

Influence of socio-demographic factors on the use of maternal health care among Muslim women in urban slums of Mumbai, India

Vahhida Pinjari¹, Bal Rakshase², Pardhi Ashish¹

From ¹Scholar, School of Social Work, Tata Institute of Social Sciences, ²Associate Professor, Centre for Health Policy, Planning and Management, School of Health Systems Studies, Mumbai, Maharashtra, India


ABSTRACT

Background: Low and middle-income countries such as India face significant challenges in improving maternal health and reducing maternal mortality rate. To combat this problem, it is essential to utilize maternal health-care services. **Objective:** This study aims to assess the utilization of maternal health-care services (Antenatal care [ANC] and skilled attendance at birth) and the determining factors of maternal health-care utilization. **Materials and Methods:** This study is cross-sectional. The study is carried out in an urban slum in Mumbai, India. The respondents were selected using a multistage sampling procedure, and 300 Muslim women who delivered in the past 2 years in the reproductive age group (15–49 years) were selected. The data were collected using a structured interview schedule. Data were analyzed using logistic regression analysis. **Results:** The study shows that maternal health-care utilization among respondents was unsatisfactory. Only 43.8% of the respondents utilized full ANC service and 27.3% still delivered at home with unskilled birth attendance (traditional Dai). A medical emergency, high cost, and lack of quality of services were the most common reasons to deliver at home. Respondents' age at marriage, education (respondents and partners), monthly income, number of children, and type of family are the most important determining factors for the utilization of maternal health-care services. **Conclusion:** Better utilization of maternal health-care services can be achieved by improving the overall socioeconomic status of Muslim women. To improve maternal healthcare, special attention is required to be paid to the education of women and spouses. Furthermore, policies may address the women's subordinate position in socioeconomic parameters. Similarly, close monitoring is required by the government through different agencies on the utilization of maternal health-care services.

Key words: Ante-natal care, Maternal health services, Muslim women, Skilled attendance at birth, Urban slum

Every 2 min a pregnant woman dies due to complications during pregnancy or childbirth at the global level [1]. Hence, maternal mortality remains a significant global public health concern, particularly in low and lower-middle-income countries (LMICs). In 2017, approximately 300,000 women died due to pregnancy-related complications. The overwhelming majority of these deaths (94%) occurred in countries with limited resources [2]. India contributes approximately 27 million births annually among LMICs, accounting for 20% of global maternal deaths [3]. Access to adequate maternal healthcare, including antenatal care (ANC) and delivery care, is essential for the health of mothers and their offspring [4]. It has been estimated that a rise in the coverage and quality of maternal health-care services could prevent 54% of maternal deaths in LMICs [5]. India has made significant progress in reducing maternal mortality

and expanding access to maternal healthcare through various programs in recent years [6]. The Indian government launched the national rural health mission (NRHM) in 2005 to reduce maternal and infant mortality by enhancing maternal health-care services and focusing on the most marginalized segments of society. The program's objective was to provide high-quality maternal care to disadvantaged groups. As a result, the maternal mortality ratio (MMR) has declined from 212 maternal deaths per 100,000 live births in 2007–113 maternal deaths per 100,000 live births in 2020 [7]. However, this decline is unevenly distributed across social groups. There are significant disparities in maternal health-care utilization among disadvantaged and deprived segments of society. Several international and national studies have identified socioeconomic, demographic, and service delivery environment variables as significant determinants of maternal health-care services utilization [8–12]. In addition, structural factors such as religion and caste significantly affect the utilization of maternal health services in India [13,14].

Access this article online	
Received- 22 September 2022 Initial Review- 29 November 2022 Accepted- 06 February 2023	Quick Response code 
DOI: 10.32677/ijch.v10i2.3867	

Correspondence to: Vahhida Pinjari, Tata Institute of Social Sciences, Mumbai, Maharashtra, India. E-mail: vahidapj@gmail.com

© 2023 Creative Commons Attribution-NonCommercial 4.0 International License (CC BY-NC-ND 4.0).

