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Assessing socio-economic correlates of awareness, impact, and constraints under the Swachh Bharat Abhiyan

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Abstract

The Swachh Bharat Abhiyan (SBA), which was started by the Indian government in 2014 with the goals of eradicating open defecation, enhancing public health, and promoting sustainable sanitation practices across the country, provides the context for this study. It assesses the mission's effects on rural populations by surveying 150 respondents in the Kalyanpur and Chaubepur blocks of Kanpur district. Higher adoption rates and fewer waterborne illnesses are positively correlated with favourable socio-economic profiles, according to an analysis of independent variables like age, education, family size, housing type, annual income, and landholding against dependent variables like toilet construction, hygiene practices, and health outcomes. Even while the mission has effectively improved rural health and sanitation, enduring demographic disparities show the continued need for focused initiatives to guarantee equitable benefits across all sections of rural society.

Keywords: Swachh Bharat Abhiyan, rural sanitation, public health, hygiene practices, socio-economic factors, health outcomes

Introduction

In developing nations like India, where a sizable section of the population lives in rural regions with little access to adequate sanitation services, sanitation and hygiene are essential components of public health and human dignity. Under the direction of Prime Minister Narendra Modi, the Indian government initiated the Swachh Bharat Abhiyan (Clean India Mission) on October 2, 2014, in recognition of the urgent need to address these issues. In honour of Mahatma Gandhi's 150th birthday, the project sought to make India clean and free of open defecation (ODF) by 2019. To ensure the sustainability of cleaning projects, the Swachh Bharat Abhiyan focuses on enhancing sanitation infrastructure, encouraging behavioural changes, and increasing community participation.

The number of toilets has been built as a result of the program, which has also improved access to clean water and raised public knowledge of good hygiene. The program has also empowered women as important change agents in their communities and generated job possibilities. All things considered, the Swachh Bharat Abhiyan has the ability to promote cleanliness-related behavioural changes, enhance millions of people's quality of life, and promote sustainable development in rural regions. It is crucial to keep supporting and carrying out the Swachh Bharat Abhiyan throughout the country since it is an important project that has already reached important milestones.

Research methodology

The study was carried out in the Kanpur district. Two blocks, Kalyanpur and Chaubepur, were chosen at random for the study. Six settlements were purposefully chosen from the chosen blocks. From each community, twenty-five respondents were chosen at random. 150 respondents were selected. Age, educational attainment, caste, religion, type of family, size of family, type of home, occupation, yearly income, size of land holding, social participation, material possession, awareness, opinion, impact, constraints and suggestion, etc. were all used as dependent and independent variables. Statistical methods including percentage, rank order, weighted mean, standard deviation, and correlation coefficient were employed in the statistical analysis of the acquired data.

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Age group

Table 1: Distributions of respondents according to age group

Age group	Frequency	Per cent	Mean	S.D.
20 to 30 years	15	10.0	24	3
30 to 40 years	65	43.3	35	3
40 to 50 years	55	36.7	44	3
50 years and above	15	10.0	54	2
Total	150	100.0	39	6

Table 1 shows the distribution of respondents by age group: 43.3% of respondents were in the 30 to 40 year old age group, with an average mean of 35 and a standard deviation of 3. 36.7% were in the 40 to 50 year old age group, with an average mean of 44 and a standard deviation of 3. 10.0% were in the 50 year old age group, with an average mean of 54 and a standard deviation of 2 and 10.0% were in the up to 30 year old age group, with an average mean of 24 and a standard deviation of 3.

Educational qualification

Table 2: Distribution of respondents according to educational qualification

Educational Qualification	Frequency	Per cent
Illiterate	12	8.0
Up to primary	14	9.3
High school	37	24.7
Intermediate	61	40.7
Graduate and above	26	17.3
Total	150	100.0

Table 2 reveals the distribution of respondents by level of education 40.7% of respondents had an intermediate level education, followed by 24.7% who had a high school education, and 17.3% who had a degree or above. However, just 8.0% of respondents were illiterate, while 9.3% of respondents had only completed elementary school. Thus, it was determined that the majority of respondents in the research region had completed intermediate and high school.

