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A Study of Status of Overall Sanitation and use of Public Toilets in Rural Area of Gondia District with Special Reference to Non-Nirmal Grams

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Abstract: ***This study attempts to evaluate overall hygiene and sanitation status in non-Nirmal Gram villages of Gondia District. Total 400 respondents (villagers) were selected from 8 non-Nirmal Gram villages (50 respondents from each village) in Gondia District. Data was collected by using self-prepared well-structured interview schedule. The collected data is analysed by using descriptive statistics such as frequency, percentage and non-parametric chi-square test. Study concluded that found that there are various problems related to sanitation and hygiene in non-Nirmal Gram villages of Gondia district. These problems include lack of availability of public toilets, treated water supply, drainage system, waste management facility as well as disease management facility. The no. of public toilets available in the villages are not adequate. Most villagers did not use public toilets. The primary reasons behind not using public toilet is toilets are not in usable condition and there is lack of water in the toilet. Study suggested that Grampanchayat as well as related public bodies should take appropriate steps to fulfill the sanitation and hygiene needs of villages and should encourage villages to become Nirmal Gram.***

Keywords: Sanitation, Hygiene, Village, Non-Nirmal Gram

1. Introduction

There is direct relationship between sanitation and water quality, health, nutrition as well as human well-being. Adequate sanitation, together with good hygiene and safe water, are fundamental to good health and to social and economic development. Improvements in one or more of these three components of good health can substantially reduce the rates of morbidity and the severity of various diseases and improve the quality of life of huge numbers of people, particularly children, in developing countries (Merchant *et al.*, 2003).

The diseases associated with poor sanitation are particularly correlated with poverty and infancy and alone account for about 10% of the global burden of disease (Prüss-Üstün *et al.*, 2008). At any given time close to half of the urban populations of Africa, Asia, and Latin America have a disease associated with poor sanitation, hygiene, and water (WHO, 1999).

As per estimates, inadequate sanitation cost India almost $54 billion or 6.4% of the country's GDP in 2006. Over 70% of this economic impact or about $38.5 billion was health-related, with diarrhea followed by acute lower respiratory infections accounting for 12% of the health-related impacts. Evidence suggests that all water and sanitation improvements are cost-beneficial in all developing world subregions (Hutton et al, 2007).

There were 7935 cities and towns and 6.4 lakh villages according to 2011 Census. About one-third population (31 per cent) lived in urban areas and three-fourth lived in rural areas. Sanitation is not only an absence of garbage and waste materials strewn around but also access to toilet facility, safe drinking water and connectivity to a drainage system. In rural India, this is a huge problem. Census of India collected data on access to water and sanitation shows that only 31 per cent rural households were having any toilet facility in their households. The increase in toilet facility during last ten years from 2001 to 2011 was at the rate of just one per cent every year. At this rate India could achieve universal sanitation only by 2081. Thus, progress in the provision of toilet facility in rural areas is very slow and open defecation is a serious problem.

Sanitation and water affect not only health, but other important aspects of life as well. The economy of India as a whole is impacted because people must pay for visits to the doctor and lose their jobs because of inability to go to work. Specifically, 73 million working days are lost annually due to sicknesses caused by unsafe water and lack of sanitation. Education is also impacted when girls drop out of school once they reach adolescence because of lack of privacy and toilet facility.

To boost up the Total Sanitation Campaign (TSG), Government of India launched the Nirmal Gram Puraskar (NGP) in October 2003 and gave first awards in 2005. NGP seeks to recognize the efforts made by PRIs (Panchayat Raj Institutions) and institutions who have contributed significantly towards ensuring full sanitation coverage in their areas of operation (NLSP,XI Plan).

India cannot achieve real development if majority of its people live in unhealthy and unclean surroundings due to lack of access to safe water and sanitation. Poor water and sanitation facilities have many other serious repercussions. Hence, in the backdrop of above information this study attempted to evaluate overall hygiene and sanitation status in non-Nirmal Gram villages of Gondia District.

2. Review of Literature

Rajendran *et al.*, (2013) concluded that the people don't know the importance of toilets and not have adequate

awareness. So, government should create awareness programmes for people. Kuberan *et al.,* (2015) studied the knowledge, attitude, and practices-related to drinking water and sanitation facilities among the rural population. They found that Forty-five percent of the participants were not following any methods of water treatment and among them half of the participants felt that water available to them was clean and did not require any additional treatment. Twenty-five percent of the participants surveyed did not have access to toilets inside their household. There is a need for intervention to educate individuals about drinking water treatment methods, sanitation, and hand washing practices. Pachori (2016) conducted a community based cross sectional study in Rural Health Training centre, Magudanchavadi. He concluded that their knowledge was significantly associated with practice of it. Knowledge was good enough but unhealthy practices make health education very important for better use of existing facilities and also to prevent the incidences of water and sanitation related diseases.