India is known for being multicultural, multi-ethnic, and multi-religious. As a structural determinant, religion significantly impacts people's socioeconomic participation in society [15]. Muslims are India's largest minority community, accounting for 14.2% of the population [16]. They are marginalized in terms of economic, social, educational, and political status [17]. According to official estimates, nearly 43% of Muslims are poor and their literacy level is lower than the national average [18]. More Muslims (60%) work in the informal sector or have self-employment [19]. Muslim women in India are frequently referred to as a "minority within a minority" and "one of the marginalized groups" [20], due to the fact that they are largely uneducated, economically disadvantaged, and politically oppressed [21]. According to the Indian Census of 2011, the female literacy rate of Muslims is 51.9% which is below the national average (65.4%). The labor participation rate of Muslim women is only 14.1% [21]. Low literacy and economic dependence make them more vulnerable in their families, community, and society. It also has an impact on their decision-making ability and autonomy within households. Over 70% of women need permission from their husbands to visit a health-care center [22]. The vicious cycle of vulnerability eventually affects Muslim women's sexual and reproductive health.

Furthermore, due to rigid religious norms, Muslim women's reproductive health is rarely discussed in Muslim society. As a result, their reproductive health has received little attention in the public health arena in India. The available research focuses primarily on Muslim fertility rates and contraception use. According to the NFHS-4, the population of Muslim women of reproductive age (15–49 years) in India is more than 13%. The maternal health of Muslim women has not received much attention from researchers and policymakers. The use of healthcare among Muslim women is lower than among other religious groups [23]. Existing surveys in India such as the NFHS and district level household survey distinguish reproductive health indicators of women based on religion.

On the other hand, estimates for Muslim women living in slums remain scanty. Urban slums lack basic amenities such as healthcare, education, electricity, and safe drinking water. Because of their low socioeconomic status, Muslim women in this situation are more vulnerable to meeting their health needs. Therefore, it is essential to identify the critical gaps. The purpose of this study is to understand maternal health-care utilization among Muslim women living in informal urban settlements in India.

MATERIALS AND METHODS

Universe of the Study

The research was conducted in Mumbai. An estimated 70% of Muslims live in metropolitan areas, while 60% live in urban slums.

Study Design and Sampling

We conducted a cross-sectional and community-based study in two blocks of Kurla (suburban). Muslim married women in the age group of 15–49 years who had given birth within the previous 2 years were covered in the study. A list of names of such women was compiled from 12 Anganwadi (Anganwadi-Government approved centers for providing supplementary food to children and lactating women) centers in Kurla's selected blocks. The sample size of 312 women was calculated using the NFHS-4 (2015–2016) having at least four ANC visits among mothers living in the Mumbai suburbs which was 82% ($p=0.82$). The estimate was adjusted for a design effect (1.25) and non-response rate (10%). The overall response rate for the study was 96% with 12 women refusing to complete the questionnaire. The analysis for the study is based on 300 women.

Data Collection Tools

Face-to-face interviews were used to collect information using a structured questionnaire. The interviews lasted 40–60 min and were held in the women's home. The questionnaire included sociodemographic information (current age, age at marriage, educational status [both women and partners], income, birth order, and years of marriage completed, and family type). The questionnaire also included questions about women's use of ANC and skilled birth attendance. The information was gathered between August and December 2019.

Variables Management

Outcome variable: Utilization of maternal health-care services (MHCS)

1. Full ante-natal care- Full ANC was defined as a woman having four ANC visits, having two tetanus injections, and consuming 100 Iron and Folic Acid tablets/syrup for their last pregnancy [2].
2. Skilled attendance at birth- Women who give birth in health Centers or hospitals with the support of midwifery-trained health professionals such as midwife nurses, nurses, health officials, and doctors [2].

Explanatory variables

The study used women's demographic and socioeconomic factors as independent variables. They were (i) the age of women in three groups (18–20 years, 21–25 years, and above 25 years); (ii) completed years of marriage (below 18 years, 18–20 years, and above 20 years); (iii) educational attainment of women, or (iv) their partners (illiterate, primary, secondary, and higher secondary and above); (v) number of children (1, 2, and 3 and above); (vi) households' monthly income (up to Rs. 8000/-, Rs. 8001–12000/- and above Rs. 12000/-); (vii) duration of marriage (1–3 years, 4–7 years, and 8 & above); and (viii) family type (nuclear or joint).

Data processing and analysis

The analysis has been done using the statistical software SPSS (version 23.0). The logistic regression model has been applied to estimate the odds ratio (OR) of differentials in ante-natal care and skilled attendance at birth by socioeconomic and demographic background characteristics of respondents. Results are expressed as OR and 95% confidence interval (CI).

