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# “An obedient wife never says “no” to her virtual god.” High fertility conceptions and barriers to contraceptive use among mothers of Southern Pakistan: a qualitative study

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## Abstract

**Issue** Biomedical approaches want to change locals' behaviors without understanding the sociocultural rationales and contextualizing the cultural and structural backdrop of women's agency.

**Objectives** This study explored the perceptions and practices of rural mothers about fertility and reproductive health and further examine the lack of preference for contraception and birth spacing in Southern Pakistan.

**Methodology** Using purposive sampling we recruited 15 healthcare providers and 20 mothers from Southern Punjab. Key informants and in-depth interviews were used for data collection. We extracted themes and sub themes to analyse qualitative data.

**Findings** Five major themes identified preventing birth spacing and contraceptive use: (1) cultural barriers (2) economic difficulties and demographic factors; (3) gender-related hurdles; (4) spiritual and religious obstacles, and (5) medico-ethical complications. Nearly, ten sub-themes contributing to these major themes were: custom of girls' early marriages, in-laws' permission for contraception, women's concern for medical complications and preference for safer methods, misuse of contraceptive methods by the medical community, mothers' perception of contraception as sinful act and controlling birth is against faith, economic and rural-ethnic factors for high fertility, masculine disapproval of condom use, and wishing to give birth to male children.

**Suggestions** We advocate for understanding the sociocultural explanations for low contraceptive use and urge practice of more natural methods of birth spacing over commercial solutions. The study suggests socio-economic development of less developed communities and empowerment of poor, illiterate, and rural women along with behavior change communication strategies.

**Keywords** Contraception, Birth spacing, Socio-cultural challenges, Southern Punjab

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## Introduction

Pakistan, the 5th most populous (216.6 million) country in the world, has the highest total fertility rate (TFR) in South Asia [1]. Though the fertility rate slightly declined from 5.4 to 3.8 and the marriage age increased from 18 to 19.5 from 1990 to 2012, the country has failed to attain a Contraceptive Prevalence Rate (CPR) of 55% by 2015 [2]. Even though there is a high unmet need for contraception (17.3%) the CPR is only 34.2% because the majority of the birth intervals (66%) are shorter than 3 years as recommended by the WHO [3].

Contraceptive knowledge, attitudes, and practices might be influenced by socioeconomic, demographic, and sociocultural dynamics [4]. Evidence shows that multiple factors impact contraception such as the age of women, place of residence, area, wealth index, working status, education, and acquaintance with family planning messages [5]. In Pakistan, contraception prevalence was higher among females in urban areas in comparison with those living in rural areas for example in the provinces of Sindh, Baluchistan, and South Punjab. Also, it was significantly higher in women belonging to the richest and richer quantiles as compared to women of poorer and poorest quantiles. The prevalence was also higher in educated women and working women as compared to illiterate and non-working women [5, 6].

In the African context [7], rural Gambian women faced limited prenatal care, and also delivery-related matters were not in their control, which increased adverse risks and complications during pregnancy and after childbirth. Literature from South Asia and South America shows that husbands and mothers-in-law have substantial control over intra-household politics [8, 9]. A study showed Pakistani pregnant women cannot make use of health services because of family restrictions [10].

Evidence shows that increasing females' decision-making powers by involving husbands might increase the number of mothers delivering their babies at healthcare facilities [11]. Nearly half of the children's deaths in four rural areas of Bangladesh were reduced by empowering women with both independence and control [12]. Also, studies [13] demonstrated that increasing a female's decision-making power and command over household resources improved the desire for prenatal care and options regarding delivery at the hospital. Evidence shows that when girls are married at an early age, it has ramifications for public health [14].

Maternal child health outcomes are constrained owing to a variety of social, religious, and cultural reasons, lack of awareness, and low access to education for females. Every year thousands of rural Pakistani women die due to the complications of pregnancy and delivery [15]. The rural areas were most affected with an MMR of 199 per 100,000 live births, in comparison with urban areas

which had an MMR of 158 per 100,000 live births [16]. In rural areas, births often become complicated due to a lack of understanding, availability and utilization of prenatal care [17] as well as advocacy for early marriages and lack of family planning [18].

Many Pakistani men and women are reluctant to use contraceptives owing to early marriage, husband's desire for more children, and son preference [19]. In South Punjab, 30% of women reported their husbands' disapproval, 54% cited ignorance, 20% mentioned cultural opposition, 13% referred to side effects, and 8% pointed to misinformation as barriers to contraception use. Educational level and socioeconomic status were significantly associated with these barriers [20]. Past evidence indicates that Rajanpur, the most underdeveloped district in South Punjab, has the lowest contraceptive prevalence rate (CPR) at 20%, primarily due to unmet needs and the use of unsafe contraception methods [21].

Recent evidence indicates that major issues hindering contraceptive use in Pakistan include husbands and mothers-in-law, the fright of side effects, and supply side difficulties [22]. A large body of literature indicate that widespread cultural and religious beliefs and misconceptions influence the use of contraception [23, 24].

Although some previous studies suggest that adverse effects and health issues are major reasons limiting the use of modern contraceptives [25, 26] and leading to unintended pregnancies among married women in Pakistan [27, 28], they do not provide an in-depth analysis of these factors. Often, dominated by the biomedical framework, public health literature challenges indigenous health beliefs and explanatory models [29] and labels side effects of contraception as false and misperceptions [30]. From a public health standpoint, local knowledge and beliefs are often dismissed as myths and misconceptions [20, 23, 24], with the blame frequently placed on mothers, thus victimizing them. Mothers' beliefs, practices, explanations must be examined with reference to their culture, and structure.

There is a dearth of qualitative and anthropological studies exploring the causes of high fertility and opposing views about contraception. Also, medico-ethical and religious barriers against contraception need to be analysed at deeper levels. Therefore, this research fills the gap by narrating (1) the personal circumstances of mothers facing gender inequity experiences, especially those related to fertility, and (2) examining how intra-household politics and the practice of early marriage deny female agency, and construct exploitative ideologies regarding gender, and reproduction as ethical and moral barometers.

