in personal and family matters [13]. This poor status of women and male domination in society contribute greatly towards women's poor reproductive health [14].

Worldwide, the maternal healthcare system has used numerous kinds of approaches for improved understanding of the difficulties faced by women during pregnancy or at childbirth. One of the utmost noteworthy approaches is the Three Delays Model [15]. According to a research conducted by Thaddeus and Maine in 1994, complications during pregnancy can be avoided if adequate and timely treatment is provided. However, if the treatment is delayed and insufficient, the consequences can be adverse. These delays have three folds, i.e. the delay in making decisions in seeking care, the delay in reaching healthcare facility, and the delay in receiving required maternal healthcare. The first delay is about recognizing maternal complications at the earliest possible time and making efforts to seek appropriate medical care immediately [15]. Therefore, this type of delay is estimated to contribute to 73% of maternal deaths [16]. A huge body of research is available on maternal mortality in developing countries. Nevertheless, there is a paucity of literature on socio-cultural factors leading to maternal mortality within the context of the Three Delay Model – specifically the first delay. Thus, the current study aims at exploring socio-cultural factors leading to a delay in seeking maternal healthcare, that is, first delay in maternal healthcare utilisation in South Punjab, Pakistan.

Methods

Study design

We used a qualitative method for this study and performed three types of data collection with different target groups: i) 60 key informative interviews with gynaecologists, ii) four focus group discussions with Lady Health Workers (LHWs), and iii) ten case studies among family members of deceased mothers.

Study site

The study has been conducted in all four districts of the division of Dera Ghazi Khan (DGK), South of Punjab, Pakistan. The reason for selecting this division is the fact that DGK remained lowest in significant socioeconomic indicators among all other divisions of Punjab in 2017/18 [3]. For instance, 56.9% of the population of DGK is living below the poverty line, which is the highest proportion compared to all other division of Punjab province. Furthermore, the literacy rate among young women aged 15–19 years is 48.9%, which is the lowest literacy rate in the province. Similarly, the maternal mortality indicators reveal a very alarming situation for females in the area. Only 36.3% of women receive four or more antenatal care visits and 29.8% of females have delivery by skilled birth attendants. Many females (43.0%) prefer traditional birth attendants (TBA) for delivery and consultation during or after pregnancy, which is again highest as compared to other divisions of Punjab province [3].

Data collection

The 60 *key informative interviews with gynaecologists* of the head quarter hospitals in all four districts of DGK were performed by the first author. The interview guide (Supplementary Appendix) was developed on the basis of a literature review and informal discussions with physicians. The interview guide comprised of questions which revolved around knowing the socio-cultural factors contributing to a delay in seeking

maternal healthcare – and in many cases eventually even leading to maternal death. The interviews lasted between 60 to 90 minutes. Interviews have been conducted until we reached to the saturation point as almost all responses were similar to the previous ones and no new points were coming out of the data. The interviews with healthcare professionals were conducted at their workplaces in their respective hospitals at the time of their convenience.

Considering the significance of LHWs, direct and close interactions with families and women in rural areas, four *focus group discussions with LHWs* were also conducted, one in each district. The LHW program is a key part of Pakistan's national strategy to reduce poverty and improve the health sector [17]. LHWs bring health services at the door steps of underserved and marginalized section of society [18]. Therefore, LHWs are the community health workers who provide healthcare information including awareness on maternal health [19]. The list of LHW within all four districts was obtained from the health department and contacts were made. The LHW were requested to reach the head quarter hospital of the relevant district. They were facilitated and given transport allowance by the research team. Eight to ten LHWs participated in each focus group discussion, which lasted between 60 and 90 minutes each.

