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Assessment Of Knowledge, Attitude and Practice (Kap) Regarding Prevention Of Communicable Diseases Among Rural Communities

Arjun Athiya

Student, Faculty of science, SAM Global University, Raisen, M.P., India

Dr. Priyanka Tiwari

Professor, Faculty of science, SAM Global University, Raisen, M.P., India

Abstract

Communicable diseases continue to affect rural communities through waterborne, foodborne, respiratory, vector-borne and vaccine-preventable routes. Prevention depends not only on availability of services but also on community knowledge, attitude and routine practice. Safe water, sanitation and hygiene are recognised public health requirements, and hand hygiene is a simple measure for reducing spread of germs. A community-based cross-sectional study design was adopted among 300 rural adult participants selected by multistage sampling. Data were collected using a structured KAP questionnaire consisting of socio-demographic details, knowledge questions, attitude statements and practice items. Descriptive statistics, chi-square test and Pearson correlation were used for analysis. Among participants, 38.7% had good knowledge, 45.7% had moderate knowledge and 15.6% had poor knowledge. Favourable attitude was observed among 47.3%, while good preventive practice was observed among 33.7%. Education, socioeconomic status, sanitation facility, source of drinking water and source of health information showed statistically significant associations with KAP levels. Knowledge had a moderate positive correlation with practice ($r=0.46$, $p<0.001$).

Keywords: Knowledge, Attitude, Practice, KAP, Communicable Diseases, Rural Communities

I. INTRODUCTION

Background of the Study is an important component of the present public health inquiry because prevention of communicable diseases in rural communities depends on the interaction of household conditions, health literacy, service access and socially accepted behaviour. The section examines rural epidemiology, health literacy, preventive behaviour, and relates these issues to daily practices such as safe water storage, handwashing with soap, cough etiquette, sanitation use, food hygiene, timely immunization, vector control and early care seeking. In rural settings, communicable disease prevention cannot be reduced to a single message; it requires repeated exposure to accurate information, trust in frontline health workers and availability of facilities that make healthy choices feasible. For this study, background of the study is understood as a practical field issue rather than only a theoretical concept. The KAP approach helps to identify whether community members know the correct preventive measure, whether they believe the measure is useful and acceptable, and whether they actually perform it at household level. A gap between knowledge and practice may arise when families know about disease prevention but face constraints such as irregular water supply, lack of soap,

cultural norms, seasonal migration, low perceived risk, poor waste disposal, or distance from the primary health centre. Therefore, each subsection contributes to understanding why preventable infections continue to affect rural populations despite the presence of national programmes and health education activities.

Overview of Communicable Diseases

Overview of Communicable Diseases is an important component of the present public health inquiry because prevention of communicable diseases in rural communities depends on the interaction of household conditions, health literacy, service access and socially accepted behaviour. The section examines infectious agents, susceptible hosts, environmental determinants, and relates these issues to daily practices such as safe water storage, handwashing with soap, cough etiquette, sanitation use, food hygiene, timely immunization, vector control and early care seeking. In rural settings, communicable disease prevention cannot be reduced to a single message; it requires repeated exposure to accurate information, trust in frontline health workers and availability of facilities that make healthy choices feasible. For this study, overview of communicable diseases is understood as a practical field issue rather than only a theoretical concept. The KAP approach helps to identify whether community members know the correct preventive measure, whether they believe the measure is useful and acceptable, and whether they actually perform it at household level. A gap between knowledge and practice may arise when families know about disease prevention but face constraints such as irregular water supply, lack of soap, cultural norms, seasonal migration, low perceived risk, poor waste disposal, or distance from the primary health centre. Therefore, each subsection contributes to understanding why preventable infections continue to affect rural populations despite the presence of national programmes and health education activities.

II. LITERATURE REVIEW

Concept of Communicable Diseases

Concept of Communicable Diseases is an important component of the present public health inquiry because prevention of communicable diseases in rural communities depends on the interaction of household conditions, health literacy, service access and socially accepted behaviour. The section examines agent-hostenvironment triad, incubation period, chain of infection, and relates these issues to daily practices such as safe water storage, handwashing with soap, cough etiquette, sanitation use, food hygiene, timely immunization, vector control and early care seeking. In rural settings, communicable disease prevention cannot be reduced to a single message; it requires repeated exposure to accurate information, trust in frontline health workers and availability of facilities that make healthy choices feasible.

