Swachh Bharat Abhiyan - Awareness, Perception and Participation of rural people of Gautam Buddh Nagar District, Uttar Pradesh

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Abstract

In its continuous endeavor to attain clean Bharat as also to sensitize people regarding this drive, on October 2 2014; GOI launched Swachh Bharat Abhiyan (SBA). The first phase of SBA was successfully concluded on October 2 2019. The research focuses on awareness, perception & participation of people living in rural areas of Gautam Buddh Nagar. After cleaning the data 384 respondents from 430 were chosen with the minimum age as 18 years. 94.8% of the respondents heard about SBA. 69.3% have stopped practicing Open Defecation. A significant association between awareness of SBA and gender was observed, however, the same was missing with education. Though there is substantial awareness amongst the masses about sanitation and OD behavior the same is missing in its practice and implementation. Therefore, it is imperative that the guidelines and policies of SBA be revisited and substantial work on ground level must be to facilitate for toilet usage behaviour.

Keywords: Sanitation, ODF, Behavior Change, Hygiene Practice, Health
Abbreviation: SBA, ODF

1. Introduction

Swachh Bharat Mission (SBM) was launched by government of India in 2014, aligning with the ideals of Mahatma Gandhi, the vision of attaining universal sanitation coverage by 2 October 2019. This flagship effort undoubtedly the largest cleanliness push and perhaps an attempt to transform individual's behavioral change intervention in the world ever. As of the completion of the first phase of SBM on 2 October2019, every state in India had been proclaimed open defecation free (ODF), as shown by real-time, publicly available information on the SBM dashboard (Ministry of Drinking and Water Sanitation).From the date of its launch till 14th June 2019, SBM has penetrated 99.2 percent of rural India; Individual Household Latrine (IHHL) coverage is 100% in 30 states/UTs. SBM has improved health outcomes dramatically. This campaign incorporates specific guidelines & 2 sub-missions: SBM(Gramin/Rural) & SBM (Urban).

According to UNICEF report 2018, the scheme of a toilet in every household viz "Households in Open Defecation Free Villages" can led to a annual saving of INR 48,000 per household by the poorest quintile and total advantage were more than 4.7 times when there is household access to toilet.

In 2015, United Nations General Assembly announced 17 Sustainable Development Goals to be met by 2030. One of these goals, SDG 6, calls on the global community to "ensure availability and sustainable management of water and sanitation for all" especially for women& girls (United Nation, 2015). In India, 600 million households people, defecates in open; with rural areas accounting for 69.3 percent and 18.6 percent belongs to urban areas (Coffey et al.,2014). The program accomplishments is assisted by fundamental stakeholders which are citizens of India. Numerous government and NGO's are pushing the SBA and encouraging everyone to participate actively. The Mission's paradigm is currently being emulated by other national campaigns and it has influenced policy in nations such as Nigeria, Indonesia, and Ethiopia. SBA is massive developmental project that has made a difference at the both facilities and infrastructural levels, but all program's objectives can only be met if people are aware; of the mission and have right attitude toward basic sanitation &solid and liquid waste management.