Furthermore, to obtain the point of views of families where maternal death took place, ten *case studies among family members of deceased mothers* were also conducted. The participants of case study were selected with the help of LHWs. They identified a person who remained close to the deceased mother throughout her pregnancy and delivery. The interviews took place at homes of deceased mothers after taking consent of the study participants. The maternal death case was included if the death had taken place during the last two years to minimize recall bias. Maternal death was considered only if the death was reported as an outcome of complications during pregnancy, at childbirth or at the postpartum period. To get valid responses, the interviewee had to be someone close to the mother being aware of all details regarding the death. In few cases, the husband was reported as a main family member who remained with the deceased mother. In few cases the mother-in-law or sister-in-law of the deceased mother were identified by LHWs as the main person who remained with the deceased mother throughout her pregnancy and childbirth.

Data analysis

All interviews and focus group discussions were audio recorded and notes were taken during data collection. As interviews were conducted, some participants' native language was Punjabi (regional language of Punjab province) and some spoke in Urdu (Pakistan's national language). All interviews were transcribed in Urdu and afterwards translated into English. Data analysis was done manually using a thematic analysis. All initial codes related to the research questions were joined together and transferred into a theme. A thematic map was developed to help the researchers in generating themes and constructing visual relationships within the themes [20]. At this stage, the themes were diverse and several were discarded due to insufficient pieces of information. However, during the next stage, a refinement of themes took place. Refinement was done through stages in which, initially, the patterns coherent in nature were ensured. At a later stage, the coherent patterns were reflected in relation to the entire data. That ensured the accuracy of the themes taken from the data [20]. After obtaining vibrant and

clear idea of the themes emerged and making sure they fit together, they were defined, named and the interpretation was performed. Initially, data coding was conducted by one researcher. All codings were discussed with two further reviewers, being experienced in qualitative research and having a scientific background either in public health or sociology.

Results

We investigated the social and cultural factors that have been contributing towards delayed decision-making in seeking healthcare for women during pregnancy. The themes derived from data analysis are presented below.

Low status of women

Despite many governmental efforts for gender mainstreaming, Pakistan is far behind in achieving gender equality in health, education, economic and political participation for women. Still women are subjected to different forms of discriminations and have little or no say in their personal or family matters [21]. The present study found that illiterate and socially isolated women were more vulnerable to poor reproductive and general health. There were certain social and cultural practises such as *purdah* (veil system), dependency on male guardian, and other social restrictions on independent mobility of women which deprived them to seek timely medical care during pregnancy and childbirth. A majority of women, particularly in rural areas, could not read or write as education was not considered necessary for women. A mother-in-law had a clear stance against women's education as she opined:

"Why school or college education for girls? Ability to read and write is good but the most important thing is that they should be able to read Holy Quran. And she should have the skill of cooking and home making. This is what every Muslim woman must learn."

While discussing the healthcare needs of women, especially during pregnancy, a wife of a retired military spy said:

"During pregnancy, the family – especially the husband and mother-in-law – must be careful and considerate. If there is a problem, it is the duty of husband to arrange a visit to a qualified care provider."

Lack of autonomy and mobility

In the local culture of Pakistan, women generally lacked autonomy to seek care when they need it. It was noted that there were many "stakeholders" whose consent was necessary before a pregnant woman embarks to seek care from a health facility. One LHW explained:

"It is not the decision of pregnant woman when, why and from whom to seek healthcare. Usually, it is the joint decision of many players including mother-in-law, father-in-law, husband and sometimes the husband's brother. They make the decision according to the perceived severity of illness, cost, nature of threat, availability and competence of care providers, and other conditions."

Sometimes, the decision to travel to a healthcare facility is not based on women's health condition but on availability of transport as well as on availability and willingness of her husband, father or brother to travel with the women. A gynaecologist pointed out the restrictions on mobility of women:

"Most of the time, mothers with pregnancy complications are brought to us [referring to gynaecologists] when they are near to death. Yesterday, I received a pregnant mother for delivery. She was in a critical condition with profuse bleeding. When I inquired the family for this delay, the family told me that they were waiting for her husband to bring her to hospital as culturally it is forbidden for woman to go alone."