We used logistic regression to identify factors associated with utilization of MHCS – (i) Full ANC and (ii) Skilled attendance at birth in a separate model.

Ethics

The Ethical Committee of Tata Institute of Social Sciences, Mumbai, approved the study. The respondents have given written consent. Personal identifiers were removed before data analysis.

RESULTS

Table 1 shows the sociodemographic profile of the respondents. Their mean age was 26.3 years. The mean age of marriage was 19.9 years. Nearly 21% of respondents were married before reaching the legal age of marriage for females in India (18 years). About 13% of respondents and their partners were illiterate. Only 38.3% of respondents earned more than Rs. 12000/- a month. About 70% of those surveyed were raised in nuclear families.

A maximum number of the respondents (88 %) received at least one ANC during their last pregnancy (Fig. 1). Out of that, three-fourth of the respondents went to government hospitals, while 25% private hospitals (Fig. 2). Around 44% of respondents utilized full ANC during the last pregnancy. The proportion of respondents who had four ANC visits was 41.3%. Iron folic acid tablets/syrup were consumed for a minimum of 100 days by 40.8% of the respondents. Two doses of tetanus toxoid injections were received by 53.7% of respondents (Fig. 3).

The binary logistic regression results show that respondents' age at marriage, education, partners' education, number of children, total monthly income, and type of family were the significant influencing factors of full ANC (Table 3). Respondents who married before the legal age were 2.6 times less likely to use full ANC (CI=0.7–9.2). Respondents' and partners' education emerged as a vital determinant in the utilization of full ANC. Highly educated respondents and their partners were 2.5 times (CI=0.9–7.4) and 2.3 times (CI=0.3–7.1), respectively, more likely to utilize full ANC than illiterate respondents and partners. The total monthly income positively affected its utilization significantly. A respondent with a high monthly income was 3.4 times more likely to use it than the lower monthly income group (CI=1.2–5.8). Further, a respondent who had more children and belonged to a joint family was less likely to utilize it.

Information about skilled attendance at birth is presented in Table 3. The study showed that skilled attendance at birth has increased significantly. A maximum number of respondents (72.7%) preferred skilled attendance at birth, while 27.3% delivered at home under unskilled attendance. Among the

