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RESEARCH ARTICLE

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## KNOWLEDGE AND ATTITUDE ON ADULT BCG VACCINATION AMONG GENERAL PUBLIC IN SELECTED AREA OF PUDUCHERRY

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### ABSTRACT

Bacillus Calmette Guerin (BCG) vaccine is the only vaccine against tuberculosis, live attenuated vaccine to prevent tuberculosis and other mycobacterial infectious. A descriptive study was done to assess the level of knowledge and attitude on adult BCG vaccination among general public in selected area of Puducherry. The objective of the study was to assess the knowledge and attitude on adult BCG vaccination, to find out the correlation between the level of knowledge and attitude and to associate the level of knowledge and attitude with the selected demographic variables among general public in selected area of Puducherry. Quantitative research approach was used. By using simple random sampling technique 100 samples were selected. Data was collected by using the self-structured questionnaire to assess the level of knowledge and 5 point Likert scale was used to assess the level of attitude towards Adult BCG vaccination. The study findings evident that 93 (93%) of them had moderate level of knowledge, and majority 99 (99%) of them had negative attitude towards accepting Adult BCG vaccination. There is a strong significant positive correlation between the knowledge and attitude at  $p < 0.000$  level. There is a significant association between the level of knowledge on adult BCG vaccination with selected demographic variables such as occupation at  $p > 0.001$  and significant association between the level of attitude with age at  $p > 0.005$ . The study recommended that Nurses play vital role in creating awareness by increasing knowledge and positive attitude towards Adult BCG vaccination to rule out tuberculosis and make TB free India. The study also recommended that there is a need of awareness to public about the importance of Adult BCG Vaccination by public health programme and campaigns to TB free Puducherry.

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## INTRODUCTION

Good health is central to handling stress and living a longer, more active life<sup>1</sup>. Immunization is one of modern medicine's greatest success stories. Vaccination is a simple, safe, and effective way of protecting you against harmful diseases, before you come into contact with them. Immunization prevents deaths every year in all age groups from disease like diphtheria, tetanus, pertussis (whooping cough), influenza, measles<sup>2</sup>. Tuberculosis remains a worldwide public health problem despite the fact that the causative organism was discovered more than 100 years ago and highly effective drugs and vaccine are available making tuberculosis a preventable and curable disease<sup>3</sup>. The vaccine was developed by Calmette and Guerin and was first administered to human beings in 1921. It is the most widely administered vaccine and usually a part of the routine newborn immunization schedule<sup>4</sup>. The government of India is conducting an adult BCG vaccination study to eliminate tuberculosis by 2025. The study aims to evaluate the effectiveness of the BCG vaccine in reducing the number of tuberculosis cases in adults over 18 years old.

The vaccine used for adults is the same one used for children. Any 18 years plus individual fitting into any of the following 6 criteria and willing to take vaccine is eligible for Adult BCG vaccination: Elderly above 60 years, BMI <18 kg per sqmt, Self reported DM, Self reported current/past smokers, Close contact of active tuberculosis, history of tuberculosis in past 5 years<sup>5</sup>.

**Statement of the Problem:** A study to assess the level of knowledge and attitude on adult BCG (Bacillus Calmette Guerin) vaccination among general public in selected area of Puducherry.

### Objectives

- To assess the level of knowledge and attitude on Adult BCG (Bacillus Calmette Guerin) vaccination among general public
- To find out the correlation between the level of knowledge and attitude towards Adult BCG vaccination
- To associate the level of knowledge and attitude towards Adult BCG vaccination with selected demographic variables

**Data Collection Procedure:** Formal written permission was obtained from the concerned authorities to conduct the study. Data was collected from the general public in the selected community area under PHC Lawspet, SedarapetPuducherry. Before the data collection, Investigator explained the purpose of the research and get consent from the general public. 50 samples were collected from rural area and another 50 sample were collected from urban area. Researcher used simple random sample technique to select the sample in selected area of Puducherry. Each day around 15 to 20 sample were selected from the general public. Data was collected by using interview method. Self structured questionnaire was used to assess the level of knowledge on Adult BCG vaccination and 5 point Likert scale was used to assess the level of attitude towards Adult BCG vaccination. It takes around 10-15 minutes for each sample to collect data. After the data collection researcher created awareness by distributing pamphlets regarding importance of Adult BCG vaccination. Samples were cooperated and accepted the benefits of vaccination.