## Methods

### Data collection

From January to July 2017, we gathered qualitative data in Rajanpur, a least developed district of South Punjab. This area was chosen due to its notably low contraceptive prevalence rate of 19.2% [31] and a high incidence of maternal anemia, ranging from 41 to 70% [32]. The district's overall literacy rate is 33.75%, with male literacy at 43.43% and female literacy at only 23.49% [33]. According to the latest District Census Report (2019), Rajanpur district has 61 Basic Health Units (BHUs), 8 Rural Health Centers (RHCs), 3 Tehsil Headquarters (THQs), and 1 District Headquarter (DHQ) [33].

We interviewed key stakeholders, starting with healthcare providers on the supply side, as they could facilitate connections with other important stakeholders, such as mothers, in the subsequent phase. Respondents were purposefully selected and mothers with malnourished status and having a higher number of children were included. Few teenage mothers, each with a high number of children, were also included as participants in this study due to their relevance.

In the first phase, key informant interviews (KII) were conducted with 5 population and health officials, and 10 lady health workers (LHWs), traditional birth attendants (TBAs), and midwives. In the next round, healthcare workers assisted us in identifying and communicating with mothers. Nearly 30 mothers were informed about the nature of the research, however, we could obtain consent from only 20 mothers after their families and relative consultations (see Table 1).

After review of relevant literature, theories, and basic field findings, we prepared a semi-structured interview guide (see Supplementary Material) that was pilot tested with few mothers before data collection, and also updated from time to time during fieldwork. They were asked what major social constructs of high fertility and low contraception exist at the local level. The locals' places or residence were intentionally preferred so that they could feel safe and relaxed. The principal investigator was medical anthropologist and had background in public health. He was assisted by two female research assistants and respective local lady health worker. We did not use audio recorders owing to the cultural sensitivity and comfortability of females. Similarly, we did not insist

on local females for thumb impressions because most illiterate people feel doubtful when they are asked to give their thumb impressions. Thumb impressions are mainly taken in the local context for legal transactions so they avoid giving it. Verbal consent was therefore taken seeing their cultural sensitivities. A flexible format of face-to-face Interviews (see Supplementary Material) ranging from 1 to 2 h continued with 20 mothers in their local (Seraiki) language. These were some of the most significant challenges we encountered during data collection and navigated the gatekeepers.

### Data analysis

With concurrent data collection, management, and analysis, we translated verbatim as soon as possible for the entire qualitative data acquired from the key informant interviews, in-depth interviews, and field notes from the indigenous language to the English language. Using inductive and deductive methods, entire raw data was meticulously studied. Then, through line-by-line color coding, the raw data of the transcripts were labeled to extract and associate common meanings. Then, we clustered analogous codes to generate wider classifications. After this, we cross-verified the verbatims and narratives and removed the ambiguity, contradictions, and inconsistencies. Then, codes and categories were reevaluated and a number of prominent subthemes started emerging from the entire data. Finally, all visible obstructions to birth spacing and contraceptive use were subsequently arranged into five major themes: (1) cultural, (2) medico-ethical, (3) gender, (4) religious, and (5) sociodemographic (see Fig. 1).

### Ethical/IRB considerations

The IRB approval for this study was attained from the Advanced Study and Research Board (ASRB) of Quaid-e-Azam University Islamabad in the 307th meeting that was held on October 20, 2016. All study participants were fully acquainted with the purpose of this study before getting their proper consent to become part of this inquiry. Because the majority of mothers had no formal education, therefore only verbal approval was taken according to their comfort. After securing informed permission from respondents, we assured them of their privacy, namelessness, and confidentiality.

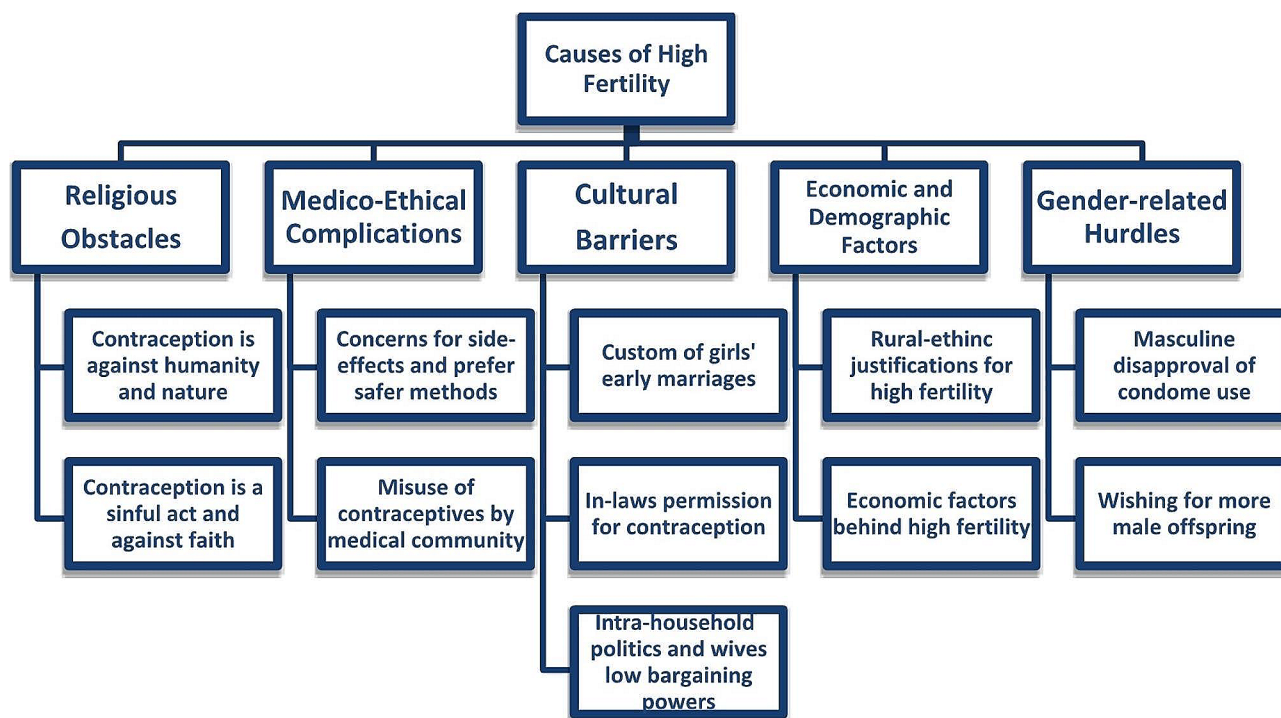
## Results

Sociodemographic characteristics show that the majority of mothers were illiterate with low-income status (Table 2).

