

Spatial Pattern of Hygiene Practices in Bikrampur Gram Panchayat, Simlapal Block, Bankura

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Abstract

Hygiene practices are employed as preventative measures to reduce the incidence and spreading of disease. The terms cleanliness (or cleaning) and hygiene are often used interchangeably, which can cause confusion. In general, hygiene mostly means practices that prevent spread of disease inducing organisms. Since cleaning processes (e.g., hand washing) remove infectious microbes as well as dirt and soil, they are often the means to achieve hygiene. Hygiene practices and health have a direct correlation. Poor hygiene practice is responsible for various infectious diseases.

People of Bikrampur Gram Panchayat, Simlapal Block, Bankura District are suffering from various infectious diseases, due to very poor hygiene practices. Rate of open defecation is also very high; practice of hand washing is relatively low; personal hygiene as well as sanitary hygiene practices are in very miserable situations in the study area. Treatment of drinking water is uncommon, which is the direct cause of various water borne diseases. Dysentery, Diarrhoea, Cholera, Typhoid, Hook Worm infection and Urinary tract infection are very common in the area. Lack of proper knowledge on hygiene practice is responsible for such diseases.

Key words: Handwashing, Open Defecation, Poor Hygiene, Infectious Diseases

Introduction

At present, diseases related to inadequate water, sanitation and hygiene are a huge burden in most of developing countries. It is estimated that 88% of diarrheal disease is caused by unsafe water supply, and inadequate sanitation and hygiene (WHO, 2004c and Magalhaes et al., 2011). Personal hygiene practice is essential for the individual to develop and care for a person (Balfour, 1925). The risk of transmission of many infectious diseases greatly increased by unhygienic excreta disposal practices (Feachem, 1977). Lack of adequate sanitation, polluted drinking water which are most significantly due to open defecation and create of negative series health impact on public. Improper disposal of human excreta, lack of personal and food hygiene and improper disposal of solid and liquid waste have been the major causes of diseases in India (Rajgire, 2013; Satpathy, 2014 & Vortmann et al., 2015). Contaminated water can cause outbreak of diseases including cholera,

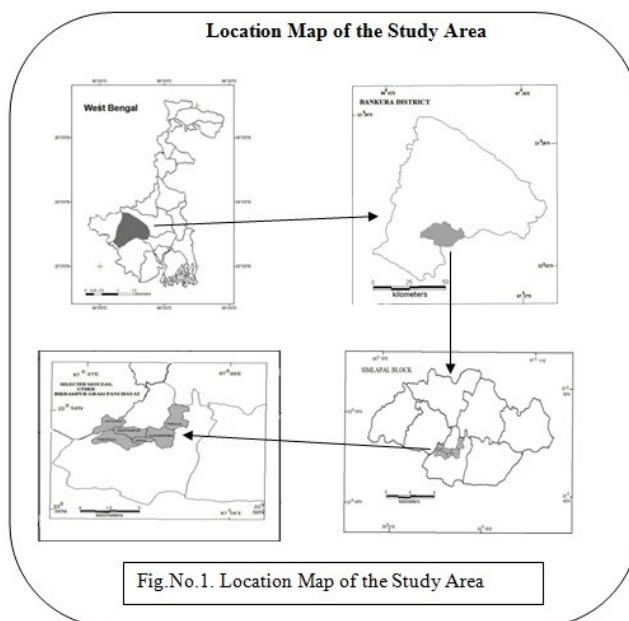
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diarrhea, dysentery, hepatitis etc. A healthy living environment depends on toilets. Disposal of human waste (sometimes due to open defecation), also hampers the sources of water (Rajgire, 2013). Poor hygienic living conditions give rise to parasitic infections, particularly in children, with the prevalence of such infections being a strong indicator of socio-economic status (Wani et al., 2007). Not only human health, but also defecates in the open, also harms the environment, and affects vulnerable populations, such as persons with disabilities and women, exposing them to sexual violence (Kumar, 2015 & Dhaktode, 2014). Open defecation also constitute a health and human capital crisis (Coffey et al., 2014). In such countries, where open defecation is at high rate, children may become shorter in height (Chambers & Medeazza, 2013). Hygiene, sanitation and water for all still remain among the grand challenges for public health in the 21st century (Curtis & Cairncross, 2003). Diarrheal diseases are caused by poor sanitation and unsafe water kill around 1.4 million children a year, more than AIDS, malaria and measles combined (Coombes, 2010). Hand hygiene is one of the most important elements of infection control activities (Satpathy, 2014, Mathur, 2011). Handwashing is also having a significant impact on diarrhea incidence (Huttly et al., 1994). Community participation and awareness generation is the key strategies have to be taken first, to promote hygiene behavior (George, 2009).

