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Awareness on Sanitation & Cleanliness: What Inspires Residents to Engage in Opinion regarding Health & Hygiene Practices

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ABSTRACT

Sanitation and Cleanliness are the two major limbs that supports Health and Hygiene Practices The present study is conducted for assessing the awareness on Sanitation, Cleanliness and its impact on the health and hygiene practices of residents located in the of state of Punjab. The major respondents of the study are taken persons living BPL, marginalised people and untouched segment of the society as Sewer Man, Rag Picker, Rehri Wala, Labourer, Guards, House Maids, Sweepers, Gardener etc. A semi-structured questionnaire was designed for data collection of the sample size of 270 respondents. Descriptive and inferential statistical analysis was done using the frequencies distribution, mean score with rank correlation and chi-square test with the SPSS 21.0 software. It can be concluded that participants are generally aware of sanitation and cleanliness and have a positive perception of health and hygiene, but that programmes and strategies are still needed to influence a group of people who are hesitant to adopt sanitation and cleanliness and health and hygiene practises in a positive way. It was found that gender and education level play a significant role for the awareness of cleanliness and sanitation with daily cleaning of toilets and use of latrine at public places.

Keywords: Cleanliness, Awareness, Health, Hygiene, Sanitation, Perception

INTRODUCTION:

Sustainability Revolution turned out as a diverse, worldwide, and multicultural and multi perspective revolution on the 3E's. These are Ecology/Environment, Economy/Employment, Equity/Equality, all these 3E's are important in Sustainability. (Munier. N (2005).

Most literate and illiterate individuals engage in similar daily routines, contributing to the unhealthiness of the neighbourhood. They use plastic bags, straws, tea cups, and bottles and discard them carelessly without considering their negative environmental effects. Every year, UNO and other allied international green missions operate in developing and underprivileged nations to maintain a clean and beautiful environment. In order to raise public awareness and educate the populace about comprehensive sanitation for a healthy and prosperous lifestyle, the United Nations Environment Programme (UNEP) scheme financed the total community sanitation programme. When hands are not properly washed after urinating or before and after eating, hundreds of diseases spread throughout the neighbourhood. the World Bank's report

PAST INITIATIVES FOR SANITATION:

Various environmental cleaning campaigns, including sanitation initiatives, were periodically initiated in India with what appeared to be comparable goals. The first five-year plan (1951–1956) saw the introduction of the pioneering Rural Sanitation Programme in 1954. However, due to a lack of trained labour and supporting resources, the programme only had limited success. It was also overly ambitious given that the Census of India for 1981 later indicated that only 1% of rural India had access to adequate sanitation (MDW 2014). Interestingly, the Government of India launched the Central Rural Sanitary Programme (CRSP) in 1986 with the intention of raising public awareness and enhancing quality of life by providing sanitation services to households living below the poverty line (MDWS2014). However, such a supply-driven and infrastructure-oriented approach failed to produce as sanitation coverage hardly exceeded 10% of rural population (Census 1991).

Total Sanitation Campaign (TSC) was used to relaunch the entire campaign in 1999 with the goal of explicitly eradicating open defecation until 2010. Improved awareness, education, and communication, improved hygiene, and capacity building for effective change in behaviour were the main intervention areas of TSC, which involved participation from community-based organisations, co-operatives, women, self-help groups, and NGOs. The elimination of open defecation behaviours and raising awareness were the only priorities during the first six years of TSC implementation (1999-2005), but starting in 2006, solid and liquid waste management have been included as separate components of TSC (GOI 2013). In order to improve rural sanitation, Nirmal Bharat Abhiyan (NBA), which replaced TSC, was introduced in 2012. The NBA design incorporated a community-managed environmental cleaning system that was incentive-based. An even more construction-focused approach results from convergence with MNREGA (the Mahatma Gandhi National Rural Employment Guarantee Act). NBA too fell short of expectations for a variety of reasons, hence on October 2, 2014, it was amended and relaunched as the Swachh Bharat Mission or Clean India Mission.