2. Literature Review

According to (WHO, 2014) open defecation is the "deadliest sanitation practice of all". (Sulabhhenvis,2016) insight Swachh Bharat Abhiyan Toilet Drive focuses more on awareness about use of toilet and construction of toilets for people deprived of this facility lack of access to sanitation such as unsanitary disposal of human excreta, along with unsafe drinking water and poor hygiene conditions (Heijnen M, Cumming O, Peletz R, Chan GK-S, Brown J, Baker K, et al., 2014) also has significant non-health consequences, particularly for women and girls, including; lack of security & privacy, basic human dignity(Amnesty International Kenya, 2010). By preventing human faecal contamination of water and soil, improvements to human excreta disposal facilities have been shown to be effective in preventing diarrheal infections at their primary source. (Belay GB, Asratie HM, et al., 2022). According to (Swain and Pathela, 2016), clean drinking water, hygiene, and healthy habits are critical for every human being to live a healthy existence. According to recent data, contaminated drinking water, inadequate sanitation, and poor hygiene contribute to 88 percent of diarrhoeal illnesses (UNICEF Report, 2014). In fact, studies indicated that effective hand washing with soap at critical times can reduce the incidence of diarrhoea bouts by nearly 50% and respiratory infections by 30% if done properly, especially after contact with excreta (WHO and UNICEF, 2009).The study findings reinforce the need for prompt community awareness, as well as the immediate requirement to effectively managed basic sanitation facilities, particularly pertinent for the SBA(Swain & Pathela, 2016). Despite improvements in sanitation, solid & liquid waste disposal, and safe drinking water, a lot needs to be done to educate people from countryside on observing sanitization, especially toilet usage.(Muhammad Shuezabdi, 2020). Though, government agencies leave no stone unturned for enhancing the standards of sanitization in developing countries, there is still a requirement for further personal hygiene and an associated education for better results (Jenkins MW, Freeman MC, et al., 2014). Despite having access to toilets, the (15th Finance Commission, 2020) remarked, habit of open defecation is still ubiquitous, and that there is a need to sustain people's behavioral change towards the use of sanitary toilets. A study stated that from five northern states of India carried out result that 40% households with functional toilet have atleast one person who defecates in the open (Rani, Yadav et.al, 2020). The

central government has been working on how to influence people's perceptions about to adopt improved sanitation practices & end open defecation practice by using Information, Education, and Communication Interventions. In 2018, the Standing Committee on Rural Development expressed a similar issue, stating that, "even a community with 100% household toilets cannot be called Open Defecation-Free (ODF) unless all Inhabitants begin utilizing them."

According to Census of India 2011, total area of district is 1282 sq. km which consist of 4 Blocks with a rural population of 40.88 %. It has a total population of 6, 73,806 living in rural area out of which males & females are 359,605 & 314,201 respectively. There are 320villages in the district. The rate of literacy in countryside of Gautam Buddha Nagar district is 74.77 percent where the literacy rate in males is 86.32 percent and in females it is 61.69 percent respectively. Out of a total of, 421,928 literate people, 258,660 are males and 163,268 are females.

This study focuses on rural segment of Gautam Budhh Nagar District located in Uttar Pradesh, because since these areas are primarily devoid of essential sanitation amenities, as the state are known to have poor sanitation level(Water Policy Report, 2013).The rural individuals should psychologically unshackle from preconceived notions and prejudices. They need to come out of the complexes, that prevailing scheme significantly bring upliftment, betterment and the development of the region. From the literature, this encouraged us to study in details and find out the actual truth of scheme at ground level with consideration of actual facts and figures. So, in this context, there is paucity of studies in the Gautam Budhh Nagar District part of Uttar Pradesh which represents NCR region, an impact study on SBA execution had been postulated, with the aim of evaluating the program's overall impact and extent of its outreach on rural individual households, together with awareness, perception, and participation in sanitation practices& hygiene behavior.

3. Objectives of the Study

The effectiveness of a program can only be assessed by evaluating whether people have heard about the program and its intentions, understood and accepted what is being communicated, and are motivated enough to participate(Chinchwadka 2017).

For the current research, the primary objective of this study is to comprehend and give a comprehensive description of respondents' on various aspects i.e awareness level, perceptions, and participation in the hygiene programme at the household level.

Within this paradigm, the following specific objectives have been formulated and research study was undertaken to accomplish them:

- **3.1** Whether awareness of SBA also reflects perception for sanitation and hygiene Program.
- **3.2** Whether perception of SBA leads to participation for sanitation and hygiene Program.
- **3.3** Whether awareness of SBA leads to participation for sanitation and hygiene Program.

4. Research Methodology

4.1 Type of research: The objective of the research is to explore that awareness of Swachh Bharat Abhiyan metamorphosis into perception and participation for sanitation and hygiene program. Therefore, the type of research is "casual".

