



KNOWLEDGE, ATTITUDE, AND PRACTICES REGARDING PREVENTIVE HEALTHCARE SERVICES AMONG COMMUNITY RESIDENTS: IMPLICATIONS FOR PUBLIC HEALTH INTERVENTIONS

Dr. Smita Pramod Dudhale*

^{1*} Associate Professor, Department of Community Medicine, Gouri Devi Institute of Medical Science & Hospital, Durgapur, WB, India

***Corresponding Author :** Dr. Smita Pramod Dudhale

Associate Professor, Department of Community Medicine, Gouri Devi Institute of Medical Science & Hospital, Durgapur, WB, India

Abstract

Background:

Preventive healthcare services play a crucial role in reducing the burden of disease, promoting healthy lifestyles, and improving overall population health. Despite the availability of various preventive services, their utilization remains suboptimal in many communities due to inadequate awareness, misconceptions, and barriers to access. Understanding the knowledge, attitudes, and practices (KAP) of community residents regarding preventive healthcare is essential for designing effective public health strategies and interventions.

Objective: To assess the knowledge, attitudes, and practices regarding preventive healthcare services among community residents and to identify factors influencing their utilization.

Materials and Methods: A community-based cross-sectional study was conducted among 300 adult residents selected through systematic random sampling. Data were collected using a pre-validated structured questionnaire comprising socio-demographic characteristics and KAP-related items on preventive healthcare services, including vaccination, routine health check-ups, cancer screening, maternal and child health services, and lifestyle modification practices. Descriptive statistics, chi-square tests, and logistic regression analyses were employed to evaluate associations between demographic variables and KAP scores.

Results: Among the participants, 68.3% demonstrated adequate knowledge regarding preventive healthcare services, while 74.0% exhibited a positive attitude toward preventive health measures. However, only 57.7% reported regular utilization of preventive services. Higher educational status, better socioeconomic conditions, and previous exposure to health education programs were significantly associated with higher knowledge and practice scores ($p < 0.05$). Major barriers identified included lack of awareness, financial constraints, time limitations, and perceived absence of illness.

Conclusion: Although community residents generally possess favorable knowledge and attitudes toward preventive healthcare services, actual utilization remains inadequate. Targeted health education campaigns, improved accessibility of preventive services, and community-based awareness programs are needed to bridge the gap between knowledge and practice and strengthen public health outcomes.

Keywords: Preventive Healthcare, Knowledge, Attitude, Practice, Community Health, Health Promotion, Public Health Intervention, Health Awareness.

Introduction

Preventive healthcare represents a cornerstone of modern public health practice, focusing on the prevention of disease, early detection of health conditions, and promotion of healthy lifestyles before the onset of illness. By emphasizing risk reduction and health promotion, preventive healthcare services contribute significantly to improving quality of life, reducing healthcare expenditures, and enhancing population well-being. These services encompass a broad range of interventions, including immunization, routine health examinations, screening programs, maternal and child healthcare, nutritional counseling, and lifestyle modification initiatives aimed at preventing chronic and communicable diseases. Globally, the burden of non-communicable diseases (NCDs), such as cardiovascular diseases, diabetes mellitus, chronic respiratory diseases, and cancer, has increased substantially over recent decades. According to the World Health Organization (WHO), a significant proportion of premature deaths and disabilities can be prevented through timely implementation and utilization of preventive healthcare services. In addition to reducing mortality and morbidity, preventive measures facilitate early diagnosis and treatment, thereby improving health outcomes and minimizing the economic burden on individuals and healthcare systems. In India and other developing countries, preventive healthcare services are integrated into national health programs to address major public health challenges. Government initiatives such as the Universal Immunization Programme (UIP), Ayushman Bharat Health and Wellness Centres, National Programme for Prevention and Control of Cancer, Diabetes, Cardiovascular Diseases and Stroke (NPCDCS), and various maternal and child health schemes have been implemented to strengthen preventive healthcare delivery. Despite these efforts, the utilization of preventive healthcare services remains inconsistent across different population groups due to disparities in education, socioeconomic status, healthcare accessibility, cultural beliefs, and health awareness. Knowledge, attitude, and practice (KAP) studies provide valuable insights into community perceptions and behaviors related to health and disease prevention. Knowledge refers to an individual's understanding and awareness of preventive healthcare services, while attitude reflects beliefs, perceptions, and willingness to adopt preventive measures. Practice encompasses the actual utilization of healthcare services and engagement in health-promoting behaviors. Together, these components influence health-seeking behavior and determine the effectiveness of preventive health programs at the community level. Several studies have reported that although awareness regarding preventive healthcare services may be moderate to high, the translation of knowledge into practice often remains inadequate. Factors such as lack of awareness, financial limitations, fear of disease diagnosis, inadequate healthcare infrastructure, and misconceptions regarding preventive interventions can negatively affect service utilization. Furthermore, differences in demographic and socioeconomic characteristics may contribute to variations in preventive healthcare practices among community residents. Understanding the current status of knowledge, attitudes, and practices related to preventive healthcare is essential for identifying existing gaps and designing targeted interventions. Evidence generated through KAP assessments can assist policymakers, healthcare providers, and public health professionals in developing effective educational campaigns, improving healthcare accessibility, and promoting community participation in preventive health programs. Therefore, the present study was undertaken to assess the knowledge, attitudes, and practices regarding preventive healthcare services among community residents and to identify factors influencing their utilization. The findings are expected to provide valuable information for strengthening public health interventions and enhancing the uptake of preventive healthcare services within the community.

