

Knowledge and Attitude of Five Particular Communicable Diseases in Wayanad, Kerala: A Pilot Study

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ABSTRACT

The purpose of this pilot study was to assess the knowledge and attitudes of various occupational groups in the Wayanad district regarding five infectious diseases: COVID-19, chickenpox, leprosy, tuberculosis, and Nipah virus. There were 25 participants in the sample, ranging in age from 15 to 62. According to the survey, women made up the bulk of the participants. There was variation in educational background: 28% had only completed primary school, 32% had completed non-medical education, and 40% had studied medicine.

Participants with medical education once again demonstrated the greatest knowledge scores in the instance of leprosy, and their attitudes were more positive than those with primary education among both medical and non-medical education participants. Participants in medical education had the most knowledge of tuberculosis, but, interestingly, those in primary education had more favorable attitudes than their peers. Aiming to promote positive health behaviors and increase illness knowledge, strategies should take into account the variety of educational backgrounds shown in this study. This study highlights areas for focused public health interventions to support comprehensive disease management and prevention methods across various educational settings, providing insightful information about how education shapes attitudes about communicable diseases. The findings show subtle variations in attitudes and knowledge about diseases among educational categories. Participants with non-medical education scored somewhat higher on the COVID-19 knowledge test than their counterparts with medical and primary education. On the other hand, compared to others, people with medical education had the highest favorable sentiments toward COVID-19. Regarding chickenpox, similar patterns were seen, with

individuals with medical training exhibiting higher levels of knowledge; nonetheless, sentiments were generally favorable in all groups.

I. INTRODUCTION

Communicable disease is an illness due to a specific infectious agent or its toxic products that arises through transmission of that agent or its products from an infected person, animal, or inanimate reservoir to a susceptible host. Transmission may be direct from person to person, or indirect through an intermediate plant or animal host, vector, or the inanimate environment. Throughout history, communicable diseases have presented serious obstacles to public health, especially in India, where a variety of socioeconomic circumstances and uneven access to healthcare have contributed to the spread and consequences of these illnesses. In the setting of India, this pilot study aims to assess people's knowledge and attitudes regarding five important communicable diseases: COVID-19, chickenpox, leprosy, tuberculosis, and Nipah virus.

After emerging in late 2019, COVID-19 rapidly spread over the world and had a significant impact on India, causing many waves of infections, high mortality rates, and serious socioeconomic disruptions. To stop the virus's spread and its effects, the Indian government conducted widespread vaccination drives, stringent lockdowns, and public health campaigns. A common viral illness that mostly affects youngsters is chickenpox. In India, chickenpox is still common even with vaccines available, especially in rural areas where immunization rates might be uneven. In the past, epidemics of chickenpox have been seasonal and have frequently happened in school environments, where close contact makes transmission easier.

Leprosy has been known to exist in India for thousands of years, and despite great progress toward its eradication, it remains a public health concern. The world's largest number of leprosy patients are in India, where efforts are concentrated on early diagnosis, treatment, and lowering the disease's societal stigma. Although the National Leprosy Eradication Programme (NLEP) has achieved significant strides, obstacles still need to be overcome before the disease can be totally eradicated.

An important part of the worldwide TB burden is borne by India, where tuberculosis (TB) has long been a major health concern. Although the Revised National TB Control Programme (RNTCP) of the Indian government has played a major role in advancing diagnosis and treatment, tuberculosis (TB) remains a major cause of morbidity and mortality, especially for vulnerable populations including the poor and those living with HIV/AIDS. In India, the Nipah Virus is comparatively recent; the first epidemic was noted in Kerala in 2018. This zoonotic virus, which is spread from animals to people, has a high death rate and produces excruciating neurological and respiratory symptoms. India has implemented surveillance, quick reaction to outbreaks, and public education about avoiding contact with possible animal hosts as part of its efforts to control the Nipah virus.

II. METHODS

Sample designing: This pilot study used a cross-sectional design to evaluate knowledge and attitudes regarding COVID-19, Chickenpox, Leprosy, Tuberculosis, and Nipah Virus among individuals with varied educational backgrounds.