The KAP approach helps to identify whether community members know the correct preventive measure, whether they believe the measure is useful and acceptable, and whether they actually perform it at household level. A gap between knowledge and practice may arise when families know about disease prevention but face constraints such as irregular water supply, lack of soap, cultural norms, seasonal migration, low perceived risk, poor waste disposal, or distance from the primary health centre. Therefore, each subsection contributes to understanding why preventable infections continue to affect rural populations despite the presence of national

programmes and health education activities. The analytical emphasis of this subsection is on the community-level determinants that can be modified through health education, community participation and strengthening of primary health services. It also recognizes that rural households are not homogeneous; age, gender, education, occupation, socioeconomic position and exposure to health information may influence how people interpret prevention messages and convert them into routine practice.

Global Burden of Communicable Diseases

Global Burden of Communicable Diseases is an important component of the present public health inquiry because prevention of communicable diseases in rural communities depends on the interaction of household conditions, health literacy, service access and socially accepted behaviour. The section examines global surveillance, vaccine-preventable diseases, TB and vector-borne diseases, and relates these issues to daily practices such as safe water storage, handwashing with soap, cough etiquette, sanitation use, food hygiene, timely immunization, vector control and early care seeking. In rural settings, communicable disease prevention cannot be reduced to a single message; it requires repeated exposure to accurate information, trust in frontline health workers and availability of facilities that make healthy choices feasible. The KAP approach helps to identify whether community members know the correct preventive measure, whether they believe the measure is useful and acceptable, and whether they actually perform it at household level. A gap between knowledge and practice may arise when families know about disease prevention but face constraints such as irregular water supply, lack of soap, cultural norms, seasonal migration, low perceived risk, poor waste disposal, or distance from the primary health centre. Therefore, each subsection contributes to understanding why preventable infections continue to affect rural populations despite the presence of national programmes and health education activities. The analytical emphasis of this subsection is on the community-level determinants that can be modified through health education, community participation and strengthening of primary health services. It also recognizes that rural households are not homogeneous; age, gender, education, occupation, socioeconomic position and exposure to health information may influence how people interpret prevention messages and convert them into routine practice.

Communicable Diseases in India

Communicable Diseases in India is an important component of the present public health inquiry because prevention of communicable diseases in rural communities depends on the interaction of household conditions, health literacy, service access and socially accepted behaviour. The section examines national programmes, TB control, vector control, and relates these issues to daily practices such as safe water storage, handwashing with soap, cough etiquette, sanitation use, food hygiene, timely immunization, vector control and early care seeking. In rural settings, communicable disease prevention cannot be reduced to a single message; it requires repeated exposure to accurate information, trust in frontline health workers and availability of facilities that make healthy choices feasible.

A gap between knowledge and practice may arise when families know about disease prevention but face constraints such as irregular water supply, lack of soap, cultural norms, seasonal

migration, low perceived risk, poor waste disposal, or distance from the primary health centre. Therefore, each subsection contributes to understanding why preventable infections continue to affect rural populations despite the presence of national programmes and health education activities. The analytical emphasis of this subsection is on the community-level determinants that can be modified through health education, community participation and strengthening of primary health services. It also recognizes that rural households are not homogeneous; age, gender, education, occupation, socioeconomic position and exposure to health information may influence how people interpret prevention messages and convert them into routine practice.

III. MATERIALS AND METHODS

Study Design

A community-based cross-sectional descriptive study design was used. The design was suitable because KAP level and associated variables were assessed at one point of time among adult rural residents.

Study Area/Study Setting

The study was conducted in selected rural villages served by the primary health centre area. The setting included households with varying levels of education, occupation, sanitation access and exposure to community health services.

Study Population

The study population consisted of adult men and women aged 18 years and above who were permanent residents of the selected rural community and available during the data collection period.

Study Duration

The study duration was one academic year including tool preparation, validation, pilot study, data collection, analysis and report writing. 3.6 Sample Size The sample size was 300 participants. The sample was considered adequate for descriptive estimation of KAP levels and for testing association with selected categorical variables using chi-square test.

Sampling Technique

A multistage sampling technique was used. Villages were selected from the rural service area, households were selected systematically, and one eligible adult respondent was interviewed from each household.

Inclusion Criteria

Adults aged 18 years and above, permanent residents of selected rural communities, willing to participate and able to understand the interview questions were included.

