

“A STUDY TO ASSESS THE EFFECT OF HEALTH EDUCATION ON KNOWLEDGE REGARDING LEPROSY AMONG PEOPLE IN SELECTED URBAN AREAS OF PUNE CITY”

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Abstract

Leprosy also known as Hansen's disease (HD), is a long term infection by the bacterium *Mycobacterium leprae* or *Mycobacterium lepromatous*. Infection can lead to damage of the nerves, respiratory tract, skin and eyes. The nerve damage may result in a lack of ability to feel pain, which can lead to the loss of parts of a person's extremities from repeated injuries or infection through unnoticed wounds. An infected person may also experience muscle weakness and poor eyesight. Leprosy symptoms may begin within one year but, for some people, symptoms may take 20 years or more to occur. **METHODOLOGY:** In the present study pre-experimental design with pre and post test was used. Data collected on 100 (50 control and 50 experimental) samples. A non-probability convenient sampling technique was used to collect data from the samples. Tool was constructed to identify the demographic variables and a set of self-structured questionnaires on knowledge regarding leprosy. **RESULT:** Findings showed that in the pre-test the level of knowledge of leprosy among people were average with mean 6.54 and in the post test it was good with mean score of 9.8 in the experimental group. An effective health education campaign was found to greatly increase people's knowledge of leprosy. **CONCLUSION:** The effectiveness of health education regarding leprosy in post-experimental group with 9.8 mean and SD 2.54. The value of t is 2.670062. The value of p is 0.01026. The result is significant at $p < .05$.

Keywords: Knowledge, Assess, Leprosy, People.

INTRODUCTION

According to WHO, two lakh new leprosy cases were registered globally in 2019, according to official figures from 161 countries from the WHO Regions. Based on 1,78,371 cases at the end of 2019, the prevalence corresponds to 22.9 per million population. Leprosy is an infectious disease caused by *Mycobacterium leprae*, an acid-fast, rod-shaped bacillus. The disease mainly affects the skin, the peripheral nerves, mucosa of the upper respiratory tract, and the eyes. Leprosy is curable and treatment in the early stages can prevent disability. Since the introduction of multidrug therapy (MDT) in the 1980s, the prevalence of diagnosed leprosy cases has declined by 95%. This decline led the World Health Organization (WHO) to declare leprosy eliminated as a public health problem, defined as a prevalence of less than one leprosy patient per 10,000 population. However, achieving this elimination target was largely attributed to the shortening of treatment duration following the introduction of MDT as well as the clearing of case registers, and did not coincide with a decrease in the number of new cases detected. This highlights the limitations of using prevalence as an epidemiological indicator of leprosy. In fact, the number of new leprosy cases detected globally only began to decrease after the year 2000, although global annual incidence has more recently plateaued above 200,000 new cases.

Need of the study:

The bacteria *Mycobacterium leprae* is the source of the infectious illness leprosy. Skin sores, organ damage, and muscular paralysis are all long-term effects of this illness.

Leprosy has a weakened immune system (time before symptoms develop) and is not extremely contagious, making it difficult to determine where or when a person contracted the illness. Adults are less prone than children to get the illness.

The majority of persons exposed to the bacterium don't get sick. This is due to the fact that the germs can be eliminated by their immune system. According to experts, the bacteria is spread through tiny airborne droplets that are generated when a person with leprosy sneezes or coughs. Come into contact with a person who has leprosy's nasal fluids can potentially spread the bacterium. Lepromatous and tuberculoid are the two most prevalent types of leprosy. Both types result in skin sores. Lepromatous forms, however, are more severe. Large lumps or bumps are the result (nodules).

The World Health Organization (WHO), working through the country office in India, supports the National Leprosy Eradication Programme (NLEP). WHO ensures uninterrupted supply of the specific drugs needed for multi-drug combination treatment (MDT) of leprosy. WHO also assists in planning, capacity building, community education, monitoring and supervision, preparedness for campaigns and supporting monitoring of service quality. WHO NTD state and zonal coordinators provide technical support to states and districts to implement the national programme.

