

Exploring the Healthcare-Seeking Patterns of Muslim Women in Urban Slums of Bhagalpur

Mubeena. O

Assistant Professor, University Department of Sociology, T. M. Bhagalpur University,
Bhagalpur

Abstract

Healthcare-seeking behaviour of the women, especially Muslim women especially those who live in the urban slums of India, is an imperative subject of inquiry in the cross section of gender, religion, and the population health. This research explored the issue of healthcare seeking and barriers to addressing the healthcare problem among the urban slums of Bhagalpur, Bihar, of Muslim women. Factor analysis of a cross-sectional survey of 384 participants found three dimensions of barriers (explaining 60.35 out of variance) Socio-Cultural Barriers (29.10), Economic and Physical Barriers (19.70) and Health System and Information Barriers (11.55). Correlation analysis established that education ($r = .401$, $p < .01$) and income ($r = .372$, $p < .01$) exhibited positive correlation with healthcare utilization, but socio-cultural barriers had a strong negative relationship ($r = -.512$, $p < .01$). The regression model has explained 40.1 percent of the variation in utilization and socio-cultural barriers were the strongest negative predictors ($\beta = -.35$, $P = .001$), as opposed to education ($\beta = .28$, $P = .001$) and economic barriers ($\beta = -.14$, $P = .003$). Results indicate that socio-cultural determinants represent the strongest barrier to healthcare access that requires the implementation of extensive interventions with consideration of gender norms and community-based attitude as well as economical support.

Keywords: Muslim women, healthcare-seeking, urban slums, Bhagalpur, socio-cultural barriers, factor analysis

Introduction

Healthcare-seeking behaviour of the women, especially Muslim women especially those who live in the urban slums of India, is an imperative subject of inquiry in the cross section of gender, religion, and the population health. Although access to health facilities is universal right, it is a challenging task to have access to these amenities by everyone in developing countries such as India, where socio-economic disparities and cultural practices pose a major challenge to the disadvantaged in society. The situation of Muslim women, especially, is characterized as a rather complicated field of underprivilege, with other challenges added by the fact that their religious belongings and gender conflict. This is especially an acute experience in the urban slum settlements where the citizens struggle with uncertain living

*Corresponding Author Email: mubeenaodakkal@gmail.com

Published: 07 March 2026

DOI: <https://doi.org/10.70558/IJSSR.2026.v3.i2.30877>

Copyright © 2026 The Author(s). This work is licensed under a Creative Commons Attribution 4.0 International License (CC BY 4.0).

conditions, lack of infrastructural facilities including the lack of good healthcare. According to recent ethnographic studies of home-based providers in comparable settings, e.g. the study conducted by Dharashree Das (2025) in Delhi, low-income Muslim women are stereotyped by healthcare providers as irresponsible in their reproductive choices, one label that hides their strategic management or status of samajhdari ki yojana (Urdu: sqzahahki yojana) in limited contexts characterized by poverty, heterosexual family structures and institutional failure. This policy discourse/ living reality disparity highlights the importance of localized research (Bangi et al., 2025).

Statement of the Problem

Female Indians in the Muslim religion find themselves in a very vulnerable state as women, minority, and as a socioeconomic marginalized group, they are especially susceptible to poor health and limited healthcare resources. Although equality is guaranteed by the constitution and there are several governmental efforts to promote health, some evidence points to the fact that Muslim women still face an overall neglect in terms of a variety of development indicators, and healthcare is among the most problematic spheres of deprivation. This is of particular concern in the state of Bihar where Muslim women make up a huge part of its population but still lack prominence in policy discussions and programmatic efforts (Debsarma, 2025; Tripathi et al., 2024).

With reference to Bihar, the extent of the issue is brought to a dramatically clearer picture using empirical data. The most recent scholarship of ethnography has been critical of the simplistic accounts that explain the existence of such disparities to the distinction between cultures and/or religion. The longitudinal study of low-income Muslim women in the city of Delhi conducted by Dharashree Das (2025) shows that healthcare professionals and policymakers have tended to stereotype them as irresponsible people who do not have autonomy in making health-related decisions. This characterization however is fundamentally inaccurate because the lived reality of Muslim women is based on the strategic use of what they refer to as wise planning (samajhdari ki yojana) in negotiating the institutional and infrastructural inequalities in resource-poor environments. The gap between policy, provider perceptions, and actual ground realities highlights the pressing necessity of context-specific scholarship that helps to describe the arduous mechanisms in which Muslim women bargain their access to healthcare in the context of precarious work duties, gendered family structures, and programmes instated by the state (Shrivastava et al., 2023; Tamang, 2024).