Participants: The study included 25 participants aged 15 to 62, with a higher number of females. Education levels were 40% medical, 32% non-medical, and 28% primary.

Sampling: Convenience sampling was used to select participants from different educational and community settings, ensuring diverse representation.

Data Collection: Structured questionnaires, including demographic information, knowledge assessment, and attitude assessment for each disease, were administered in person. Knowledge and attitude was measured through multiple-choice questions.

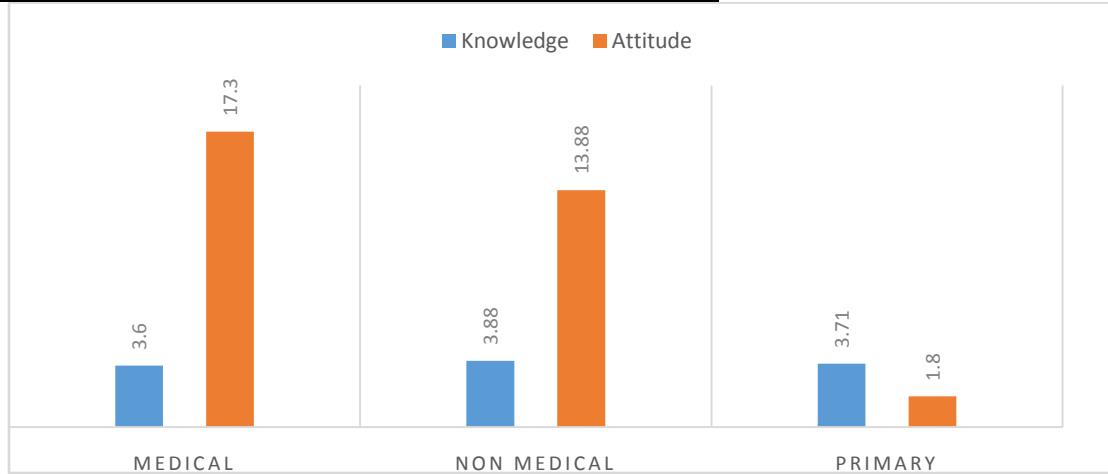
III. RESULTS

The total sample had taken 25 participants the survey questionnaire and participated in this study, with mean age of 30. Upper age limit is 62 and lower age limit is 15. And the majority of the participants is female 68% and remaining 32% are males and we had checked other demographic details like education are checked. In these 40% medical, 32% non medical and 28% primary education.

Education			n	Mean	Std. Deviation	95% Confidence interval for mean		F Value	P value
						Lower Bound	Upper Bound		
KNOWLEDGE SCORE	COVID	MEDICAL	10	3.60	0.843	3.00	4.20	0.22	0.803
		NON MEDICAL	8	3.88	0.991	3.05	4.70		
		PRIMARY	7	3.71	0.756	3.02	4.41		
	CHICKEN POX	MEDICAL	10	3.80	0.789	3.24	4.36	0.731	0.493
		NON MEDICAL	8	3.50	0.756	2.87	4.13		
		PRIMARY	7	3.29	1.113	2.26	4.31		
	NIPAH	MEDICAL	10	4.50	0.707	3.99	5.01	11.587	0.000
		NON MEDICAL	8	2.75	1.488	1.51	3.99		
		PRIMARY	7	2.14	0.990	1.31	2.97		

