



KNOWLEDGE, ATTITUDE, AND PRACTICE REGARDING HEALTH INSURANCE IN A RURAL COMMUNITY IN SOUTHERN INDIA: A CROSS-SECTIONAL INVESTIGATION

Narayanan Namboothiri G^{1*}, P Muhamed Nihal², Rajathnath², Rakheebea Fathima NK², Raneena M², Rehna Anwar², Rida KP², Rini Fathima J²

¹Associate professor, Doctor, Department of Community Medicine, MES Medical College, Perinthalmanna, Kerala, India.

²Medical student, MES Medical College, Perinthalmanna, Kerala, India.

Corresponding Author*: Dr. Narayanan Namboothiri G, Associate Professor, Doctor, Department of Community Medicine, MES Medical College, Perinthalmanna, Kerala, India.

Email ID: narayanang1990@gmail.com

Orcid ID: <https://orcid.org/0009-0006-9889-0524>

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ABSTRACT

Introduction: Health insurance can reduce out-of-pocket expenditure and improve equitable healthcare access, particularly in rural populations. Despite expansion of government-sponsored schemes in India, gaps in awareness and utilization persist. This study assessed knowledge, attitude, and practice regarding health insurance and their association with selected sociodemographic factors.

Methodology: A community-based cross-sectional study was conducted among 300 adults aged ≥ 18 years in selected wards of Puzhakkattiri village, Kerala, India, from July 2024 to March 2025. Stratified and systematic random sampling was used. Data were collected through household interviews using a semi-structured, pre-validated questionnaire. KAP scores were categorized as good or poor based on mean score cut-offs.

Results: Among the 300 participants, good knowledge regarding health insurance was observed in 58.0%, good attitude in 67.0%, and health insurance coverage in 32.0% of participants, while 38.5% of the insured participants demonstrated good practice regarding utilization of health insurance. Knowledge regarding health insurance showed significant association with age, gender, educational status, family size, chronic illness in the family, and history of hospitalization with financial loss. Attitude towards health insurance was significantly associated with age, family type, family size, presence of relatives or friends with health insurance, chronic illness, healthcare preference, and history of hospitalization with financial loss. ($p < 0.05$).

Conclusion: The study showed satisfactory knowledge and favorable attitude towards health insurance, although utilization remained low among the rural population. Sociodemographic and healthcare-related factors significantly influenced knowledge and attitude regarding health insurance.

KEYWORDS: Health Insurance, Knowledge, Attitude, Practice, Rural Population, Health Awareness, Healthcare Utilization, Socioeconomic Factors.

Introduction

Public health financing in India remained limited, with government expenditure accounting for 1.04% of GDP. When private sector spending was included, total health expenditure increased to approximately 4% of GDP, of which nearly 30% was contributed by the public sector[1]. This imbalance indicated a heavy reliance on private healthcare services, which often resulted in higher out-of-pocket expenditure for individuals. Consequently, the financial burden associated with healthcare continued to rise, particularly among economically vulnerable populations. The economic impact of healthcare expenditure was substantial, with more than 63 million individuals being pushed into poverty annually due to medical costs alone[2]. This highlighted the critical need for financial risk protection mechanisms such as health insurance. Efficient access to and utilization of health insurance services played a crucial role in reducing catastrophic health expenditure and promoting equitable healthcare delivery across communities[2, 3]. In developing settings, the costs associated with diagnosis, treatment, follow-up care, and specialist consultations were often unaffordable for a large proportion of the population. In this context, improving knowledge, shaping positive attitudes, and encouraging appropriate practices related to health insurance became essential. Evaluating these components helped in understanding the level of awareness, perceived benefits, and actual utilization patterns among the public. Such evidence was useful for policymakers and healthcare providers to design and implement more effective and inclusive insurance schemes[2, 4].