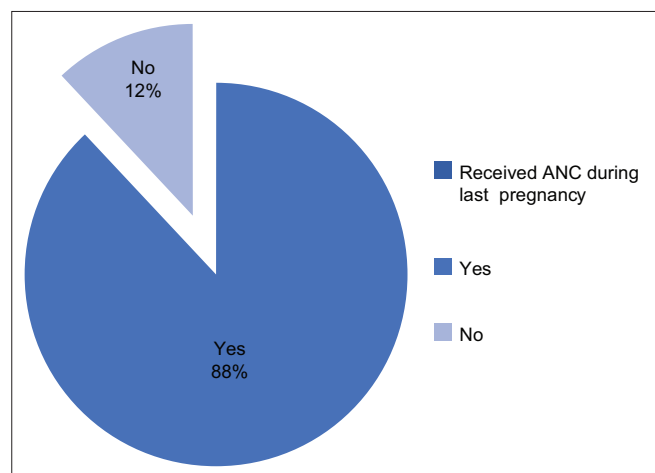


Figure 1: Received ANC during last pregnancy

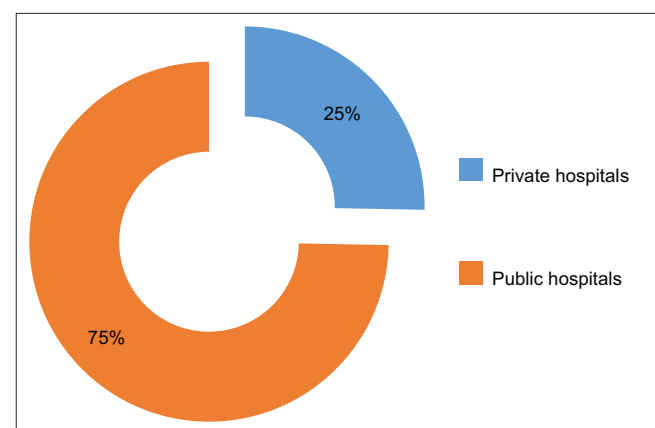


Figure 2: Hospital used by respondents for ANC

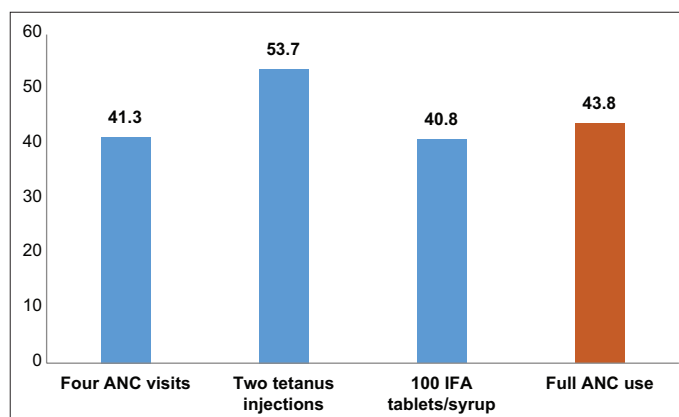


Figure 3: Utilization (%) of full ANC and different components of it

respondents who gave birth at home, a majority of them (36%) mentioned that their husbands had decided and that most deliveries were conducted by traditional dais (41.5%) and family members (40.2%). The common reason mentioned by the respondents was “it is a common practice in the family” (26.8%), followed by medical emergency (25.6%), high cost of delivery (24%), and lack of quality services (23.2%).

Table 4 demonstrates the results of the binary logistic regression analysis of the utilization of skilled attendance at birth. The probability of utilizing it at birth was less among

Table 1: Sociodemographic characteristics of the respondents

Background characteristics	%age	Number	Mean ± SD
Respondents' age in completed years			
18–20	26.0	78	26.3 ± 4.1
21–25	38.0	114	
Above 25	36.0	108	
Respondents' age at marriage (in completed years)			
Below 18	20.7	62	19.9 ± 2.7
18–20	37.3	112	
21 and above	42.0	126	
Respondents' year of schooling (in completed years)			
Illiterate	13.0	39	8.1 ± 4.1
Primary (1–7)	26.0	78	
Secondary (8–10)	33.0	99	
Higher secondary and above (11 and above)	28.0	84	
Partners' education (in completed years of schooling)			
Illiterate	13.0	39	8.3 ± 4.2
Primary (1–7)	21.0	63	
Secondary (8–10)	41.7	125	
Higher secondary and above (11 and above)	24.3	73	
Children			
1	22.7	68	2.4 ± 1.2
2	31.0	93	
3 and Above	46.3	139	
Households' monthly income (in Rs.)			
Up to–8000	21.7	65	13629 ± 7254.2
8001–12000	40.0	120	
Above 12000	38.3	115	
Marriage duration (in completed years)			
1–3 years	47.7	143	6.7 ± 4.3
4–8 years	32.7	98	
Above 8 years	19.7	59	
Family type			
Joint family	30.3	91	
Nuclear family	69.7	209	
Total	100	300	

the respondents who married before the legal age of marriage (OR=2.1, CI=0.6–9.7). Its utilization increases with the educational level. Compared with the illiterate respondents and their partners, those with high education were 7.3 (CI=5.4–9.3) and 6.7 (CI=4.4–8.2) times more likely to utilize it, respectively. A respondent with more children was less likely to use it (OR=0.4, CI=0.2–1.8). The total monthly income of the respondents was one of the most significant determinants in the utilization of skilled attendance at birth. A respondent with a high total monthly income was 6.1 (CI=3.9–9.3) times more likely to utilize skilled attendance at birth. The likelihood of using it at birth was low among respondents of nuclear families (OR=0.6, CI=0.1–3.2).

DISCUSSION

In the last few decades, India has made numerous efforts to reduce the MMR and improve the health-care network through different

programs and policies [24]. In 2005, the Government of India implemented the NRHM, a comprehensive program focusing on women from deprived and marginalized groups. However, the results are uneven and there is a gap in the use of maternal health-care services among different social groups. The present study analyses maternal health service utilization and associated factors among Muslim women in the slums of Mumbai. The use of full ANC is lower among Muslim women than other women as only 43.8% of them use full ANC.

