

# A Study to Assess the Knowledge regarding Hazards of Open Defecation among People Residing in Selected Rural Area

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**Abstract:** Objectives: To assess the knowledge regarding hazards of open defecation among the people residing in selected rural area and to associate the finding with selected demographic variable. Materials and Methods: 100 rural populations participated in this study. Descriptive evaluatory approach with non-Experimental descriptive research design was used. Non-Probability Convenient sampling technique was used to select the sample. The data were collected from rural areas, using socio demographic data sheet and self-administered Questionnaire to assess the knowledge regarding hazards of open defecation among rural population. Results: 100 rural people participated in this study with majority of the samples in the study, Majority of 54% of sample according to gender are female, Majority of 54% of sample according to their educational status were educated up to primary, Majority 43% of sample according to their occupation were private service, Majority 90% of sample according to residence belongs to pakka house, Majority 55% sample according to their residence were Hindu, Majority 58% of families were belonging to nuclear families and Majority 43% of sample according to their monthly income were in range of Rs. 6001-8000. The level of knowledge score is divided under following heading of poor, average, good, very good and excellent. In the level of knowledge score, out of 100 subject's 62% of people had good knowledge score, 34% of people had very good knowledge score and 2% of them had poor knowledge. Minimum knowledge score was 12 and maximum knowledge score in was 25. Mean knowledge score was 17 and mean percentage of knowledge score was 53. Conclusions: The investigator concludes that, according to the findings in the present study shows that majority of rural population had good knowledge regarding hazards of open defecation, half of them having very good knowledge regarding hazards of open defecation. It did not show any association in relation to their selected demographic variables. Overall, this study was found to be effective in improving the knowledge of subjects.

**Keywords:** assess, hazards, open defecation, people, rural area

## 1. Introduction

“Sanitation is more important than political independence”, this words of father of nation Mahatma Gandhi has relevance for poor sanitation has led our major population towards ambit of health issues, one of the major issues is arose from poor sanitation is “open defecation”. Opendedefecation has been a long practice in India even before independence. Due to various perceptions and issues of rituals pertaining to religion, government and people are failed to achieve the endeavor of make India “open defecation free (ODF)”. This sin practice of open defecation has posed various threats pertaining to public health before our medical fraternity Viz. Diarrhea, intestinal worm infection, typhoid, cholera, hepatitis, polio, trachoma and others. <sup>[1-3]</sup>

India ranks top amongst other countries all over the world in open air defecation, about (626 million) people in India practice open defecation. while in all over the globe there are other countries, which widely practice open air defecation i.e., Indonesia (63 million), Pakistan (40 million), Ethiopia (38 million), Nigeria (34 million), Sudan (19 million), Nepal (15 million), China (14 million), Niger (12

million), Cambodia (8.6 million) people defecates openly. <sup>[4-7]</sup>

Basic sanitation facilities are attainable to only 68% of global population, among them only 2.3 billion people who lack to reach the facilities like toilets or latrines. The primary affected group are under five children which lead to increase in mortality and malnutrition rate among them. <sup>[8]</sup>

Every day in India 400 to 500 children below the age of 5 die due to diarrhea. on a year basis 1.5 to 1.8 lac children below the age of 5 die. In the present level of civilization this is unacceptable. The traces of polio and pneumonia can also be found. 1 gram of fecal material contains 1 crore viruses, 10 lac bacteria and 1000 parasites. So open defecation can create a great harm to Indian society. <sup>[9, 10]</sup>

The objectives of that study were to assess the knowledge regarding hazards of open defecation among the people residing in selected rural area and to associate the finding with selected demographic variables.

## 2. Material and Methods

100 rural population participated in this study. Descriptive evaluatory approach with non-Experimental descriptive research design was used. Non-Probability Convenient sampling technique was used to select the sample. The data were collected from rural areas, using socio demographic data sheet and self-administered Questionnaire to assess the knowledge regarding hazards of open defecation among rural population.

### Criteria for selection of samples

#### Inclusion criteria

- 1) The People who are residing in selected rural area.
- 2) The people who are willing to participate in study.
- 3) People who are available at the time of data collection.
- 4) People who can read and write Marathi or English language.

#### Exclusion criteria

- 1) People who have previously undergone similar training.
- 2) People who are health professionals.

#### Tools

Section I: consist of demographic variables of the rural people to be participated in the study such as age, gender, education, occupation, type of house, religion, type of family and income.