2. Study Area

Bikrampur Gram Panchayat (G.P.) lies between 22°50′22″N - 22°55′16″N and 87°0′E - 87°06′E, under the jurisdiction of Simlapal C.D. Block of Bankura District in West



Bengal. The selected six mouzas of Bikrampur G.P. are Krishnapur Mouza (J.L. No. 059), Kathjuria Mouza (J.L. No. 060), Harintuli Mouza (J.L.No. 062), Sirsha Mouza (J.L. No. 081), Kumardoba Mouza (J.L. No. 082) and Parulia Mouza, (J.L. No. 087).

3. Objectives

The main objectives of the study are as follows,

1. to show the spatial pattern of hygiene practices,
2. to find out the major causes of poor hygiene practice.
3. to evaluate symptoms of diseases due to poor hygiene practices

4. Materials and Methods

This research study has been done based on primary and secondary data. The primary information has been prepared through door to door survey by using a set of questionnaire concerned to the topic. The secondary data source includes- Census of India reports (2001 and 2011), Gazetteer of Bankura District (1995), and relevant maps (collected from different Government Office), various books, journals, research reports, and web based information etc.

The Study has been done by selecting 74 households from six mouzas of the Bikrampur G.P. Both qualitative and quantitative methods have been applied to complete the study for evaluating the results obtained from the field visits through simple random sampling and information from secondary sources. Diseases are inferred by asking the common symptoms of physiological ailments among the villagers, and inferred the probable diseases by the medical practitioners of the area including concerned causal information collected from studied literatures. Collected information has been quantified, analyzed and represented by suitable statistical techniques and by using various related software like- Microsoft Office Word 2007, Microsoft Office Excel 2007, MapInfo Professional 7.0 etc.

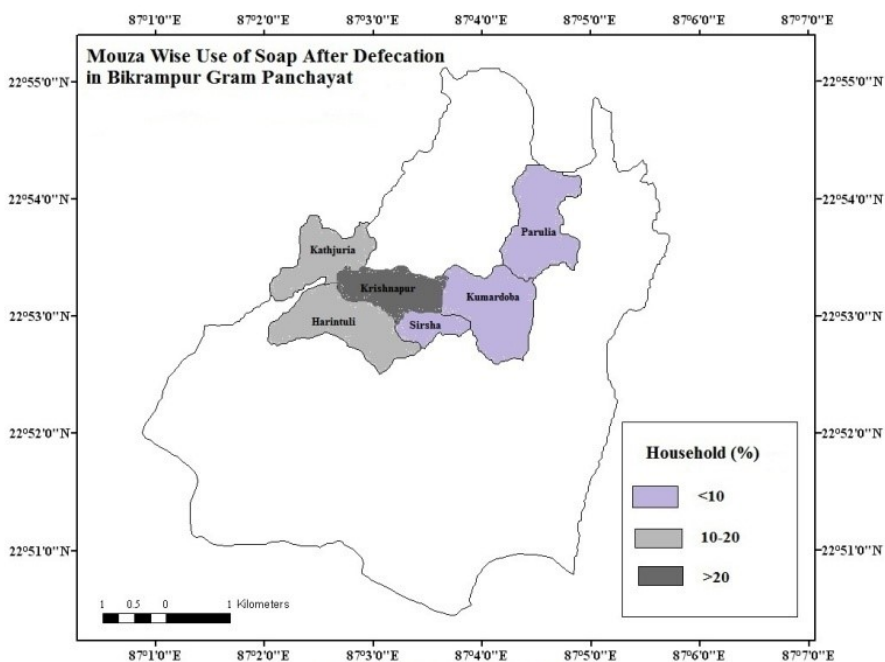
5. Result and Discussion

Investigation has shown that poor hygiene and sanitation is very common throughout the study area. Toilet facilities are rare and rate of open defecation is quite widespread. Hand washing in critical time is very exceptional by proper hand washing materials. The investigation has been done by selecting various hygienic behaviours of the people of study area. These are as follows,