Research focusing on knowledge, attitude, and practice (KAP) of health insurance done across world provided important insights into how individuals perceived and engaged with available schemes. These factors directly influenced healthcare-seeking behavior, financial protection, and overall health outcomes. Furthermore, evolving socioeconomic conditions, changes in healthcare systems, and advancements in medical technology necessitated continuous assessment of public awareness and utilization patterns[2,3,5,6]. Ongoing research, therefore, remained important to ensure that health insurance models adapted to the changing needs of the population. Previous studies conducted in different regions of southern India demonstrated varying levels of awareness and utilization. Awareness of health insurance in a South Indian population was reported as 64.0%[4,7]. Similarly, among the rural population of Bangalore, 75.7% were aware of health insurance, and among them, 66.9% had obtained some form of coverage [7, 8]. These findings suggested moderate awareness but variable adoption, indicating the need for further region-specific assessment to bridge existing gaps in knowledge and practice[7-9].

Utilization of health insurance in India has increased over the past decade, although disparities between coverage

and actual use remain evident. Recent national estimates suggested that around 40–50% of individuals were enrolled under some form of health insurance, largely due to expansion of government-funded schemes[10]. However, utilization during healthcare needs was not uniform, with rural populations demonstrating considerably lower usage compared to urban areas, mainly due to limited awareness, accessibility issues, and dependence on out-of-pocket spending. The introduction of Ayushman Bharat Pradhan Mantri Jan Arogya Yojana in 2018 marked a significant policy shift by aiming to cover over 500 million economically vulnerable individuals and improving access to hospitalization services[8,9,11,12]. Despite this, evidence indicated that insured individuals in rural settings were less likely to utilize benefits effectively when compared to their urban counterparts. Health insurance therefore, remained a critical component in the Indian healthcare system, as it helped reduce financial hardship, improved access to essential and specialized services, and contributed to minimizing inequities in healthcare delivery, particularly among underserved populations[11,12]. The scientific rationale of the study was based on the need to address the gap between existing health insurance coverage and its suboptimal utilization, particularly in rural populations, by evaluating public awareness and behavior toward health insurance to support strategies for improving equitable healthcare access and financial risk protection.

As a backdrop, the study was conducted to assess the knowledge, attitude, and practice of health insurance among individuals in a rural community in southern India and to examine their association with selected sociodemographic variables.

Methods

Study Design, Setting, Duration

A community-based cross-sectional study was conducted in the rural field practice area of a tertiary care center in Kerala, southern India, over a nine-month period from July 2024 to March 2025, wherein one adult respondent (aged ≥ 18 years) was selected from each household for participation.

Study population, Sample size, and Sampling

The study population comprised households in selected wards (7, 8, and 9) of Puzhakkattiri village, Malappuram district, Kerala, India, from which one adult respondent aged ≥ 18 years (preferably the head of the household or, in their absence, another adult member) was selected for interview. Individuals who did not provide consent, those with mental instability, and those unable to comprehend the study questions were excluded from participation.

The sample size was calculated using the formula $Z\alpha^2pq/d^2$. Based on a previous study by B Reshmi et al.[13], the prevalence (p) of awareness of health insurance in a South Indian population was 64%; hence, $p = 64$ and $q = 36$. With $Z\alpha$ taken as 1.96 for a 95% confidence level and an absolute

precision (d) of 6%, the calculated sample size was 256. After accounting for a non-response rate of approximately 15%, the final sample size was rounded off to 300.

Households were selected using a stratified sampling technique, with each of the three wards (7, 8, and 9) of Puzhakkattiri village, Malappuram district, Kerala, India considered as separate strata. A list of 300 households from each ward was obtained, and 100 households from each stratum were selected using systematic random sampling. The sampling interval was calculated as 3, and after selecting a random starting point, every 3rd household was included until the required sample size was achieved. Through this approach, 100 households were obtained from each ward, ensuring uniform representation, and the total sample size of 300 was achieved. From each selected household, one adult respondent aged ≥ 18 years (preferably the head of the household or, in their absence, another adult member) was interviewed.