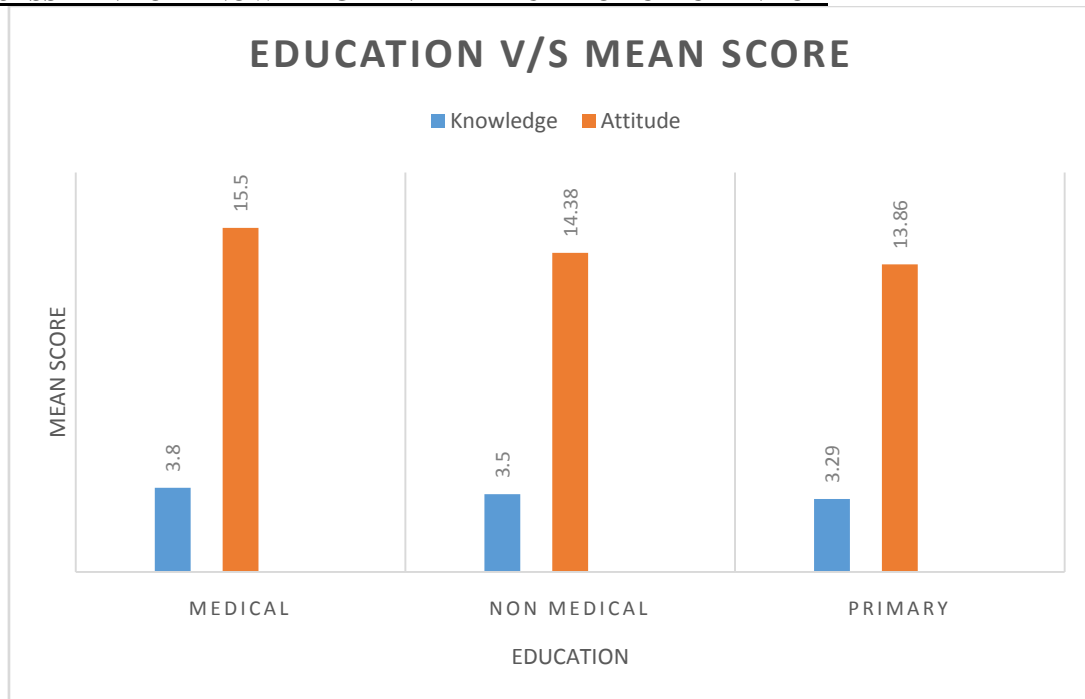
	LEPROSY	MEDICAL	10	3.80	1.932	2.42	5.18	4.138	0.030
		NON MEDICAL	8	2.25	1.389	1.09	3.41		
		PRIMARY	7	1.71	1.113	0.69	2.74		
	TB	MEDICAL	10	3.20	1.989	1.78	4.62	0.302	0.743
		NON MEDICAL	8	2.88	1.356	1.74	4.01		
		PRIMARY	7	2.57	1.397	1.28	3.86		
ATTIUDE	COVID	MEDICAL	10	17.30	2.946	15.19	19.41	4.375	0.025
		NON MEDICAL	8	13.88	2.475	11.81	15.94		
		PRIMARY	7	13.86	3.078	11.01	16.70		
	CHICKEN POX	MEDICAL	10	15.50	2.273	13.87	17.13	3.592	0.045
		NON MEDICAL	8	14.38	2.973	11.89	16.86		
		PRIMARY	7	12.14	2.410	9.91	14.37		
	NIPAH	MEDICAL	10	15.40	3.406	12.96	17.84	0.271	0.765
		NON MEDICAL	8	14.75	1.982	13.09	16.41		
		PRIMARY	7	14.43	2.573	12.05	16.81		
	LEPROSY	MEDICAL	10	12	2.749	10.03	13.97	0.902	0.42
		NON MEDICAL	8	13.38	2.774	11.06	15.69		
		PRIMARY	7	13.43	1.902	11.67	15.19		
	TB	MEDICAL	10	13.20	2.821	11.18	15.22	1.390	0.270
		NON MEDICAL	8	15.38	2.326	13.43	17.32		
		PRIMARY	7	14.29	3.094	11.42	17.15		

ASSESSMENT OF KNOWLEDGE AND ATTITUDE OF COVID



Based on the data obtained, it was observed that knowledge was higher for non-medical sections compared to other sections, whereas attitude was higher for medical section.