Hutchings *et al.,* (2017) reviewed the history and concepts of community management to propose three typologies that better account for the changing role of the community and external support entities found in successful cases. It argues that external support entities must be prepared to take greater responsibility for providing ongoing support to communities for ensuring continuous service delivery. Han *et al.,* (2018) examined the factors influencing domestic waste in rural areas of developing countries. Study concluded that factors influencing domestic waste must be considered in order to optimize the design of waste management strategies in the rural areas of developing countries. Yogananth and Bhatnagar (2018) estimate the prevalence of adults with a household toilet practicing open defecation and determine the factors associated with it. Authors found that Toilet use is influenced by several structural and sociocultural determinants. The mission needs to shift its emphasis from toilet construction to sustainable functioning and use of toilets. Mendiratta *et al.,* (2018) assess the extent to which the key hygiene behaviours were sustained in Nirmal Gram Panchayats in Rajasthan. In order to ensure the sustainability of key hygiene behaviours in Nirmal Gram Panchayats in Rajasthan the State Water and Sanitation Mission needs to develop an appropriate, evidence-based, cost-effective behaviour change communication strategy and provide adequate funds, technical support and trained sanitation motivators to all Nirmal Gram Panchayats for its effective implementation, monitoring and continuous follow-up. Novotný *et al.,* (2018) operationalise, analyse, and synthesise evidence of how contextual factors and motivations affect different sanitation outcomes with a specific focus on community approaches to rural sanitation. Novotný *et al.,* (2018) find that perceived unaffordability, attitudes (perceived benefits of toilet and disadvantages of OD) and perceived descriptive social norms are of key importance. This implies a potential for persuasive strategies that manipulate social norms around sanitation, particularly if they simultaneously address perceptions around financial unaffordability of toilets and around the benefits of toilets. Importantly, however, attempts to change sanitation preferences by acting on forces of social (dis)approval (i.e. through perceived injunctive social norms) may be ineffective and generate negative unintended consequences.

3. Methodology

In present study, descriptive research design is used. Survey methodology was used to collect data. Total 400 respondents (villagers) were selected from 8 non-Nirmal Gram villages (50 respondents from each village) in Gondia District. Data was collected by using self-prepared well-structured interview schedule. Which include issues regarding sanitation and hygiene. The collected data is analysed by using appropriate statistical tools, which include descriptive statistics such as frequency, percentage and non-parametric chi-square test.

4. Result and Discussion

It is evident from above Table 1 that public toilets are available in village of only 47.5% non-Nirmal Gram villagers. However, it is also evident that, there is no mosquito management, waste disposal facility, treated water supply and sanitization facility in villages of 86%, 84.3%, 84.0% and 82.8 villagers respectively. Furthermore, independent toilets are not available at 70.8% villagers and drainage system is not available in villages of 67.8% villagers residing in Non-Nirmal Gram in Gondia District.

Above Table 2 illustrates that two public toilets are available in village of 22.5% villagers, whereas three public toilets are available in village of 10.0% villagers. Furthermore, one public toilet is available in village of 15.0% villagers. It is also evident that there is no public toilets available in village of 52.5% villagers. It is apparent that public toilets are not available in village of significantly (<0.005) high percentage of villagers.

Above Table 3 demonstrates that only 25.0% villagers use public toilets for defecation whereas 75.0% villagers not use public toilets, they either use independent toilets or defecate openly. It is apparent that substantially (<0.05) high percentage of villagers nit use public toilets.

Table 4 illustrates reasons given by villagers for not using public toilets available in village. It is evident from the data that there are more than one reasons for not using public toilets by villagers. 59.8% villagers not use public toilets because toilets are not in usable condition, whereas 74.5% villagers not use public toilets because of lack of water in them. 15.0% villagers not use public toilet because of oppose from other community people. However, public toilets are not available in village of 52.5% villagers.

5. Conclusion

Of human excreta, faeces are the most dangerous to health. One gram of fresh faeces from an infected person can contain around 106 viral pathogens, 106–108 bacterial pathogens, 104 protozoan cysts or oocysts, and 10–104 helminth eggs (Wagner and Lanoix, 1958). Hence, it is very important to follow best sanitation to live healthy life.

Present study, found that there are various problems related to sanitation and hygiene in non-Nirmal Gram villages of Gondia district. These problems include lack of availability of public toilets, treated water supply, drainage system, waste management facility as well as disease management facility. The no. of public toilets available in the villages are not adequate; in most of villages, public toilets are not available. Only few villagers are using public toilets available in the village most villagers did not use public toilets. The primary reasons behind not using public toilet is toilets are not in usable condition and there is lack of water in the toilet.

It is suggested that Grampanchayat as well as related public bodies should take appropriate steps to fulfill the sanitation and hygiene needs of villages and should encourage villages to become Nirmal Gram.

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