Section II: consist of 30 questions on knowledge regarding hazards of open defecation.

The investigator obtains permission from Sarpanch of Varud in Wardha District, Maharashtra to conduct the main study. The main study was conducted from 18.12.2019 to 20.12.2019. The scoring techniques are distributed according to poor, average, good, very good and excellent.

#### Statistical Analysis

Statistical analysis was done using SPSS Version 20.0 (SPSS Inc., Chicago, Illinois, USA). Continuous variables were expressed as Mean±SD and categorical variables were summarized as percentages. ANNOVA test or Fisher's exact test, whichever appropriate, was used for comparison of categorical variables. Graphically the data was presented by bar and pie diagrams. P-value of less than 0.05 was considered statistically significant. The reliability of that tool was 0.8290 by using Guttman split half method Pearson's correlation coefficient and hence the tools are reliable and valid.

## 3. Results

Results are divided into three sections:

**Section A:** This section deals with percentage wise distribution of people with regards to their demographic characteristics as shown in figure no. 1

**Section B:** This section deals with the assessment of level of knowledge regarding hazards of open defecation among the people residing in selected rural area. The level of knowledge score is divided under following heading of poor,

average, good, very good and excellent. 10% of the people had average level of knowledge score, 70% had good and 20% of people had very good level of knowledge score. Minimum knowledge score was 9 and maximum knowledge score in was 23. Mean knowledge score was 16.90±4.28 and mean percentage of knowledge score was 56.33±14.26. The graph shown in graph 1

**Section C:** In this section, it did not show any association in relation to their selected demographic variables. Overall, this study was found to be effective in improving the knowledge of subjects.

## 4. Conclusion

The investigator concludes that, according to the findings in the present study shows that majority of rural population had good knowledge regarding hazards of open defecation, half of them having very good knowledge regarding hazards of open defecation. It did not show any association in relation to their selected demographic variables. Overall, this study was found to be effective in improving the knowledge of subjects.

#### Conflict of Interest:

The authors have no conflict of interest.

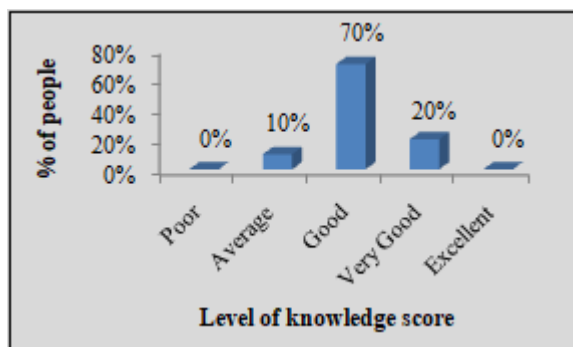
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**Figure 1.** Percentage wise distribution of people with regards to their demographic variables.

| Demographic Variables             | No. of people | Percentage (%) |
|-----------------------------------|---------------|----------------|
| <b>Gender</b>                     |               |                |
| Male                              | 60            | 60             |
| Female                            | 40            | 40             |
| <b>Education</b>                  |               |                |
| Illiterate                        | 10            | 10             |
| Primary                           | 60            | 60             |
| Higher Secondary                  | 30            | 30             |
| Secondary                         | 0             | 0              |
| Graduate and above                | 0             | 0              |
| <b>Occupation</b>                 |               |                |
| Labour                            | 50            | 50             |
| Private Employee                  | 20            | 20             |
| Farmer                            | 20            | 20             |
| Govt. Employee                    | 0             | 0              |
| Unemployed                        | 10            | 10             |
| <b>Type of house</b>              |               |                |
| Kaccha                            | 20            | 20             |
| Pakka                             | 80            | 80             |
| <b>Religion</b>                   |               |                |
| Hindu                             | 70            | 70             |
| Christian                         | 0             | 0              |
| Muslim                            | 30            | 30             |
| Buddhist                          | 0             | 0              |
| <b>Type of family</b>             |               |                |
| Nuclear                           | 20            | 20             |
| Joint                             | 60            | 60             |
| Extended                          | 10            | 10             |
| Single Parent                     | 10            | 10             |
| <b>Monthly family income (Rs)</b> |               |                |
| 2000-4000 Rs                      | 20            | 20             |
| 4001-6000 Rs                      | 10            | 10             |
| 6001-8000 Rs                      | 30            | 30             |
| >8000 Rs                          | 40            | 40             |



**Graph 1:** Assessment with knowledge score