4.2 Data Sources: Primary and Secondary Data

4.3 Research Instruments: Questionnaire.

4.4 Data Collection: Prior to actually prospecting in the field, interview schedule was prepared and pre-tested. Therefore, Final questionnaire were used for data collection. The study participants were recruited by convenience sampling technique. The assent of all the identified respondents had been gained during the administration of the questionnaire; the selected respondents were asked to fill up a set of closed-ended questionnaire. Exclusive criteria includes males and females below 18 years; critically unwell, comatose patients & unwilling to engaged in the study.

4.5 Sample Size Estimation: Initially, the sample size was 430 respondents; however 46 respondents were dropped during data cleaning giving the requisite sample size are 384.

4.6 Study area and sample respondents: The study was cross sectional &performed during June 2022 to October 2022. Using 2011 Census Data, the sampling frame comprised sixteen rural areas; spread across four blocks of three tehsils in Gautam Buddh Nagar District which represents region of Uttar Pradesh. Each household had one adult respondent chosen at random for the survey.

4.7 Pilot study and Pretesting of Questionnaire: To examine the viability of the study, a pilot study was done among 40 households. These households were excluded; from the final sample.

4.8 Data Analysis Technique: a) Reliability of questionnaire
b) Karl Pearson's Coefficient Correlation.
c) Chi-Square Test.

Reliability Check

The extent to which a scale consistently delivers outcomes if repetitive measurements are taken is referred to as reliability (Wilson, 1995).Cronbach's alpha is the most common measure of internal consistency or reliability. As mentioned earlier, reliability has been done separately for each set of questions measuring the awareness, perception and participation of the individual rural households about the sanitation and hygiene program. Accordingly, the analysis computes Cronbach values as reported in the below table signifies the construct acceptable internal reliability of the questionnaire.

Construct	**Cronbach's Alpha**
Awareness	0.725
Perception	0.743
Participation	0.726

A Cronbach value of greater than 0.6 indicates higher internal consistency and reliability (Malhotra& Dash, 2016). The computed Cronbach's alpha coefficients for all the three sets of

questions indicate the scale used to measure the awareness, perception and participation of individual households is highly reliable.

Test Retest Analysis

Test-retest reliability is a form of reliability that evaluates a construct consistency& precision over time.In other words, it refers "the extent that a test produces similar results over time'. **Test-retest reliability coefficients** (also known, as stability coefficients) range from 0 to 1, where:

- 1 - Perfect reliability,
- ≥ 0.9 - Excellent reliability,
- ≥ 0.8 < 0.9 -Good reliability,
- ≥ 0.7 < 0.8 - Acceptable reliability,
- ≥ 0.6 < 0.7 -Questionable reliability,
- ≥ 0.5 < 0.6 - Poor reliability,
- < 0.5 -Unacceptable reliability,
- 0 - No reliability.

On this scale, a correlation of .9(90%) indicates a very high correlation (good reliability) were as a value of .1 (10%) indicates a very low correlation (poor reliability).

Awareness

Correlation										
	A111	A112	A113	A114	A115	A116	A117	A118	A119	A1110
A1	.829**	-0.041	0.058	-0.174	0.135	-0.304	0.218	-0.201	0.101	-0.148
A2	0.035	.828**	-0.07	.423*	-0.05	-0.322	0.034	-0.082	-0.031	0.13
A3	-0.121	-0.002	.749**	-0.162	-0.129	0.247	0.223	0.197	0.148	-0.017
A4	-0.132	.393*	-0.129	.806**	-0.1	-0.286	-0.299	0.11	0.074	0.183
A5	0.138	-0.104	-0.143	0.038	.807**	-0.108	-0.07	0.134	0.131	-0.272
A6	-0.13	-0.318	0.05	-0.423	-0.162	.866**	-0.073	0.2	-0.226	-0.068
A7	0.163	-0.128	0.31	-.348*	0.076	0.149	.840**	0.08	-0.276	-0.069
A8	-0.104	-0.054	0.213	0.057	0.054	0.255	0.314	.884**	-0.201	0.052
A9	-0.052	0	0.314	0.034	0.055	-0.059	-0.248	0.102	.903**	-0.11
A10	0.081	0.12	0.086	0.144	-0.298	-0.155	-0.175	-0.032	0	.897**