Method of Data Collection

Data were collected through household interviews using a semi-structured, pre-designed questionnaire in Puzhakkattiri village, Malappuram district, Kerala, India. A door-to-door survey was conducted to identify eligible participants, and one adult respondent from each household (preferably the head of the household or, in their absence, another adult member) was interviewed. If no eligible respondent was available during the initial visit, a follow-up visit was scheduled after fixing an appointment via telephone. Participants were provided with an information sheet explaining the study, and written informed consent was obtained prior to data collection. In cases where eligible respondents were unavailable during the initial visit, repeat visits were made, and households with no response after multiple attempts were excluded from the study.

The data collection tool consisted of a semi-structured questionnaire developed using items adapted from previously validated studies conducted in India and modified to suit the local context[7,10,13-16]. The questionnaire included two sections: the first captured socio-demographic details such

as age, gender, education, occupation, type of family, and socioeconomic status, while the second assessed knowledge, attitude, and practice (KAP) regarding health insurance. KAP scores were computed and categorized based on mean score cut-off values into good and poor levels.

The questionnaire proforma underwent content validation by experts from the Department of Community Medicine to ensure its relevance and adequacy. A pilot study was subsequently conducted among 10% of the estimated sample in the field to evaluate feasibility and clarity, following which appropriate modifications were incorporated. Efforts were made to minimize missing data through immediate verification at the time of data collection, and responses with incomplete information were excluded from the final analysis.

Data collected were entered and analyzed using Statistical Package for the Social Sciences (SPSS) version 26. Descriptive statistics were expressed as frequencies and percentages, and cross-tabulation was performed for relevant variables. The chi-square test was used for bivariate analysis, and a p-value ≤ 0.05 was considered statistically significant.

All participants were assured of confidentiality and anonymity; participation was voluntary, and written informed consent was obtained prior to data collection. Ethical approval was obtained from the Institutional Ethics Committee of the MES Medical College, Perinthalmanna, Kerala, India, with reference number IEC/MES/UG09/2024 dated 15th May 2024.

Results

Sociodemographic characteristics (n=300)

In the current study, most participants were aged 31–50 years (42.7%) with a slight female predominance (52.7%). A majority had education up to high school (44.7%), belonged to nuclear families (61.0%), and were from the middle socioeconomic class (48.7%). About 63.0% reported relatives or friends with health insurance. Government facilities were preferred by 58.7%, and 29.3% had a history of hospitalization with financial loss (Table 1).

Table 1: Sociodemographic characteristics of the study population (n=300)

Variable	Frequency (n)	Percentage (%)
Age group		
18–30 years	92	30.7
31–50 years	128	42.7
>50 years	80	26.6
Gender		
Male	142	47.3
Female	158	52.7
Educational status		
Up to high school	134	44.7
Intermediate/ Diploma	86	28.7

Graduate and above	80	26.6
Occupation		
Employed	121	40.3
Semi-skilled/ Unskilled	109	36.3
Unemployed	70	23.4
Type of family		
Nuclear family	183	61.0
Joint/Extended family	117	39.0
Socio-economic class		
Upper/Upper middle	78	26.0
Middle	146	48.7
Lower	76	25.3
Number of family members		
≤4	138	46.0
5–7	121	40.3
≥8	41	13.7
Relatives/ friends with health insurance		
Yes	189	63.0
No	111	37.0
Marital status		
Married	221	73.7
Unmarried/ Widowed/ Separated	79	26.3
Chronic illness in the family		
Yes	97	32.3
No	203	67.7
Usual source of healthcare		
Government facility	176	58.7
Private facility	124	41.3
History of hospitalization with financial loss in the past		
Yes	88	29.3
No	212	70.7