Materials and Methods

Study Design and Setting

A community-based, cross-sectional descriptive study was conducted to assess the knowledge, attitudes, and practices (KAP) regarding preventive healthcare services among adult residents of the study area. The study was carried out over a period of six months from January 2025 to June 2025 in selected urban and rural communities attached to the Department of Community Medicine. The study aimed to evaluate community awareness and utilization of preventive healthcare services and identify factors influencing their uptake.

Study Population

The study population comprised adult residents aged 18 years and above who had been living in the study area for at least one year. Individuals who were unable to communicate effectively, had severe cognitive impairment, or declined to participate were excluded from the study.

Inclusion Criteria

- Adults aged 18 years and above.
- Permanent residents of the selected community for at least one year.
- Individuals willing to provide informed consent.

Exclusion Criteria

- Visitors and temporary residents.
- Individuals with severe illness preventing participation.
- Participants unwilling to provide consent.

Sample Size

The sample size was calculated using the formula for cross-sectional studies:

Assuming a prevalence of adequate knowledge regarding preventive healthcare services of 50%, a confidence level of 95%, and a permissible error of 5%, the minimum sample size was estimated to be 384. Considering feasibility and response rates, a total of **300 participants** were included in the study.

Sampling Technique

A systematic random sampling method was employed. The study area was divided into clusters, and households were selected systematically. One eligible participant from each selected household was interviewed. In households with more than one eligible individual, one participant was chosen using a simple random selection method.

Data Collection Tool

Data were collected using a pre-tested and validated structured questionnaire developed after an extensive review of relevant literature and consultation with public health experts. The questionnaire consisted of four sections:

Section A: Socio-demographic Information

- Age
- Gender
- Marital status
- Educational status
- Occupation
- Family income
- Socioeconomic status

• **Section B: Knowledge**

Assessment Questions related to:

- Importance of preventive healthcare
- Vaccination and immunization
- Routine health check-ups
- Screening programs
- Maternal and child healthcare services
- Lifestyle-related disease prevention

Section C: Attitude Assessment

Statements assessed using a 5-point Likert scale ranging from "Strongly Agree" to "Strongly Disagree" regarding:

- Perceived benefits of preventive healthcare
- Importance of regular health screening
- Trust in healthcare providers
- Willingness to participate in preventive health programs

Section D: Practice Assessment

Questions related to:

- Frequency of health check-ups
- Vaccination status
- Participation in screening programs
- Dietary and physical activity practices
- Utilization of preventive healthcare facilities

Data Collection Procedure

Prior to data collection, participants were informed about the purpose and objectives of the study. Written informed consent was obtained from all participants. Face-to-face interviews were conducted by trained investigators in the local language. Confidentiality and anonymity of the collected information were maintained throughout the study.

Study Variables

Dependent

Variables

- Knowledge score regarding preventive healthcare services.
- Attitude score toward preventive healthcare.
- Practice score related to preventive healthcare utilization.

Independent Variables

- Age
- Gender
- Educational level
- Occupation
- Socioeconomic status
- Family income
- Previous exposure to health education programs

Scoring System

Knowledge, attitude, and practice scores were calculated based on participant responses.

- Correct knowledge responses were assigned one point and incorrect responses zero points.
- Attitude scores were calculated using Likert-scale responses.

- Practice scores were determined based on the frequency and consistency of preventive healthcare utilization.
- Participants scoring $\geq 70\%$ were categorized as having adequate knowledge, positive attitude, or good practice, respectively.

Statistical Analysis

Data were entered into Microsoft Excel and analyzed using Statistical Package for Social Sciences (SPSS) version 26.0.