Due to long-standing illiteracy and a lack of governmental planning, proper sanitation and cleanliness in rural Indian households still remain an unattainable goal. Most sanitary programmes continue to lack knowledge of how they are actually implemented on the ground and are also burdened by poor political priorities, technological inertia, paternalism, insufficient monitoring, and corruption (Huesoa and Bell 2013). Due to the lack of education in other regions of the country, these are equally unsuccessful. So, in this context, this study is conducted with the objective to assess the awareness of Cleanliness & Sanitation practices and perception of respondents regarding cleanliness, sanitation and health & hygiene practices among the residents of Punjab.

THEORETICAL FRAMEWORK

Hobson (2000) during her sanitation project in Pune, India observed that during the period of the study, 41 informal settlements had no toilets. Crude toilets to people ratio was as low as 1: 2500. Children were expected to defecate in gutter and not disrupt the long queues around the crude toilets. Burra, et. al. (2003) report, Despite the fact that Bangalore is one of India's most prosperous cities, half of the city's population live in slums and most have no piped water, toilets or drains. Large areas of the city have no sewers, and most sewage and waste water drains into open drains. This makes it more difficult and expensive to build community toilets because there is no connection to sewers and often no water mains to draw on. The toilets reportedly used to be cleaned once a day, in urban areas, another major problem related to health and cleanliness, is the management of solid waste (Sharholly et al., 2008).

Narayana (2009) writes that unlike that of Western countries, the solid waste of Asian cities is often comprised of 70-80% organic matter, dirt and dust. Ahs *et al.* (2010) mentioned that diarrheal diseases are associated with poor socioeconomic conditions, such as lack of access to safe water and sanitation, poor hygienic practices, and unsafe human waste disposal. UNICEF report (2011) reads, Individual health and hygiene is largely dependent on adequate availability of safe drinking water and proper sanitation. While the government is making efforts to make water available, sanitation needs active participation of individuals as well as the community, supported by government waste management system. Brown et al. (2013) explained that excreta-related pathogens will find a new host from faeces to food through fluids, fields, flies, fomites, and fingers. Children are more vulnerable to this faecal-oral transmission process. The practice of open defecation acts a basis for all infections and morbidity.

Studies done by Coffey *et al.* (2014) reported that open defecation constitutes a health and human capital crisis in India due to the stubborn practice of open defecation. It can be even more hazardous for women. In 2014, two young girls who had gone to relieve themselves were found hanging from a tree after being gang-raped (Dinno 2014). According to Schmidt (2014), poor sanitation and hygiene along with nutritional deficiency leads to stunted growth in children of India. It had impacted at about 48% of children by the year 2005-2006. Further, it induces a gut disorder called Environmental Enteropathy (EE) that diverts energy from growth to fight against subclinical infection. Colombara et al. (2016) mentioned that the chronic health consequences of acute enteric infections are very much higher in India. According to Bruce Gordon, acting coordinator for Sanitation and Health at the World Health Organisation (WHO),

“open defecation can lead to the spread of many diseases like Diarrhea, Typhoid, Dysentery, Hepatitis-A and Cholera.” Every year, one person in India loses about 6,500 rupees due to illness and poor health as he is unable to perform day-to-day duties. (Tyagi 2017). Literature study (2019) shows strong evidence that both sanitation and hygienic interventions are highly effective in reducing risks of diarrhoea. Prabakaran (2019) showed that the knowledge, attitude and practices regarding importance of sanitary toilet is relatively low in a study population. There is a need to impart health education regarding importance of use of sanitary toilet and motivate the community to use them. United Nations Sustainable Development Goal 6 (SDG6) aims to “achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations.” To adhere to the SDG6 targets and also to amplify the public health needs, the Indian government has committed to ending open defecation and unsafe sanitation method by 2019, the 150th anniversary of Mahatma Gandhi's birth. In October 2014, it had launched a fully funded national hygiene, sanitation, and waste management campaign called Swachh Bharat Mission (SBM). Dubey and Jhunjunwala's study on water management of Kheralu taluka of Mehsana district in Gujarat reports that in spite of formation of water panchayats in villages, not all villagers got adequate water required to maintain kitchen and bathrooms, leave aside the needs to maintain the toilets. Unsanitary practices, primarily open defecation, and the use of contaminated water remain major causes of child death, disease and malnutrition in India, especially affecting the poor. The absence of basic sanitation facilities and poor hygiene practices in India are major contributors to high infant mortality.