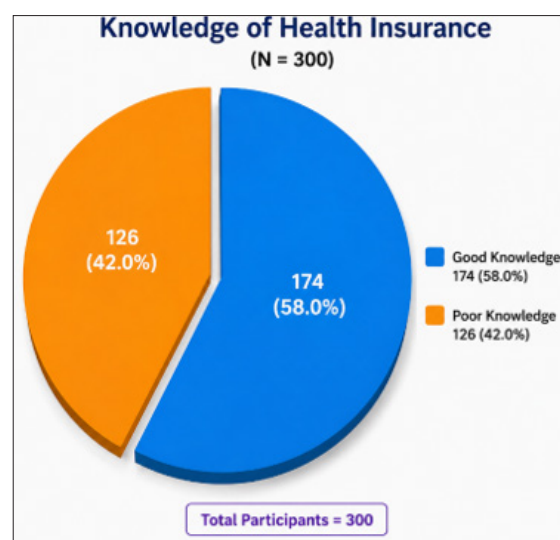


Figure 1. Pie chart showing distribution of knowledge regarding health insurance among study participants (n=300)

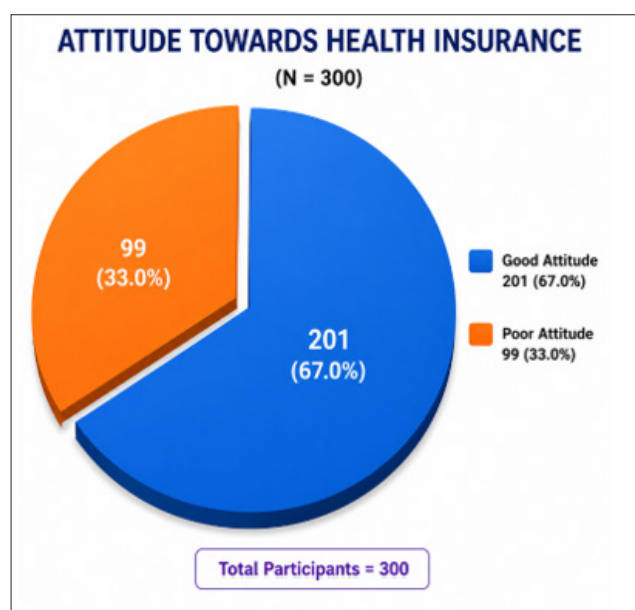


Figure 2. Pie chart showing attitude towards health insurance among study participants (n=300)

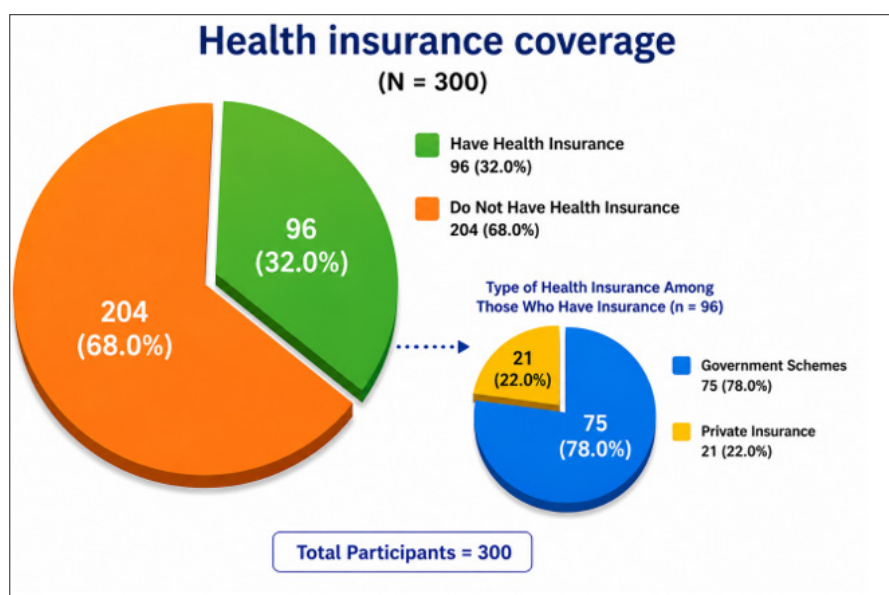


Figure 3. Pie chart showing health insurance coverage and type of health insurance among study participants. (n=300)