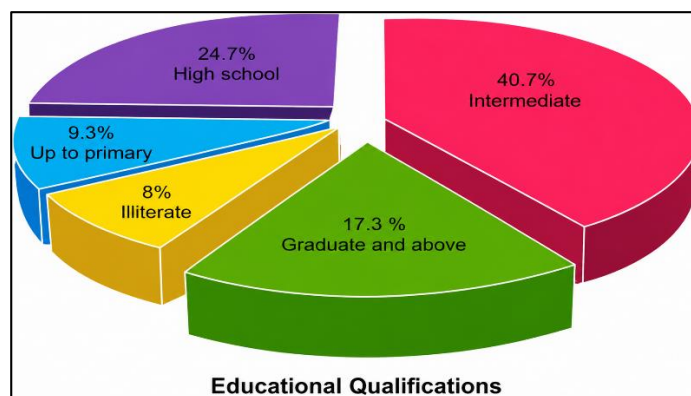


Fig 1: Distribution of respondents according to educational qualification

Size of family

Table 3: Distribution of respondents according to size of family

Family Size	Frequency	Per cent	Mean (members)	S.D.
Small family (Up to 4 members)	121	80.7	3	1
Medium family (5 to 8 members)	16	10.7	5	1
Large family (9 members and above)	13	8.6	8	1
Total	150	100.0	4	2

Table 3 shows the distribution of respondents by family size 80.7% of respondents belonged to small families with up to four members average mean 3 and standard deviation 1, followed by medium families with five to eight members average mean 5 and standard deviation 1 and large families with nine or more members average mean 8 and standard deviation 1. Thus, it may be inferred that most respondents had a family of up to four people.

Types of house

Table 4: Distribution of respondents according to the types of house

Type of House	Frequency	Per cent
Kachha	12	8.0
Pucca	108	72.0
Mixed	30	20.0
Total	150	100.0

Table 4 shows the distribution of respondents by types of house, 72.0% of respondents lived in Pucca homes, 20.0% in mixed-type homes, and 8.0% in Kachcha homes. Thus, it can be inferred that the majority of those surveyed resided in Pucca homes.

Annual income

Table 5: Distribution of respondents according to annual income

Annual Income	Frequency	Per cent
Up to Rs. 50,000/-	106	70.7
Rs. 50,000/-to Rs. 1,00,000/-	40	25.6
Rs. 1,00,000/-to Rs. 1,50,0000/-	4	2.4
Rs. 1,50,000/-and above	2	1.3
Total	150	100.0

Table 5 reveals the distribution of respondents by annual income 70.7% of respondents were from families whose

annual income was up to Rs. 50,000, followed by 25.6% from families whose annual income was between Rs. 50,000 and Rs. 1,00,000, and 2.4% from families whose mean

annual income was between Rs. 1,00,000 and Rs. 1,50,000. On the other hand, 1.3% of respondents were from families with an annual income of Rs. 1,50,000 or more.