OBJECTIVES OF THE STUDY:

- To assess the awareness of Cleanliness & Sanitation among the respondents of Punjab.
- To assess the perception of respondents regarding cleanliness, sanitation and health & hygiene practices.
- To study the association of awareness regarding Cleanliness and Sanitation with selected demographic variables such as gender, education, residence and age.

HYPOTHESIS OF THE STUDY

H0: There is no significant association between demographic variables and awareness regarding sanitation.

H0: There is no significant association between demographic variables and awareness regarding cleanliness.

SCOPE OF THE STUDY:

The present research work has been taken up to explore the awareness of Cleanliness and Sanitation and perception of respondents regarding cleanliness, sanitation and health and hygiene and its association with selected demographic variables among the selected population of Punjab. The present study is descriptive in nature and convenient sampling method is applied for the study. The major respondents of the study are taken persons living BPL, marginalised people and untouched segment of the society as Sewer Man, Scavengers, Rag Picker, Rehri Wala, Labourer, Guards, House maids, Sweepers and Gardener etc. from

the different areas of Punjab. A semi-structured questionnaire was designed for data collection of the sample size of 270 respondents. Pilot study was conducted to check the feasibility of the study. The data was collected through primary and secondary data sources. The data collection period for the study was 4 months from April 2022 to July 2022. Physically and mentally sound participants (male and female) aged above 18 years were included in the study. Descriptive and inferential statistical analysis was done using the frequencies distribution, mean score and chi-square test with the SPSS 21.0 software.

RELIABILITY TEST:

In order to measure the internal consistency among the selected variables, the Cronbach Alpha Test was used. The output value of Cronbach Alpha from SPSS was 0.728. This results a good and unbiased degree of internal reliability amongst the items and this leads to further analysis of the data. As per Hair et al (1998), the generally agreed upon lower limit is 0.70.

SIGNIFICANCE OF THE STUDY:

The present research work will be useful to the local authorities, public, NGOs and government rather local, state and centre to know the loop holes of successful implementation of the government scheme regarding sanitation and cleanliness like SBA, AMRUT and SBA 2.0 and many more to make country cleaner and healthier. Thereby government may frame suitable strategies for creating awareness among the rural areas and untouched segment of the society. Thus, an attempt has been made in this study to identify the level of awareness about Cleanliness, Sanitation and health and hygiene practices

ANALYSIS AND INTERPRETATION:

Table-1

Socio-Demographic Characteristics of Study		
	Frequency	Percent
Gender		
Male	149	55.2
Female	121	44.8
Total	270	100.0
	Frequency	Percent
Education		
Illiterate	131	48.5
10th Standard	86	31.9
11th-12th Standard	41	15.2
Above 12th Standard	12	4.4
Total	270	100.0
	Frequency	Percent
Residence Status		
Rural	144	53.3
Urban	126	46.7

Total	270	100.0
Age Category	Frequency	Percent
18-35 years	135	50.0
36-55 years	114	42.2
Older than 55 years	21	7.8
Total	270	100.0

Table 1 exhibits the socio-economic profile of the selected 270 respondents that 55.2 per cent of the total respondents are male, while 44.8 percent respondents are females. It is quite evident from the table that a majority of 48.5 percent of the respondents do not have any education or are illiterates, while 31.9 percent have gone to school but less than 10th standard and 15.2 percent have completed secondary schooling; however, only 4.4 percent of them have the education above 12th standard respectively. In the present study, majority of the respondent's 53.3 percent belongs to the rural area of Ferozpur whereas only 46.7 percent of the respondents belongs to the urban population. Similarly, 50% of the respondents belongs to 18-35 years age group, 42.2% belongs to 36-55 years whereas only 7.8% respondents belong to old age category above 55 years. So, it is concluded from the above analysis that majority of respondents are illiterate, belongs to 18-35 years age category and male from the rural background.