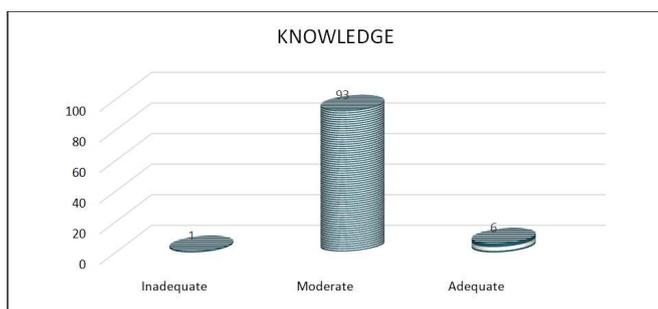
## RESULTS AND DISCUSSION

**Demographic variables of the study:** Out of 100 sample, 55% of them were belongs to 41 to 60year of age,64% of the samples were female, 28% of the samples studied up to primary school education and high school education level, majority 95% of them were Hindus, 41% of them were homemakers,64% of them were does not have any previous knowledge regarding BCG vaccine, all the samples (100%) received the BCG vaccination during childhood,majority 88% of them had previous scar of BCG vaccination, regargingthromorbidity disease, 14 % of them were had taking treatment for diabetes mellitus, 9% of them weretaking treatment for diabetes with hypertension and 4% of them taking treatmenthad thyroid disorder.

**Table 1. Frequency distribution of level of knowledge regarding adult BCG vaccination among samples**

Variables	Frequency (N)	Percentage (%)
Inadequate Knowledge	1	1
Moderate Knowledge	93	93
Adequate knowledge	6	6

Table no 1 findings reveal that out of 100 samples, majority 93% of them had moderate level of knowledge, 6% of them were adequate level of knowledge and only one had inadequate knowledge.



**Figure 1. Frequency distribution of level of knowledge regarding adult BCG vaccination among samples**

**Table 2. Frequency distribution of level of attitude towards adult BCG vaccination among samples**

ATTITUDE	FREQUENCY (N)	PERCENTAGE (%)
POSITIVE	1	1
NEGATIVE	99	99

Table no 2 reveal that among 100 samples, majority 99% of them had negative attitude and only one percent had positive attitude towards adult BCG vaccination.



**Figure 2. Frequency distribution of level of attitude towards adult BCG vaccination among samples**

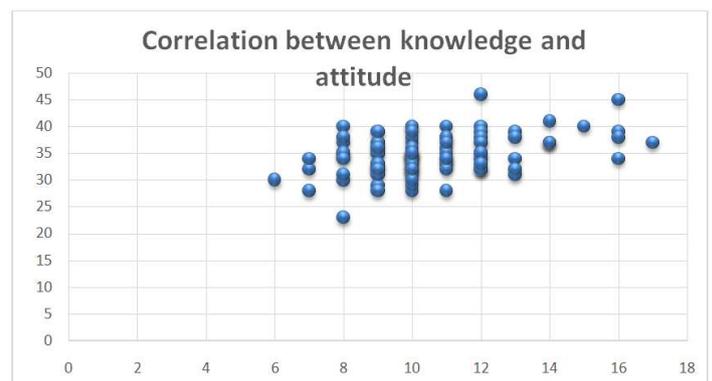
**Table 3. Correlation of level of knowledge and attitude on adult BCG vaccination among samples**

(N=100)

Variables	Mean	Standard Deviation	r-value p-value
Knowledge	10.56	2.157	r=1 p=0.000**S
Attitude	34.72	3.677	

\*\*p<0.01, S-Significant

Table no 3 shows the Correlation of level of knowledge and attitude on adult BCG vaccination among samples. It is evident that the level of knowledge and attitude had strongly positive correlation (r=1) with each other at p< 0.001 level.



**Figure 2. Correlation of level of knowledge and attitude on adult BCG vaccination among samples**

## CONCLUSION

The present study concludes that the general public have moderate knowledge and negative attitude on adult BCG vaccination. Nurses play vital role in creating awareness by increasing knowledge and positive attitude towards Adult BCG vaccination to rule out tuberculosis and make TB free India. It shows evident that still more strengthening the knowledge and attitude through the public health programme and campaigns may reduce the incidence of tuberculosis.

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