Knowledge, attitude, and practice towards health insurance of study participants (n=300)

Knowledge of Health insurance

Out of 300 participants, 174 (58.0%) had good knowledge, while 126 (42.0%) had poor knowledge. A majority of participants had heard about health insurance (68.3%) and were aware of the Ayushman Bharat scheme (61.7%). Around 56.0% correctly identified the meaning of “premium,” while 59.3% were aware that both government and private sectors provide insurance policies. Approximately 62.0% recognized that hospitalization expenses, such as room rent and medical fees, are covered, and 65.0% correctly identified the benefits of health insurance (Figure 1).

Attitude on Health Insurance

Out of 300 participants, 201 (67.0%) had good attitude, while 99 (33.0%) had poor attitude. A large proportion of participants believed that health insurance is important for financial security during medical emergencies (78.3%) and considered it a priority for every family (72.7%). Approximately 74.0% felt that health insurance provides a sense of security for themselves and their families, while 69.3% expressed willingness to obtain insurance if premiums were affordable. Around 71.0% supported the need for increased government awareness campaigns, and 76.7% were willing to learn more about health insurance. However, a smaller proportion perceived health insurance

as a luxury (28.0%) or felt that premiums would be wasted if no claims were made (34.7%) (Figure 2).

Practice of health Insurance

Out of 300 participants, 96 (32.0%) reported having health insurance, either private or government. Among these, 75 (78.0%) were covered under government schemes. Among the insured participants, 37 (38.5%) demonstrated good practice, while 59 (61.5%) had poor practice. A majority reported regular renewal of their policy (62.5%), while 58.3% maintained records of medical bills and receipts. Around 54.2% communicated with their insurance provider or updated themselves regarding policy details, and 49.0% actively sought information on additional benefits. Approximately 46.9% reported being able to afford premium payments comfortably, while only 41.7% kept track of out-of-pocket expenses. A smaller proportion had reached out for assistance through agents or helplines (38.5%) or influenced others to adopt health insurance (35.4%) (Figure 3).

Determinants of KAP of Health Insurance (n=300)

Knowledge of health insurance and determinants

Knowledge of health insurance was significantly associated with age, gender, educational status, family size, presence of chronic illness, and history of hospitalization with financial loss. Higher knowledge was observed among participants aged 18–30 years (71.7%) compared to older age

groups ($p < 0.001$). Males demonstrated higher knowledge (69.0%) than females (48.1%) ($p < 0.001$). Participants with higher education, including intermediate/diploma (60.5%) and graduate and above (77.5%), had better knowledge compared to those with lower education (44.8%) ($p < 0.001$). Knowledge increased with family size, with 70.7% among those with ≥ 8 members ($p = 0.013$). Participants with chronic illness in the family (70.1%) and those with a history of hospitalization with financial loss (72.7%) had significantly higher knowledge ($p = 0.003$ and $p = 0.001$, respectively) (Table 2).

Attitude of health insurance and determinants

Attitude towards health insurance showed significant association with age, family type, family size, presence of relatives or friends with health insurance, chronic illness, healthcare preference, and history of hospitalization with financial loss. Higher good attitude was observed among participants aged >50 years (76.2%) and 31–50 years (70.3%) ($p = 0.004$). Participants from joint/extended families (78.6%) and those with ≥ 8 family members (80.5%) had better attitude ($p = 0.001$). Good attitude was higher among those with relatives or friends having health insurance (75.1%) ($p < 0.001$), those with chronic illness in the family (77.3%) ($p = 0.006$), those preferring private healthcare (75.8%) ($p = 0.005$), and those with a history of hospitalization with financial loss (80.7%) ($p = 0.001$).