Our findings reveal that mothers face five major types of barriers that obstruct birth spacing and contraceptive use. These barriers include: (1) cultural barriers due to marriage customs, in-laws control, and intrahousehold

**Table 1** Details about the respondents ( $n=35$ )

Details of Interviews	No of Informants ( $n$ )
In-depth-Interviews of local mothers	20
Key Informant Interviews of TBAs, LHWs, and midwives	10
Key Informant Interviews of population and health officials	5



**Fig. 1** Conceptual Framework showing causes of high fertility and barriers to contraceptive use in Southern Punjab, Pakistan

**Table 2** Sociodemographic Characteristics of Mothers (n = 20)

Indicator	Frequency and %
<b>Age of Mothers</b>	
15 to 20	2 (10%)
21 to 25	4 (20%)
26 to 30	5 (25%)
31 to 35	5 (25%)
36 to 40	4 (20%)
<b>Children of mothers</b>	
~ 1–2	3 (15%)
~ 3–5	10 (50%)
~ 6–8	7 (35%)
<b>Education of Mothers</b>	
Illiterate	16 (80%)
~ 5th–8th	3 (15%)
~ 10th	1 (5%)
<b>Occupation of Mothers</b>	
Farming/Agriculture	11 (55%)
Domestic labour/Livestock	7 (35%)
Other/salaried	2 (10%)
<b>Monthly Household Income (PKR)</b>	
6000–9,000	10 (50%)
10,000–15,000	7 (35%)
16,000 and above	3 (15%)

politics; (2) economic and demographic barriers owing to poverty; (3) gender related hurdles owing to masculinity norms; (4) religious obstacles because of spiritual beliefs and perceptions (5) medical barriers from healthcare providers and medical community side.

**Theme 1. Cultural barriers for high fertility**

*The custom of early marriages*

Some mothers had to produce an increased number of children and that too without intervals. It was not because of their own choice but because they were forced to marry at a younger age by their parents after receiving some kind of bridewealth owing to poor economic conditions. The poor younger girls are married due to cultural and economic reasons by their parents. As these women have very low control over their bodies, they are expected to give birth every year.

*Early marriages are the biggest enemy of adolescent girls; when a girl usually enters 12 years of age, she is married off, more often to her relative as people prefer intra-family marriage. I was very young when I got married. It's tremendously challenging to become a mother at this tender age. There're so many responsibilities while being a mother. (Mother, IDI)*  
*"There's not much charm and romance in life because we often deliver babies and take care of them. Women are completely dependent on their husbands. My husband doesn't like contraception but I obey him. It's necessary for the peace of the family." (Mother, IDI).*

*Marrying daughters at a young age is a determining factor for maternal malnutrition. The girls married at an early age cannot meet the energy requirement of protein, minerals, and vitamins due to poverty*

*and the burden of frequent pregnancies, which subsequently becomes a strong cause of maternal depletion. Furthermore, these mothers have to breastfeed along with repeated and continuous pregnancies. After continuous deliveries and breastfeeding, young mothers become weaker and deficient in many nutrients. (Population Officer, KII)*

### **Permission from in-laws, intra-household politics, and bargaining powers**

The lives of low-income women are controlled by intra-household politics after marriage, therefore, the mother-in-law, husband, and their family have the decision-making powers at the household level. In low-income families, pregnant and lactating mothers become dependent on the husband and his extended family. The mothers expressed their inability to decide freely about their physical body needs.

*I delivered eight children in total; six are alive two died. My last child died because my husband didn't allow an ultrasound. After that incident, this year, I got pregnant; again I asked my husband's permission for an ultrasound, and he again refused. But I succeeded somehow in getting an ultrasound at the lady doctor's clinic, who disclosed, 'The baby is too weak and not in the correct position, but upside down. It's a C-Section case once again, so you should come at any cost on this date, don't hesitate to C-Section, as your normal delivery is impossible, you are also weak, and this is your eighth pregnancy. You must stop delivering children now. But the husband's mother decided to deliver the baby at home. Again I delivered a dead child; the body is mine but controlled by others. (Mother, IDI)*

The repeated pregnancies and other health issues made mothers extremely low-weight. Women in patriarchal settings are further relegated by the deep reverence shown to their husbands who act as virtual gods and owners of their "black and white."

*"The role of an "exemplary wife" is not to object but to submit, serve, and suffer until her last breath; an obedient wife can never say "No" to her virtual god." (Mother, IDI).*

*"I have been pregnant five times, along with lower birth gaps and complications. During my last pregnancy, my blood pressure was too high to deliver a baby. During previous deliveries, doctors often emphasized to my husband to stop pregnancies now, as my health had already deteriorated due to deliveries. However, my husband as usual thought that*

*it was not a very serious matter. Finally, I had to be carried to a hospital where I spent several days in an almost unconscious state due to high blood pressure. Doctors were afraid I might go into a coma if my condition got worse." (Anemic and low-weight mother, IDI).*

### **Theme 2. Medico-ethical complications preventing contraception**

#### **Women's concern for health and safe methods**

Although many of the females had no problem in following the birth gap in their pregnancies, as far as their personal opinion was concerned, some mothers stated that they were afraid to become sick after using these methods. Many mothers announced:

*"We would think about spacing in the future. What methods we should adopt is however our concern. We are confused about which methods could be "safe" that don't disturb our health and cause obesity." (Mother, IDI).*

*"Contraception is not perceived beneficial for females because it brings health problems like constipation, arthritis, weakness, headache, and dizziness, and it stops a regular menstrual cycle." (Mother, IDI).*

