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FALSE BELIEFS ABOUT AIDS, LEPROSY AND CANCER AMONG RURAL POPULATION IN SOUTH INDIA

Rajkumar Patil¹, Mohsin Shaikh², Mohd. Iqbal Khan³, M Raghavia⁴

¹Department of Community Medicine, Mahatma Gandhi Medical College and Research Institute, Pondicherry

²1607-18 Knightsbridge rd. Brampton, Ontario L6T3X5, CA

³Department of Public Health, College of Public Health and Health Informatics Al Qassim University, Bureida, Saudi Arabia

⁴Department of Community Medicine, A.V. Medical College, Pondicherry

E-mail of Corresponding Author: drraj49@gmail.com

ABSTRACT

Objectives: 1.To determine misconceptions associated with AIDS, Leprosy and Cancer.

2. To see the association of literacy with misconceptions. **Materials and methods:** A community based cross sectional study was conducted to determine the misconceptions about AIDS, Cancer and Leprosy in the Rural Pondicherry. A pre-tested semi-structured questionnaire was used. One village was selected randomly for the study, under the field practice area of Rural Health Centre. Besides socio-demographic information, questionnaire included sections on misconceptions related with diseases. Data were analyzed using SPSS software. Simple proportions and Chi square test were used wherever required. **Results:** Total 339 subjects were interviewed. Commonest misconception about AIDS was “HIV Infected pregnant mother will surely transmit infection to child” (55.6%). Regarding misconceptions about Leprosy commonest (21.5%) was “leprosy can’t be cured completely” and for Cancer commonest misconception was “Cancer can’t be prevented” (31.9%). There were no significant differences about leprosy and Cancer misconceptions between illiterates and literates. **Conclusion:** In our study we found that misconceptions about diseases are deep rooted and there are insignificant differences between literates and illiterates.

Key words: Misconception, belief, awareness, AIDS, Cancer, leprosy, Literacy

INTRODUCTION

Awareness is must to remove the stigma associated with certain diseases. Knowledge of an individual about a disease, its prevention and treatment is based on the beliefs formed by any community. Beliefs are based on centuries of trial and error and may be beneficial or harmful. Majority of the rural population believe that wrath of Gods and Goddesses, evil eye, spirit or ghost intrusion are supposed to be the cause of diseases. In spite of the various developments in education, medical and health fields, people

believe in different misconceptions associated with diseases. These misconceptions are false beliefs which are harmful or may not be beneficial at all. Among various chronic diseases AIDS, Leprosy and Cancer are some important diseases with regard to misconceptions.

Various programs are planned and implemented in India to raise awareness among people regarding HIV/AIDS, but still the knowledge is lacking specially in poor rural communities. Of the estimated people living with HIV, 60% reside in rural areas¹. Stigma associated with leprosy is due to inadequate or incorrect knowledge about the disease and its curability². Burden of leprosy has been reduced in India but

still stigma is associated with it. Cancer is a public health problem globally. People think Cancer can't be prevented but in early stages cancer can be treated effectively. If warning signs of cancer are not ignored then it is possible to prevent further spread. Scientific information about these diseases are lacking in rural population due to various reasons. As information about these factors i.e. customs, habits, beliefs and superstitions was lacking in rural Pondicherry, we planned and conducted a study to understand the misconceptions about AIDS, Leprosy and Cancer in Rural Pondicherry.

Objectives

1. To determine misconceptions associated with AIDS, Leprosy and Cancer among rural population of Pondicherry.
2. To see the association of literacy with misconceptions

MATERIALS AND METHODS

A community based cross sectional study was planned to see the misconceptions about AIDS, Cancer and Leprosy in the Rural Pondicherry. A pre-tested semi-structured questionnaire was used. One village was selected randomly for the study, under the field practice area of Rural Health Centre, Manappet, of Department of Community Medicine of A.V. Medical College, Pondicherry. After training, Resident Interns carried out interviews during January to February 08. Door to door survey was done to collect the information. One person from each family was interviewed. Houses with locked doors on three consecutive visits and persons who didn't give consent were excluded from the study. Before interview subjects were informed about the purpose of the study and informed consent was obtained.

Besides socio-demographic information, questionnaire included sections on

misconceptions related to AIDS, leprosy and Cancer. For study purpose, literate is defined as a person who can read and write with understanding in any language. The data collected was analyzed using SPSS software. Simple proportions and Chi square test were used wherever required. P value of less than 0.05 was considered statistically significant.

RESULTS

Total 339 subjects were interviewed, of these 218 (64.3%) were females and 35.7% were males. Most common age group was 18-45 yr. (Table 1)

Commonest misconception about AIDS was "HIV Infected pregnant mother will surely transmit infection to child" (55.6%). Regarding misconceptions about Leprosy commonest was "leprosy can't be cured completely" (21.5%) and for Cancer commonest misconception was "Cancer can't be prevented" (31.9%). (Table 2)

As literacy is considered to be an important determinant for health and disease we compared the various misconceptions between illiterates and literates in our study. In our study 136 subjects (40.1%) were illiterates and 203 subjects (59.9%) were literates. 44.1% of illiterates compared to 63.5% literates believed that "HIV infected pregnant mother will surely transmit the HIV infection" and this misconception was significantly different between these two groups. (Table 3)

There were no significant differences about leprosy misconceptions between illiterates and literates. (Table 4)

Regarding the misconception that cancer can't be prevented, there was no difference between illiterates (30.9%) and literates (32.5%). There were no significant differences about other cancer misconceptions also between illiterates and literates. (Table 5)

DISCUSSION

Prevailing beliefs and attitudes have great impact on the practices in a community for the prevention, control and treatment of a disease.³ Knowledge of cultural practices in an area is necessary for a physician, which helps him to deal with needs of the patient effectively⁴

Commonly people with HIV/AIDS are discriminated and rejected by their families. The disease is directly linked to the person's sexual behavior and this is the reason for hiding the disease status of the affected. Rural people are not much aware of HIV and AIDS. Most of them believe that mosquito bite, sharing fomites and touching infected person can spread AIDS.