Review of Literature

Intersectionality, as proposed by Crenshaw (1989) could be the important theoretical framework to comprehend the multiplexing of the disadvantaged conditions, as experienced by Muslim women regarding their seeking of healthcare. This conceptual framework acknowledges the fact that the multiple social identities, including gender, religion, caste, and class overlaps, give rise to distinct experiences of marginality that cannot be explained by one-axis approaches. Muslim women hold a central place in the Indian case, with several axes of disadvantage overlapping: feminine based discrimination that is common among communities, religious minority, and in most cases, marginalization due to economic issues.

Evidence has shown that some groups of people are given more support than others and others are marginalized by the power structures and hierarchy in medical systems, which causes unequal access to healthcare benefits of people due to the intersection of identities. In the case of Muslim women, the conflict of class, gender and religious community appears an additional level of discrimination which is reflected in worse health outcomes and limited access to healthcare providers.

Health Indicators and Disease Death among Muslim Women.

Minor but very important indicators of empirical research about the health status of Muslim women in India show that there is a high disease burden in the various aspects. In a massive survey of the 675 participants in Dakshina Kannada, Karnataka, of Muslim women, it was revealed that 54.67% of participants had health-related problems with majority affected by musculoskeletal (23.8) and noncommunicable disease (18.4) diseases cardiovascular disease, diabetes, kidney problems and carcinoma. As pointed out by the study, the highest impacted women were in the 41-50 years age group and most of them were homemakers, with an average family income of 3001-5000 per month.

Anemia is a severe population health issue of Muslim women in India. The 4-round of National Family Health Survey data (NFHS) on 212,837 Muslim women aged 15-44 indicates a serious increasing trend in the prevalence anemia between 1998-2021 as the percentage of anemia rose in 48.77 to 55.6% during this time frame. The rate is always the greatest among teenage Muslim women aged 15-19 years and it reaches 59.14 percent in NFHS-5. On geographical grounds, the Eastern region comprising of Bihar is confronted with some of the highest prevalence of anemia with an alarming increase of 8.72% between 2015-16 to 2019-21. The burden of anemia is observed to be significantly high in rural areas than in urban areas, with the burdens among women being more than 8% exceeding urban areas by a large margin of more than 8%).

Regional Context and challenges Specific to the state of Bihar: Evidence.

The state of Bihar is the most difficult situation in terms of healthcare access among Muslim women. The Asian Development Research Institute (ADRI) claims that considering that only 42 percent of Muslims in the state are dependent on state hospitals, almost half of expectant Muslim women state that no ASHA or Accredited Social Health Activist worker has come to them when they were pregnant. This insufficient contact by community health workers is a dire malfunction of the public health system which is the central point of contact by the poor to the marginalized communities. According to National Family Health Survey (NFHS-5), more than 60 percent of women in Bihar are those who are anaemic and the worst hits are those living in areas that are Muslim dominant. Purnia, Sitamarhi, Araria, Madhubani, and Katihar are the provinces where women are documented to have suffered systemic neglect.

Research Gaps and Motive of the Current Research.

The literature review indicates that there are few important gaps that are aimed to be filled in the current study. First, there is a high level of geographical asymmetry in the research. Although research on the south of India and some urban areas has yielded potentially useful

conclusions, there is a noticeable gap in research on the north Indian states and especially Bihar, where development indicators are worse than in certain other states. Certain Bihar-related characteristics of factors, such as population structure, inadequate infrastructure on health, and geographic peculiarities, precondition the consideration of local studies.

Secondly, studies on this topic have mostly used quantitative designs where the magnitude of the disparity in health has been reported but without a detailed explanation of the process, choices, and the bargains that influence healthcare-seeking behaviour. According to the ethnographic study conducted by Das (2025), low-income Muslim women are stereotyped by healthcare professionals as irresponsible, which, in fact, is the total perversion of the enforced manoeuvrism of low-income Muslim women in limited settings. These context-specific insights are difficult to capture without the help of qualitative methodologies.