Another dimension of a lack in decision-making is illustrated by a LHW:

"Sometimes, women do not want to make their decisions independently as it has serious consequences if something went wrong. For example, if a woman selects a particular doctor for treatment and if the pregnancy is terminated by this treatment, the women will be in trouble. So, she needs to take other family members into confidence while making the decision."

Low nutritional status

Due to the low social status of women they also experience discrimination at home. Sometimes, they are not provided with proper food which is required during pregnancy. Therefore, their dietary needs are frequently ignored. A healthy and balanced diet during pregnancy and after childbirth is one of the significant factors for women health. Absence of this can have adverse effect on mother's health and can lead to maternal complications [22]. A gynaecologist in her early thirties expressed her view on women's poor nutritional status:

"I get horrified to see the pale ghostly faces of women who reach to us with maternal complications. Giving food to the men within the house and then children first is the cultural thing here. Women's dietary needs are not their priority."

The LHWs being close to rural households had their own observation on obstacles in the first delay of seeking healthcare for pregnant women. One of the main obstacles was poverty and powerlessness within the family power structure, as stated by a senior LHW:

"In poor families, pregnant women cannot get two times decent meal; not to talk of timely and proper medical care."

Another middle-aged woman who retired as office attendant in the local middle school said:

"Here, the main issue is not poverty but priority and preference. Women from poor background – whose parents are poor and not influential – are not properly cared in their in-law's homes. They are simply ignored; the issues of their health and illness are taken for granted."

While probing families on any special focus on pregnant mother's diet, a mother-in-law commented:

"I cannot feed pregnant mother first, if children are crying of hunger. Neither my mother-in-law paid special attention to me nor I did with my daughter-in-law. What is so special in giving birth?"

Early marriages

In Pakistan, especially in poor rural families, early marriage, forced marriage and cousin marriages are common and considered as normative cultural practice. A growing body of literature indicates the negative physical consequences of early marriages on young girls [23]. A girl married in young age is not mature enough to decide about her healthcare and she is more dependent on in-laws and husbands for her healthcare needs. In local culture, child marriage is justified by providing many reasons. One of the mothers-in-law expressed her strong beliefs on girl's early marriages:

"Poor and powerless people are not safe here – so is the case with their daughters. We cannot afford keeping daughters unmarried for long at home."

A LHW shared:

"This is a general perception here: The younger the girl is, the brighter are the chances of producing more children. Therefore, many people think that it is a cultural thing and they follow it."

A female doctor in this regard shared her views:

"In this area, girls are married at an early age and they have multiple pregnancies before reaching an age of 25 years. Sometimes I refuse believing the age of the pregnant women when I am told about their age. The fact is they usually look ten to twenty years older than their actual age. They have been producing children every year and chances of maternal mortalities with such health condition are always higher."

A LHW working in a village community for the past ten years added:

"The poor parents are always in hurry marrying their daughter to lessen their burden. Culturally, people think marrying daughter early prevent them of becoming characterless. If girls remain unmarried after attaining puberty, there is a risk of creating affairs or sex scandals."

One female doctor emphasized the dependency which goes along with early marriages:

"I have assisted deliveries of many young mothers in this community. In many times they are brought to us with pregnancy complications when it is difficult to save her life. They [referring to young mothers] are not prepared to decide about themselves, about their family planning. And they do not know about their reproductive health. They are totally dependent on their in-law families for such decision-making."

Lack of reproductive autonomy

Because of social exclusion and economic non-participation, women are less aware about their reproductive rights. In some areas, the birth of a baby girl is not welcomed; rather it disempowers the

mother who gave birth to a daughter. Therefore, a woman pregnant with a baby girl is less likely to seek appropriate and timely care during pregnancy. The present study showed that the lack of family planning among married couples and the average family size in rural households is large. The study participants shared their belief that family planning is a sin in religion. Furthermore, the wish for a son is the primary factor of a large family size. A husband with very poor socioeconomic status admitted:

"My wife died during birth of the seventh child and I admit I never followed any family planning. I know very well it is a conspiracy against Muslims."