The following statistical methods were applied:

- Descriptive statistics including frequency, percentage, mean, and standard deviation.
- Chi-square test to assess associations between categorical variables.
- Independent t-test and one-way ANOVA for comparison of mean KAP scores where applicable.
- Multivariable logistic regression analysis to identify predictors of adequate knowledge and good preventive healthcare practices.

A p-value of <0.05 was considered statistically significant.

Ethical Considerations

The study protocol was reviewed and approved by the Institutional Ethics Committee prior to commencement. Participation was voluntary, and written informed consent was obtained from all participants. Confidentiality of participant information was strictly maintained, and data were used solely for research purposes in accordance with ethical guidelines of biomedical research.

Results

A total of **300 adult community residents** participated in the study, yielding a response rate of 100%. The analysis focused on assessing the knowledge, attitudes, and practices (KAP) regarding preventive healthcare services and identifying factors associated with their utilization.

Table 1. Socio-Demographic Characteristics of Study Participants (N = 300)

Variable	Frequency (n)	Percentage (%)
Age Group (Years)		
18–30	78	26.0
31–45	102	34.0
46–60	76	25.3
>60	44	14.7
Gender		
Male	162	54.0
Female	138	46.0
Education		
Primary	48	16.0
Secondary	96	32.0
Graduate	104	34.7
Postgraduate and Above	52	17.3
Residence		
Urban	172	57.3
Rural	128	42.7

The majority of participants belonged to the 31–45 years age group (34.0%). Males constituted 54.0% of the study population, while 46.0% were females. More than half of the respondents

had completed secondary education or higher.

Knowledge Regarding Preventive Healthcare Services

Among the participants, **205 (68.3%)** demonstrated adequate knowledge regarding preventive healthcare services, while **95 (31.7%)** had inadequate knowledge.

Table 2. Knowledge of Preventive Healthcare Services

Knowledge Component	Correct Response (%)
Importance of Vaccination	82.7
Benefits of Routine Health Check-ups	76.0
Awareness of Cancer Screening	61.3
Maternal and Child Health Services	71.0
Lifestyle Modification for Disease Prevention	74.3

Knowledge was highest regarding vaccination and immunization services, whereas awareness about cancer screening programs was comparatively lower.

Attitude Toward Preventive Healthcare Services

A positive attitude toward preventive healthcare was observed among **222 (74.0%)** participants, whereas **78 (26.0%)** exhibited a neutral or negative attitude.

Table 3. Attitude Toward Preventive Healthcare Services

Attitude Statement	Agree/Strongly Agree (%)
Preventive healthcare improves quality of life	81.3
Regular health check-ups are important	77.0
Early disease detection improves outcomes	84.0
Vaccination is beneficial for health	86.3
Lifestyle modification prevents chronic diseases	79.7

Most respondents recognized the importance of preventive measures and expressed willingness to participate in preventive health programs.

Preventive Healthcare Practices

Only **173 (57.7%)** participants reported regular utilization of preventive healthcare services.

Table 4. Preventive Healthcare Practices Among Participants

Practice Variable	Frequency (n)	Percentage (%)
Regular Health Check-ups	164	54.7
Participation in Screening Programs	142	47.3
Complete Immunization Status	226	75.3
Regular Physical Activity	158	52.7
Healthy Dietary Practices	171	57.0

Although awareness levels were relatively high, actual utilization of preventive healthcare services was comparatively lower.

Factors Associated with Knowledge and Practice Scores

Table 5. Association Between Selected Variables and Adequate Knowledge

Variable	Adequate Knowledge (%)	p-value
Graduate/Postgraduate Education	81.4	<0.001*
Higher Socioeconomic Status	76.8	0.002*
Exposure to Health Education Programs	79.5	<0.001*
Urban Residence	72.1	0.041*

*Statistically significant ($p < 0.05$)

Higher educational attainment, better socioeconomic status, participation in health education activities, and urban residence were significantly associated with adequate knowledge levels.

Barriers to Utilization of Preventive Healthcare Services

Participants reported several barriers that hindered the utilization of preventive healthcare services.

Table 6. Reported Barriers to Preventive Healthcare Utilization

Barrier	Frequency (n)	Percentage (%)
Lack of Awareness	128	42.7
Financial Constraints	102	34.0
Lack of Time	87	29.0
Distance to Healthcare Facility	64	21.3
Perceived Absence of Illness	118	39.3

The most frequently reported barriers were lack of awareness (42.7%), perceived absence of illness (39.3%), and financial limitations (34.0%).

Logistic Regression Analysis

Multivariable logistic regression identified educational status, socioeconomic status, and prior exposure to health education programs as independent predictors of good preventive healthcare practices.