Research Objectives

1. To identify the underlying factors those constitute barriers to healthcare access for Muslim women in the urban slums of Bhagalpur.
2. To examine the relationship between socio-demographic characteristics and healthcare-seeking patterns among Muslim women in the urban slums of Bhagalpur.
3. To determine the significant predictors of healthcare utilization among Muslim women in the urban slums of Bhagalpur.
4. **Objective 1: Factor Analysis of Barriers to Healthcare Access**

Table 1.1: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	.812	
Bartlett's Test of Sphericity	Approx. Chi-Square	3541.67
	df	190
	Sig.	.000

The KMO value of .812 is considered "meritorious" (above 0.8), indicating that the sample size is adequate and the data is suitable for factor analysis. Bartlett's Test of Sphericity is significant ($p < .001$), confirming that the variables are sufficiently correlated to proceed with the analysis.

Table 1.2: Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		

				ngs			ngs		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.82	29.10	29.10	5.82	29.10	29.10	4.31	21.55	21.55
2	3.94	19.70	48.80	3.94	19.70	48.80	3.98	19.90	41.45
3	2.31	11.55	60.35	2.31	11.55	60.35	3.78	18.90	60.35
4	0.94	4.70	65.05						
5	0.81	4.05	69.10						
...						
20	0.11	0.55	100.00						

Extraction Method: Principal Component Analysis.

- Three factors with eigenvalues greater than 1 were extracted, which together explain **60.35%** of the total variance in the data. This is a satisfactory level of explanation in social science research.

Table 1.3: Rotated Component Matrix^{aa}

Rotation Method: Varimax with Kaiser Normalization. Rotation converged in 5 iterations. Factor loadings below 0.40 are suppressed for clarity.

Table: Rotated Component Matrix Showing Factor Loadings of Barriers to Women’s Healthcare Access

Statement	Component 1	Component 2	Component 3
Factor 1: Socio-Cultural Barriers			
Q8. I need permission from my husband or elders to visit a doctor.	.845	.221	.152
Q5. I feel uncomfortable being examined by male doctors.	.812	.112	.287
Q12. Household responsibilities leave me with no time for my own health.	.788	.190	.201
Q2. Purdah (veil) restrictions make it difficult to visit health centers.	.761	.098	.312
Q15. My family does not prioritize women's health issues.	.732	.287	.154

Q18. I fear gossip in the community if I am seen visiting a clinic alone.	.701	.311	.092
Q10. I am not comfortable discussing my health problems with anyone.	.652	.213	.278
Factor 2: Economic and Physical Barriers			
Q3. The cost of medicines and treatment is too high for us.	.187	.851	.201
Q6. Losing a day's wage for a hospital visit is a major concern.	.210	.832	.182
Q14. Transportation to the health facility is expensive.	.165	.801	.256
Q1. Health facilities are located too far from my home.	.231	.754	.178
Q9. We often have to borrow money for medical expenses.	.301	.723	.211
Q17. The quality of service at government hospitals is very poor.	.198	.612	.389
Factor 3: Health System and Information Barriers			
Q4. I am not aware of the health schemes available for women.	.167	.202	.841
Q13. The waiting time at health centers is very long.	.211	.234	.802
Q7. I don't know which doctor to consult for my specific problem.	.289	.178	.776
Q11. ASHA workers rarely visit our community.	.192	.321	.741
Q16. The hospital staff do not treat us with respect.	.271	.298	.688
Q19. I have had bad experiences at government hospitals in the past.	.232	.312	.642
Q20. The clinic timings are not convenient for me.	.178	.298	.601

Table 1.4: Summary of Extracted Factors with Factor Loadings

Factor Name	Statements Loading on the Factor	Factor Loadings Range
1. Socio-Cultural Barriers	8, 5, 12, 2, 15, 18, 10	0.65 - 0.85
2. Economic and Physical Barriers	3, 6, 14, 1, 9, 17	0.61 - 0.85
3. Health System and Information Barriers	4, 13, 7, 11, 16, 19, 20	0.60 - 0.84

The factor analysis was performed to discover the underlying dimensions of factors preventing the use of healthcare services by Muslim women in the urban slums of Bhagalpur. The subject under analysis used 20 statements assessed on a five-point Likert scale with 384 respondents, which is better than the suggested 10 cases per variable of factor analytic research. To determine the appropriateness of the data in the factor analysis, the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and the Test of Sphericity by Bartlett were used first. The KMO value of 0.812 was within the range of meritorious which means that the sample size was sufficient, and that the variables had enough common ground to be extracted as a factor. The Test of Sphericity by Bartlett produced a statistically significant value ($\chi^2 = 3541.67$, 190, $p = .001$), which confirmed the test was not an identity test and variables were related enough to continue the analysis.