The LHW shared her experience and added:

"I was once physically abused by a mother-in-law and husband when once a young married girl – who died in childbirth later – asked for a contraceptive pill, but tried to hide it from her family. Here, culturally and religious people think it is a sin to follow family planning methods."

In household power structure, mothers-in-law have more power. They can influence the decisions related to reproductive life of the daughter-in-law, including their health seeking behaviour during pregnancy. When reproductive decisions are made by someone else but not by the mother, timely decision for healthcare is never done. The same observation was made by many participants in terms of the role of mothers-in-law in the life of their daughters-in-law. A female physician at a gynaecology ward revealed:

"The mothers-in-law are the one who decide the next course of action once a pregnant mother is brought to us. I have even seen them insisting saving the life of a baby in place of its mother, specifically if it is a baby boy."

While commenting on the situation, one LHW noted:

"When things are decided by the mother-in-law regarding seeking care, she has her own 'agenda'. She may delay the visit to save money, to avoid travel or simply to settle score with the pregnant mother. It is unfair and non-sense; but this is how it is."

Poor understanding of pregnancy complications and risk factors

The present study found that women and their families were not well-aware of pregnancy complications and related risk factors. It is evident that a timely diagnosis of complications during pregnancy is possible, if antenatal visits are available for pregnant mothers [24]. However, the local culture has its own understanding of the phenomenon of pregnancy and its associated processes. Many pregnant women have no chance of visiting medical facilities for antenatal care. The LHWs and gynaecologists blamed families for this situation. It was also noted that there is a lack of trust in certain diagnostic medical procedures performed at healthcare facilities for pregnant women. One female physician observed the following:

"Sometimes, there is a serious lack of trust between doctor and patient. Some mothers are suspicious about ultrasound and think that it is family planning devise. Lack of trust is also a factor in delaying to seek formal care."

While explaining the condition of rural women, one LHW stated:

"Poor women – which are the majority in this village – have no concept of prenatal care. They are taken to healthcare facilities when something visibly serious happened to them such as bleeding, fits or simply they lose their consciousness. For minor ailments, they are treated at home."

While narrating the need for seeking healthcare during pregnancy, a mother-in-law stated:

"Problems in pregnancy are normal and natural. Why to rush to doctors for a natural process? For thousands of years, women have been delivering children at home. Doctors just complicate things to make money."

One gynaecologist reported:

"Who cares for their treatment or antenatal check-ups? In the local culture, pregnancy is kept secret. A web of superstitious regulate the life of pregnant women. They come to us at a very critical stage."

One of the sisters-in-law of a deceased mother revealed:

"My mother-in-law believes in keeping pregnant women inside home. Therefore, she could not expose to sunlight in the first three months of pregnancy. She did the same with my sister-in-law who died in the fifth month of pregnancy due to some complication, as she was not allowed to go to a doctor because of her [referring to her mother-in-law] superstitious beliefs."

Seeking care in a plural medical system

Like other developing countries, Pakistan has a complex plural medical system where the biomedical system coexists and competes with a host of indigenous medical systems such as traditional *hakeems*, biomedical quacks, folk healers, or spiritual healers – to name a few. Depending on patient's social class, level of education, affordability, and perceived nature of ailment, the patient selects a particular care provider or multiple care provider at a time. Getting multiple advices and treatment from multiple care providers can cause a delay in seeking treatment from a qualified care provider. One physician noted:

"Women come to us with long-term complications such as high blood pressure or gestational diabetes. Poor women fail to understand the long-term treatment and ask for quick remedy. Here come the quack and spiritual healers: They promise a quick relief."