5.1. Handwashing in Critical Times:Handwashing with proper hand wash materials is very uncommon. To know details about hand hygiene, investigation has been done in two different situations. Which includes, - (i) Hand wash before eating, (ii) Hand wash after defecating. Findings are as follows,

(i) **Hand Wash before Eating:** Practice of handwashing before eating with soap/alcohol-based (hand) rub is quite infrequent in the study area. People from different mouzas, such as; Kumardoba, Parulia, Sirsha, use only water as hand wash tool before eating. But the members of Kathjuria, Krishnapur and Harintuli mouza, have been using soap as hand wash tool before eating at very low rate, which are 10%, 7.69% and 6.25% respectively.

(ii) **Handwashing after Defecating:** Use of soap/ alcohol-based (hand) rub, after defecation is also very rare. People of the study area are habituated to use ash/mud for the purpose. Most of the household members of Krishnapur Mouza (46.15%) have been using soap, but, the people of Kumardoba mouza (100%) have been using ash/mud as hand washing tool.



5.2. Drinking Water Treatment: More than 59% household's members of the study area have been using public hand pump for collecting drinking water. The study depicts the pathetic scenario of drinking water treatment. The water is not protected during transportation. Only at Krishnapur and Harintuli mouza, the villagers have been using water filter (candle) for treatment the water at very low rate, which are 53.84% and 6.25% respectively. Remaining mouzas like- Parulia, Kumardoba, Sirsha, Kathjuria, no one neither filtrates, nor boiled drinking water properly (Fig. No. 3.). The people of the study area, may be due to this reason, have been suffering from symptoms of various water borne diseases.

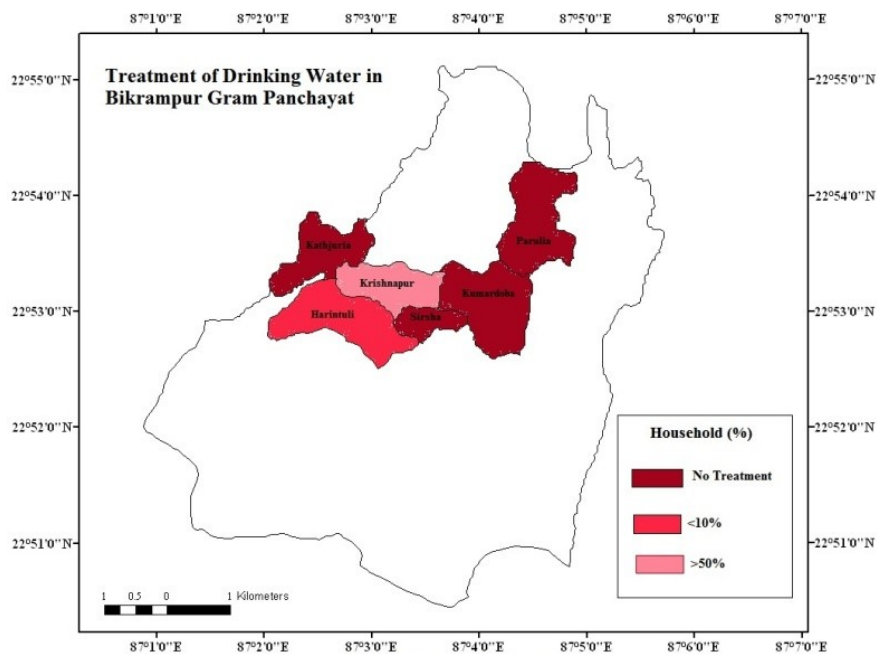


Fig. No. 3. Treatment of Drinking Water

5.3. Practice of Open Defecation

Availability of toilet facilities is very uncommon in the study area. Only 12.16% household’s members have toilet facility. Surprisingly, 2.70% of households have toilet but the members, do not use it, rather like to go open area for defecating. People of the study area are habituated to defecate in the open space. The details in this regards has been shown in Figure No. 4.