Few mothers reported breathing problems associated with contraception. Some females expressed that there was no strict compulsion from their in-laws, but the contraceptive measures were considered to be harmful and could cause illness. One mother remarked:

*"My husband likes a gap in reproduction, and we take great care of ourselves (of releasing semen inside the vagina) but do not use any artificial contraceptives from the hospital because of adverse consequences." (Mother, IDI).*

#### **Misuse of contraceptive methods by the medical community**

Few women indicated distressing experiences with the IUD contraceptive method. A mother revealed that a lady doctor did an operation for contraception without her knowledge and soon after aborting the sixth pregnancy. The doctor made her own decision and inserted an IUD, claiming this device might work for five years. She narrated:

*"I was so surprised the medical doctor hadn't informed me about inserting a contraceptive device. Anyway, during the 5th year, my menstrual cycle got*



*disturbed. I initially thought periods would stop on the seventh day, but now it was white discharge coming out. I visited the same lady doctor who diagnosed that there was darkness in the uterus and asked first to visit a radiologist for an ultrasound. I spent almost 3 weeks in trouble, and then a radiologist discovered waste collection inside the womb. I was later operated on and my uterus had to be removed.* (Mother, IDI).

### **Theme 3. Religious rationales restricting birth control Contraception is a sinful act and controlling birth is against faith**

Contraception is believed to stop the human race and is against nature, therefore, it is a sin. Religious people consider fertility as an act of worship and obey this as an obligation and command of God. Religious beliefs are also decisive in determining issues related to fertility and reproduction.

*“My husband demands more babies because the Ummah (prophet’s followers) should expand; it is totally according to the faith and part of religion.”* (Population officer, KII).

*“We did not practice contraception because we were fearful of the Lord. Such practice is almost equivalent to committing a great sin and stopping the human race.”* (Mother, IDI).

*“Why we should use contraceptive methods, we believe that every child who takes birth also brings his/her food along with it.”* (Mother, IDI).

*“Our side, mothers, usually deliver almost seven to eight children. Birth spacing makes God angry, and God says, ‘I can take back what I give to you.’ Only a faithful lady can produce a good number of children.”* (Traditional Birth Attendant, KII).

### **Theme 4. Economic, and demographic factors behind high fertility**

#### **Rural, ethnic, and economic factors for high fertility**

Not only were there religious motivations but also ethnic and economic factors were discussed. In a patriarchal society, contraception is not culturally appreciated.

*“There are more often ethnic reasons, you know, the norm of ethnic fights is common, so maximum boys are required.”* (Healthcare Provider, KII).

When asked mothers how many kids they wanted, mothers pointed out that at least 4 or 5 are compulsory; preferably two sisters and two brothers; two are not good, but four can become helpful to one another. A mother stated:

*“We want several, we have the custom of three marriages, and I want to marry for the second time but cannot afford; my brother’s daughter has just been adolescent, so he [brother] will marry after her daughter’s marriage.”* (Mother, IDI).

*“We want we should produce babies consecutively, without gaps so that all children could grow up once and for all.”* (Mother, IDI).

When asked for reasons for desiring so many children, it was reported that

*“Rural and tribal people who live in extended and joint family structures need more protection and a labor force in rural tribal settings. Their subsistence depends on livestock, so they reside in villages where there is no scarcity of land. Their children will struggle, and hardships will make them strong and self-sufficient.”* (Healthcare Provider, KII).

*“There are old customs. LHW convinces the local woman of the birth gap, but a woman can’t convince her husband. There is a third-party requirement too, which woman alone is unable to influence.”* (Population officer, KII).

Fertility works as upward mobility for the poor as a coping strategy to tackle poverty.

*“Low family income also produces more babies because we need more children, to add small remuneration by each to make a reasonable collective sum so that household expenses could be met.”* (Healthcare Provider, KII).

*“We believe that if the number of children is increased, they might earn more.”* (Mother, IDI).

As an exceptional finding, a mother remarked how birth spacing may help them escape poverty, with fewer mouths to feed.

*“We are much disturbed with our poor circumstances, we will adopt birth spacing in the future.”* (Mother, IDI).

### **Theme 5. Gender-related hurdles affecting contraceptive use**

#### **Masculine disapproval of condom use**

The majority of the respondents informed that using condoms is often disliked by their husbands.

*“LHWs used to visit and educate us on family planning methods, especially the use of a condom. When I discussed this idea with my husband, he did not*

like this and replied, 'It's an insult for males to use a condom.' (Mother, IDI).

"My husband did not agree to the use of condoms saying, why a husband should need to imprison an organ by putting a veil around, while my wife's womb is my property." (Mother, IDI).

"In husbands' opinion, using a condom is like spoiling pleasure and enjoyment. Men do not feel much pleasure in making love while using a condom. Without a condom, men ejaculate timely but with more pleasure." (Population officer, KII).

For this reason, women chose to adopt alternative contraceptive methods that could be hidden from spouses and family such as tablets, injections, and IUDs in compulsion because they have no other way out. One mother informed;

*My husband was aged, and I wanted spacing now, but my mother forbade me to do so because it may cause diseases in women. However, I secretly got an injection for birth control because my husband had not allowed me to do so. (Mother, IDI)*

Some mothers learned that birth spacing was urgent after frequent deliveries. One mother stated, 'Now I have got an injection for contraception after delivering twins twice.' A lady said that LHWs visit their house and give essential information, and they perceive that contraception is right for females. In these cases, it is obvious that cooperation from husbands is vital.

#### **Wishing to give birth to male children**

The South Asian culture of son preference due to the perception of a female child as a liability and a male child as an asset was prominent in our data as well.

*"Birthing female babies are less likely to be wished for, as males are expected to play a bigger role in the male-dominant society. The parents usually grow up girls until they become able to be married, mostly before the twenties, with some exceptions in urban towns." (Healthcare Provider, KII).*

*"In almost all respects, parents prefer male children to females. Each time parents expect the birth of a boy, and fertility continues until the baby boy is born, and the size of the family increases in the desire to have a male child." (Healthcare Provider, KII).*

*"Mothers have to be pregnant, almost every year, to give birth to male babies which wastes mothers' nutritional status. They had to sacrifice their biological needs in being boys' mothers in this way so that their social status might be uplifted, and they should*

*get social appreciation and avoid the "stigma of giving birth to girls only." (Healthcare Provider, KII).*

*"If a mother remains unsuccessful in delivering babies, especially boys, she is often advised by family and community to visit a spiritual healer for prayer and amulet." (Mother, IDI).*

The mothers disliked the repetition of female birthing.