Table 2: Association between selected variables and knowledge of health insurance among study participants (n = 300)

Variable	Good n (%)	Poor n (%)	χ^2 , p-value
Age group			
18–30 years (92)	66 (71.7)	26 (28.3)	$\chi^2 = 17.18$, p < 0.001
31–50 years (128)	72 (56.3)	56 (43.7)	
>50 years (80)	36 (45.0)	44 (55.0)	
Gender			
Male (142)	98 (69.0)	44 (31.0)	$\chi^2 = 13.27$, p < 0.001
Female (158)	76 (48.1)	82 (51.9)	
Educational status			
Up to high school (134)	60 (44.8)	74 (55.2)	$\chi^2 = 23.94$, p < 0.001
Intermediate/Diploma (86)	52 (60.5)	34 (39.5)	
Graduate and above (80)	62 (77.5)	18 (22.5)	
Number of family members			
≤4 (138)	70 (50.7)	68 (49.3)	$\chi^2 = 8.72$, p = 0.013
5–7 (121)	75 (62.0)	46 (38.0)	
≥8 (41)	29 (70.7)	12 (29.3)	
Chronic illness in family			
Yes (97)	68 (70.1)	29 (29.9)	$\chi^2 = 8.61$, p = 0.003
No (203)	106 (52.2)	97 (47.8)	
History of hospitalization with financial loss			
Yes (88)	64 (72.7)	24 (27.3)	$\chi^2 = 10.52$, p = 0.001
No (212)	110 (51.9)	102 (48.1)	

Table 3: Association between selected variables and attitude towards health insurance among study participants (n = 300)

Variable	Good n (%)	Poor n (%)	χ^2 , p-value
Age group			
18–30 years (92)	50 (54.3)	42 (45.7)	$\chi^2 = 11.18$, p = 0.004
31–50 years (128)	90 (70.3)	38 (29.7)	
>50 years (80)	61 (76.2)	19 (23.8)	
Type of family			
Nuclear (183)	109 (59.6)	74 (40.4)	$\chi^2 = 12.06$, p = 0.001
Joint/Extended (117)	92 (78.6)	25 (21.4)	
Number of family members			
≤4 (138)	78 (56.5)	60 (43.5)	$\chi^2 = 13.64$, p = 0.001
5–7 (121)	90 (74.4)	31 (25.6)	
≥8 (41)	33 (80.5)	8 (19.5)	
Relatives/friends with health insurance			
Yes (189)	142 (75.1)	47 (24.9)	$\chi^2 = 15.92$, p < 0.001
No (111)	59 (53.2)	52 (46.8)	
Chronic illness in family			
Yes (97)	75 (77.3)	22 (22.7)	$\chi^2 = 7.54$, p = 0.006
No (203)	126 (62.1)	77 (37.9)	
Usual source of healthcare			
Government facility (176)	107 (60.8)	69 (39.2)	$\chi^2 = 7.86$, p = 0.005
Private facility (124)	94 (75.8)	30 (24.2)	
History of hospitalization with financial loss			
Yes (88)	71 (80.7)	17 (19.3)	$\chi^2 = 10.27$, p = 0.001
No (212)	130 (61.3)	82 (38.7)	

Table 4: Association between selected variables and practice of health insurance among insured participants (n = 96)

Variable	Good n (%)	Poor n (%)	χ^2 , p-value
Age group			
18–30 years (28)	5 (17.9)	23 (82.1)	$\chi^2 = 9.18$, p = 0.010
31–50 years (42)	16 (38.1)	26 (61.9)	
>50 years (26)	16 (61.5)	10 (38.5)	
Relatives/friends with health insurance			
Yes (70)	32 (45.7)	38 (54.3)	$\chi^2 = 5.95$, p = 0.015
No (26)	5 (19.2)	21 (80.8)	
Chronic illness in family			
Yes (35)	19 (54.3)	16 (45.7)	$\chi^2 = 6.10$, p = 0.013
No (61)	18 (29.5)	43 (70.5)	
History of hospitalization with financial loss			
Yes (30)	18 (60.0)	12 (40.0)	$\chi^2 = 8.41$, p = 0.004
No (66)	19 (28.8)	47 (71.2)	