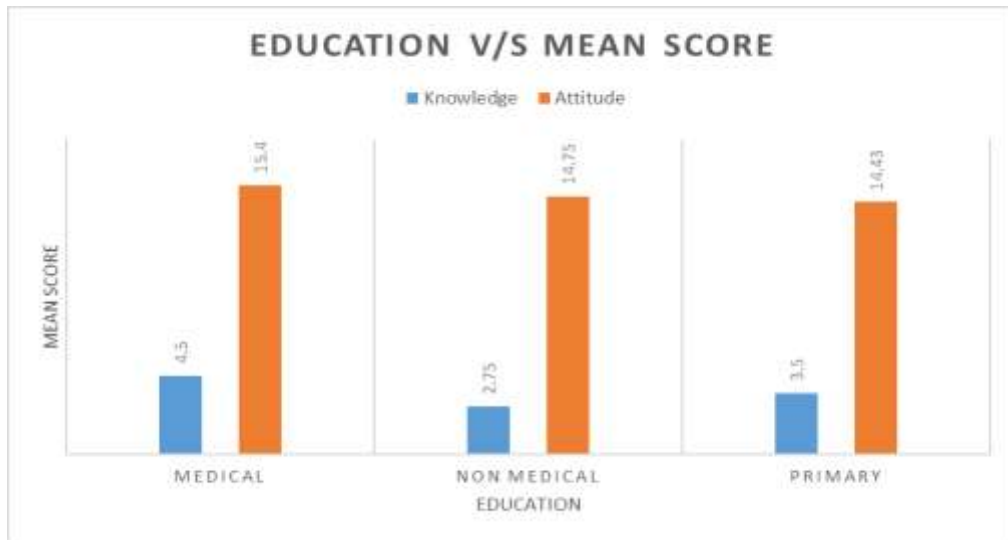
ASSESSMENT OF KNOWLEDGE AND ATTITUDE OF CHICKEN POX



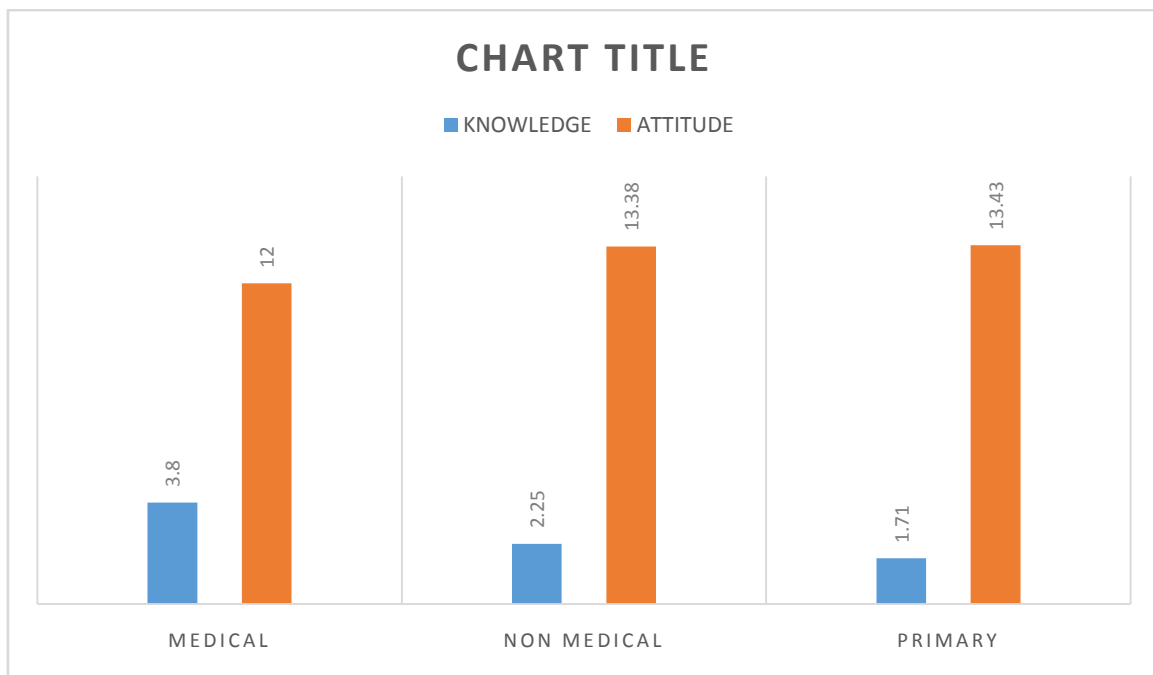
From the data obtained it was observed that both knowledge and attitude was higher for medical sections compared to other.