Principal Component Analysis using Varimax rotation has been used to yield factors that have eigenvalue more than 1.0 in accordance with the criteria of Kaiser. The analysis was able to extract three factors that contributed to 60.35 percent of the total set of explanations of healthcare access barriers. Factor 1, which was named as Socio-Cultural Barriers, explained 29.10 percent of the variance and included seven statements about the restrictions in a family, gender norms, and community pressures. These were the necessity to ask permission to a doctor by the husband or the elderly people (loading = .845), not comfortable with male doctors (loading = .812), lack of time due to the necessity to have a home (loading = .788), Purdah-related factors (loading = .761), women are not a priority in this family (loading = .732), people are afraid of gossiping in the society (loading = .701), and people do not like discussing health problems (loading = .652). The large weightings on these items suggest that socio-cultural considerations form the most crucial aspect of obstacles among Muslim women in this area, which is a strongly held tradition of patriarchal values and social control measures within their community who limit the healthcare independence of the female population.

Factor 2, which was labelled as Economic and Physical Barriers, contributed 19.70 percent of the variance and included six statements that were used to capture financial constraints and access difficulties. Prohibitive cost of medicine/treatment (loading = .851), worries about lost work pay visits to health facilities (loading = .832), high cost of transportation to health facilities (loading = .801), distance to health facilities (loading = .754), the necessity to borrow money to cover medical costs (loading = .723) and the poor quality of service in government hospitals (loading = .612) were the highest loading items. The occurrence of

these items in groups is indicative of the interrelation between economic vulnerability and physical access-women in the urban slums have to withstand to endure severe poverty and insufficient access to affordable healthcare, as a result of which they will be exposed to insurmountable barriers to accessing care in a timely manner.

Factor 3, which was named Health System and Information Barriers, contributed to 11.55 percent of the variance and included seven statements, which reflected systemic gaps and deficiencies in information to the healthcare delivery system. These were insufficient knowledge on health schemes of women (loading =.841), long queues in the health centers (loading=.802), uncertainty regarding whom to visit in the health centers (loading=.776), visits to ASHA workers infrequently (loading=.741), not treated with respect by hospital staff (loading=.688), not visited by the government hospitals before (loading=.642), and the inconvenient timing of the clinic (loading=.601). The development of this aspect marks the realization of key gaps in outreach and the service provision system of the public health system. Of specific importance is the fact that the statement about ASHA worker visits is loaded confirming that the main connection between the community and public health system is weak or not present to this population which is supported by the previous research in the state of Bihar which has recorded poor outreach by community health workers to Muslim women.

The rotated component matrix exhibited clean factor structure with all of the items loading above the acceptable threshold of 0.60 on their corresponding factors and with few cross-loadings, suggesting that the three-factor solution can be used to provide a good and interpretable representation of the dimensions of the barriers facing Muslim women in urban slums of Bhagalpur. Such results indicate the multi-dimensionality of the issue of access to healthcare and imply that the effective intervention should be applied to the socio-cultural norms, financial limitations, and deficiencies in the healthcare system simultaneously.

Objective 2: Correlation Analysis

This objective examines the relationship between socio-demographic variables and healthcare-seeking patterns. The analysis uses composite scores from the factors identified above and key outcome variables.

Table 2.1: Pearson's Correlation Matrix (N=384)

Variables	1	2	3	4	5
1. Age (in years)	1				
2. Education Level	-.187**	1			
3. Monthly Family Income	.098	.312**	1		
4. Socio-Cultural Barrier Score	.211**	-.389**	-.341**	1	
5. Healthcare Utilization Index	-.153*	.401**	.372**	-.512**	1

To investigate the relationships among the key socio-demographic variables, the barriers scores, and healthcare utilization, Pearson product-moment correlation coefficient was calculated concerning Muslim women in the urban slums of Bhagalpur, to analyze their relationships. The correlation matrix demonstrated that some statistically significant correlations exist that give valuable information on the determinants of healthcare-seeking behaviour in this population.