The South-Asian communities still attribute many physical and mental illness with the presence of supernatural powers and never hesitate consulting spiritual healers [8]. The role of spiritual religious

leaders even in receiving consultation for medical care during pregnancy is common. One of the respondents who was a sister-in-law of a deceased mother and who also was pregnant informed:

"I have been advised by peer sahib [referring to spiritual healers] to keep a knife under pillow and avoid sunlight throughout my pregnancy. My mother-in-law believes that it could save me from future complications."

While explaining the mechanism of delayed decision by spiritual healer a LHW added:

"I was once called upon to see a woman who had profuse bleeding in her fifth month of pregnancy. While probing, I came to know she was stopped by a local peer [referring to a spiritual healer] to travel outside of her home and to consult a doctor as she had chances of being attacked by evil forces. She died on the same evening."

A mother of a deceased women shared:

"Here, we have a strong belief of nazar lagna [evil eye] – especially during pregnancy. My daughter's mother-in-law did not allow my daughter to go outside the home and consult a doctor. Always Dai [TBA] came to her home to provide the treatment. But she [referring to Dai] has done very bad with my daughter. She took the life of my daughter. She and my daughter's in-law's family are responsible for the death of my daughter."

A physician at a gynaecology ward showed great disappointment regarding the large adverse impact of cultural and religious beliefs on pregnant women:

"These spiritual healers are part of the religious and cultural beliefs of rural people. Sometimes, a husband comes or not. But when a pregnant mother is close to death and brought to us, the local biomedical quack accompanies the family and even intervenes in our treatment methods."

Spiritual healers of various types influence the health belief system of women during pregnancy which in turn regulates their care seeking behaviours [25]. Frequently, pregnant women and their families in villages are dependent on TBAs for healthcare. The families greatly preferred TBAs and sought help from them for women during pregnancy. A mother-in-law in her late seventies showed her great trust on these TBAs:

"Let us not break our tradition. In the four walls of our house we get great help from Dai [referring to TBAs] during pregnancy and for delivery. The poor Dai is happy to receive few kilos of Atta [wheat flour] as her fee even after delivering the baby. I am happy they are always available for us."

An experienced LHW, however, showed her anger on the role of TBAs:

"I am helpless when I see these Dais to treat cases of preeclampsia and eclampsia [referring to high blood pressure during pregnancy] with herbal medicine. They don't hesitate cutting umbilical cord of baby with a knife used for vegetables. Families blindly trust in them and no force can stop them."

The gynaecologists shared their own experiences of dealing with complicated cases brought to them after treatment from untrained TBAs. One senior gynaecologist shared her views by commenting:

"The half-dead pregnant mothers are sometimes brought to us with serious complications. Most of the time, they are brought to us after wrong interventions by untrained Dais and Dais are unable to handle the delivery. In my eyes it is a killing, it is a murder."

Discussion

It is a globally accepted phenomenon that the factors determining health behaviours are seen in different contexts. These can be physical, social, economic or cultural in nature [26]. The same goes for maternal healthcare in Pakistan, particularly in rural areas. The current study found that various socio-cultural factors contributed towards first delay in decision-making (delay in seeking care) to seek appropriate maternal care, which impacts on maternal mortality in South Punjab [15]. Many studies found that the first delay is the most significant contributor to maternal deaths [16, 27]. The qualitative data of this study shows that healthcare seeking behaviours during pregnancy are extremely complex and embedded in a cultural and indigenous belief system. Additionally, prevailing economic conditions, patriarchal ideology, and the role and status of women within the family power structure also influence women's healthcare decision-making [28].

We argue that a low socioeconomic status of women is one of the major obstacles which affects women's decision-making in seeking healthcare during pregnancy and childbirth in rural areas and urban slums [28]. This low social status of women exposes them to multiple social and cultural practices such as early marriages, multiple and less spaced pregnancies, and domestic violence [29]. We observed that women's high socio-economic dependency on men throughout their life hinders them from deciding for their own health and wellbeing. The limited autonomy of women, lack of education, and their dependency on men leaves them on the mercy of family to be looked after during or following pregnancy [30]. We found that women were not provided sufficient nutrition during pregnancy. This indicates that poverty or lack of resources is a prime factor towards women's health. A healthy and balanced diet during pregnancy and after childbirth is one of the most noteworthy factors for women's health. Absence of adequate and balanced diet can have adverse effects on mother's health and can lead to maternal complications [22].