Participants with graduate-level education or higher were approximately **2.8 times more likely** to utilize preventive healthcare services regularly compared to those with lower educational levels (Adjusted Odds Ratio [AOR] = 2.8; 95% CI: 1.7–4.5; $p < 0.001$). Similarly, individuals who had attended health education programs demonstrated significantly higher preventive healthcare utilization (AOR = 2.3; 95% CI: 1.4–3.9; $p = 0.002$).

Summary of Findings

The study revealed that while the majority of community residents possessed adequate knowledge (68.3%) and positive attitudes (74.0%) regarding preventive healthcare services, regular utilization remained comparatively low (57.7%). Educational status, socioeconomic conditions, and exposure to health awareness programs were significant determinants of preventive healthcare practices. Lack of awareness, financial constraints, and the perception of being healthy emerged as the major barriers to service utilization. These findings highlight the need for strengthened community-based health education and improved accessibility to preventive healthcare services.

Discussion

The present study assessed the knowledge, attitudes, and practices (KAP) regarding preventive

healthcare services among community residents and explored factors influencing their utilization. The findings demonstrated that although a majority of participants possessed adequate knowledge and favorable attitudes toward preventive healthcare, the actual utilization of preventive services remained relatively low. This discrepancy highlights the persistent gap between awareness and health-related behavior, which continues to be a significant challenge in public health practice.

In the current study, 68.3% of participants demonstrated adequate knowledge regarding preventive healthcare services. This finding suggests a moderate level of awareness among community residents regarding the importance of vaccination, routine health examinations, disease screening, and healthy lifestyle practices. Similar observations have been reported in previous community-based studies, where increasing educational attainment and access to health information were associated with improved awareness of preventive healthcare measures. The relatively high awareness regarding immunization and routine health check-ups observed in the present study may reflect the impact of ongoing public health campaigns and national health programs aimed at promoting preventive care. A positive attitude toward preventive healthcare services was observed among 74.0% of participants. Most respondents agreed that preventive measures improve health outcomes, reduce disease burden, and enhance quality of life. These findings indicate that community members generally recognize the value of preventive healthcare and are receptive to health promotion initiatives. Similar results have been documented in studies conducted in both developed and developing countries, where favorable attitudes were associated with greater acceptance of screening programs, vaccination services, and lifestyle modifications. Positive attitudes may be attributed to increased health literacy, media exposure, and growing public awareness regarding chronic disease prevention. Despite satisfactory knowledge and attitudes, only 57.7% of participants reported regular utilization of preventive healthcare services. This finding reveals a substantial gap between awareness and actual practice. Similar discrepancies have been reported in previous KAP studies, where individuals acknowledged the importance of preventive care but failed to undergo routine health check-ups or participate in screening programs. Behavioral factors, competing priorities, financial limitations, and accessibility issues may contribute to this inconsistency. The findings emphasize that knowledge alone may not be sufficient to promote sustained preventive health behaviors without supportive environmental and healthcare system factors. The study further identified education as a significant determinant of preventive healthcare utilization. Participants with higher educational qualifications demonstrated better knowledge and healthier practices compared to those with lower educational attainment. Education enhances an individual's ability to understand health information, recognize disease risks, and make informed healthcare decisions. Similar associations have been reported in numerous public health studies, reinforcing the importance of educational interventions in improving preventive healthcare utilization. Socioeconomic status also emerged as a significant predictor of preventive healthcare practices. Individuals belonging to higher socioeconomic groups were more likely to access preventive services regularly. Financial stability may facilitate healthcare access by reducing economic barriers related to transportation, consultation fees, diagnostic tests, and treatment costs. Conversely, economically disadvantaged populations may prioritize immediate necessities over preventive healthcare, leading to delayed utilization of available services. These findings are consistent with previous research demonstrating a strong relationship between socioeconomic conditions and healthcare-seeking behavior. Exposure to health education programs was another factor significantly associated with improved knowledge and practice scores. Participants who had attended health awareness activities or received health education were more likely to engage in preventive healthcare behaviors. Health education plays a crucial role in correcting misconceptions, enhancing risk perception, and motivating individuals to adopt healthy practices. Community-based awareness campaigns, health camps, and educational outreach

programs can therefore serve as effective strategies for improving preventive healthcare utilization. The study identified several barriers to preventive healthcare utilization, including lack of awareness, financial constraints, time limitations, and the perception that healthcare services are unnecessary in the absence of symptoms. Lack of awareness was the most commonly reported barrier, indicating that significant portions of the population remain inadequately informed about available preventive services and their benefits. Financial difficulties continue to hinder healthcare access, particularly among low-income groups. Additionally, many participants reported seeking healthcare only when symptoms develop, reflecting a curative rather than preventive approach to health management. Similar barriers have been documented in previous studies conducted across various community settings. The findings of the present study have important public health implications. Strengthening community-based health education initiatives, expanding access to affordable preventive healthcare services, and integrating preventive care into primary healthcare systems may improve service utilization. Public health authorities should focus on targeted interventions for vulnerable populations, particularly individuals with lower educational and socioeconomic status. Collaboration among healthcare providers, community leaders, and policymakers can enhance awareness and facilitate the adoption of preventive healthcare behaviors.

