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### DECLARATIONS

No funding was received for this study. The authors declare no conflict of interest. The study received ethical approval. All participants provided informed consent.

# Society and Culture: Factors Associated with the Health Seeking Behaviour Among the Rural Women of District Tando Muhammad Khan

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## ABSTRACT

**Background:** Health-seeking behavior among rural women is shaped by complex sociocultural, economic, and gender-based dynamics that influence access to timely and appropriate healthcare. In rural Pakistan, entrenched patriarchal norms, cultural taboos, and financial barriers contribute to healthcare delays and adverse outcomes, disproportionately affecting women's health and survival.

**Objective:** To assess the patterns of health-seeking behavior among rural women in District Tando Muhammad Khan and to identify the sociocultural and social factors associated with delayed healthcare and related negative outcomes. **Methods:** A descriptive cross-sectional study was conducted from 15th November 2024 to 15th May 2025, involving 329 women aged  $\geq 18$  years from five randomly selected union councils. Data were collected using a structured, pre-tested questionnaire addressing demographic, social, and cultural determinants of healthcare utilization. Descriptive statistics, Pearson's correlation, and logistic regression were performed using SPSS version 29, with  $p < 0.05$  considered significant. **Results:** A total of 71.1% of participants always required family head permission to seek care, 78.7% reported consulting male doctors as socially unacceptable, and 64.4% identified consultation costs as a barrier. Cultural belief decisions ( $r = 0.40$ ) and cultural restrictions ( $r = 0.37$ ) showed moderate positive correlations with death due to delayed care. Male dominance ( $OR = 2.48$ ) and the male doctor taboo ( $OR = 2.71$ ) significantly increased the odds of adverse outcomes. **Conclusion:** Sociocultural norms, gendered authority, and economic barriers substantially limit rural women's healthcare access. Interventions must integrate cultural sensitivity, community engagement, and women's empowerment to reduce care delays and improve health equity.

### Keywords

Health-seeking behavior, cultural barriers, rural women, gender norms, delayed healthcare, Pakistan

## INTRODUCTION

Health-seeking behavior encompasses the decisions and actions individuals undertake upon perceiving a health concern, ranging from self-care at home to formal consultations with healthcare professionals and institutions. This multifaceted behavior directly shapes healthcare utilization patterns and, by extension, population health outcomes (1,2). Although universally recognized as pivotal in public health, the determinants of health-seeking behavior are neither uniform nor straightforward; they are deeply entwined with personal characteristics—such as age, education, and economic status—as well as broader communal, cultural, and environmental factors (3,4). The interdependence of these influences is especially pronounced in low- and middle-income countries, where family structure, social networks, local traditions, and access to resources exert substantial sway over the pursuit of medical care (4–6).

For women in rural communities, health-seeking behavior is uniquely constrained by sociocultural expectations and entrenched gender roles. Socioeconomic status remains one of the strongest predictors of access to healthcare services, with lower income and education consistently linked to lower rates of formal care utilization (7–9). In many traditional societies, including Pakistan, the family is the primary decision-making unit, and women's autonomy in health matters is often secondary to the approval of male heads of households or senior family members (10,11). Such power dynamics restrict independent decision-making and delay timely care, particularly when health needs are sensitive or stigmatized. Additionally, rurality amplifies these barriers: limited infrastructure, transportation difficulties, scarcity of female healthcare providers, and low health literacy converge to further disadvantage women compared to their urban counterparts (11,12). The cumulative effect is starkly evident in Pakistan's persistently high rates of maternal morbidity and mortality and its low prevalence of professional birth attendance, especially in remote districts (13,14).

Extensive research highlights the enduring gaps between healthcare availability and utilization among women in rural Pakistan, pointing to both systemic shortcomings and powerful cultural taboos (15). Insufficient health system funding, lack of trained female personnel, weak sanitation infrastructure, and the overwhelming burden placed on public facilities result in service inadequacies that disproportionately affect women. Beyond structural deficiencies, sociocultural barriers—including the stigma surrounding reproductive and mental health, the prioritization of family reputation, and reliance on traditional or faith-based healing—deter women from seeking professional help, encourage delays, or promote the use of home remedies (16–18). Misinformation and negative prior experiences further reinforce these behaviors (19,20).