*"When I look at my daughter, I pray to God, Please don't give me another daughter, this is enough for me. It's very difficult to be a female in society, having tremendous difficulties and responsibilities." (Mother, IDI).*

One mother expressed

*"I was using contraceptive pills, but I've stopped taking them as I've to bear more babies because my in-laws are also asking me to produce more babies. For their happiness, I got pregnant, but they were still unhappy because of delivering a girl. When my husband knew about the baby's sex, he got red and pale." (Mother, IDI).*

*"My in-laws believed that every woman first gives a boy, then a girl; again a boy, and then a girl. They expected this time it was a male baby's turn. I suffered from stress and diabetes, and it affected my overall health, well-being, and ultimately my baby's breastfeeding, in the form of breastmilk reduction, and early weaning." (Mother, IDI).*

#### **Discussion**

The present study revealed that the most significant barriers preventing rural mothers in Southern Pakistan from preferring contraceptive use were: women's concern for diseases with the use of modern contraceptives, considering contraception as grave sin, lack of free choice and in-laws' control over females' bodies after marriage, and poor mothers preferring high number children due to the income factor. The preference for male children is prevalent because they are seen as a source of respect for mothers in society and are perceived to have a higher likelihood of becoming primary breadwinners. Conversely, the birth of female children is not prioritized as they are often viewed as a potential burden on the parents. In Southern Pakistan, where the majority of the population lives in rural areas, large families are culturally accepted and even expected due to ethnic norms. Additionally, in poor households, having more children is desirable to increase the household labour force and income. These cultural and economic contexts contribute to high fertility rates, particularly in impoverished

settings. Our findings align with a study conducted in three province of Pakistan which identifies the main reasons for not using family planning and modern contraception were small family size, in-laws' disapproval, side-effects, religious concerns, and lack of access to quality services [34]. Sociocultural factors such as desire for a large family, preference for boys and inability of women to make decisions on their reproductive health influence family planning [35].

#### **Medical barriers in contraceptive use**

Modern contraception methods were reported to harm women's bodies as mothers believed that such methods disturbed their menstrual cycle, and caused obesity, breathing problems, arthritis, weakness, headache, and dizziness. Our findings are similar with a recent study from Pakistan that reveals that fear of side effects and medical concerns deter women from using modern contraceptives even though they want to space future births [36].

The biomedical framework, which often views user experiences and explanatory models (such as irregular bleeding and leg pain) as misconceptions, restricts our deeper understanding. Public health literature, dominated by this biomedical perspective, frequently contradicts indigenous health beliefs and explanatory models, labeling these side effects as false or misconceptions [29, 36, 37]. However, illness experiences and side effects extend beyond the physical body to include social and cosmic dimensions [38]. Paul Farmer [39] emphasizes that while disease etiologies may be biological, they are often culturally endorsed causes of illness. Critical medical anthropologists argue that the side effects of contraceptives should be analyzed within the broader politico-economic contexts that shape these experiences. Constraints related to gender and class limit access to care for managing these side effects [25, 40]. Social and cultural forces subtly influence contraceptive use by creating obstacles to care and shaping the meanings attributed to side effects.

#### **Religious and spiritual dynamics of high fertility**

Even though high fertility caused maternal depletion, some mothers perceived contraception as sinful, unethical, and an artificial practice that is against natural body mechanisms. Childbirth is considered a natural phenomenon, so contraception that makes use of artificial means to prevent pregnancy is perceived as a sin [41]. Our findings are consistent with some of anthropological studies [40] that using contraception and limiting fertility was a punishable sin because of God's ingratitude, overstepping into God's domain and fighting His will. Some of regional anthropological evidence however shows that illness perceptions and experiences (family planning as a sin, and

contraceptives invite God's wrath) played a crucial role in contraceptive decision-making so it is urged to broaden dominant biomedical approaches to understand side effects related to contraceptives [42]. Rather than blaming cultural practices for low contraceptive use and high fertility rates, biomedical practitioners should seek to understand and integrate traditional and humoral belief systems into their approaches to improve contraceptive uptake. An anthropological study by Ataullahjan, Mumtaz, and Vallianatos [40] illustrates that fertility control is influenced by various moral frameworks, including religious teachings, poverty, socioeconomic inequities, and geopolitical factors.

#### **Gender and cultural factors of reproductive decisions**

Results indicated that husbands and their mothers possessed household decision-making powers. Many of the participant mothers expressed that they were unable to make free choices for their decisions regarding medical care. Evidence showed that women were dependent on their males for care because in-laws had substantial control over intra-household politics [41, 43, 44].

Our finding, "an obedient wife can never say "No" to her virtual god" is supported by studies claiming how major decision-making around mobility and reproductive health of wives is predominantly under the husband's domain [41] and how culture of silence and obedience of young women sets the basis for the lack of control over their future reproductive health [45]. In poor circumstances, females are exploited not only economically, but their reproductive capacity and capability are also "culturally controlled." This control often goes "unnoticed" but is instead "justified" under the disguise of socio-cultural norms, moral values, and beliefs. Gender inequities, such as illiteracy, and high fertility are, therefore, "normalized" because they are socio-culturally constructed, socialized, and inherited [46]. Some previous studies from Pakistani Punjab are consistent with our findings, emphasizing the need to contextualize social, economic, and structural drivers such as poverty, maternal illiteracy, and the lower status of women, which contribute to inadequate care for women. These factors significantly influence health outcomes and access to contraceptive services, underscoring the importance of a holistic approach in addressing these issues [47, 48].

