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ORIGINAL CONTRIBUTION

A Study on DIARRHOEAL Disease in India

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ABSTRACT

Diarrhoeal disease is one of the deadly diseases prevailing in the community. Dehydration, fluid loss, septic, bacterial infections are the main cause of death due to Diarrhoeal disease. Though children are mostly affected by it but the disease is prevalent in every age group. But the disease is preventable and curable. Some alteration of life style can be able to minimize its risk to get affected. For the purpose of the study we have collected secondary data from the Health Report published by government of India. From that report prevalence rate, Incidence rate and death rate of diarrhoeal disease in people of different community has calculated and by that we have analyzed the condition of diarrhoeal disease in our country. We have also analyzed the difference in incidence rate, prevalence rate and death rate of diarrhoeal disease among the rural and urban population in our country.

Key word: Diarrhoeal disease, deadly diseases, prevalence rate, death rate, fluid loss, Dehydration, septic.

1. INTRODUCTION

Diarrhoeal diseases are not only one of the most common causes of under 5 motility rate but also it is one of the important cause of health hazard of the world. The striking things associated with Diarrhoea are, it is easily curable and preventable but still Diarrhoeal is able to produce huge negative impact on the community. In India the scenario is same. The government of India has taken many steps that lead to decrease the motility rate to some extent but the incidence rate has not came down satisfactorily.

According to UNICEF the Diarrhoeal diseases causes 1.3 deaths of "under 5" years of age in a year. The number of death in India, Nigeria, Afghanistan, Pakistan and Ethiopia comprises the half of the total death. Recently 4 billion people are having diarrhoeal diseases and more that 90% of them are form developing countries. High Incidence rate of diarrhoeal diseases are found in those places where maternal illiteracy, low socio economic class, poor hygienic condition, poor sanitation etc are prevailing. The family size has positive correlation with the incidence of diarrhoeal diseases. It is found that families having more number of children are

more prone to suffer diarrhoeal diseases. Incidence rate became high during summer season.

Government of India has taken many steps to control the diarrhoeal diseases. In the year 1978 Diarrhoea Control Program was initiated. The aim of the program was to reduce the mortality and morbidity rate of diarrhoeal disease. From 1992 to 1993 the program was included in child survival and safe motherhood program. NRHM is now taking care of it.

Dehydration, malnutrition, non intestinal infection is the main danger of this disease. Diarrhoea with severe malnutrition and the main danger of it are: sever systemic infection, dehydration, heart failure, deficiency of vitamins and minerals.

Diarrhoea is the condition where frequent passage of loose, liquid or watery stool occurs. It can be two types absolute Diarrhoea and relative Diarrhoea. Absolute Diarrhoea is the occurrence of five bowel moments a day and relative Diarrhoea is unusual increase of bowel movement in comparison to an individual's usual bowel habit. According to clinical

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condition diarrhoea can be divided into four categories; Acute Watery diarrhoea, acute bloody diarrhoea, persistent diarrhoea, diarrhoea with severe malnutrition. Acute diarrhoea is lasting for days, dehydration, weight lose are occurred. Main cause of acute diarrhoea is *V. Choloerae*, *E. coli*, and Retrovirus. Acute bloody diarrhoea is also called dysentery, damage of intestinal mucosa, sepsis, malnutrition, dehydration are occurred. Blood in stool can found. *Shigella* is the causative organism of it. Persistent diarrhoea lasts for 14 days or for longer period of time.

According to severity the diarrhoea can be divided into acute and chronic. Acute diarrhoea lasts for a day or two and ultimately it cures on its own. Causes of acute diarrhoea are bacteria, virus, parasite, drug abuse. Chronic diarrhoea last for 4 or more weeks. Common causes of chronic diarrhoea are functional disorder such as irritable bowel syndrome, infectious diseases, inflammatory bowel diseases such as Chronn's Diseases, Colon cancer, recent abdominal surgery, sever constipation, mal absorption of carbohydrate and fat, hormonal malfunction, drug abuse such as laxatives.

The initial symptoms of diarrhoea are: crampy abdominal pain followed by frequent passage of loose stool. In case of infection; vomiting, loss of appetite, fever, dehydration and weight loss are also included.

Complications of diarrhoea are dehydration, electrolyte imbalance, and irritation of anus. WHO has recommended the way of prevention of diarrhoeal disease; two types of prevention are there short termed and long Termed. Short termed prevention process includes all clinical management process including oral rehydration therapy, intravenous rehydration, maintenance therapy, appropriate feeding, and chemotherapy. The long termed prevention process includes proper hand washing procedure maternal nutrition, Child nutrition including breast feeding, sanitation, health education, immunization, retrovirus vaccination, preventive strategies and preventing diarrhoeal epidemics including safe drinking water, proper hand washing procedure.