Furthermore, cultural restrictions on women's mobility is another barrier noted in our study. Restrictions on women's mobility in obstetric emergencies may lead to a delay in seeking timely care [31]. The women were found to observe *purdah* (veil) in all means and were not allowed to come out without men even during a health emergency. The consent of "stakeholders", the husband's and mother-in-law's permission, was revealed necessary for women for significant matters of her life – ranging from family planning matters to her choice of consulting an appropriate maternal care [32]. Women going out alone for medical emergency are thought to bring great dishonour to the family. Making a timely decision to select the right kind of healthcare provider is very critical for avoiding maternal and child deaths. Unfortunately,

for some poor rural women, this decision is not simple [33]. Our study highlights that delay in seeking care in obstetric complications are influenced by the traditional “wait and see” tactics. The action to seek medical care is usually taken when the situation is out of control or the condition of pregnant women worsens [27].

It was also noted that the practice of deciding a family size was also in the hands of the mother-in-law or the husband for cultural reasons. Many studies have highlighted the influential role of mothers-in-law and husbands in women's lives regarding decisions on family planning and giving birth to children [33, 34]. Among others, a pivotal fact for the lack of family planning among rural couples was found to be another factor resulting in high maternal deaths [33]. The participants of the case studies reported multiple socio-cultural factors behind the low use of family planning methods and less spacing amongst married couples. The religious interpretation regarding family planning among rural couples was an important element, as it has already been explained in previous research [34]. Rural people believe that the use of family planning methods and restricting on a small family size is against the preaching of Islam. Few reported the use of family planning as a conspiracy against Muslims to limit their population growth [35]. A great majority of religious groups in developing countries do not favour birth control methods and call them un-Islamic and unnatural [36]. Other cultural factor noted for a large family size was the family's desire for a son [37]. The present data reveals that this particular wish pushed women to give birth almost every year. Ultimately, multiple pregnancies left women at the doorstep of death.

The study also shows that Pakistan with its patriarchal society has visibly delineated roles related to gender. The household structures in villages where mothers-in-law and husbands hold major positions, hardly allow women to make decisions regarding her own life [38]. The similar influence was found related to the use of antenatal care visits. Our results indicate a very low use of antenatal care which greatly contributes to the first delay. A growing body of knowledge revealed the lack of awareness amongst women and their families towards the delivery and continuity of antenatal care [39]. Some of the results that have emerged from this study, including less use of antenatal care, are similar to studies conducted in South East Asian and South Asian countries [40–43]. The data of this study also indicates the strong cultural trait of early marriages. Early marriages were the root cause of multiple pregnancies. These are the notable social and cultural conditions that increase the lifetime risk of maternal death [44]. The prime causes noted for early marriages in rural areas was considering daughters as a burden. There is a suspicion on the character of girls in case they remain unmarried for too long. The girls being young and under the influence of their mother-in-law and husband were found to be unable to seek desired maternal care [44]. Previous studies have shown that bearing a child at an early age increases the risk of several medical complications and, therefore, leads to an increased risk of complications during pregnancy or post childbirth [44, 45].

In addition to that, the culture of relying on TBAs is a common social and cultural practise in rural areas of Pakistan [46]. Dependency on TBAs is found to be a great barrier in seeking appropriate maternal care. These TBAs are untrained, unequipped and hardly know how to handle complicated situations during pregnancy or childbirth [46]. This study documents that the rural communities are inclined towards their

centuries old traditions of trusting and utilizing the services of TBAs. They are the preferred choice and families are not ready to compromise on that. Families find them easier to afford and it is convenient to call them when needed. Besides that, they are available 24 hours every day and provide services at doorsteps [47]. The issue of *purdah* (veil) of women is also not compromised, as it saves women to go out and consult physicians, which could in some cases be males. However, most of the complications during pregnancy or after childbirth are the result of consulting uneducated and untrained TBAs [48].