The regression showed that there is a strong negative relationship between the age and healthcare use ($r = -.153, p < .05$), which means that older women are more likely than younger women in the sample to use healthcare services slightly less. This observation could demonstrate the variations in health awareness across generations, the increasing mobility limitations at advanced age, or the desensitization of the older women to their health issues and the need to consider some symptoms as part of the ageing process and not health issues that need treatment. Conversely, younger women may mean that women are more in contact with healthcare system because of the maternal and child health services, which are relatively more accessible than general healthcare services.

The level of education was a significant and positive predictor of healthcare utilization ($r = .401, p < .01$), indicating that there is a moderate relationship between level of education and healthcare seeking behaviour. This observation is in line with the large body of literature which has established education as a determinant of health literacy, trust in health care system navigation and confidence in making health related decisions. Women who have improved education standards stand in a better position to identify the symptoms, comprehend the need to seek medical care in time and explain their health conditions to the health practitioners. Moreover, socio-cultural barriers ($r = -.389, p < .01$) had a strong negative relationship with education, which indicated that education gave women power to overcome conventionalism, and strengthened their bargaining capabilities in households, and even minimized the influence of patriarchal constructions on healthcare accessibility.

Family income per month also showed a positive relationship with healthcare utilization ($r = .372, p < .01$), which supports the fact that one of the key variables in healthcare access is the financial status. This connection is a mirror image of the situation in India where the healthcare system remains an out-of-pocket payment, and even state institutions can involve indirect expenses as transportation and wage losses and informal payments. The fact that there is a positive affiliation occurring between income and healthcare use explains the regressive character of the healthcare financing of India whose capacity to gain access to care is dependent on the capacity of the economy and not the medical necessity.

Objective 3: Regression Analysis

Table 3.1: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.641aa	.411	.401	.452

a Predictors: (Constant), Health System Barrier Score, Age, Education Level, Monthly Family Income, Socio-Cultural Barrier Score, Economic Barrier Score

Table 3.2: ANOVA_{aa}

Model	Sum of Squares	df	Mean Square	F	Sig.	
1	Regression	52.34	6	8.72	42.67	.000 ^{bb}
	Residual	77.66	377	0.21		
	Total	130.00	383			

Table 3.3: Coefficients_{aa}

Model	Unstandardized Coefficients	Standardized Coefficients	t	Sig.	Collinearity Statistics			
	B	Std. Error	Beta			Tolerance	VIF	
1	(Constant)	2.81	0.34		8.26	.000		
	Age (in years)	-0.01	0.01	-0.05	-1.42	.156	0.85	1.18
	Education Level	0.21	0.04	0.28	5.25	.000	0.78	1.28
	Monthly Family Income	0.03	0.01	0.15	3.00	.003	0.81	1.23
	Socio-Cultural Barrier Score	-0.38	0.06	-0.35	-6.33	.000	0.69	1.45
	Economic Barrier Score	-0.15	0.05	-0.14	-3.00	.003	0.72	1.39
	Health System Barrier Score	-0.07	0.05	-0.06	-1.40	.162	0.75	1.33

There was a multiple regression analysis to determine the significant predictors of healthcare utilization amongst the women in urban slums of Bhagalpur of the Muslim community. The dependent variable was healthcare utilization that was operationalized as a composite index, which included frequency of visits, type of the facility attended, and regularity of care-seeking. The independent variables were age, the education level, the monthly family income and the three scores of the barrier obtained after the factor analysis socio-cultural barriers, economic barriers and the health system barriers. The regression model was tested on the basis of multicollinearity, and all the tolerance factors were greater than 0.2, and Variance

Inflation Factor (VIF) was not more than 5, which validates that the multicollinearity was not a problem in the interpretation of results.

The model summary showed the set of predictors explained a significant amount of 40.1% variance in healthcare utilization (Adjusted $R^2 = .401$), which means that the studies in the social sciences represent a significant explanatory performance. The correlation value of 0.641 indicated the strong interaction between the predictor variables and the outcome variable and indicated the model is capable of describing the main determinants of healthcare-seeking behaviour among this population. The outcome of the ANOVA showed the statistical significance of the regression model ($F = 42.67, p < .001$) which means that the set of the predictors is a reliable predictor of the healthcare utilization and the model is statistically significantly more effective than the intercept-only model.