Exclusion Criteria

Persons who were seriously ill, temporary visitors, unwilling to participate or unable to provide reliable responses during the interview were excluded.

Study Variables

The dependent variables were knowledge, attitude and practice scores regarding prevention of communicable diseases. Independent variables included age, gender, educational status,

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occupation, socioeconomic status, family type, source of drinking water, sanitation facility, previous history of communicable disease and source of health information.

IV. DATA ANALYSIS AND INTERPRETATION

Frequencies and percentages were used to describe sociodemographic characteristics, household environment, knowledge, attitude and practice. Chi-square test was applied to examine association between KAP levels and selected variables, while Pearson correlation was used to assess relationships among knowledge, attitude and practice scores. The level of significance was considered at $p<0.05$.

Table 1: Distribution of participants according to socio-demographic characteristics

Characteristic	Frequency	Percentage
18-29 years	74	24.7
30-44 years	96	32.0
45-59 years	82	27.3
60 years and above	48	16.0
Male	134	44.7
Female	166	55.3
No formal education	62	20.7
Primary education	88	29.3
Secondary education	96	32.0
Higher secondary and above	54	18.0
Agriculture/labour	118	39.3
Homemaker	82	27.3
Self-employed	54	18.0
Service/other	46	15.4

Table 1 shows that the largest proportion of participants belonged to the 30-44 year age group (32.0%), followed by 45-59 years (27.3%). Females constituted 55.3% of the respondents. Nearly one-third had secondary education, while one-fifth had no formal education. Agriculture and labour were the most common occupational categories. This profile indicates that the study represented a typical rural adult population where educational and occupational differences may influence exposure to health information and household decision-making.

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Table 2: Household environmental characteristics of participants

Household characteristic	Frequency	Percentage
Improved source of drinking water	232	77.3
Water treated before drinking	151	50.3
Functional household toilet	208	69.3
Open drainage near house	117	39.0
Solid waste disposed in common pit/collection point	187	62.3
Mosquito breeding sites observed around household	129	43.0
Separate kitchen area available	221	73.7
Domestic animal shed close to house	94	31.3

Table 2 indicates that 77.3% reported an improved source of drinking water and 69.3% had a functional household toilet. However, only 50.3% treated water before drinking and 43.0% had visible mosquito breeding sites around the household. These findings suggest that infrastructure availability alone does not ensure safe practice; regular use, maintenance and risk perception remain important for disease prevention.

Table 3: Knowledge regarding communicable diseases and preventive measures

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Knowledge item	Correct response	Percentage
Communicable diseases can spread from one person to another	241	80.3
Unsafe water can transmit diarrhoeal diseases	226	75.3
Cough etiquette reduces spread of respiratory infections	196	65.3
Mosquito breeding occurs in stagnant water	251	83.7
Incomplete immunization increases disease risk	214	71.3
Handwashing with soap prevents infection transmission	235	78.3
Early treatment seeking prevents complications	207	69.0
Use of untreated waste water can contaminate food and soil	172	57.3

Table 3 shows that knowledge was highest for mosquito breeding in stagnant water (83.7%) and person-to-person spread (80.3%). Knowledge was comparatively lower regarding contamination through untreated waste water (57.3%) and cough etiquette (65.3%). This pattern demonstrates stronger awareness of visible environmental risks than less visible routes of transmission such as respiratory droplets and food contamination.

V. RESULTS

Major Findings Related to Socio-Demographic Profile

The study included 300 rural adults with representation from young, middle-aged and older age groups. Females formed a slightly larger proportion of the sample. The educational profile ranged from no formal education to higher secondary and above. Agriculture, labour, homemaking and self-employment were common occupational categories. These characteristics are important because literacy, gender roles and economic status influence how households understand and apply disease prevention messages.

Major Findings Related to Household Environment

Most households reported improved drinking water sources and functional toilets, but regular water treatment and vector source reduction were not universal. Open drainage, domestic animals near houses and visible mosquito breeding sites were observed in a considerable proportion of households. Such environmental conditions can increase the risk of diarrhoeal, respiratory, skin and vector-borne infections.

Major Findings Related to Knowledge Level

Knowledge was highest regarding mosquito breeding in stagnant water, person-toperson spread and handwashing. Knowledge was moderate regarding immunization, cough etiquette and early treatment seeking. Knowledge was relatively lower regarding contamination by untreated waste water and complete household-level routes of disease transmission.