This study also shed light on traditional and customary beliefs of people on spiritual healers. From medication to any advice for daily matters of life, the advice of spiritual healers is considered highly important. As a matter of fact, this is known to be a social issue in rural areas [49]. The visit to these spiritual healers in rural communities is another ritualistic practice in rural areas. It highly prevents women to seek maternal care from medical practitioners. In addition, a strong belief in witchcraft or the evil eye on pregnant women is a major component of many cultures [50–53]. In order to ward off evil spirits and the influence of supernatural powers on pregnant women, the elderly of the family, most likely a mother-in-law, take the decision to consult spiritual healers [54, 55]. Rural people believe in certain rituals and practices such as chanting of certain verses, spiritual healer's blow on the face or body of a women, or a simple water as a great medication for maternal complications [55]. These spiritual healers were found to be influencing figures on rural women's lives from decisions ranging from place of birth to permission of her mobility during pregnancy and family planning. This practice is highly common in Pakistan and families prefer them as compared to professional and trained doctors [55, 56].

Limitations

One of the major strengths of our study is the large sample size for a qualitative study and the use of three different types of data collection (key informative interview, focus group discussions, and case studies) including diverse groups of interviewees. The synthesis of these results allows for an in-depth perspective on social and cultural factors associated with maternal mortality. However, one needs to keep in mind that the results describe the specific situation of a rural and deprived region in Pakistan. A further limitation is associated with data analysis. The thematic analysis is based on articulated phrases. However, not expressed attitudes and non-verbal information are not included in data analysis.

Conclusion

The maternal health in Pakistan is highly influenced by socio-demographic elements, the societal structures, cultural practices and religious beliefs, gender discrimination and lacking autonomy of women. The situation of maternal mortality is highly alarming in country. The uphill task of reducing deaths among pregnant women is deeply rooted in addressing certain socio-cultural practices which are constraints for women seeking maternal care. Despite of governmental efforts to provide maternal care to rural women of Pakistan, the social practices and cultural beliefs play important roles to decide for women who will survive and who will not. It is absolutely pivotal to identify the causes of maternal deaths as early as possible. Maternal deaths can easily be prevented if women are saved from putting off

seeking care. The important key to reduce maternal mortality is to address the poor economic and social statuses of rural families. A great emphasis is required to raise the status of women in the communities through education and economic empowerment. Without addressing the social and cultural practices in broad integrated strategies towards improvement of maternal health in Pakistan, the average Pakistani mother will face mortality and will leave behind tales of miseries, discriminations and vulnerabilities.

Abbreviations

DGK Dera Ghazi Khan

LHW Lady Health Worker

TBA Traditional Birth Attendant

Declarations

Ethical Approval and Consent to Participate

Ethical approval was obtained from the University of the Punjab, Lahore, Pakistan. Furthermore, the Health Department, Government of Punjab, Pakistan, also granted permission to conduct the study. Written informed consent was obtained from each respondent after explaining the objectives of the study and assurance of confidentiality of their identity.

Consent for Publication

Not applicable.

Availability of Data and Materials

Pseudonymised transcripts are available from the corresponding author upon reasonable request.

Competing Interests

The authors declare that there is no competing interest.

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Authors Contributions

The interviews were part of the PhD thesis conducted by SO. SO conducted data collection and analysis, RZ supervised this process. SO analysed the data in collaboration with RZ and MZZ. SO drafted the

manuscript, RZ, MZZ and FF revised it critically for important intellectual content. All authors reviewed the final version of the manuscript.

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