Our findings for example, "I pray to God, do not give another daughter," show that delivering a female baby is considered a stigma. Mumtaz, Shahid, and Levay [49] stated that fertility is not simply a source of prestige and power, but it is also the main trajectory for females to safeguard their marital security. Winkvist and Akhtar [50] explained women had limited control over their lives, so they strongly preferred sons as, mostly for



economic reasons, and to be protected from harassment from family, relatives, and society.

#### Economic and demographic reasons behind high fertility

Our findings indicate that poor women did not access to contraceptives and desired a high number of children due to the income factor. High fertility is sometimes seen as advantageous because more children mean a larger labor force to generate income. In poverty-stricken areas, maximizing resources through high fertility is often necessary. A study from Pakistan indicates that desire for larger size of family and a preference for male children as causes of low fertility rates [51]. Evidence from India similarly suggests that larger family sizes help augment income via child labor [52]. Another study from rural central India shows that poverty limits poor women's access to education and medical care, thereby affecting their sexual behavior and health outcomes [53]. These dynamic underscores the economic and social challenges that drive high fertility rates in impoverished regions. Also, lack of social and cultural capital and structural inequalities in healthcare settings makes it difficult for illiterate rural mothers to negotiate with health providers and their access to care is reduced [54] which leads to high fertility. Additionally, in remote, rural, marginalized and poor resource settings allocated seats for LHWS remain vacant and even if they are available males in those areas do not like their women to contact LHWS because it is perceived that LHWS motivate females for abortion and contraception [55]. The study suggests that a comprehensive analysis of the determinants of reproductive politics in resource-poor settings is needed, rather than relying solely on behavioral change methods.

To sum-up, fertility behavior in the local context is shaped by a combination of medico-ethical, economic, religious, and cultural barriers. Factors such as poverty, illiteracy, and maternal fertility contribute to an ecology that exploits illiterate, rural, and poor women. Consequently, relying solely on condoms and IUDs is insufficient; instead, efforts should focus on reducing poverty, empowering women, and promoting gender equality to enhance birth spacing.

#### Limitations and strengths of the study

The CPR is usually measured for married women of reproductive age i.e., 15–49 years, however, in our sample no married women is above 40 years, which limits the generalization comparisons with other studies. Next, it would be more interesting if narratives were based on sociodemographic characteristics, e.g. educated mother vs. uneducated; employed vs. unemployed. Future research may find out the specific and interesting differences between these subgroups. Lastly, using somewhat old data may affect the efficacy of the research. The

uniqueness of this study is that it is an anthropological and qualitative research exploring causes of high fertility and opposing views about contraception. Moreover, it fills a significant gap by exploring medical-ethical religious barriers along with economic dynamics. Previously research majorly explored myths and misconceptions and blamed mothers by employing a public health lens and considering a one-sided medical point of view.

#### Conclusion

The research examines the sociocultural explanations behind increased fertility. One of the major reasons is the female's low control over her body followed by an enhancement in the female social status if she gives birth to a male child, hence the increasing number of children. The third reason is households' poverty and low-income level. Fourth, it is a religiously appreciated exercise. Next, the intention to generate male babies; the impression that fertility is an expression of masculinity; males' negative attitudes towards contraception; and the wife's adoption of submissive behavior are also important. Along with this, the contraceptive methods recommended by the biomedical community are also disliked because of their long-term perceived negative implications on the female body. The study suggests that the demographic and economic issues must also be addressed to improve the contraception prevalence. Household politics and in-laws' role is also crucial. As women's health was affected by harmful commercial contraceptives the study advocates more natural ways of birth spacing instead of market-oriented ways of contraception.

#### Abbreviations

ASRB	Advanced Studies and Research Board
BHU	Basic Health Unit
CPR	Contraceptive prevalence rate
FP	Family Planning
IDI	In-depth Interviews
PDHS	Pakistan Demographic and Health Survey
LHW	Lady Health Workers
RHC	Rural Health Center
TRF	Total Fertility Rate
TBA	Traditional Birth Attendants

#### Supplementary Information

The online version contains supplementary material available at <https://doi.org/10.1186/s12889-024-19484-9>.

Supplementary Material 1

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#### Author contributions

FA conceptualized and designed the study. FA, SB, and NN were responsible for all aspects of data collection, coding, analysis, and writing of the initial manuscript draft. NIM, SB, NN, SU, JBA, TM, and KT provided and interpreted

the findings, reviewed the manuscript edited drafts, and added essential intellectual content. All authors read and approved the final manuscript.

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#### Data availability

Data is provided within the manuscript or supplementary information files.

#### Declarations

##### Ethics approval and consent to participate

Ethical approval for the study was obtained from the Research Ethics Committee of the Quaid-i-Azam University, Pakistan (Number: QAU-ASRB-2016-307-S-I [55]; Date of Approval: 20 October 2016). We also obtained a research permission from the District Health Authority Rajanpur. All participants were fully informed about the nature of the study beforehand and then they provided informed consent. Informed consent was obtained from all subjects and/or their legal guardian(s).

##### Consent for publication

Not applicable.

##### Competing interests

The authors declare no competing interests.