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Perception

Correlation													
	P111	P112	P113	P114	P115	P116	P117	P118	P119	P1110	P1111	P1112	P1113
P1	.845**	-0.135	0.143	-0.148	0.039	0.273	0.248	-0.06	0.136	-0.137	0.101	0.106	0.14
P2	.364*	0.625**	0.095	-0.068	0.071	0.132	-0.187	0.167	-0.127	0.09	-0.039	-0.012	0.088
P3	0.169	-0.094	.699**	-0.283	0.04	0.009	-0.021	-0.05	0.01	-0.007	-0.274	0.19	-0.194
P4	0.059	0.096	-.396*	.734**	0.208	0.019	-0.012	.431**	0.097	-0.087	-0.103	-0.193	0.019
P5	0.086	0.26	0.165	0.078	.678**	0.004	-0.084	0.195	-0.087	0.027	-0.253	0.12	0.052
P6	0.102	0.007	-0.131	-0.229	-0.228	.634**	-0.014	-0.021	-0.172	-0.135	0.064	-0.047	0.087
P7	0.18	-0.217	-0.048	-0.061	-0.226	-0.214	.788**	0.083	.437**	0.081	0.019	0.275	0.076
P8	0.124	0.245	-0.062	0.294	0.153	-0.035	-0.034	.807**	0.208	0.134	-0.229	0.273	0.088
P9	0.021	-.397*	-0.107	0.069	0.244	-0.204	0.077	.362*	.685**	0.003	-0.128	0.079	0.137
P10	-0.121	0.131	0.066	0.042	0.085	-0.117	-0.081	0.072	0.049	.715**	-0.064	0.313	0.045
P11	0.061	0.146	0.125	-0.111	-0.132	-0.093	-0.238	-0.066	-0.111	-0.04	.510**	0.016	-0.103
P12	0.031	-0.213	0.065	-0.018	-0.004	-0.083	0.299	0.088	0.147	0.305	0.025	.570**	0.215
P13	0.041	.384*	-0.245	-0.077	-0.058	.385*	-0.064	0.07	0.043	-0.076	0.112	-0.122	.754**

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Participation

Correlations										
	PA111	PA112	PA113	PA114	PA115	PA116	PA117	PA118	PA119	PA1120
PA1	.768**	-0.205	-0.104	-0.013	-0.033	-0.013	-0.199	-0.025	-0.028	-0.079
PA2	-0.092	.597**	-0.266	0.113	-0.04	-0.015	0.114	-0.182	0.298	0.323
PA3	0.092	0.001	.717**	0.004	0.057	0.114	-0.08	0.198	0.12	-0.323
PA4	-0.152	-0.211	0.212	.789**	-0.09	0.103	0.039	-0.034	0.096	-0.016
PA5	0.091	-0.124	0.132	-0.111	.830**	-0.155	-0.198	-0.271	-0.109	-0.123
PA6	-0.032	-0.005	0.047	0.101	-0.114	.744**	-0.125	-0.153	0.086	-0.274
PA7	-.374*	0.028	-0.049	-0.049	-0.018	-0.073	.945**	0.169	-0.017	0.124
PA8	-0.06	-0.087	0.139	-0.108	0.032	-0.228	0.099	.743**	0.098	-0.098
PA9	0.005	0.266	-0.232	0.002	-0.003	0.2	-0.068	0.028	.852**	-0.328
PA10	-0.208	0.164	0.034	-0.144	0.021	-0.312	0.202	0.111	-0.137	.684**
**. Correlation is significant at the 0.01 level (2-tailed).										
*. Correlation is significant at the 0.05 level (2-tailed).										