Under the NLEP, active case detection and regular surveillance under the Leprosy Case Detection Campaign (LCDC), ASHA-based Surveillance for Leprosy Suspects (ABSULS), Active Case Detection and Regular Surveillance (ACDRS) are being conducted to interrupt transmission of the causative organism *Mycobacterium leprae*.

Statement of the problem:

“A study to assess the effect of Health education on knowledge regarding leprosy among people in selected urban areas of Pune City.”

Objectives-

- To assess the level of knowledge before health education regarding leprosy among people in selected urban areas.
- To assess the level of knowledge after health education regarding leprosy among people in urban areas.
- To compare the result before and after health education regarding leprosy among people residing in urban areas.
- To find out the association between Pre knowledge score and selected demographic variables.

Method and Material: -

The quantitative research approach was used for this study. The total sample size was 100 (50 control and 50 experimental). A Non probability convenient technique was used for select the sample. It included among people of age 20 to 60 years. The structured questionnaire tools used to collect data from the participants of this study. The questionnaire consist two section Demographic section & knowledge section. The demographic section consist demographic variable i.e. Age, Education and Gender. Knowledge section consist 15 items to assess the knowledge level of participants it includes the meaning, causes, health effect, prevention of Leprosy. The scoring system was categorized into good, average, and poor. The tool was evaluated and validated by 5 experts. The reliability of tool was calculated by test and re-test method. Pilot study was conducted to assess the feasibility of the study on 10 sample with their consent. The collected data was analyzed using frequency and percentage method and association was done by using chi-square method.

Result:

Section-I: Demographic section

The age distribution was as follows: 36(36%) of the population was in the 20–30 age range, 64(64%) was in the 31–40 age range, majority 66(66 %) people completed secondary education.

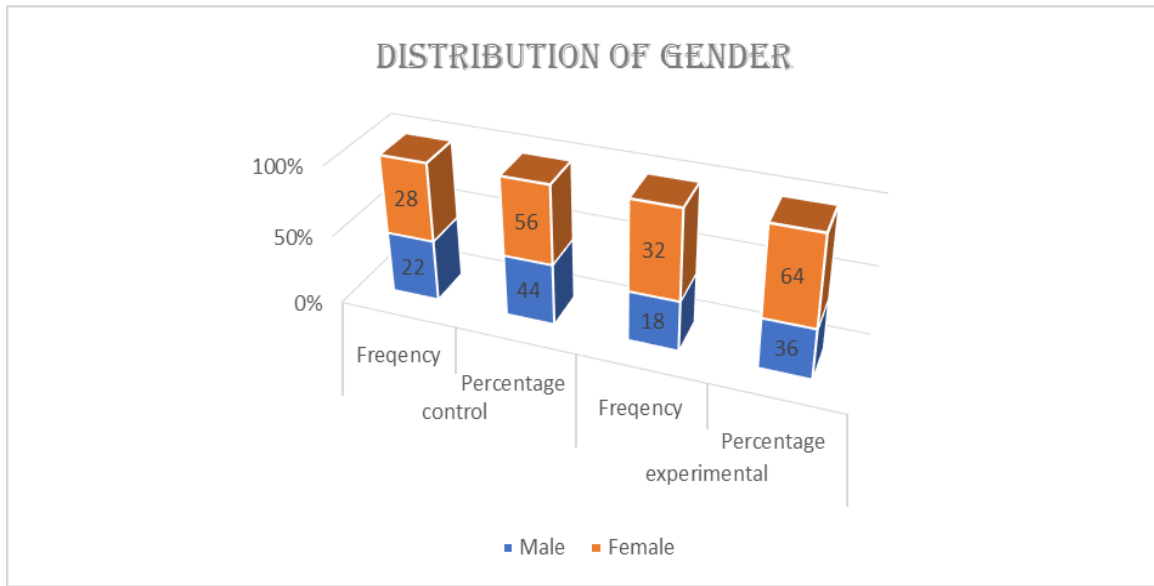


Fig 1 : above bar diagram shows the frequency and percentage distribution of Gender of people.