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#### References

- PRB. 2020 World Population Data Sheet. Washington, DC: Population Reference Bureau. 2020. <https://www.prb.org/worldpopdata/>.
- NIPS and ICF. Pakistan Demographic and Health Survey Demographic and Health Survey 2017–18. Islamabad, Pakistan. Rockville, MD: NIPS and ICF; 2019.
- Sathar Z. Family Planning: A Missing Priority in Pakistan's Health Sector? *Lancet*. 2013;381(9884):2140–1. <https://doi.org/10.1016/S0140-6736>.
- Agyei WK, Migadde M. Demographic and sociocultural factors influencing contraceptive use in Uganda. *J Biosoc Sci*. 1995;27(1):47–60. <https://doi.org/10.1017/s002193200006994>.
- Khan A, Qureshi M, Daniyal M, Tawiah K. Impact of sociocultural factors on contraceptive use: a case study of Pakistan. *Biomed Res Int*. 2022;2022:2939166. <https://doi.org/10.1155/2022/2939166>.
- Meherali S, Ali A, Khaliq A, Lassi ZS. Prevalence and determinants of contraception use in Pakistan: trend analysis from the Pakistan Demographic and Health Surveys (PDHS) dataset from 1990 to 2018. *F1000Res*. 2021;10:790. <https://doi.org/10.12688/f1000research.55204.1>.
- Lowe M, Chen DR, Huang SL. Social and Cultural Factors Affecting Maternal Health in rural Gambia: an exploratory qualitative study. *PLoS ONE*. 2016;11(9):e0163653. <https://doi.org/10.1371/journal.pone.0163653>.
- Boivin J, Buntin L, Kalebic N. What makes people ready to conceive? Findings from the International Fertility decision-making study. *Repro Biomed Soc Online*. 2018;6:90–101.
- Speizer IS, Lance P, Verma R, et al. Descriptive study of the role of household type and household composition on women's reproductive health outcomes in urban Uttar Pradesh, India. *Repro Health*. 2015;12:4. <https://doi.org/10.1186/1742-4755-12-4>.
- Nisar YB, Aurangzeb B, Dibley MJ, Alam A. Qualitative exploration of facilitating factors and barriers to use of antenatal care services by pregnant women in urban and rural settings in Pakistan. *BMC Pregnancy Childbirth*. 2016;16(1):1–9.
- Danforth EJ, Kruk ME, Rockers PC, Mbaruku G, Galea S. Household decision-making about delivery in health facilities: evidence from Tanzania. *J Health Popul Nutri*. 2009;27(5):696–703. <https://doi.org/10.3329/jhpn.v27i5.3781>.
- Hossain MB, Phillips JF, Pence B. The effect of women's status on infant and child mortality in four rural areas of Bangladesh. *J Biosocial Sci*. 2007;39(3):355–66.
- Maitra P. Parental bargaining, health inputs and child mortality in India. *J Health Eco*. 2004;23(2):259–91.
- Marphatia AA, Ambale GS, Reid AM. Women's Marriage Age Matters for Public Health: A Review of the Broader Health and Social Implications in South Asia. *Front in pub health*. 2017;5, 269. <https://doi.org/10.3389/fpubh.2017.00269>.
- Hanif M, Khalid S, Rasul A, Mahmood K. Maternal mortality in rural areas of Pakistan: challenges and prospects. *Rural Health*. 2021;27(1):1040–7.
- Shaeen SK, Tharwani ZH, Bilal W, Islam Z, Essar MY. Maternal mortality in Pakistan: challenges, efforts, and recommendations. *Ann Med Surg (Lond)*. 2022;81:104380. <https://doi.org/10.1016/j.amsu.2022.104380>.
- RE AK, Ahmad TI, Noreen S, Ejaz A. Quantity of prenatal care (PNC) services use in Southern Punjab: a case study of Bahawalpur. *JPMA. J Pak Med Assoc*. 2019;69(1):64–7.
- Omer S, Zakar R, Zakar MZ, Fischer F. The influence of social and cultural practices on maternal mortality: a qualitative study from South Punjab, Pakistan. *Repro Health*. 2021;18(1):1–12.
- Channon. Son Preference and Family Limitation in Pakistan: a parity- and contraceptive method-specific analysis. *Int Perspect Sex Reprod Health*. 2017;43:99. <https://doi.org/10.1363/43e4317>.
- Ashraf S, Khosa AF, Fayyaz A, Bano F. Barriers of Contraception Uptake in South Punjab, Pakistan. *Pakistan J Med Health Sci*. 2022;16(09):282. <https://doi.org/10.53350/pjmhs22169282>.
- Afridi M, Ashraf M. Family Advancement for Life and Health, Population Council. Rajanpur. Islamabad: Family Advancement for Life and Health. 2010. <http://www.ndma.gov.pk/Publications/Baseline%20Household%20Survey%20Rajanpur.pdf>.
- Naz S, Acharya Y. The Effect of reframing the goals of Family Planning Programs from limiting fertility to Birth Spacing: evidence from Pakistan. *Stud Fam Plann*. 2021;52(2):125–42.
- Gold MA, Sheftel AV, Chiappetta L, Young AJ, Zuckoff A, DiClemente CC, et al. Associations between Religiosity and sexual and contraceptive behaviors. *J Pediatr Adolesc Gynecol*. 2010;23:290–7. <https://doi.org/10.1016/j.jpag.2010.02.012>.
- Sarfraz M, Hamid S, Kulane A, Jayasuriya R. The wife should do as her husband advises': understanding factors influencing contraceptive use decision making among married Pakistani couples—qualitative study. *PLoS ONE*. 2023;18(2):e0277173. <https://doi.org/10.1371/journal>.
- Naqvi S, Hashim N, Zareen N, Fatima H. Knowledge, attitude and Practice of Parous Women Regarding Contraception. *JCPSP—J. Coll Phys Surg Pak*. 2011;21(2):103–5.
- Population Council, and Bill and Melinda Gates Foundation. Analysis of the Family Planning Situation in Pakistan. New York: Population Council; 2016.
- Singh S, Sedgh G, Hussain R. Unintended pregnancy: Worldwide levels, trends, and outcomes. *Stud Fam Plan*. 2010;41(4):241–50.
- Sathar Z, Singh S, Rashida G, Shah Z, Niazi R. Induced abortions and Unintended pregnancies in Pakistan. *Stud Fam Plan*. 2014;45(4):471–91.
- Etkin NL. Side effects: Cultural Constructions and reinterpretations of Western Pharmaceuticals. *Med Anthro Quar*. 1992;6(2):99–113.
- Marvi, Kamyla, Howard N. Objects of Temporary Contraception: An Exploratory Study of Women's Perspectives in Karachi. *Pakistan BMJ open*. 2013;3(8). <https://doi.org/10.1136/bmjopen-2013-003279>.
- Family Planning Service Statistics. 2020; [https://www.pbs.gov.pk/sites/default/files/social\\_statistics/contraceptive\\_performance\\_reports/ACP\\_Report\\_2019-20.pdf](https://www.pbs.gov.pk/sites/default/files/social_statistics/contraceptive_performance_reports/ACP_Report_2019-20.pdf). Accessed 2023.
- National Nutritional Survey. Government of Pakistan and UNICEF, Pakistan National. Nutritional Survey. 2018. <https://www.unicef.org/pakistan/media/1951/file/Final%20Key%20Findings%20Report%202019.pdf>. Accessed 2019.
- Pakistan Bureau of Statistic. 2019; <https://www.pbs.gov.pk/content/final-results-census-2017-0> Accessed 2024.
- Mustafa G, Azmat SK, Hameed W, Ali S, Ishaque M, Hussain W, Ahmed A, Munroe E. Family Planning Knowledge, Attitudes, and Practices among Married Men and Women in Rural Areas of Pakistan: Findings from a Qualitative Need Assessment Study. *Int J Reprod Med*. 2015; 190520. <https://doi.org/10.1155/2015/190520>.
- Abdi B, Okal J, Serour G, Temmerman M. Children are a blessing from God – a qualitative study exploring the socio-cultural factors influencing contraceptive use in two muslim communities in Kenya. *Reprod Health*. 2020;17(44):1–11. <https://doi.org/10.1186/s12978-020-0898-z>.
- Hackett K, Nausheen S, Yameen S, Hussain I, Khaneez Z, Shah I, Soofi SB. Exploring reasons for low uptake of widely available modern contraceptive methods in Karachi, Pakistan: a mixed-methods study. *J Glo Health Sci*.