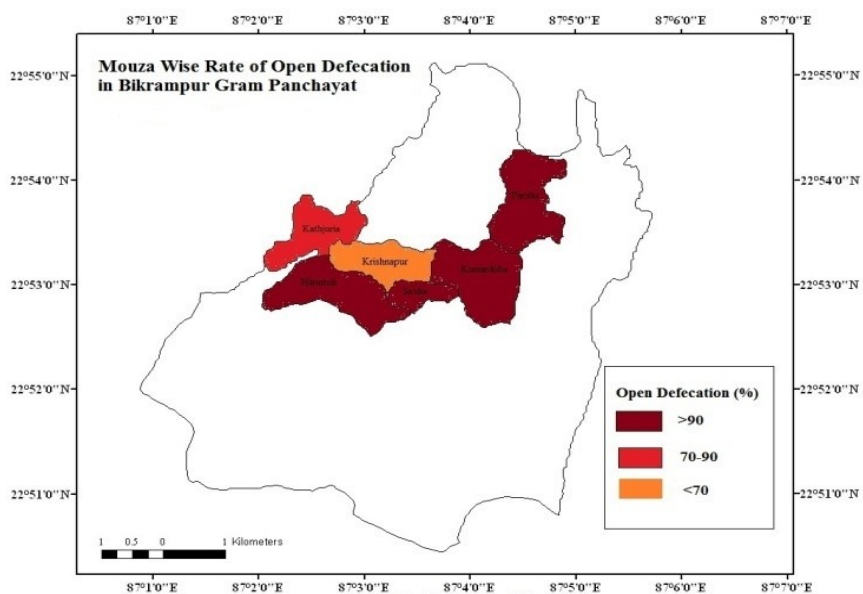
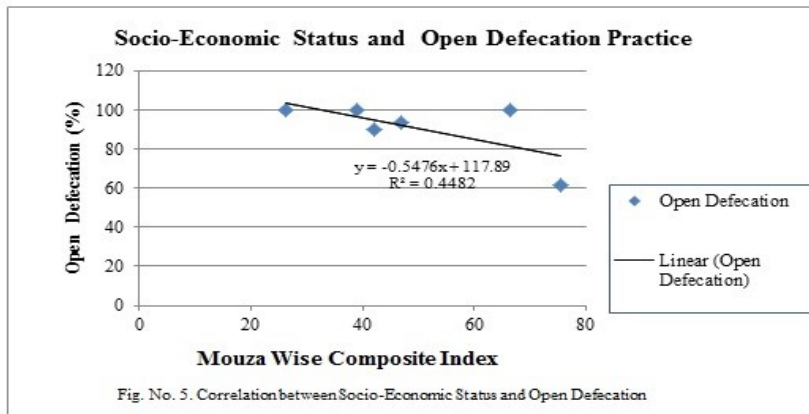
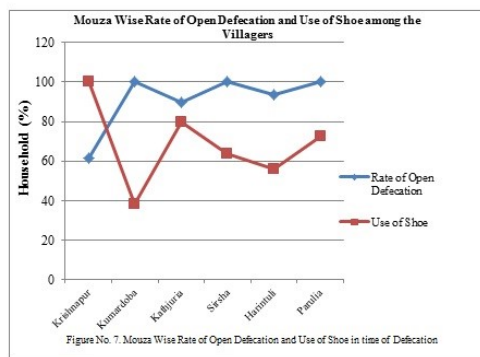
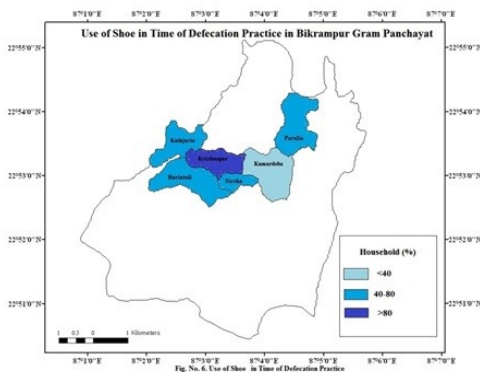