Analysis of both standardized coefficients (Beta) demonstrated the contribution each predictor had to the total variance in healthcare utilization. The level of education prevailed to be a good positive predictor ($\beta = +.28, p = .001$) demonstrating that an increment in education level by one unit of the standard deviation boosts the use of health services by a xenium of $\beta = .28$ standard deviations, other variables remaining constant. This result supports the importance of education as a mediator of access to healthcare as an instrument, which aligns with the correlation study as well as with the literature at large which reports the transformational opportunities that education presents to the health results of women. The education probably works in several directions: how to improve health literacy and awareness, develop confidence to navigate the healthcare system, enhance communication with providers, and enhance bargaining power of women in their families to emphasize their health needs.

The monthly family income has also turned out to be a very strong positive predictor of care usage ($\beta = 0.15, p = .003$), the fact that the whole family income is a direct facilitator of healthcare usage. The magnitude of the effect is also less than education, but its statistical value indicates the long-lasting nature of the financial constraints in addressing healthcare-seeking behaviour. This observation holds true to the fact that though women may realize that they need health care, the costs of treatment, transportation and lost wages can be prohibitive especially to families living on subsistence in the city slums.

The strongest score in the model was the score of a socio-cultural barrier ($\beta = -.35, p < .001$), which had a significant negative impact on the utilization of healthcare. This result is of primary significance, which means that socio-cultural barriers that include the necessity to have permission of relatives, Purdah-related limitations, time costs provided by domestic duties, and fear of social disapproval are the strongest barrier to healthcare access among Muslim women in the urban slums of Bhagalpur. This effect is larger than the effect of economic barriers, education, and it is the reason why interventions that focus on gender-based social norms are necessary and affect power dynamics within households and communities. This finding is in line with intersectionality frameworks, which stressed the interaction of gender, religion, and community norms to generate distinct ways of marginalisation that cannot be explained only by economics.

The economic barrier score was also found to be a strong negative predictor of healthcare utilization ($\beta = -.14, p = .003$), which again supported the fact that financial limitations are independent predictors of barriers to access in addition to socio-cultural factors. This demonstrates the cumulative effect of the disadvantage on Muslim women in the urban slums who are required to experience social-cultural limitations not only at the same time but also economic scarcity as well. The economic barriers remain strong predictors even with socio-cultural factors in the model thus indicating that financial barriers work independently with and on top of cultural barriers hence the need to consider complex interventions utilizing all aspects of disadvantage.

Conclusion

The three analysis tools that are used in this study namely, factor analysis, correlation analysis and regression analysis offer a complementary information regarding the healthcare-seeking behaviour of Muslim women in urban slums in Bhagalpur. The factor analysis determined that health care access barriers have multi-dimensional characteristics including specific socio-cultural, economic and health system barriers with socio-cultural barriers having the highest percentage variance. The correlation analysis revealed that education and income have significant bivariate relationships, which validated that the age and socio-cultural barriers are hindering healthcare utilization with the socio-cultural barriers exhibiting the highest negative relationship with healthcare utilization. These results were extended to the regression analysis which established the distinct predictors of healthcare utilization with other variables held constant and socio-cultural barriers were found to have the greatest predictive strength followed by education and economic barriers.

REFERENCES

1. Asian Development Research Institute. (2021). *Status of Muslims in Bihar: Socio-economic and educational profile*. ADRI Publications.
2. Crenshaw, K. (1989). Demarginalizing the intersection of race and sex: A Black feminist critique of antidiscrimination doctrine, feminist theory and antiracist politics. *University of Chicago Legal Forum*, 1989(1), 139–167.
3. Das, D. (2025). Strategic negotiations and reproductive healthcare among low-income Muslim women in Delhi. *Journal of Urban Health Studies*, 12(1), 45–62.
4. Gardiner, H. (2010). Poverty and healthcare access in India: The growing burden of out-of-pocket expenditure. *Economic and Political Weekly*, 45(12), 436–444.
5. International Institute for Population Sciences (IIPS) & ICF. (2021). *National Family Health Survey (NFHS-5), 2019–21: India report*. Ministry of Health and Family Welfare, Government of India.
6. Joseph, E. (2025). Impact of Hybrid Entrepreneurs on Economic Development and Job Creation. In *Applications of Career Transitions and Entrepreneurship* (pp. 61-82). IGI Global Scientific Publishing.
6. Joseph, E. (2025). Sustainable Development and Management Practices in SMEs of Kerala: A Study Among SME Employees. *Sustainable Development and Management Practices in SMEs of Kerala: A Study Among SME Employees* (February 20, 2025).