However, the use of skilled birth attendance had increased. Around 73% of Muslim women used skilled attendance at birth. Many studies have shown that maternal health-care utilization is affected by several factors, and many have tried to identify the factors that contribute to differentiation in its utilization [25,26]. They are demographic, social, economic, and cultural related to women's autonomy and accessibility [27]. The present study found that women's age at marriage, education of both partners,

Table 2: Binary logistic regression showing odds ratios and confidence intervals for receiving full antenatal care among respondents during last pregnancy

Background characteristics	Full ANC use			
	%	Number	Odds ratio	(95% CI)
Respondents' age in completed years				
18–23	36.4	24	I	
24–27	44.3	47	3.1	(1.8, 9.0)
28 and above	48.4	45	1.4	(0.3, 7.0)
Respondents age at marriage (in completed years)				
Below 18	31.3	15	I	
18–20	33.0	33	1.1	(0.2, 5.0)
21 and above	58.1	68	2.6	(0.7, 9.2)
Respondent education (in completed years of schooling)				
Illiterate	33.3	10	I	
Primary (1–7)	39.8	37	0.6	(0.5, 3.4)
Secondary (8–10)	41.0	25	1.2	(0.7, 5.1)
Higher secondary and above (11 and above)	54.3	44	2.5	(0.9, 7.4)
Partners' education (in completed years of schooling)				
Illiterate	30.3	10	I	
Primary (1–7)	37.7	20	0.7	(0.1, 3.8)
Secondary (8–10)	42.2	46	1.9	(0.2, 6.4)
Higher secondary and above (11 and above)	57.1	40	2.3	(0.3, 7.1)
No. of children				
1	50.0	33	I	
2	46.1	41	0.2	(0.1, 2.3)
3 and Above	38.2	42	0.1	(0.2, 5.1)
Total monthly income (in Rs.)				
Up to–8000	34.0	17	I	
8001–12,000	38.3	41	1.5	(0.7, 3.6)
Above 12,000	53.7	58	3.4	(1.2, 5.8)
Duration of marriage (in completed years)				
1–3 years	51.9	42	I	
4–7 years	42.2	35	3.4	(0.3, 3.8)
8 and above	38.6	39	1.1	(0.1, 1.3)
Type of family				
Joined family	58.7	27	I	
Nuclear family	40.6	89	4.4	(0.2, 1.8)
Total	43.8	116		

total monthly income, number of children, and family type are associated with play a role in it.

Women's age at marriage is a significant factor in using maternal health-care services. In our study, around 21% of Muslim women married before the legal age and were less likely to use maternal health-care services than those who married at the legal age. This finding is consistent with the previous studies conducted in India and other countries [28,29]. Early marriage hampers the decision-making power of women regarding health-care use [30].

The present study showed a powerful positive influence of education on the use of maternal health-care services among Muslim women. Findings regarding the strong influence of education on the use of maternal health-care services are consistent with other studies in India and other countries [31-33]. There are many reasons for the association between the two as the use of maternal health-care education increases awareness about health and health-care services. Educated women make independent decisions and influence their husband's and in-laws'

Table 3: %age distribution of utilization of skilled attendance at birth during last pregnancy

Background characteristics	Percentage	Number
Skilled attendance at birth	72.7	218
Unskilled attendance at birth	27.3	82
Decision of birth delivery at home		
Wife	18.3	15
Husband	36.6	30
Both (husband and wife)	20.7	17
Other family members	24.4	20
Person conducted delivery at home		
Traditional dai	41.5	34
Family member	40.2	33
Neighbors	18.3	15
Reason for home delivery		
It is common in the family	26.8	22
High cost	24.4	20
Lack of quality of service	23.2	19
Medical emergency	25.6	21
Total (n)	100.0	82

decisions regarding their own and children's health, leading to higher utilization of modern health-care facilities [34,35]. The present study also observed that the educational level of spouses was significantly associated with maternal health-care use. In India, where there is male-dominated culture, the husband is considered the primary decision-maker in the family. Hence, the educated partner may be more involved and aware of maternal health services [36]. The previous studies have also reported a positive association between spouses' education and maternal health-care services [37-39].