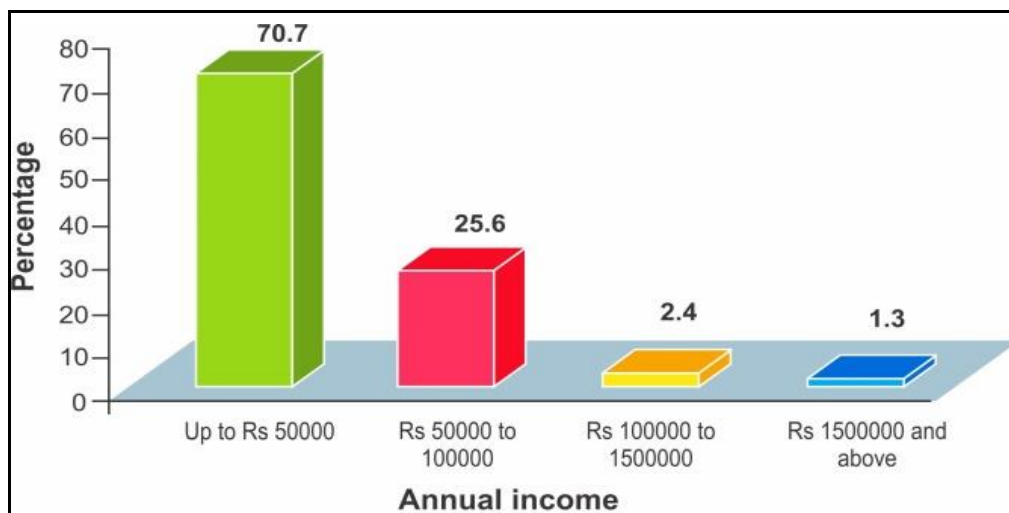


Fig 2: Distribution of respondents according to annual income

Size of landholding

Table 6: Distribution of respondents according to the size of landholding

Size of land holding	Frequency	Per cent
Landless (no Land)	33	22.0
Marginal (Up to 2.5 acres)	110	75.0
Small (2.5 to 5 acres)	3	2.5
Large (5 acres and above)	1	0.5
Total	150	100.0

Table 6 shows the distribution of respondents by landholding with 75.0% of respondents having up to 2.5 acres of land (Marginal) and 22.0% having no land (Landless). However, 0.5% of respondents owned land larger than five acres (Large) and 2.5% of respondents owned land between two and five acres (Small). Therefore, it may be said that the majority of respondents were marginal landowners.

Table 7: Correlation coefficient between Awareness about Swachh Bharat Abhiyan and independent variables

Variables	Correlation coefficient		
	Awareness about scheme	Awareness about open defecation	Awareness about water and solid management
Age	0.2107*	0.0261	0.2281*
Education	0.1982*	0.2531*	0.2811*
Family size	0.1974*	0.0017	0.0511
Annual Income	0.2115*	0.3116*	0.1816*
House Type	0.0118	0.0411	0.0311

(* Significant at 5.0%)

Table 5.25 reveals the correlation coefficient between awareness about Swachh Bharat Abhiyan and independent variables was positively significant correlated with age (0.2107*), education (0.1982*), family size (0.1974*), annual income (0.2115*) of respondents at the 5% level of significance and 1.48 degree of freedom. Hence, age, education and annual income of the respondents to inspired toward Swachh Bharat Abhiyan i.e. one step towards cleanliness start from the home, Mahatma Gandhi was inspiration behind the scheme and programme started by

government for making clean and green India.

Similarly, awareness about open defecation was found to be positively significant correlated with education (0.2531*), annual income (0.3116*) of respondents at 5% level of significance and 1.48 degree of freedom. So, it may be concluded that education and annual income of the respondents play an important role towards change in social life, having toilets in house give security and elevate self-esteem, washing hands after using toilets by soap.

Table 8: Correlation coefficient between independent variable and opinion about Swachh Bharat Abhiyan or constraints faced by rural people

Variables	Correlation coefficient	
	Opinion about Swachh Bharat Abhiyan	Constraints during Swachh Bharat Abhiyan
Age	0.3171*	-0.2161
Family size	0.2015*	0.0131
Annual Income	0.2811*	-0.3201
Land holding	0.1193	-0.1417

(* Significant at 5.0%)

Table 8 shows that correlation coefficient between opinion about Swachh Bharat Abhiyan or constraints faced by rural people and independent variables like age, family size, annual income, land holding. Opinion about Swachh Bharat Abhiyan of respondents were found to be positively significant correlated with age (0.3171*), family size (0.2015*), annual income (0.2811*) and land holding (0.1193) at 5% significance level and 1.48 degrees of freedom. So it conclude that age, family size and annual income of respondents plays significant role in opinion about Swachh Bharat Abhiyan i.e. construction of toilets eliminate diseases, cleaning public places is our duty and keeping house or surrounding clean a symbol of prestige. Similarly, constraints faced by rural people were found to be negatively correlated with independent variables age (-0.2161), annual income (-0.3201), land holding (-0.1417) of respondents. So constraints like old mind sets of old people, using toilets to keep feed of their cattle, difficulties in behavioural change.

Conclusion

The Swachh Bharat Abhiyan has made measurable progress in rural Kanpur by improving sanitation infrastructure, hygiene awareness, and health outcomes. However, the study demonstrates that the success, adoption rate, and awareness of the program are closely tied to socio-economic variables like education, annual income, and age. While positive opinions toward the scheme are high especially regarding improved health and community prestige persisting socio-economic disparities and traditional behavioural mind-sets remain barriers. Therefore, the study concludes that achieving complete, sustainable sanitation requires targeted interventions, continued community education, and localized support tailored to lower-income and marginalized households to ensure equitable benefits across all sections of rural society.

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