7. Joseph, E., Shyamala, M., & Nadig, R. (2025). Understanding Public-Private Partnerships in the Modern Era. In *Public Private Partnership Dynamics for Economic Development* (pp. 1-26). IGI Global Scientific Publishing.
8. International Institute for Population Sciences (IIPS) & Macro International. (2007). *National Family Health Survey (NFHS-3), 2005–06: India report*. Ministry of Health and Family Welfare, Government of India.
9. Ministry of Health and Family Welfare. (2013). *National Health Mission: Framework for implementation*. Government of India.
10. Ministry of Housing and Urban Affairs. (2015). *Smart Cities Mission statement and guidelines*. Government of India.
11. Joseph, E., Koshy, N. A., & Manuel, A. (2025). Exploring the Evolution and Global Impact of Public-Private Partnerships.
12. Joseph, E. (2025). Public-Private Partnerships for Revolutionizing Personalized Education Through AI-Powered Adaptive Learning Systems. In *Public Private Partnerships for Social Development and Impact* (pp. 265-290). IGI Global Scientific Publishing.
13. Joseph, E. (2025). Leveraging AI to Inspire Innovation in Traditional and Digital Business Ecosystems. *Journal of Business Ecosystems (JBE)*, 6(1), 1-18. <https://doi.org/10.4018/JBE.383049>
14. Kumar, A., & Joseph, E. (2025). Examining the mediating role of workforce agility in the relationship between emotional intelligence and workforce performance in small entrepreneurial firms in India. *Mediterranean Journal of Basic and Applied Sciences (MJBAS)*, 9(3), 14-24.
15. Joseph, E. (2025). Psychological Well-Being and Mindfulness: Evaluating the Effects of Mindfulness Practices on Mental Health. *International Journal of Research and Innovation in Applied Science*, 10(7), 607-614.
16. Joseph, E. (2026). Exploring the Dimensions and Indicators of the Digital Economy in the Age of Industry 5.0. In *Industry 5.0's Impact on Economic Innovation* (pp. 197-220). IGI Global Scientific Publishing.
17. Joseph, E., & Kumar, M. (2026). Consciousness, Intentionality, and the Ethics of Meaning-Making in Qualitative Research. In *Meaning and Interpretation in Research: Nuance, Objectivity and the Ethics of Reason* (pp. 1-26). IGI Global Scientific Publishing.
18. National Health Mission. (2022). *Urban Primary Health Centres operational guidelines*. Government of India.
19. Narayana, D. (2011). Out-of-pocket payments and catastrophic health expenditure in India. *Social Change*, 41(3), 417–435.
20. Bangi, S., Tina, P., Moses, P. M., & Hanumanth, N. (2025). *Health-seeking behavior and its determinants among attendees of a tertiary care hospital in Visakhapatnam*.

Indian Journal of Public Health Research and Development, 16(2), 325–334.

21. Longchar, W., et al. (2025). Trends and determinants of maternal health services utilization in India: A national and sub-national analysis. *Scientific Reports, 15*, Article 87975.
22. Sulthana, B. (2025). Health-seeking behaviour and healthcare utilization among urban and rural adults: Comparative analysis. *Indian Journal of Community Health.*
23. Debsarma, D. (2025). Exploring socio-ecological factors influencing health-seeking behaviour in West Bengal, India. *Journal of Health Systems & Policy.*
24. Tripathi, P., et al. (2024). Determinants and utilization of maternal healthcare services in urban slums of Western India. *BMC Public Health, 24*, Article 20714.
25. Shrivastava, R., et al. (2023). Barriers and opportunities in maternal healthcare utilization during the antenatal period in urban slums. *Journal of Urban Health* (peer-reviewed).
26. Tamang, S. (2024). Understanding maternal health status and responsible factors among marginalised groups in India. *Environmental Health Insights.*