The family's economic status was another significant factor affecting the use of maternal healthcare among Muslim women. The previous studies also concluded similar findings regarding a family's economic status and use of maternal health-care services [40-42]. Economically empowered women can have greater access to health-care information and afford better medical facilities [43,44]. Further, the study found that maternal health-care services decreased with the increasing number of children. This is supported by other studies [45,46]. This could

Table 4: Binary logistic regression showing odds ratios and confidence intervals for receiving skilled attendance at birth among respondents during last pregnancy

Background characteristics	Skilled attendance at birth			
	%	Number	Odds ratio	(95% CI)
Respondents' age in completed years				
18–23	66.7	72	1	
24–27	72.8	83	0.3	(0.1, 2.9)
28 and above	80.8	63	0.5	(0.2, 5.5)
Respondents' age at marriage (in completed years)				
Below 18	69.0	87	1	
18–20	74.2	46	1.0	(0.3, 7.0)
21 and above	75.9	85	2.1	(0.6, 9.7)
Respondents' education (in completed years of schooling)				
Illiterate	48.7	19	1	
Primary (1–7)	74.4	58	2.7	(1.2, 5.3)
Secondary (8–10)	82.8	82	6.1	(2.1, 7.2)
Higher secondary and above (11 and above)	83.2	59	7.3	(5.4, 9.3)
Spouses' education (in completed years of schooling)				
Illiterate	56.4	22	1	
Primary (1–7)	77.8	49	2.5	(1.7, 5.3)
Secondary (8–10)	78.4	98	3.3	(2.1, 7.2)
Higher secondary and above (11 and above)	80.1	49	6.7	(4.4, 8.2)
No. of children				
1	83.8	57	1	
2	69.9	65	0.1	(0.1, 0.7)
3 and Above	69.1	96	0.4	(0.2, 1.8)
Total monthly income (in Rs.)				
Up to 8000	27.7	18	1	
8001–12,000	80.9	93	4.1	(2.3, 5.5)
Above 12,000	89.2	107	6.1	(3.9, 9.3)
Duration of marriage (in completed years)				
1–3 years	78.9	71	1	
4–7 years	71.1	64	1.0	(0.7, 6.0)
8 and above	69.2	83	0.6	(0.2, 3.7)
Type of family				
Joined family	82	41	1	
Nuclear family	70.8	177	0.6	(0.1, 3.2)
Total	72.7	218		

be because mothers with fewer children are more careful and anxious about the initial pregnancy and hence are more likely to seek maternal healthcare [47]. Experience and knowledge of previous pregnancies could be another reason for less use of maternal health-care services in the case of an increasing number of children. The study also shows that Muslim women in nuclear families are more likely to use maternal health-care services. The findings of this study are not supported by other studies [48-50].

The quantitative assessment of service utilization does not throw light on the quality of services available and the satisfaction of the study population. A few other variables that could have influenced the pattern of maternal health-care consumption such as the distance between the health facility and the participants' homes were not considered.

CONCLUSION

This study has highlighted that a significant percentage of Muslim women did not utilize WHO-recommended full ANC coverage. In contrast, skilled birth attendance has increased by a considerable proportion (72.7%). The age at marriage, education of respondents and partners, total monthly income, number of children, and family type are important factors influencing the use of maternal health-care services. To improve maternal healthcare, attention requires to be given to the education of women and spouses. Furthermore, policies can address women's subordinate position by socioeconomic parameters.

ACKNOWLEDGMENTS

The authors would like to thank all anonymous reviewers for their constructive comments that helped improve the manuscript. We also want to thank everyone who took part for their active participation.

AUTHOR'S CONTRIBUTION

Under the supervision of Dr. Bal Rakshase, Vahhida Pinjari conceived the study's concept and research design, collected, analyzed, and interpreted the data, and wrote the first manuscript. Vahhida Pinjari, Dr. Bal Rakshase, and Ashish Pardhi all authors contributed to subsequent drafts of this paper. All authors revised the final version. The corresponding author is responsible for all aspects of the work, including its accuracy and integrity.

REFERENCES

1. United Nations Population Fund. Maternal Health Report 2016. New York: United Nations Population Fund; 2017.
2. World Health Organization. Trends in Maternal Mortality 2000 to 2017: Estimates by WHO, UNICEF, UNFPA, World Bank Group and the United Nations Population Division. Geneva: World Health Organization; 2019.
3. Mavalankar D, Vora K, Prakasamma M. Achieving millennium development goal 5: Is India serious? Bull World Health Organ 2008;86:243-4.
4. International Institute for Population Sciences and ICF International. National Family Health Survey (NFHS-4), 2015-16. Maharashtra:

- International Institute for Population Sciences; 2017.
5. Bhutta ZA, Das JK, Bahl R, Lawn JE, Salam RA, Paul VK, *et al.* Can available interventions end preventable deaths in mothers, newborn babies, and stillbirths, and at what cost? Lancet 2014;384:347-70.
6. World Health Organization SEARO. India has Achieved Ground Breaking Success in Reducing Maternal Mortality. Geneva: World Health Organization; 2018. Available from: <http://www.searo.who.int/mediacentre/features/2018/india-groundbreaking-success-reducing-maternal-mortality-rate/en> [Last accessed on 2018 Dec 22].
7. Nair H, Panda R. Quality of maternal healthcare in India: Has the National Rural Health Mission made a difference? J Global Health 2011;1:79-86.
8. Magadi MA, Madise NJ, Rodrigues RN. Frequency and timing of antenatal care in Kenya: Explaining the variations between women of different communities. Soc Sci Med 2000;51:551-61.
9. Gage AJ. Barriers to the utilization of maternal healthcare in rural Mali. Soc Sci Med 2007;65:1666-82.
10. Sk MI, Ali B, Biswas MM, Saha MK. Disparities in three critical maternal health indicators amongst Muslims: Vis-a-Vis the results reflected on National Health Mission. BMC Public Health 2022;22:266.
11. Kulkarni M, Nimbalkar M. Influence of socio-demographic factors on the use of antenatal care. Indian J Prev Soc Med 2008;39:98-102.
12. Babalola S, Fatusi A. Determinants of use of maternal health services in Nigeria-looking beyond individual and household factors. BMC Pregnancy Childbirth 2009;9:43.
13. Sachar R, Hamid S, Oommen TK, Basith MA, Basant R, Majeed A, *et al.* Social, Economic and Educational Status of the Muslim Community of India (No. 22136). East Asia: East Asian Bureau of Economic Research; 2006.
14. Ali B, Chauhan S. Inequalities in the utilization of maternal health care in rural India: Evidences from National Family Health Survey III and IV. BMC Public Health 2020;20:369.
15. Das A, Mohanty PC, Haque MM. Case on Indian Muslim mother's healthcare utilization: Its patterns, trends and comparison. Asia Pac J Manag Res Innov 2016;12:56-66.
16. Available from: <https://censusindia.gov.in/census.website> [Last accessed on 2022 Jun 07].
17. Dubey SY. Women at the bottom in India: Women workers in the informal economy. Contemp Voice Dalit 2016;8:30-40.
18. Singh PK, Rai RK, Alagarajan M, Singh L. Determinants of maternity care services utilisation among married adolescents in rural India. PLoS One 2012b;7:e31666.
19. World Bank. World Development Report 2011: Conflict, Security, and Development. Washington, DC, United States: The World Bank; 2011.
20. Sanu MS. Empowerment of Muslim Women in India: A Study of Socio-Economic and Political Disparities. SSRN Electron J 2018;107878:1-13.
21. Available from: http://www.minorityaffairs.gov.in/sites/default/files/sachar_comm.pdf [Last accessed on 2021 Feb 09].
22. Hasan Z, Menon R. Unequal Citizens: A Study of Muslim Women in India. New Delhi: Oxford University Press; 2004.
23. Singh PK, Kumar C, Rai RK, Singh L. Factors associated with maternal healthcare services utilisation in nine high focus states in India: A multilevel analysis based on 14385 communities in 292 districts. Health Policy Plan 2014;29:542-59.
24. Sanneving L, Trygg N, Saxena D, Mavalankar D, Thomsen S. Inequity in India: The case of maternal and reproductive health. Global Health Action 2013;6:19145.
25. Sugathan KS, Mishra VK, Retherford RD. Promoting Institutional Deliveries in Rural India: The Role of Antenatal-Care Services. Mumbai, India: International Institute for Population Sciences and Honolulu East-West Center; 2001. p. 1-38.
26. Deepak C, Jauhari N, Dhungana H. A study on utilisation of maternal health services and factors influencing the utilisation in urban slums of Lucknow. Int J Med Public Health 2018;8:77-81.
27. Shaikh BT, Hatcher J. Health seeking behaviour and health service utilisation in Pakistan: Challenging the policy makers. J Public Health 2005;27:49-54.
28. Godha D, Hotchkiss DR, Gage AJ. Association between child marriage and reproductive health outcomes and service utilization: A multi-country study from South Asia. J Adolesc Health 2013;52:552-8.
29. Godha D, Gage AJ, Hotchkiss DR, Cappa C. Predicting maternal health care use by age at marriage in multiple countries. J Adolesc Health 2016;58:504-11.