TESTING THE VALIDITY OF QUESTIONNAIRE

Convergent and Divergent Validity

1. Questions/variables associated with each of the three constructs Awareness, Perception, and Participation are shown in three separate tables highlighted in three colours

2. Next and below to the aforementioned variables of a particular construct, variables of another construct is shown (unhighlighted)

3. There exists a significant correlation amongst the variables of the same construct reflecting Convergent Validity

4. There is no significant correlation between the variables of one construct and those of the other construct (unhighlighted) reflecting Divergent Validity

Construct 1-Awareness

	A6	A7	A8	A9	A10	P1
A6	1	.778**	.444**	0.253	.789**	0.085
A7	.778**	1	.407*	.434*	.897**	0.095
A8	.444**	.407*	1	0.284	.415*	-0.149
A9	0.253	.434*	0.284	1	.464**	0.041
A10	.789**	.897**	.415*	.464**	1	0.231
P1	0.085	0.095	-0.149	0.041	0.231	1

Construct 2-Perception

	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12	P13	PA1
P1	1	-0.149	0.294	-0.202	.469**	.357*	-0.096	0.028	0.296	.582**	.340*	0.022	0.242	.503**
P2	-0.149	1	-0.045	.734**	0.057	0.285	-0.022	-0.167	-0.106	0.269	0.189	.498**	0.323	-0.311
P3	0.294	-0.045	1	-0.25	.468**	0.208	0.131	0.182	0.211	0.192	0.221	0.204	0.235	0.127
P4	-0.202	.734**	-0.25	1	0.11	0.309	0	-0.103	0.056	0.278	.394*	.341*	.400*	-0.282
P5	.469**	0.057	.468**	0.11	1	.382*	-0.103	-0.058	0.162	.675**	.687**	0.19	.570**	0.254
P6	.357*	0.285	0.208	0.309	.382*	1	0.141	-0.113	0.12	.436*	.470**	0.152	0.253	0.069
P7	-0.096	-0.022	0.131	0	-0.103	0.141	1	-0.09	-0.079	-0.098	-0.02	0.14	-0.021	0.04
P8	0.028	-0.167	0.182	-0.103	-0.058	-0.113	-0.09	1	-0.103	-0.012	-0.109	0.065	0.041	-0.262
P9	0.296	-0.106	0.211	0.056	0.162	0.12	-0.079	-0.103	1	0.238	0.235	-0.085	0.057	0.289
P10	.582**	0.269	0.192	0.278	.675**	.436*	-0.098	-0.012	0.238	1	.611**	.400*	.570**	0.235
P11	.340*	0.189	0.221	.394*	.687**	.470**	-0.02	-0.109	0.235	.611**	1	-0.002	.629**	0.097
P12	0.022	.498**	0.204	.341*	0.19	0.152	0.14	0.065	-0.085	.400*	-0.002	1	0.214	-0.036
P13	0.242	0.323	0.235	.400*	.570**	0.253	-0.021	0.041	0.057	.570**	.629**	0.214	1	-0.029
PA1	.503**	-0.311	0.127	-0.282	0.254	0.069	0.04	-0.262	0.289	0.235	0.097	-0.036	-0.029	1

Construct 3-Participation

	PA1	PA2	PA3	PA4	PA5	PA6	PA7	PA8	PA9	PA10
PA1	1	0.024	1.000**	-0.261	0.274	1.000**	-0.122	1.000**	-0.05	1.000**
PA2	0.024	1	0.024	0.036	0.102	0.024	-0.089	0.024	-0.189	0.024
PA3	1.000**	0.024	1	-0.261	0.274	1.000**	-0.122	1.000**	-0.05	1.000**
PA4	-0.261	0.036	-0.261	1	0.105	-0.261	0.194	-0.261	0.208	-0.261
PA5	0.274	0.102	0.274	0.105	1	0.274	-0.033	0.274	0.189	0.274
PA6	1.000**	0.024	1.000**	-0.261	0.274	1	-0.122	1.000**	-0.05	1.000**
PA7	-0.122	-0.089	-0.122	0.194	-0.033	-0.122	1	-0.122	.677**	-0.122
PA8	1.000**	0.024	1.000**	-0.261	0.274	1.000**	-0.122	1	-0.05	1.000**
PA9	-0.05	-0.189	-0.05	0.208	0.189	-0.05	.677**	-0.05	1	-0.05
PA10	1.000**	0.024	1.000**	-0.261	0.274	1.000**	-0.122	1.000**	-0.05	1

In addition; the pretest also revealed that no modification to the questionnaire were required as a result of outcomes.