37. Shaikh BT, Hatcher J. Complementary and alternative medicine in Pakistan: prospects and limitations. *Evidence-Based Comple Altern Med*. 2005;2(2):139–42.
38. Scheper-Hughes, Nancy, Lock MM. The mindful body: a Prolegomenon to Future Work in Medical Anthropology. *Med Anthro Quar*. 1987;1(1):6–41.
39. Farmer P. Bad blood, spoiled milk bodily fluids as Moral barometers in Rural Haiti. *Am Ethnologist*. 1988;15:62–83. <https://doi.org/10.1525/ae.1988.15.1.02a00050>.
40. Ataullahjan A, Mumtaz Z, Vallianatos H. Family planning, Islam and sin: understandings of moral actions in Khyber Pakhtunkhwa. *Pakistan Soc Sci Med*. 2019;230:49–56.
41. Mumtaz Z, Salway SM. I never go anywhere: extricating the links between women's mobility and uptake of reproductive health services in Pakistan. *Soc Sci Med*. 2005;60(8):1751–65.
42. Ataullahjan A, Vallianatos H, Mumtaz Z. Needles don't agree with me, pills don't agree with me: experiences of contraceptive use among Pakhtun Women in Pakistan. *Stud in Fam plan*. 2020;51(4) 2020: 361–375.
43. Mumtaz Z, Salway SM. Gender, pregnancy, and the uptake of antenatal care services in Pakistan. *Socio Health Illn*. 2007;29(1):1–26. <https://doi.org/10.1111/j.1467-9566.2007.00519.x>.
44. Qureshi RN, Sheikh S, Khowaja AR, Hoodbhoy Z, Zaidi S, Sawchuck D, CLIP Working Group. Health care-seeking behaviors in pregnancy in rural Sindh, Pakistan: a qualitative study. *Reprod Health*. 2016;13(Suppl1):34. <https://doi.org/10.1186/s12978-016-0140-1>.
45. Hamid S, Johansson E, Rubenson B. Security lies in obedience - voices of young women of a slum in Pakistan. *BMC Pub Health*. 2012;10:164:1–7. <https://doi.org/10.1186/1471-2458-10-164>.
46. Ahmed F, Malik NI, Zia S, Akbar AS, Li X, Shahid M, Tang K. Rural mothers' beliefs and practices about diagnosis, treatment, and management of children health problems: a qualitative study in marginalized Southern Pakistan. *Front Pub Health*. 2023;10:1001668.
47. Mumtaz Z, Levay A, Bhatti A, Salway S. Signalling, status and inequities in maternal healthcare use in Punjab, Pakistan. *Soc Sci Med*. 2013;94:98–105. : 10.1016/j. Soc Sci Med.2013.06.01321.
48. Mumtaz Z, Salway S, Bhatti A, Shanner L, Zaman S, Laing L, et al. Improving maternal health in Pakistan: toward a deeper understanding of the social determinants of poor women's access to maternal health services. *Am J Pub Health*. 2014;104:S17–24. <https://doi.org/10.2105/AJPH.2013.3013772>.
49. Mumtaz Z, Shahid U, Levay A. Understanding the impact of gendered roles on the experiences of infertility amongst men and women in Punjab. *Reprod health*. 2013; 10: 3. <https://doi.org/10.1186/1742-4755-10-3>.
50. Winkvist A, Humaira ZA. God should give daughters to Rich families only: attitudes towards childbearing among low-income women in Punjab, Pakistan. *Soc Sci Med*. 2000;51(1):73–81. [https://doi.org/10.1016/S0277-9536\(99\)00440-2](https://doi.org/10.1016/S0277-9536(99)00440-2).
51. Sajjad W, Ishaq K, Asghar S. Why Pakistani women do not use Intrauterine Contraceptive devices: a systematic review of barriers and misconceptions. *Cureus*. 2023;15(10):e47378. <https://doi.org/10.7759/cureus.47378>.
52. Traeger B. Poverty and fertility in India: some factors contributing to a positive correlation. *Glob Majority E-J*. 2011;2(2):87–98.
53. Ramteke RU, Makade JG, Bandre GR. Adolescent sexual behavior in Rural Central India: challenges and interventions. *Cureus*. 2023;15(11):e49761. <https://doi.org/10.7759/cureus.49761>.
54. Ahmed F, Malik NI, Malik N, Qureshi MG, Shahzad M, Shahid M, et al. Key challenges to Optimal Therapeutic Coverage and maternal utilization of CMAM Program in Rural Southern Pakistan: a qualitative exploratory study. *Nutrients*. 2022;14(13):2612.
55. Ahmed F, Malik NI, Shahzad M, Ahmad M, Shahid M, Feng XL, Guo J. Determinants of infant young child feeding among mothers of malnourished children in South Punjab, Pakistan: a qualitative study. *Front Pub Health*. 2022;10:834089. <https://doi.org/10.3389/fpubh.2022.834089>.

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