Practice of health insurance and determinants

Practice of health insurance showed significant association with age, presence of relatives or friends with health insurance, chronic illness, and history of hospitalization

with financial loss. Higher good practice was observed among participants aged >50 years (61.5%) and 31–50 years (38.1%) (p = 0.010). Participants with relatives or friends having health insurance (45.7%) demonstrated better

practice ($p = 0.015$). Similarly, good practice was higher among those with chronic illness in the family (54.3%) ($p = 0.013$) and those with a history of hospitalization with financial loss (60.0%) ($p = 0.004$) (Table 4).

Discussion

The proportion of participants demonstrating adequate knowledge regarding health insurance in the present study was lower than that reported by Indumathi K et al.[14], where awareness reached 75.7%, but was comparable to the findings of B. Reshmi et al.[13], who observed awareness among 64% of respondents, and Nagaraj Shet et al.[15], who reported awareness and subscription among 63.27% of participants. In contrast, Mahesh Kumar L. Choudhary et al.[16] documented a slightly lower awareness level of 57.25%, while Yadlapalli S. Kusuma et al.[17] identified markedly poor awareness, with only 19% of the urban poor population having knowledge regarding health insurance. Similarly, the utilization of health insurance in the current study was higher than the 18% practice observed by Yadlapalli S. Kusuma et al.[17] and the 25.57% utilization reported by Nagaraj Shet et al.[15], but considerably lower than the 66.9% insurance coverage documented by Indumathi K et al.[14]. Furthermore, the observed association between knowledge and educational status was in agreement with the findings of B. Reshmi et al.[13], where 93% of graduates and above were aware of health insurance, and Mahesh Kumar L. Choudhary et al.[16], who also identified education and socioeconomic status as significant determinants influencing awareness and acceptance of health insurance schemes. The variations observed between the present study and previous literature could be attributed to differences in regional socioeconomic conditions, educational attainment, accessibility of insurance schemes, healthcare utilization patterns, study setting, and the level of public awareness initiatives conducted across different populations and time periods.

The favorable attitude towards health insurance identified in the present study appeared to be substantially better than the poor attitude reported by Yadlapalli S. Kusuma et al.[17] among the urban poor population in Delhi. The increased positive attitude observed among individuals with chronic illness in the family and those experiencing hospitalization with financial loss was consistent with the observations of Mahesh Kumar L. Choudhary et al.[16], where economic benefit and reimbursement of treatment expenses were major motivating factors for opting health insurance. Likewise, the better attitude observed among participants preferring private healthcare corresponded with the findings of B. Reshmi et al.[13], where higher socioeconomic groups predominantly preferred private health insurance schemes (47.05%) over government schemes (35.29%). The higher awareness and utilization trends observed in southern regions were also supported by the multicentric analysis of Ruchi Takur et al.[18], which demonstrated the highest

knowledge regarding health insurance in Kerala (89.27%) and high utilization in Karnataka (78.8%), whereas Delhi exhibited the lowest awareness level at 19.10%, further indicating regional differences in health insurance perception and acceptance across India. The variations observed between the present study and previous literature could be attributed to differences in regional socioeconomic conditions, educational attainment, accessibility of insurance schemes, healthcare utilization patterns, study setting, and the level of public awareness initiatives conducted across different populations and time periods.