Ethical Approval

Institutional Ethical Clearance was taken from the Institute (Dated 15 November, 2022). The data gathered was coded and analyzed with the help of MS Excel & IBM SPSS Version 22. Statistical tools were used in accordance with the objectives of the research. Descriptive Statistics & Cross Tabulation were primarily used on data.

5. Hypothesis of the Study

On the basis of the above objectives, the following hypothesis has been framed:

Ha1: There is a significant correlation between awareness and perception with respect to sanitation and hygiene programme.

Ha2: There is a significant association between perception and participation with respect to sanitation and hygiene programme.

Ha3: There is a significant. association between awareness and participation with respect to sanitation and hygiene programme.

6. Data Analysis

H0: There is no significant correlation between awareness and perception with respect to sanitation and hygiene programme.

H1: There is a significant correlation between awareness and perception with respect to sanitation and hygiene programme.

Correlations

		AM	PM
AM	Pearson. Correlation.	1	.927**
	Sig. (2-tailed)		.000
	N	384	384
PM	Pearson. Correlation.	.927**	1
	Sig. (2-tailed)	.000	
	N	384	384

**. Correlation is significant at the 0.01 level (2-tailed).

p value = 0.00 < 0.05 = α, the Level of Significance.

So, we reject H0

Therefore 95% confidence that there is significant correlation between awareness and perception.

H0: There is no significant association between perception and participation with respect to sanitation and hygiene programme.

H1: There is a significant association between perception and participation with respect to sanitation and hygiene programme.

Correlations

		PM	PAM
PM	Pearson Correlation	1	.103*
	Sig. (2-tailed)		.043
	N	384	384
PAM	Pearson Correlation	.103*	1
	Sig. (2-tailed)	.043	
	N	384	384

*. Correlation is significant at the 0.05 level (2-tailed).

P value = 0.43 < 0.05 = α, the Level of Significance.

So, we rejectH0

Therefore, one can say with 95% confidence that there is significant correlation between perception and participation.

H0: There is no significant association between awareness and participation with respect to sanitation and hygiene programme.

H1: There is a significant association between awareness and participation with respect to sanitation and hygiene programme.

Correlations

		PAM	AM
PAM	Pearson Correlation	1	.082
	Sig. (2-tailed)		.107
	N	384	384
AM	Pearson Correlation	.082	1
	Sig. (2-tailed)	.107	
	N	384	384

p value = 0.107 > 0.05 = α, the Level of Significance.

So, we failed to reject H0

Therefore one can say with 95% confidence that there is no significant correlation between participation and awareness.

Table 1: Association of Awareness towards Sanitation and Hygiene Programme across Gender and Educational Status.

Variables	**Awareness level towards SBA**	
	X^2	P
Gender Female (183) Male (201)	0.000	0.000
Educational Status Less Educated (229) Educated (155)	0.719	0.399

Table 2: Association of Awareness/Heard about SBA and Open Defecation Habit towards Sanitation and Hygiene Program.

Chi- Square Test Output (n=384)

Heard_about_SBA * Open_defecation_habit Cross tabulation

	Open Defecation Habit			Chi-Square Value	P
Heard about SBA	**Open**	**Closed**	**Total**		
Yes	102	262	364	24.062[a]	.000
No	16	4	20		
Total	118	266	384		
% of Total	30.7%	69.3%	100.0%		

Table 3: Demographic Characteristics Of Study Respondents

	DemographicCharacteristics	n(384)	n (%)
1	Gender		
	Male	201	52.3
	Female	183	47.7
2	Age		
	Young Adults(18-35)	130	33.9
	Middle-Aged Adults(36-55)	137	35.7
	Older Aged (Above 55)	117	30.5
3	Education		
	Illiterate	70	18.2
	Primary	87	22.7
	Secondary	76	19.8
	Intermediate or Diploma	80	20.8
	Graduate and above	71	18.4