Table-2

Distribution of Study Participants according to Perception/Opinion about Cleanliness, Sanitation, Health and Hygiene Practices

Questions	Strongly Disagree	Disagree	Neutral/Undecided	Agree	Strongly Agree	Total	Mean
I make efforts to keep my house and surroundings clean.	8 (3)	9 (3)	26 (10)	71 (26)	156 (58)	270 (100)	4.3
I prefer using public toilets.	14 (5)	41 (15)	47 (17)	124 (46)	44 (16)	270 (100)	3.5
I am fully aware of my role and responsibility in keeping my country clean.	10 (4)	21 (8)	49 (18)	73 (27)	117 (43)	270 (100)	4.0
Proper record of cleanliness is maintained in Government schools, Aganwadi's etc. for every locality	15 (6)	31 (11)	96 (36)	55 (20)	73 (27)	270 (100)	3.5

Actual performance is as per pre-determined goal for projecting better image of India.	18 (7)	26 (10)	103 (38)	84 (31)	39 (14)	270 (100)	3.4
Major illness is caused due to non-availability of sanitation facilities	17 (6)	16 (6)	48 (18)	70 (26)	119 (44)	270 (100)	4.0
I believe Swachh Baharat is an excellent initiative by GOI for the Indians	17 (6)	17 (6)	59 (22)	74 (27)	103 (38)	270 (100)	3.8
Educational institutes/NGOs/youth/local welfare associations etc plays a big role in SBA.	19 (7)	24 (9)	59 (22)	87 (32)	81 (30)	270 (100)	3.7
SBA has changed the mindset of people.	28 (10)	28 (10)	64 (24)	72 (27)	78 (29)	270 (100)	3.5
Encouraging children for making slogans and wall posters will contribute towards SBA.	17 (6)	32 (12)	55 (20)	78 (29)	88 (33)	270 (100)	3.7
Promotion of strategy like “if not helping in cleaning, then at least don’t litter” will be helpful for SBA.	17 (6)	38 (14)	51 (19)	84 (31)	80 (30)	270 (100)	3.6
Active participation in SBA is a matter of pride	27 (10)	19 (7)	53 (20)	68 (25)	103 (38)	270 (100)	3.7

Perception regarding sanitation, cleanliness and health & hygiene of the respondents is studied in table-2. Out of all study participants, a majority 156 (58%) respondents strongly agreed that I make efforts to keep my house and surrounding clean. Respondents have also shown the strong positive perception regarding fully aware of my role and responsibility in keeping my country clean and according to them, major illness is caused due to non-availability of sanitation facilities. During study, it was found that respondent’s perception regarding using of public toilets and proper record of cleanliness is maintained in government schools, Anganwadis etc. for every locality is not positive. They believe that public toilets are still not clean to use and government records are also not up to the mark. Study has also given very poor mean score regarding activities like SBA will change the mindset of people but a strong association was found through mean score that educational institutes, NGOs, youth, local welfare societies and encouragement to children for making slogans and posters etc. will contribute to create awareness for sanitation and cleanliness and change the mindset of people. During study it was found that initiatives like SBA will prove an excellent initiative to improve sanitation and cleanliness and due to this health of the peoples will improve.