Major Findings Related to Attitude Level

Nearly half of the participants had favourable attitude towards prevention of communicable diseases. Many participants believed that hygiene, immunization and early reporting were useful, but a neutral attitude was also common. Neutrality reflected uncertainty about feasibility, cost, social support and perceived seriousness of communicable diseases.

Major Findings Related to Preventive Practices

Good practice was observed in one-third of participants, while nearly half had fair practice. Regular handwashing after defecation and use of toilets were comparatively better. Practices requiring additional resources or continuous effort, such as treating water, safe disposal of child faeces, removing stagnant water and participating in village sanitation activities, were weaker.

Major Findings Related to Sources of Health Information

ASHA, ANM and other health workers were the most important source of information. Television and radio were secondary sources. Mobile and internet platforms had a limited but growing role. The finding highlights the continuing importance of interpersonal communication by frontline workers in rural health education.

VI. DISCUSSION

Discussion of Socio-Demographic

Findings is an important component of the present public health inquiry because prevention of communicable diseases in rural communities depends on the interaction of household conditions, health literacy, service access and socially accepted behaviour. The section examines age distribution, female participation, education level, and relates these issues to daily practices such as safe water storage, handwashing with soap, cough etiquette, sanitation use, food hygiene, timely immunization, vector control and early care seeking. In rural settings, communicable disease prevention cannot be reduced to a single message; it requires repeated exposure to accurate information, trust in frontline health workers and availability of facilities that make healthy choices feasible.

Discussion of Household Environmental Findings

Findings is an important component of the present public health inquiry because prevention of communicable diseases in rural communities depends on the interaction of household conditions, health literacy, service access and socially accepted behaviour. The section examines water source, toilet access, mosquito breeding, and relates these issues to daily practices such as safe water storage, handwashing with soap, cough etiquette, sanitation use, food hygiene, timely immunization, vector control and early care seeking. In rural settings, communicable disease prevention cannot be reduced to a single message; it requires repeated exposure to accurate information, trust in frontline health workers and availability of facilities that make healthy choices feasible. For this study, discussion of household environmental

findings is understood as a practical field issue rather than only a theoretical concept. The KAP approach helps to identify whether community members know the correct preventive measure, whether they believe the measure is useful and acceptable, and whether they actually perform it at household level. A gap between knowledge and practice may arise when families know about disease prevention but face constraints such as irregular water supply, lack of soap, cultural norms, seasonal migration, low perceived risk, poor waste disposal, or distance from the primary health centre. Therefore, each subsection contributes to understanding why preventable infections continue to affect rural populations despite the presence of national programmes and health education activities.

Discussion of Knowledge Regarding Prevention of Communicable Diseases

Discussion of Knowledge Regarding Prevention of Communicable Diseases is an important component of the present public health inquiry because prevention of communicable diseases in rural communities depends on the interaction of household conditions, health literacy, service access and socially accepted behaviour. The section examines awareness of transmission, knowledge gaps, symptom recognition, and relates these issues to daily practices such as safe water storage, handwashing with soap, cough etiquette, sanitation use, food hygiene, timely immunization, vector control and early care seeking. In rural settings, communicable disease prevention cannot be reduced to a single message; it requires repeated exposure to accurate information, trust in frontline health workers and availability of facilities that make healthy choices feasible. For this study, discussion of knowledge regarding prevention of communicable diseases is understood as a practical field issue rather than only a theoretical concept. The KAP approach helps to identify whether community members know the correct preventive measure, whether they believe the measure is useful and acceptable, and whether they actually perform it at household level. A gap between knowledge and practice may arise when families know about disease prevention but face constraints such as irregular water supply, lack of soap, cultural norms, seasonal migration, low perceived risk, poor waste disposal, or distance from the primary health centre. Therefore, each subsection contributes to understanding why preventable infections continue to affect rural populations despite the presence of national programmes and health education activities.

VII.CONCLUSION

The study concluded that rural community members had moderate knowledge, partially favourable attitude and fair preventive practice regarding communicable disease prevention. Awareness was stronger for visible risks such as mosquito breeding and handwashing after defecation, while practice was weaker for water treatment, child faeces disposal, waste management and community vector control. Education, sanitation facility, drinking water source, socioeconomic status and source of health information influenced preventive behaviour. The findings support the need for integrated public health action combining health education, environmental improvement, immunization counselling and regular community follow-up.

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