In a study by Sudha et al⁵ 88.4% of literates were aware of the HIV infection compared to the awareness of infection in 12.7% of persons with low literacy. In the above study 64% were unsure of the transmission through mosquito bite. In our study we found that 19.8% subjects believed that mosquito bite can transmit HIV Infection. Similar results were seen in a study by Yadav et al⁶ 20.8% subjects thought that HIV can be transmitted by living with an HIV-infected person and 18.6% thought that HIV could be transmitted by a mosquito bite. In above study it was found that literate young people were more aware of HIV/AIDS than illiterate.

In our study the misconception "touching infected person can cause AIDS" was seen in 13.3% of subjects, similar finding was observed in a study by Vaz⁷ also.

Early diagnosis and treatment depends on voluntary reporting which implies awareness of the disease and its management. Regarding complete cure of leprosy, 47% among illiterates and 61% literates told that it can be cured. Other misconceptions about leprosy were also seen more commonly in illiterates. In a study in Kolkata by John AS⁸ most of respondents felt that leprosy is curable and knew where to obtain

treatment, a large percentage of the population didn't know the early signs and symptoms of leprosy and the importance of early treatment.

As compared to 78.5% in our study who told that Leprosy can be treated; almost 100% subjects were aware of curability of Leprosy in another study.⁹ Educational activities such as group discussion, posters and use of slogans are an integral part of health services to educate patients, their families and the general communities on leprosy and its treatment, in order to dispel ignorance, misconceptions and prejudices.^{10, 11}

In our study we found that 18.6% subjects believe that Cancer can be spread by close personal contact while in a hospital based study by Shiyam Kumar et al¹² it was found that cancer was thought to be a contagious disease by 27.5% of patients.

Regarding the misconception that cancer can't be prevented, there was no difference between illiterates (30.9%) and literates (32.5%). According to 26.5% cancer can't be cured while in a study by Shiyam Kumar et al¹² only 7% subjects told that cancer can't be cured.

Similar misconception about infectiousness of cancer was observed in a study by Ray K¹³ where 21.3% subjects were having the idea that cancer is an infectious disease, which was creating a problem of isolation from the family. In same study 58.3% subjects believed that cancer is curable in early stage, in our study 73.4% told that Cancer can be cured.

CONCLUSION

In our study we found that misconceptions about diseases are deep rooted and there were insignificant differences between literates and illiterates. Literacy alone can't change attitude or influence behavior. Motivation is also required to adopt the new practices. More research is required in the field of misconceptions and their scientific facts. Health education strategies can

be planned based on the study, to remove the false beliefs.

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Table 1: Age and gender wise distribution of the subjects

Age group (yr)	Gender		Total (n 339)
	Male (n 121)	Female (n 218)	
18 – 45	70 (57.9)	136 (62.4)	206 (60.8)
46-65	29 (23.9)	48 (22.0)	77 (22.7)
> 65	22 (18.2)	34 (15.6)	56 (16.5)

*Figures in parenthesis indicates percentage

Table 2: Misconceptions about diseases among study subjects

Misconception		No. of subjects
AIDS	Mosquito bite can cause AIDS	67 (19.8)
	Touching infected person can cause AIDS	45 (13.3)
	Sharing fomites can cause AIDS	63 (18.6)
	HIV infected pregnant mother will surely transmit infection to child	189 (55.6)
	AIDS can be cured if infected person has sex with a virgin	12 (3.5)
Leprosy	Any white spot on body is leprosy	68 (20.0)
	Leprosy can't be cured completely	73 (21.5)
Cancer	Cancer can spread through close personal contact	63 (18.6)
	Cancer can't be prevented	108 (31.9)
	Cancers can't be cured completely	90 (26.5)

*Figures in parenthesis indicates percentage

Table 3: Misconceptions about AIDS among Illiterates and Literates

Misconception	Illiterates (n 136)	Literates (n 203)	P value **
Mosquito bite can cause AIDS	27 (19.9)	40 (19.7)	0.92
Touching infected person can cause AIDS	21 (15.4)	24 (11.8)	0.42
Sharing fomites can cause AIDS	28 (20.6)	35 (17.2)	0.53
HIV infected pregnant mother will surely transmit infection to child	60 (44.1)	129 (63.5)	0.01 [#]
AIDS can be cured if infected person has sex with a virgin	5 (3.6)	7(3.4)	0.84

*Figures in parenthesis indicates percentage, ** Chi square test, [#]Significant

Table 4: Misconceptions about Leprosy among Illiterates and Literates

Misconception	Illiterates (n 136)	Literates (n 203)	p value **
Any white spot on body is leprosy	29 (21.3)	39 (19.2)	0.74
Leprosy can't be cured completely	33 (24.3)	40 (19.7)	0.39

*Figures in parenthesis indicates percentage, ** Chi square test

Table 5: Misconceptions about Cancer among Illiterates and Literates

Misconception	Illiterates (n 136)	Literates (n 203)	p value **
Cancer can spread through close personal contact	30 (22.1)	33 (16.3)	0.23
Cancer can't be prevented	42 (30.9)	66 (32.5)	0.84
Cancers can't be cured completely	37 (27.2)	53 (26.1)	0.92

*Figures in parenthesis indicates percentage, ** Chi square test