Table-3

Awareness of Study Participants towards Cleanliness

Questions	Strongly Disagree	Disagree	Neutral/Undecided	Agree	Strongly Agree	Total	Mean
Clean House and Surroundings	13 (5)	25 (9)	35 (13)	68 (25)	129 (48)	270 (100)	4.0
Adequate Drainage Facilities in your village/locality	12 (4)	59 (22)	56 (21)	56 (21)	87 (32)	270 (100)	3.5
Cleanliness in public toilets, Government schools, Public Health Centre's and Anganwadi etc..?	10 (4)	43 (16)	65 (24)	57 (21)	95 (35)	270 (100)	3.7
Dumping of garbage at proper place	16 (6)	51 (19)	44 (16)	57 (21)	102 (38)	270 (100)	3.7
Clean playgrounds	19 (7)	42 (16)	49 (18)	73 (27)	87 (32)	270 (100)	3.6

The data related to awareness towards cleanliness is shown in table-3. The findings of the study reveal that respondents are first and foremost aware about their house and surrounding cleanliness with mean score 4.0. Respondents are also found with positive attitude and aware for cleanliness in public toilets, government schools Anganwadis etc. the same was also shown for dumping of garbage at proper place having mean score of 3.7 each. The previous study by Yoda et.al. (2014) reported that 61% participants were utilising garbage bin for wastage whereas study by Sulhar (2019) found that 77% population throw garbage in the bin which indicates that awareness and behaviour towards cleanliness has increased, and we need to reinforce the community to adopt cleanliness. On the other hand, they had shown their less awareness regarding adequate drainage facilities available in their areas.

Table- 4

Awareness of Study Participants towards Sanitation

Questions	Strongly Disagree	Disagree	Neutral/Undecided	Agree	Strongly Agree	Total	Mean
Use of latrines or toilets at households, schools, community toilets and healthcare centres	24 (9)	36 (13)	28 (10)	45 (17)	137 (51)	270 (100)	3.9
Daily cleanliness of toilets	16 (6)	42 (16)	27 (10)	54 (20)	131 (49)	270 (100)	3.9
Safe drinking water	8 (3)	23 (9)	27 (10)	74 (27)	138 (51)	270 (100)	4.2
Hygiene measure to keep your toilet germs free	12 (4)	30 (11)	50 (19)	94 (35)	84 (31)	270 (100)	3.8

The data related to awareness towards cleanliness is shown in table-4. The findings of the study disclosed that safe drinking water is first and foremost concern towards sanitation of respondents mean score 4.2. Study has also found positive attitude and awareness for daily cleanliness of toilets and use of toilets at households, schools, community toilets and health care centres with mean score of 3.9 each. But on the other hand, they had shown little less awareness regarding hygiene measure to keep your toilets germs free. So, from the above discussion, it can be concluded from the study that respondents are found quite aware about sanitation and cleanliness but they are not satisfied the services provided by the government for cleanliness and sanitation as drainage facilities or public places etc.

Table 4: Association of knowledge about SBA and attitude towards cleanliness across gender and educational status

Table-5

Association of Awareness about Cleanliness across Socio-demographic Characteristics

Chi-Square Tests	Gender		Education		Residence		Age	
	Value	Asymp. Sig. (2-sided)	Value	Asymp. Sig. (2-sided)	Value	Asymp. Sig. (2-sided)	Value	Asymp. Sig. (2-sided)
Clean House and Surroundings	9.168 ^a	.057	17.866 ^a	.120	42.598 ^a	.000	17.982 ^a	.021
Adequate Drainage Facilities in your village/locality	15.082 ^a	.005	35.778 ^a	.000	60.600 ^a	.000	8.931 ^a	.348
Cleanliness in public toilets, Government schools, Public Health Centre's and Anganwadi etc..?	18.492 ^a	.001	42.607 ^a	.000	51.067 ^a	.000	5.309 ^a	.724
Dumping of garbage at proper place	12.372 ^a	.015	21.299 ^a	.046	54.526 ^a	.000	13.020 ^a	.111
Clean playgrounds	6.682 ^a	.154	25.644 ^a	.012	29.627 ^a	.000	6.354 ^a	.608

Table 5 shows the association of awareness about cleanliness across demographic characteristics. During the study, significant association was seen between gender (males and females), educational level and all the aspects of cleanliness except clean house and surroundings and clean playground in the case of education. When study was done to check the association of age with cleanliness, no significant association was seen between age and awareness about cleanliness except clean house and surroundings while analysing the association between residence and awareness of cleanliness, significant relationship was found during study. So, it can be concluded that gender and education level play a significant role for the awareness of cleanliness.