4	Occupation		
	Unemployed	72	18.8
	Agricultural Farmer	84	21.9
	Labour	80	20.8
	Service (Gov./Pvt.)	71	18.5
	Self Employed business /Shopkeeper (Small/Big)	77	20.1
5	Caste		
	General	96	25
	SC	135	35.1
	ST	5	1.30
	OBC	148	38.5

Table 4: Distribution of respondents on the basis of toilets facility

4.1: THOSE WHO HAVE EASY ACCESS TO TOILET FACILITY

Have_toilet_2.1 * Functional_toilet_3.1 * Usable_toilet_4.1 – Cross Tabulation

Have_toilet_2.1			Usable_toilet_4.1			Total	Chi-Square Value	P
			Always use toilet	Sometimes use toilet	Never use toilet			
Yes	Functional_toilet_3.1	Own toilet	140	21	43	204	41.687[a]	
		Shared toilet	20	11	29	60		.000
		Public toilet	9	10	18	37		
	Total		170	41	90	301		

4.2: THOSE WHO DO NOT HAVE EASY ACCESS TO TOILET FACILITY

Have_toilet_2.2 *Functional_toilet_3.2 * Usable_toilet_4.2 - Cross Tabulation

Have_toilet_2.2			Usable_toilet_4.2			Total	Chi-Square Value	P
			Always use toilet	Sometimes use toilet	Never use toilet			
No	Functional_toilet_3.2	Own toilet	0	5	0	5	11.559[a]	
		Shared toilet	4	25	20	49		.021
		Public toilet	0	24	5	29		
	Total		4	54	25	83		

7. Findings/Results:

1. With 95% confidence there exist a significant correlation between awareness and perception.
2. With 95% confidence there exist a significant correlation between perception and participation.
3. With 95% confidence there exist a significant correlation between participation and awareness.

4. **Table 1** shows the association of awareness towards sanitation and hygiene programme across gender (females & males) and educational status (primary & below and secondary & above, which is further divided into two categories (educated and less educated). There is no significant association between awareness & educational status ($p > 0.005$). A significant association was seen between gender & awareness about sanitation and hygiene programme in terms of open defecation practices ($p<0.005$).

5. **Table 2** shows a positive association of those who have heard about SBA and open defecation habit.

   Out of all Participants (n = 384), majority of respondents who heard about SBA uses toilet for defecation and proactively participate in cleanliness drive, whereas those have not heard about SBA or little awareness continues to persist the OD Habit. On the evidence of this data, it appears to be no doubt that in the population from which this sample respondents were drawn, clearly demonstrates the association between awareness or heard about SBA and open defecation habit. This was further reinforced with the Chi Square value for that was obtained as 24.062^a and p value is 0.000, which is lesser than 0.05 level of significance.

6. **Table 3,** the study participants i.e rural households consisted of 384 (52.3%) males and (47.7%) females. For the purpose of the study, participants were categorized by age into young adults (18-35), middle –aged adults (36-55) and older than 55. Majority of participants were from middle-aged adults (137(35.7%)). Most of the participants have attained only primary education (22.7%) belongs to famer occupation (21.9%). The table illustrates the socio-demographic characteristics of the study respondents. The distribution of social categories indicates that 38.5% of the participants belong to the OBC category.

7. **Table 4**, the study reveals distribution of respondents on the basis of toilet facility. This clearly shows there is significant association of Functional toilets and Usable toilets $P<0.005$). **Further table 4.1** indicates that n =301 households who have easy access of toilets facility where functional toilets categorized in three categories-

   a) Own Toilets (n=204) therefore, individuals have toilets in their houses where respondents always use toilet n=140, sometimes (n=21), never use (n=43),
   b) Shared Toilet (n= 60) where respondents access usable toilets always (n=20), sometimes (n=11), never use (n=29),
   c) Public toilet (n= 37) respondents access usable toilet always (n=9), sometimes (n= 10) and never use (n=18).