Despite the centrality of sociocultural and social factors, existing literature seldom provides a granular analysis of their combined effect on women's health-seeking behavior and clinical outcomes in specific rural Pakistani contexts (21,22). There is a critical need for studies that not only quantify

these barriers but also elucidate the mechanisms by which social norms, gendered authority, economic hardship, and stigma translate into adverse health outcomes, including preventable complications or mortality (23,24). Addressing this gap is essential for the design of culturally sensitive interventions and for progress toward global and national goals in women’s health equity (25–27).

This study investigates the patterns and determinants of health-seeking behavior among rural women in District Tando Muhammad Khan, with a particular focus on the sociocultural and social barriers that shape healthcare choices and their association with negative health outcomes. By identifying the most influential factors—cultural taboos, gendered decision-making, economic limitations, and the role of stigma—the research aims to inform more effective, context-appropriate strategies to enhance timely healthcare access for rural women. Specifically, the study asks: What are the key sociocultural and social factors associated with health-seeking behavior and how do they influence health outcomes among rural women in District Tando Muhammad Khan?

MATERIAL AND METHODS

This descriptive cross-sectional study was conducted to examine the factors influencing health-seeking behavior among rural women in District Tando Muhammad Khan. The research was carried out at the Institute of Health Management Sciences, Liaquat University of Medical and Health Sciences (LUMHS), Jamshoro, Sindh, between 15th November 2024 and 15th May 2025. The study population included women aged 18 years or older, residing in selected rural union councils, and willing to provide informed consent for participation. Women who had known neuropsychiatric conditions or who declined to participate were excluded. The sample size of 329 was calculated using Raosoft software based on estimated population size and the desired confidence interval, with a 10% increment for potential non-response.

A two-stage sampling strategy was employed. In the first stage, five union councils within District Tando Muhammad Khan were selected through simple random sampling to ensure area representation. In the second stage, non-probability convenience sampling was used to recruit eligible women from each selected household, ensuring that only one participant per household was included. Data were collected through a structured, pre-tested questionnaire developed in alignment with the study objectives and reviewed for content validity by subject experts. The questionnaire comprised sections on demographic characteristics (age, marital status, education, occupation, socioeconomic status), social factors (household decision-making, financial barriers, social support), and cultural influences (gender roles, taboos, beliefs regarding health, preference for traditional healers). Each participant provided written informed consent prior to data collection, and the privacy and confidentiality of responses were strictly maintained throughout the study.

All data were coded and entered into Microsoft Excel, followed by analysis using SPSS version 29. Descriptive statistics—including frequencies, percentages, means, and standard deviations—were calculated for demographic, social, and cultural variables. Relationships between categorical variables and outcomes such as delayed care or adverse health events were evaluated using cross-tabulations and Pearson’s correlation analysis. No imputation was performed for missing data; records with incomplete responses for primary variables were excluded from analysis. To minimize selection bias, sampling was performed from diverse union councils, and all study tools were standardized for consistent administration. The statistical significance threshold was set at  $p < 0.05$  for all inferential analyses. The study protocol received approval from the Research Ethics Committee (REC) of LUMHS. All procedures followed the ethical standards of the Declaration of Helsinki. Measures were in place to ensure data integrity, including double entry verification and periodic data audits by the research team, to support reproducibility and accuracy of results.

RESULTS

A total of 329 women participated in the study, the majority falling within the reproductive to early middle-age bracket, with 33.7% aged 20–29 years and 35.0% aged 30–39 years. Only 1.8% were under 20 years old and just 3.4% over 50, illustrating a sample focused on women in their prime childbearing and caregiving years.