ASSESSMENT TOWARDS KNOWLEGDE AND ATTITUDE OF NIPAH

From the data obtained it was observed that both knowledge and attitude was higher for medical sections compared to other.

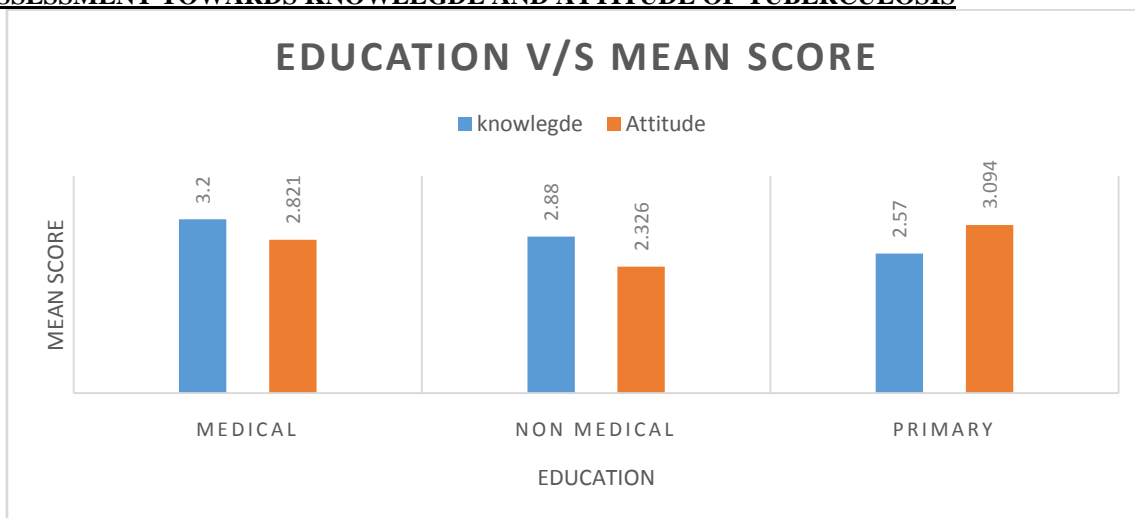


ASSESSMENT TOWARDS KNOWLEGDE AND ATTITUDE OF LEPROSY



From the above graph it was observed that medical section had higher knowledge, whereas non-medical section had higher attitude.

ASSESSMENT TOWARDS KNOWLEGDE AND ATTITUDE OF TUBERCULOSIS



From the above graph it was observed that medical section had higher knowledge, whereas primary section had higher attitude.

IV. DISCUSSION

According to the findings, medical professionals scored higher on knowledge assessments for all diseases than individuals in primary school and non-medical fields. However, there are differing tendencies in how people feel about certain illnesses. Compared to other groups, medical professionals, for example, showed noticeably more positive sentiments concerning COVID-19, chickenpox, and the Nipah virus. On the other hand, individuals in primary education exhibited a more positive attitude on tuberculosis.

V. CONCLUSION

Important new information about the knowledge, attitudes, (KA) of various demographic groups in Wayanad, Kerala, regarding communicable diseases is provided by this study. It draws attention to notable differences in awareness and attitudes, especially between workers in the medical and non-medical fields. Non-medical groups showed unusually high knowledge levels of leprosy and COVID-19, while medical professionals generally demonstrated higher knowledge and positive attitudes towards diseases like chickenpox, Nipah virus, and tuberculosis. These results highlight the value of community context in raising disease awareness as well as the efficacy of public health programs.

But the study also finds attitudes and knowledge gaps that require focused public health

efforts to solve. To bridge these gaps, more community involvement, improved educational initiatives, and the usage of digital media are advised.

It is possible to increase health literacy and preventative behaviors among Wayanad's urban and rural populations by concentrating on specialized educational programs and utilizing the knowledge of medical experts. In the end, this research offers a basis for creating programs and policies that can improve the management of communicable diseases and the state of public health in the area. In order to promote an informed and engaged community, the results highlight the significance of ongoing medical education, community-based awareness efforts, and the incorporation of public health education into non-medical curriculum.

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