Table-6

Association of Awareness about Sanitation across Socio-demographic Characteristics

Chi-Square Tests	Gender		Education		Residence		Age	
	Value	Asymp. Sig. (2-sided)	Value	Asymp. Sig. (2-sided)	Value	Asymp. Sig. (2-sided)	Value	Asymp. Sig. (2-sided)
Use of latrines or toilets at households, schools, community toilets and healthcare centres	26.818 ^a	.000	17.231	.141	23.327 ^a	.000	15.612 ^a	.048
Daily cleanliness of toilets	13.439 ^a	.009	14.897 ^a	.247	45.251 ^a	.000	22.372 ^a	.004
Safe drinking water	.651 ^a	.957	12.718 ^a	.390	26.769 ^a	.000	8.603 ^a	.377
Hygiene measure to keep your toilet germs free	3.447 ^a	.486	19.678 ^a	.073	24.725 ^a	.000	3.535 ^a	.896
Water and soap facilities inside the toilets for hand wash	5.334 ^a	.255	11.848 ^a	.458	20.689 ^a	.000	4.764 ^a	.782

Table 5 shows the association of awareness about sanitation across demographic characteristics. During discussion, significant association was seen between gender (males and females), age and educational level and all the aspects of sanitation except use of latrines and daily cleaning of toilets in the case of gender as ($P < 0.05$), while analysing the association between residence and awareness of sanitation, no significant relationship was found during study. So, it can be concluded that place of residence doesn't matter for the awareness of sanitation whereas, education is playing a significant role for the awareness of sanitation. So, government should concentrate on the public to provide education as when they will educate their awareness regarding cleanliness and sanitation will definitely increase.

Discussions and Findings:

In the present study, 270 respondents were taken and majority of respondents are illiterate, belongs to 18-35 years age category and are male from the rural background. During the study it was found that initiatives like SBA will prove an excellent initiative to improve sanitation and cleanliness and due to this health of the peoples will improve. Respondents are found quite aware about sanitation and cleanliness but they are not satisfied the services provided by the government for cleanliness and sanitation as drainage facilities or public places etc. While analysing the significance of sanitation and cleanliness with demographic variables, it was found that gender and education level plays a significant role for the awareness of cleanliness and sanitation with daily cleaning of toilets and use of latrine at public places.

So, gender-based programmes can be promoted for better outcomes in terms of increasing sensitisation among mass community. It was also found during study that place of residence doesn't matter for the awareness of sanitation whereas, education is playing a significant role for the awareness of sanitation. So, government should concentrate on the public to provide education as when they will educate their awareness regarding cleanliness and sanitation will definitely increase. The mean attitudes of study population towards cleanliness and sanitation were found between 3 to 4.2, which shows that participants behaviour involving cleanliness and sanitation practices was positive still efforts are needed for emphasising the importance of cleanliness among a chunk of community inhabitants, as 25% still not aware to throw garbage at the proper place and 24% are not aware about the proper drainage facility.

Limitation of the Study:

The present study is limited to one state of India. Hence study can not be generalised to the entire country. The sample size taken for the study is also too small which doesn't represent the true population of the state. So, there is dire need of the time that these types of studies are required to be conducted at multiple geographic locations so that the results can be generalised.

Conclusion:

The cleanliness and sanitation programme necessitates a dire need of facilities for sanitation, water supply, water management, and waste management. Apart from this, the people of India also need to be sensitised towards these issues in terms of usage, maintenance as well as the general mindset and attitude. It can be concluded that existing awareness about sanitation and cleanliness and perception towards health and hygiene among participants is positive but still there is need of programmes and strategies that help in bringing positive behaviour among a group of people who are reluctant towards adopting sanitation and cleanliness and health and hygiene practices.

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