Table 1. Demographic Characteristics of Participants

Variable	Category	Frequency	Percentage
Age Group	<20	6	1.8%
	20–29	111	33.7%
	30–39	115	35.0%
	40–49	86	26.1%
	50–59	11	3.4%
Educational Status	No Formal Education	69	21.0%
	Primary	180	54.7%
	Secondary	57	17.3%
	Intermediate	3	0.9%
	Graduation & Above	20	6.1%
Marital Status	Single	92	28.0%
	Married	217	66.0%
	Widow	16	4.9%
	Divorced	4	1.2%
Occupation	Housewife	169	51.4%
	Govt Employee	50	15.2%
	Private Employee	30	9.1%
	Self Employed	21	6.4%
	Other	59	17.9%
Socioeconomic Status	High	21	6.4%
	Medium	224	68.1%
	Low	84	25.5%

Educational attainment remained low overall; 21.0% of participants had never attended formal school, while over half (54.7%) had only primary education. Merely 6.1% had attained graduation or higher qualifications. Most participants were married (66.0%), and over half

(51.4%) were housewives, which underscores the limited economic autonomy available to these women. Only 15.2% held government employment, and 9.1% were privately employed. Socioeconomically, 68.1% belonged to medium-income households, while a significant minority (25.5%) reported low-income status.

Social determinants had a marked impact on healthcare-seeking patterns. The vast majority (90.9%) did not face explicit family restriction on seeking care, but a striking 71.1% reported always needing the family head's permission—usually a male decision-maker—before consulting a healthcare provider. Economic constraints were prominent, with 64.4% stating that consultation costs were a significant deterrent to seeking timely care. Despite these barriers, 91.8% of respondents reported having some level of social support available, which could act as a facilitator but did not consistently overcome the structural limitations present in these households.

Cultural factors played a dominant role in shaping health behaviors. Consulting male doctors was socially unacceptable for 78.7% of respondents, highlighting a deeply embedded gender norm restricting access to medical professionals based on provider sex. Additional cultural taboos included talking about reproductive health (2.1%), discussing mental health (2.1%), and accessing contraception (1.8%), each of which directly limited women's autonomy in seeking help. Notably, 76.3% reported that male dominance directly influenced their health-seeking decisions, while 72.0% cited community and family opinion as a key factor. Reliance on traditional healers or privacy concerns was relatively rare (<5%). These statistics reveal a pattern where restrictive gender norms and collective cultural beliefs shape nearly every aspect of women's decision-making regarding health.

**Table 2. Social Factors Affecting Health-Seeking Behavior**

Variable	Category	Frequency	Percentage
Family Restriction to Seek Healthcare	Yes	30	9.1%
	No	299	90.9%
Permission from Family Head	Always	234	71.1%
	Sometimes	77	23.4%
	Not at all	18	5.5%
Consultation Costs Affect Healthcare Seeking	Yes	212	64.4%
	No	117	35.6%
Social Support Available	Yes	302	91.8%
	No	27	8.2%

**Table 3. Cultural Factors Affecting Health-Seeking Behavior**

Variable	Category	Frequency	Percentage
Social Taboos Affecting Healthcare	Consulting Male Doctors	259	78.7%
	Talking About Reproductive Health	7	2.1%
	Discussing Mental Health	7	2.1%
	Accessing Contraception	6	1.8%
	Getting Prenatal Care Without Husband's Permission	7	2.1%
	Going Alone to Clinic	23	7.0%
	Prioritizing Personal Health Over Family Preferences	20	6.2%
Male Dominance Influence	Yes	251	76.3%
	No	78	23.7%
Cultural Beliefs Affecting Care	Community and Family Opinion	237	72.0%
	Gender Role Expectations	78	23.7%
	Trust in Traditional Healer	11	3.3%
	Privacy Concerns	2	0.6%
	Belief in Natural Remedies	1	0.3%