The level of knowledge regarding health insurance observed in the present study was comparable to the findings of Amos Paul Bassi Adewole et al.[19], who reported good awareness among 59.5% of participants, but was lower than the awareness levels documented by Geoffrey Setswe et al.[21] in South Africa (80.3%), Kavitha et al.[20] regarding MMCBSY (85%), Govender et al.[22] on National Health Insurance (96.84%), and Archana et al.[23], who noted nearly 96% awareness among Indians. Conversely, the knowledge level in the current study was substantially higher than the observations of Yusuf et al.[24], where only 9% demonstrated good knowledge regarding Community Based Health Insurance. The proportion of participants with positive attitude towards health insurance in the present study was similar to the 70.7% favorable attitude reported by Amos Paul Bassi Adewole et al.[19] and the 62.5% positive attitude observed by Yusuf et al.[24], but lower than the positive perception documented by Kavitha et al.[20], where 82%–85% expressed trust and favorable opinion regarding government insurance schemes, and Govender et al.[22], where 77.84% showed willingness to comply with National Health Insurance requirements. Furthermore, the significant association between knowledge and age, gender, and educational status identified in the present study was consistent with the findings of Amos Paul Bassi Adewole et al.[19], who reported age, occupation, and education as major determinants of awareness, and Balu et al.[25], who also identified gender as significantly associated with awareness levels.

The utilization of health insurance in the present study was considerably higher than the 13.3% practice reported by Amos Paul Bassi Adewole et al. [19] and the 4.5% enrollment observed by Yusuf et al.[24], but remained markedly lower compared to the 85% enrollment documented by Kavitha et al.[20]. However, the gap between awareness and actual utilization noted in the current study was similar to the findings of Archana et al.[23], who highlighted that despite high awareness levels, enrollment remained lower in rural and economically weaker populations because of affordability concerns, limited accessibility, and inadequate understanding of insurance procedures. Likewise, Geoffrey Setswe et al.[21] emphasized insufficient public education campaigns and poor understanding regarding the functioning of health insurance systems, which may explain the

persistence of lower practice levels despite reasonable awareness. The better knowledge observed among younger and educated participants in the present study corresponded with Govender et al.[22], who found significantly better knowledge among respondents aged below 45 years and those with greater experience, while the improved attitude among participants with chronic illness, larger family size, and prior hospitalization with financial loss reflected the observations of Balu et al.[25] and Archana et al.[23], where family condition, personal health issues, financial burden, and socioeconomic factors strongly influenced awareness, perception, and adoption of health insurance schemes.

Limitations

The cross-sectional nature of the study limited the ability to determine causal associations between sociodemographic factors and knowledge, attitude, and practice regarding health insurance. In addition, the findings were based on self-reported responses, which may have introduced recall and response bias. Furthermore, since the study was conducted in a single rural community, the generalizability of the results to other regions and urban populations may be limited.

Conclusion

The present study demonstrated that awareness and attitude regarding health insurance among individuals in the rural community were relatively satisfactory, whereas the actual utilization of health insurance remained comparatively limited. Better knowledge and favorable attitude were observed among participants with higher educational status, larger family size, chronic illness within the family, and prior experiences of hospitalization with financial burden, indicating that personal healthcare experiences and socioeconomic factors played an important role in shaping health insurance perception and acceptance. The association of knowledge and attitude with demographic and healthcare-related determinants suggested that exposure to medical expenses, social influence, and accessibility to healthcare information contributed to increased understanding and positive perception towards insurance schemes. Despite reasonable awareness, lower practice levels indicated the persistence of barriers such as inadequate procedural understanding, financial constraints, limited accessibility, and gaps in implementation of insurance services in rural settings. Strengthening community-based health education, improving accessibility and transparency of insurance schemes, and conducting large-scale multicentric studies may further enhance the adoption and effective utilization of health insurance in the future.

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Declarations

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Use of AI: Artificial intelligence was used during manuscript preparation to assist with grammar correction, paraphrasing, and sentence refinement. The AI tool used was ChatGPT. No AI tools were used for study design, data collection, or data analysis.

Conflict of Interest: No

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