Table 4.2 indicates that 83 respondents do not have easy access of toilets facility in their houses or around, whereas

a) Own Toilets (n=5) therefore, individuals access useable toilets sometimes due to non availability of own toilet in their house.

b) Shared Toilet (n=49), out of all, (n=4) respondents always use toilets, (n=25) uses sometimes and (n=20) never uses.
c) Public Toilet (n=29) where respondents (n=24) sometimes and (n=5) never uses

8. Discussions

1. One of the inferences drawn from this study concerning the rural households has (364/384) 94.8% participants clearly aware about SBA was considerably good, therefore open defecation practices shows (262/364) 68.2% people who heard about Swachh Bharat Abhiyan, which allows them to bring sanitation intervention in their habits by using toilets for defecations and (102/364) 26.6% who heard but stills follow open defecation. OD is a socially acceptable traditional behavior. The key challenge is to transform behavioral pattern that have been in existence for generations and are largely considered due to "OD Habits" and "religiously acceptable".

2. From the campaign, it was discovered that the majority of households even now are practicing open defecation, has limited information of consequences associated with it, as also the advantages of safe and hygienic sanitation practices, resulting even households having toilet were practicing open defecation habits. Those households who never heard or aware about SBA are 4.2% and (118/384) 30.7% people still follows defecation in open.

3. The study revealed that rural households seemed to have a high awareness of SBA; this implies that information about SBA is increasing in comparison to earlier studies (Utpal NJ and Bogam RR, 2017). The tailor-made designed program for females and males can indeed be pushed for attainting optimal sensitization for all. This leads to bring participation level among people to jointly initiative in the cleanliness drive and change in defecation practices which still persist.

4. This study have found majority of females 52.3% and males 47.7% clearly have awareness about sanitation and hygiene programme, females are more proactively contributing and showing positive attitude towards hygiene practices and accepting the benefits of use of toilet. This could be attributable to the achievement of several government and non-government efforts and motivational programme aimed solely at spreading awareness about SBA.

5. From the study, we observed that awareness simply cannot encourage individual to participate in the sanitation intervention unless people have no perception or willing to bring change in their behaviors.

6. During interaction with the household members, they were encouraged to build toilets in light of requirement for female members and aged people in the family. Effective awareness among the villagers was in grained as a result of this programme, leading emphasis on a better and more maintainable livelihood. However, it is now expected that they would rather liberate from the restraints of their apathy and embrace a more inclusive community of healthiness.

9. Conclusions

The current study is focused on the awareness, perception and participation of rural households regarding SBA in Gautam Buddh Nagar District, Uttar Pradesh. The focus was on the finding of the reachness of scheme among rural household and to see the correlation among three variables how these variables correlate with each other. It concluded that existing knowledge about scheme, perception towards adoption of sanitation practices and OD habits brings individuals to come forward to participate in the programme, for a better quality of life to the households. The study's results demonstrate that, while participants have a positive attitude towards sanitation and OD behavior, still more efforts are needed for emphasizing on the programme such as through Gram Panchayats and Local Health Centre's information related to health benefits can be disseminated that how toilet usage can prevent children and family members from hazardous disease. Also, strategies that aids in bringing the sanitation intervention among chunk of community inhabitants who are unlikely to embrace in adoption of hygiene practices also requires strong focus on behavior change intervention and interpersonal communication has to be accelerated with the greater flexibility to adopt own delivery mechanism. To eliminate the OD, effective implementation of Swachh Bharat Abhiyan is needed, as government states sanitation coverage is attained every village but on the ground level OD is still persistent. It is required for every individual to access functional toilets in order to promote cleanliness and quitting the Open defection habits. Swachh Bharat Toilet Drive are widely acceptable in terms of the message being convey but lacks in still providing impact in terms of increasing receptivity to help open to closed defecation habit. Furthermore, it is suggested that the government should take effective measures in terms of targeting behavior change programme and steps to implement and develop safe sanitation drive, healthcare services etc at the grassroots level.

Conflict of Interest

The author certifies that there are no conflicts of interest.

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