Right now India is having 29 numbers of states. Those states can be divided into three components North East states including Meghalaya, Assam, Arunachal Pradesh, Mizoram, Nagaland, Tripura, Sikkim, Manipur; states of empowered action group including Bihar, Chhattisgarh, Jharkhand, Orissa, MP, UP, Rajasthan; and states of empowered action group like Himachal Pradesh, Punjab, Goa, Tamil Nadu, Kerala. Each component has different health scenario. The states of each component also have different situation. According to a report published by Department of Health Research Ministry of health and Family Welfare; total number of death due to communicable diseases in India is about 27.5% of total causes of death including Injury, Non communicable diseases. In case of EAG and North East it is about 32.1% and 34.6% respectively. Largest portion is covered by 0 to 14 years age group population. Among the communicable diseases the diarrhoeal diseases are comprises about 19.9% in case of EAG states and 17% in case of North East states.

Though any person can be affected by diarrhoeal disease but the children are more affected by it and the diseases is not uniformly distributed in all over India too. There are some significant gaps are prevailing among different states regarding impact of diarrhoeal diseases. Also the urban and rural areas are different in many contests. Quality of life of women of different states is different. Literacy rate has a deep impact on the health of a community. Areas of high Literacy rate have low mortality and morbidity rate of communicable disease. Areas of high Literacy also makes people more aware on health. Socio economic standard of people is also indirectly dependent on the literacy rate. It is important to note that women literacy is having more significant impact than total literacy rate. Hence it is important to discuss about the relation between diarrhoeal disease and literacy rate. In this paper we will try to find out whether or not there is any relation between diarrhoeal disease and the literacy of women. The data are collected from the report published by the Department of Health Research Ministry of health and Family Welfare and from the report

published by Open Government Data. Every data are collected from latest report published by Government of India. Firstly the death rate of diarrhoeal diseases of states of north east, states of empowered action group and states of High Epidemiological Transition Level are taken. After that the literacy rate of male and female population of those states are taken.

The chart below is showing the death rate of diarrhoeal diseases, Female and male literacy

rate in states of EGA, North East and High ETL. The last row is showing India as a whole. In case of death rate anything above the India's total death rate is considered as state of high death rate and anything lower than India's total literacy rate (male and female or both) is considered as lower literacy rate (male and female or both).

2016			
Name of the State	Death Rate per 1000	Literacy Rate (Male) (%)	Literacy Rate (Female) (%)
EAG States			
Bihar	83	71.2	51.5
Chhattisgarh	84	80.3	60.2
Jharkhand	120	76.8	55.4
Madhya Pradesh	69	78.7	59.2
Odisha	129	81.6	64
Rajasthan	51	79.2	52.1
Uttar Pradesh	80	77.3	57.2
Uttarakhand	35	87.4	70
North East States			
Sikkim	14	86.6	75.6
Assam	75	77.8	66.3
Manipur	55	83.6	70.3
Nagaland	17	82.8	76.1
Tripura	60	91.5	82.7
Meghalaya	41	76	72.9
Arunachal Pradesh	35	72.6	57.7
Mizoram	35	93.3	89.3
Highest ETL States			
Goa	14	92.6	84.7
Himachal Pradesh	33	89.5	75.9
Kerala	20	96.1	92.1

Punjab	36	80.4	70.7
Tamilnadu	41	86.8	73.4
India as a whole	59	80.9	64.6

The above chart shows that death rate of diarrhoeal diseases are high in those states where women literacy rate is high. Most if the EAG states are having low female literacy rate and high diarrhoeal diseases mortality rate. In case of states of Highest ETL group it can be seen that nearly they all have low diarrhoeal diseases mortality rate and high female literacy rate and male literacy rate. In case of states of north east have different picture most of them are having (6 out of 8) low mortality rate and most of them (7 out of 8) are having high female literacy rate but 3 out of 8 are having low male literacy rate. Out of three only one (Assam) of them is having high mortality rate but one (Tripura) out of eight is having high mortality rate but it has high male and female literacy rate too. In this study it can be said that literacy rate especially female literacy rate is having some correlation with mortality rate of diarrhoeal diseases.

6. CONCLUSION

The female literacy rate has huge impact on our society. If we are going to compare the developing country with the developed country

we will be able to see that Female literacy rate of developed country is far better than the female literacy rate of developing country. In most cases it is found that female literacy rate is able to put deep impact than male literacy rate. Child health, maternal health, child education, vaccination rate is mostly depending upon the female specially mothers literacy rate, but still we cannot say that communicable diseases like diarrhoeal diseases are totally depending upon female literacy rate of the population because the Communicable diseases are not only depending upon female literacy rate but also several other factors are also responsible like prevailing health of the community, economic condition, environment, weather, geographical situation, political condition, health education of the community etc. Also high literacy rate does not mean the people have high health awareness level because health awareness level can be enhanced by active participation of government and non government organization and people. It can be found in most cases where literacy rate is high but there are low health awareness level is prevailing.

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