30. Singh R, Neogi SB, Hazra A, Irani L, Ruducha J, Ahmad D, *et al.* Utilisation of maternal health services and its determinants: A cross-sectional study among women in rural Uttar Pradesh, India. *J Health Popul Nutr* 2019;38:13.
31. Matthews Z, Mahendra S, Kilaru A, Ganapathy S. Antenatal care, care-seeking and morbidity in rural Karnataka, India: Results of a prospective study. *Asia Pac Popul J* 2001;16:11-28.
32. Erci B. Barriers to utilisation of prenatal care services in Turkey. *J Nurs Scholarsh* 2003;35:269-73.
33. Paul P, Chouhan P. Socio-demographic factors influencing utilisation of maternal health care services in India. *Clin Epidemiol Glob Health* 2020;8:666-70.
34. Raghupathy S. Education and the use of maternal health care in Thailand. *Soc Sci Med* 1996;43:459-71.
35. Navaneetham K, Dharmalingam A. Utilisation of maternal health care services in Southern India. *Soc Sci Med* 2002;55:1849-69.
36. Chattopadhyay A. Men in maternal care: Evidence from India. *J Biosoc Sci* 2012;44:129-53.
37. Agarwal P, Singh MM, Garg S. Maternal healthcare utilisation among women in an urban slum in Delhi. *Indian J Community Med* 2007;32:203-5.
38. Bhatta DN. Involvement of males in antenatal care, birth preparedness, exclusive breast feeding and immunisations for children in Kathmandu, Nepal. *BMC Pregnancy Childbirth* 2013;13:14.
39. Kariuki KF, Seruwagi GK. Determinants of male partner involvement in antenatal care in Wakiso District, Uganda. *Br J Med Med Res* 2016;18:1-5.
40. Celik Y, Hotchkiss DR. The socio-economic determinants of maternal health care utilisation in Turkey. *Soc Sci Med* 2000;50:1797-806.
41. Nisar N, White F. Factors affecting utilization of antenatal care among reproductive age group women (15-49 years) in an urban squatter settlement of Karachi. *J Pak Med Assoc* 2003;53:47-53.
42. Simkhada B, Tejjlingen ER, Porter M, Simkhada P. Factors affecting the utilisation of antenatal care in developing countries: Systematic review of the literature. *J Adv Nurs* 2008;61:244-60.
43. Rai RK, Singh PK, Singh L. Utilisation of maternal health care services among married adolescent women: Insights from the Nigeria Demographic and Health Survey, 2008. *Womens Health Issues* 2012;22:e407-14.
44. Singh L, Rai RK, Singh PK. Assessing the utilisation of maternal and child health care among married adolescent women: Evidence from India. *J Biosoc Sci* 2012;44:1-26.
45. Kassebaum NJ, Bertozzi-Villa A, Coggeshall MS, Shackelford KA, Steiner C, Heuton KR, *et al.* Global, regional, and national levels and causes of maternal mortality during 1990-2013: A systematic analysis for the Global Burden of Disease Study 2013. *Lancet* 2014;384:980-1004.
46. Vidler M, Ramadurg U, Charantimath U, Katageri G, Karadiguddi C, Sawchuck D, *et al.* Utilisation of maternal health care services and their determinants in Karnataka State, India. *Reprod Health* 2016;13:55-65.
47. Raj A, Saggurti N, Balaiah D, Silverman JG. Prevalence of child marriage and its effect on fertility and fertility-control outcomes of young women in India: A cross-sectional, observational study. *Lancet* 2009;373:1883-9.
48. Obermeyer CM, Potter JE. Maternal health care utilization in Jordan: A study of patterns and determinants. *Stud Family Plan* 1991;22:177-87.
49. Matsumura M, Gubhaju B. Women's status, household structure and the utilization of maternal. *Asia Pac Popul J* 2001;16:23-44.
50. Srivastava A, Mahmood SE, Mishra P, Shrotriya VP. Correlates of maternal health care utilisation in Rohilkhand Region, India. *Ann Med Health Sci Res* 2014;4:417-25.

Funding: None; Conflicts of Interest: None Stated.

How to cite this article: Pinjari V, Rakshase B, Ashish P. Influence of socio-demographic factors on the use of maternal health care among Muslim women in urban slums of Mumbai, India. *Indian J Child Health*. 2023; 10(2):14-21.