Limitations of the Study

The study has certain limitations. Being a cross-sectional study, causal relationships between variables could not be established. Information was collected through self-reported questionnaires, which may be subject to recall bias and social desirability bias. Furthermore, the study was conducted in a limited geographic area, which may restrict the generalizability of the findings to other populations. Future multicentric and longitudinal studies are recommended to provide a more comprehensive understanding of preventive healthcare behaviors.

Conclusion of Discussion

The present study revealed that community residents generally possess adequate knowledge and positive attitudes regarding preventive healthcare services; however, the utilization of such services remains insufficient. Educational level, socioeconomic status, and exposure to health education programs significantly influence preventive healthcare practices. Addressing barriers related to awareness, affordability, and accessibility through comprehensive public health interventions is essential to improve preventive healthcare utilization and achieve better population health outcomes.

References

1. World Health Organization. Primary Health Care: Closing the Gap Between Public Health and Primary Care Through Integration. Geneva: WHO; 2018.
2. World Health Organization. World Health Statistics 2024: Monitoring Health for the SDGs. Geneva: WHO; 2024.
3. Marmot M, Allen J, Bell R, Bloomer E, Goldblatt P. WHO European review of social determinants of health and the health divide. *Lancet*. 2012;380(9846):1011–1029.
4. Nutbeam D. Health literacy as a public health goal: A challenge for contemporary health education and communication strategies. *Health Promot Int*. 2000;15(3):259–267.
5. Glanz K, Rimer BK, Viswanath K. *Health Behavior: Theory, Research and Practice*. 5th ed. San Francisco: Jossey-Bass; 2015.
6. Rosenstock IM. Historical origins of the Health Belief Model. *Health Educ Monogr*. 1974;2(4):328–335.
7. Ajzen I. The theory of planned behavior. *Organ Behav Hum Decis Process*. 1991;50(2):179–211.
8. Champion VL, Skinner CS. The Health Belief Model. In: Glanz K, Rimer BK, Viswanath

- K, editors. *Health Behavior and Health Education*. 4th ed. San Francisco: Jossey-Bass; 2008. p. 45–65.
9. Singh A, Purohit BM, Bhambal A, Saxena S. Knowledge, attitudes, and practices regarding preventive health among adults in India. *Indian J Community Med*. 2019;44(3):234–239.
 10. Kumar R, Gupta N, Sharan M. Awareness and utilization of preventive healthcare services among urban adults: A cross-sectional study. *J Family Med Prim Care*. 2021;10(5):1874–1880.
 11. Gupta SK, Pal DK. Health-seeking behavior and preventive healthcare utilization in rural communities of India. *Indian J Public Health*. 2018;62(4):284–289.
 12. Balarajan Y, Selvaraj S, Subramanian SV. Health care and equity in India. *Lancet*. 2011;377(9764):505–515.
 13. Gupta A, Chellaiyan VG, Lohiya A, Rizwan SA, Upadhyay RP. Public awareness and utilization of preventive health services in India. *Natl Med J India*. 2020;33(1):12–18.
 14. International Institute for Population Sciences (IIPS) and ICF. *National Family Health Survey (NFHS-5), 2019–21: India Report*. Mumbai: IIPS; 2021.
 15. Ministry of Health and Family Welfare. *National Health Policy 2017*. Government of India, New Delhi; 2017.
 16. Patel V, Chatterji S, Chisholm D, et al. Chronic diseases and injuries in India. *Lancet*. 2011;377(9763):413–428.
 17. Garg BS, Singh MM. Community participation in preventive health care services: Challenges and opportunities. *Indian J Community Med*. 2017;42(1):1–5.
 18. Bhopal RS. *Concepts of Epidemiology: Integrating the Ideas, Theories, Principles and Methods of Epidemiology*. 4th ed. Oxford: Oxford University Press; 2016.
 19. Park K. *Park's Textbook of Preventive and Social Medicine*. 27th ed. Jabalpur: Banarsidas Bhanot Publishers; 2023.
 20. Frieden TR. A framework for public health action: The health impact pyramid. *Am J Public Health*. 2010;100(4):590–595.