Fig. No. 4. Rate of Open Defecation

To show the socio-economic strength, some socio-economic factors have been chosen, which are as, monthly income, dwelling units, household drinking water sources, treatment of drinking water, sources of lighting, use of toilet, and awareness against open defecation etc. To measure composite index, special weightage has been given to each mentioned factors of the mouzas. Mouza wise Composite Index scores are- Krishnapur (75.451), Parulia (66.358), Harintuli (46.875), Kathjuria (42.00), Sirsha (39.087) and Kumardoba (26.152).



5.4. Use of Shoe: In the study area, use of shoe in time of defecation, is exceptionally low. People, who have used shoes in time of defecation in open space, they also use that shoes in other works in day to day life. At Krishnapur Mouza, rate of open defecation is 61.53%, where, all members (100%) are habituated to use shoes in time of defecation. But at Kumardoba mouza, where all the members (100%) defecate in the open, Most of them (61.54%) do not use shoe in time of defecation and also in day to day life. May be, due to this reason, 30.76% people of Kumardoba mouza, have suffered from symptoms of hookworm infection. The picture, on rate of open defecation and use of shoe of remaining Mouzas has been shown in Figure No. 7.



6. Symptoms of Diseases Due to Poor Hygiene Practices:

Due to poor hygiene practice and improper sanitation, people of the study area have been suffering from symptoms of various diseases. Diseases are inferred by asking the common symptoms of the villagers, and rectified by the respective four doctors of the area. The symptoms of common diseases which have been found in the study area are- Dysentery, Diarrhea, Typhoid, Hookworm Infection, Cystitis (Urinary Tract Infection), and Cholera. There are spatial differences of affected people with different Mouzas (Fig. No. 8.)

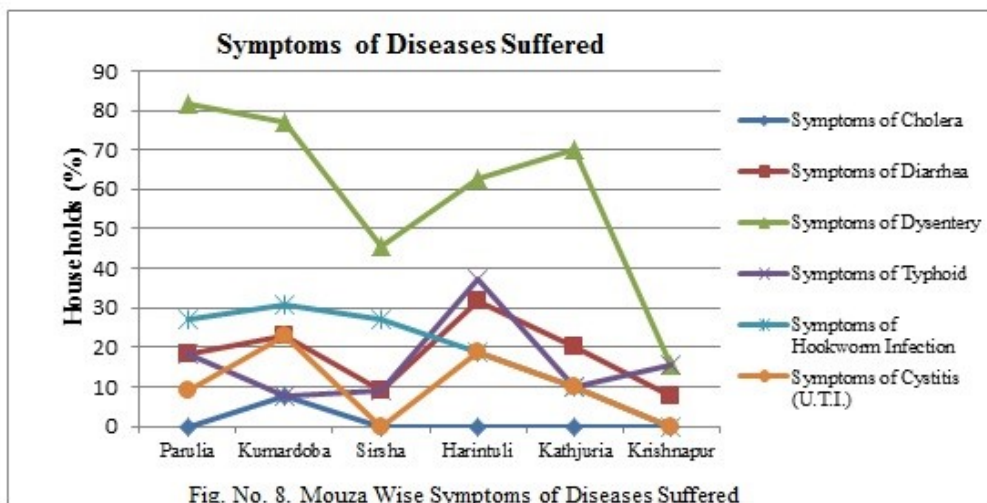


Fig. No. 8. Mouza Wise Symptoms of Diseases Suffered

Conclusion:

From this empirical investigation, it can be said that, poor hygiene practice are the responsible factors for affecting people by various types of infectious diseases, which can easily be mitigated and tackled through raising the awareness of people of the concerned issues. Children is also a good messenger, can linked hygiene message from school to their society. Health sector also require giving equal importance to preventive healthcare interventions like access to safe drinking water, proper sanitation and promotion of safe hygiene practices. Only this way the thought of Mahatma Gandhi on cleanliness can be achieved success.

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