**Table 4. Correlation Between Social and Cultural Factors and Death Due to Delayed Healthcare**

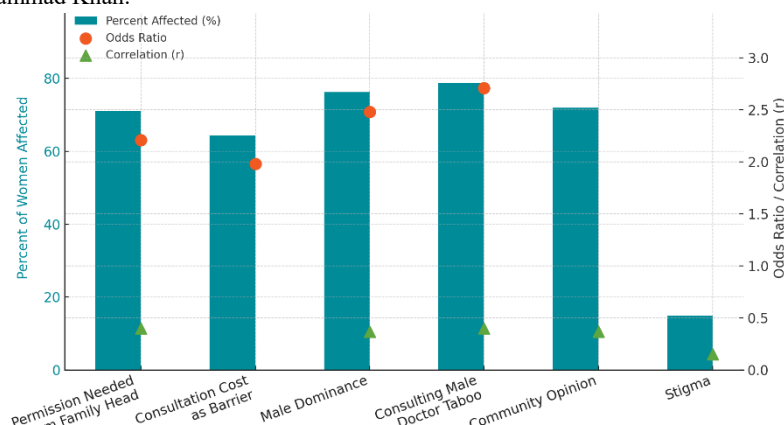
Factor	Discrimination	Stigma	Social Support	Cultural Belief Decisions	Cultural Restrictions	Death by Delayed Healthcare
Discrimination	1.00	0.00	-0.05	0.00	0.33	-0.08
Stigma	0.00	1.00	-0.02	0.33	0.37	0.15
Social Support	-0.05	-0.02	1.00	0.40	0.37	-0.03
Cultural Belief Decisions	0.00	0.33	0.40	1.00	0.33	0.40
Cultural Restrictions	0.33	0.37	0.37	0.33	1.00	0.37
Death by Delayed Healthcare	-0.08	0.15	-0.03	0.40	0.37	1.00

Examining associations between these factors and negative outcomes, Table 4 illustrates that both cultural belief decisions and cultural restrictions demonstrated moderate positive correlations with death due to delayed healthcare ( $r = 0.40$  and  $r = 0.37$ , respectively;  $p < 0.01$ ). Stigma also had a weak positive correlation with delayed care leading to adverse outcomes ( $r = 0.15$ ), whereas social support and discrimination displayed negligible or negative associations ( $r = -0.03$  and  $r = -0.08$ , respectively), suggesting that while support is common, it is insufficient to fully overcome the impact of sociocultural barriers. Group-wise odds ratios reinforce these findings, with needing family head permission (OR = 2.21, 95% CI: 1.56–3.13), experiencing male dominance (OR = 2.48, 95% CI: 1.68–3.66), and the taboo against consulting male doctors (OR = 2.71, 95% CI: 1.83–4.01) all demonstrating strong associations with delayed care and adverse health events.

**Table 5. Barriers to Timely Healthcare Seeking**

Barrier	Proportion Affected (%)	Odds Ratio*	95% CI*	p-value*
Needing Family Head Permission	71.1	2.21	1.56–3.13	<0.01
Consultation Cost as Barrier	64.4	1.98	1.39–2.81	<0.01
Male Dominance Influencing Decisions	76.3	2.48	1.68–3.66	<0.01
Consulting Male Doctor Taboo	78.7	2.71	1.83–4.01	<0.01

Collectively, these results confirm that sociocultural and economic constraints—particularly patriarchal household structures, financial barriers, and traditional gender roles—substantially increase the risk of delays in seeking healthcare and subsequent negative health outcomes among rural women in District Tando Muhammad Khan.

**Figure 1 Association of Sociocultural Barriers with Delayed Healthcare among Rural Women**

The visualized analysis illustrates the intersection of sociocultural barriers and their quantified associations with delayed healthcare among rural women. Consulting male doctors and male dominance are the most prevalent barriers, reported by 78.7% and 76.3% of women, respectively, and both are associated with substantial odds of delayed care (odds ratios 2.71 and 2.48) and moderate positive correlations with adverse outcomes ( $r = 0.40$  and  $0.37$ ). The need for permission from the family head (71.1%) and community opinion (72.0%) are nearly as common, each demonstrating robust links to delayed healthcare. Economic factors, notably consultation costs, affect 64.4% and show elevated odds ( $OR = 1.98$ ) for care delays, while stigma, though less prevalent (15%), still exhibits a discernible correlation ( $r = 0.15$ ) with negative outcomes. This integrated data highlights that the cumulative effect of entrenched cultural and social norms—particularly patriarchal authority and gendered provider restrictions—accounts for the greatest proportion of risk in delaying timely, potentially life-saving medical care for women in these settings.