Section-II: effectiveness of health education regarding leprosy among people.

Table no 1: above the table shows in the pre test the level of knowledge of Leprosy among people were poor with mean 5.2 and in the post test also poor Knowledge was found in post test with mean score 6.78 in the control group

Knowledge	Pre test control		Post test control	
	Frequency	Percentage	Frequency	Percentage
Poor Knowledge	25.	50 %	24.	48%
Average Knowledge	16.	53.33%	15.	30%
Good Knowledge	09.	10%	11.	22%

Table no 2: Above the table shows , in the pre test Experimental the level of knowledge of Leprosy among people were average with mean 6.54 and in the post test it was good with the mean score of 9.8 in the experimental group .An effective health education campaign was found to greatly increase people's knowledge of Leprosy.

Knowledge	Pre test Experimental		Post test Experimental	
	Frequency.	Percentage	Frequency.	Percentage
Poor Knowledge	17.	34 %	3.	6%
Average Knowledge	32.	64%	27.	54%
Good knowledge	1.	2%	20.	40%

Section-III: Analysis related the effectiveness of health education on knowledge regarding leprosy among people

Table no 3: above the table shows the effectiveness of health education regarding leprosy in post Experimental group with 9.8 mean and SD 2.54.the value of t is 2.670062 .The value of p is .01026.The result is significant at p<05.

	Mean	SD	T-value	P-value	Remark
Contol	6.76	4.11	5.37	0.0001	Significant

Experimental	9.8	2.54			
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Discussion-

The study can be discussed with a similar A study conducted by Farida Habib From April 1 until September 30, 2007, the government-run leprosy hospital was located in Gadap Town there in Union Council, Manghopir, Karachi. The knowledge and attitudes of 50 leprosy patients, and for both males and females, were evaluated through questions about leprosy. The same patients were examined again for the same variables after participating in a health education programme. 48 percent (24/50) of respondents claimed that it was spread by touching. 66 percent (33/50) of patients reported hand numbness as their initial symptom. According to 98 percent (49/50) of the patients, leprosy is curable. 38 out of 50 people (76%) claimed that leprosy caused deformities. After the onset of leprosy, 92 percent (46/50) of the patients' social lives were impacted. Awareness Rating Pre-testing patients represented 5% of the total, but post-testing patients represented 73%, i.e., after the health education programme was done. The health education initiative has increased the patients' knowledge about and attitudes concerning leprosy. (1)

The current study is comparable to the study on leprosy knowledge conducted with residents of Pune city that was detailed previously. An experimental study design and a quantitative technique were applied. 50 participants were included in the sample using the purposive sampling method. The data were analysed and assessed in light of the objectives using descriptive analysis methods. In contrast to the experimental group, where age was connected with demographic variables, demographic questions were not substantially associated the knowledge score (p value 0.05 threshold of significance). Thus, it may be said that health education is an useful medium for spreading knowledge about leprosy.

Conclusion

A statistically significant correlation between age and few demographic details about people's health knowledge on Leprosy has been identified although the population had little understanding of Leprosy prior to the health education knowledge had improved by the time of the post test health care practitioners should place more emphasis on health education to raise community knowledge of Leprosy.

Conflict of interest

The authors certify that they have no involvement in any organization or entity with any financial or non-financial interest in the subject matter or materials discussed in this paper.

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Limitations: -

- The study was limited to selected areas of the Pune city
- The study was limited to leprosy.

Recommendations: -

1. A similar study with a sample size can be conducted to gauge people's knowledge about leprosy in particular places.
2. A similar comparative study can be conducted in Rural and urban area.

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