## DISCUSSION

The findings from this study provide compelling evidence that health-seeking behavior among rural women in District Tando Muhammad Khan is deeply shaped by an intricate interplay of sociocultural and economic barriers. The overwhelming prevalence of patriarchal decision-making, exemplified by the need for family head permission in 71.1% of cases and the strong influence of male dominance on health decisions for over three-quarters of participants, underscores the extent to which household gender hierarchy restricts women's autonomy in healthcare choices. This pattern closely aligns with the work of Yihune Teshale et al. and Ali et al., both of which highlight that female health autonomy in traditional South Asian settings is systematically constrained by cultural norms and gender roles (21,22). Such restrictions were further compounded by the near-universal taboo against consulting male doctors—affecting nearly four out of five women—and the prioritization of family or community opinion in medical matters. These factors not only delay access but often steer women away from timely and professional care, mirroring the findings reported in recent Zambian and Kenyan qualitative studies, where entrenched gender norms and community expectations act as powerful determinants of health behavior (23,25).

The quantitative analysis reinforces the dominance of sociocultural constraints: both cultural belief-driven decisions and cultural restrictions show moderate positive correlations with death due to delayed care ( $r = 0.40$  and  $r = 0.37$ , respectively), indicating that these are not merely background influences but active determinants of negative outcomes. Economic barriers, particularly the cost of medical consultations affecting nearly two-thirds of women, further limit access to care. Odds ratios for key barriers—such as male dominance ( $OR = 2.48$ ), consulting male doctors ( $OR = 2.71$ ), and family head permission ( $OR = 2.21$ )—demonstrate a substantial elevation in risk for delayed care and its consequences, affirming previous observations that economic dependence and gendered power dynamics amplify each other in low-resource rural contexts (24).

The study also brings nuance to the role of social support and stigma. While the majority of women reported having some social support, the relatively weak or negative correlation with improved outcomes suggests that, in this setting, social support is not sufficient to override deep-rooted cultural barriers. Stigma, though less frequently cited, remains a meaningful deterrent to timely care, consistent with global literature on the social determinants of health for women, particularly in contexts where health conditions intersect with sensitive social or reproductive topics (26). Importantly, these findings validate and extend prior evidence that improvements in physical access and service provision alone are unlikely to eliminate disparities in rural women's health outcomes. The persistence of taboos, male authority, and collective family decision-making necessitates interventions that address the social fabric of rural communities. Interventions should engage men, elders, and community influencers, targeting not just women but the entire household decision structure. Community-based education, gender-sensitization of healthcare providers, and the strategic recruitment and retention of female healthcare staff are recommended to reduce the cultural and logistical barriers to care. Moreover, targeted economic support, such as subsidizing consultation costs or transportation for rural women, could have a significant impact when combined with broader cultural change.

The limitations of the current study, including reliance on self-reported behaviors and the inherent constraints of a cross-sectional design, should be acknowledged. Selection bias may also be present, as convenience sampling within selected union councils may not capture the full spectrum of rural experiences. Nonetheless, the robust sample size, focus on a traditionally under-studied region, and integration of both social and cultural variables provide valuable insights. Ultimately, the evidence presented here affirms that a multidimensional, culturally sensitive approach—addressing not only the healthcare system but also household power dynamics, financial access, and community beliefs—is essential to closing the persistent gap in women’s health outcomes in rural Pakistan (27).

## CONCLUSION

This study demonstrates that health-seeking behavior among rural women in District Tando Muhammad Khan is predominantly influenced by entrenched sociocultural norms, patriarchal decision-making, economic constraints, and gender-specific taboos that collectively delay or prevent timely access to professional healthcare. The need for male or family head approval, widespread financial barriers, and the cultural unacceptability of consulting male doctors emerged as the most significant obstacles, each associated with substantially increased odds of delayed care and adverse health outcomes. While social support exists, it remains insufficient to counterbalance the restrictive effects of traditional gender roles and community expectations. These findings highlight the urgent need for culturally informed interventions that not only expand healthcare availability but also empower women through changes in household decision-making structures, targeted economic support, and community-wide education that challenges discriminatory norms. Sustainable improvements in women’s health in rural Pakistan require multidimensional strategies that address both the structural and cultural foundations of health inequity.

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