

A Study of the Challenges in Sanitation and Hygiene that have Affected the Rural Areas of South Gujarat

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ABSTRACT

Sanitation and Hygiene has been an on-going crisis for the majority of the rural areas in India. This research study aims at understanding the various factors that may influence the decisions of rural civilians to adopt the changes in sanitation and hygiene. This study inculcates both primary and secondary research, specifically in the rural areas of Gujarat. The following research will provide valuable insights into the current situation in the area and will be able to deliver possible steps that can be taken in the near future for a better livelihood.

Keywords: Hygiene, Rural, Sanitation.

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INTRODUCTION

Sanitation, hygiene, and cleanliness are the trademark of a society. Various initiatives are taken each year, in distinct geographical regions.

Sanitation is vital for a sustainable environment. There is an expanding propensity for groups in rustic hinterlands to waste in the open much to the disturbance of authorities who are working additional time to manage diverse parts of sanitation with people, families, and the country on the loose. NGOs and the staff and line officers in the administration consider this to be an essential perspective for advancement, as this is by all accounts the most significant test for the administration of improvement in the 21st century (UNICEF, 2012).

The plan set for giving clean water and better sanitation applies all the more to developed nations. For the underprivileged groups, the absence of clean water and satisfactory sanitation goes about as a hindrance to human development in people over the world. A multidisciplinary subject, sanitation has the characteristic potential to saddle solid living among the general population on the loose (Sansui, 2010).

India has been one of the emerging economies, which has shown development over the years. However, there are certain areas where the changes have been progressing at a slow pace, specifically in the rural

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areas of Gujarat. According to Vikaspedia (2019), various states, including Gujarat, have been facing problems related to sanitation and hygiene. From the consultations, it was found that schools and public areas are poorly maintained, where they rarely have soaps and availability of water. In addition, women are not being provided the facilities that is needed while their menstruation period, such as disposing and changing sanitary napkins.

From the above situation depicted, it can be seen that there could be many factors that are the reason behind these inadequate supplies of resources and facilities for the people belonging to the bottom of the pyramid. Over the years, there has been practitioners, who have attempted to find ways to reduce not only the huge number who remain without access to a toilet but also to those who do not use these facilities hygienically even when they are available.

PURPOSE OF THE STUDY

This study has been conducted to understand the problems and challenges that rural areas are facing, specifically in Gujarat, regarding sanitation and hygiene. The research paper aims at picking out the major limitations that the people are facing or going through, which is restricting them to adopt the habits, which are not only beneficial for their health, but also for the generations to come.

Due to the lack of basic sanitation and hygiene practices or facilities, it has impacted millions of lives at risk. It is responsible for various infectious diseases each year, which eventually affects on the:

1. Health 2. Education 3. Rural development
4. Long-term risk

This cause and effect relationship need to have an outlook as to the reasons it is occurring; hence the study attempts to understand why there is a gap between the awareness being created and the people adapting to the change being provided. It also aims at associating their personal belief upon sanitation and hygiene with their daily practices.

This study not only finds ways to address this crisis but also strives to understand the behavioral approach to the concept of adapting as well as maintaining the sanitation and hygiene for the betterment of the society and one's health.

RESEARCH OBJECTIVE

- To understand how rural areas in Surat have different acceptance levels for hygiene and sanitation in their daily routine.
- To know whether certain parameters of cleanliness are being adapted.
- To find out whether there are any associations between their demographical aspect to different levels of hygiene and sanitation.
- To gather information from women about their routines during their menstrual duration.
- To understand the difficulties that the civilians of rural areas are facing in their surroundings (associated with hygiene and sanitation).

LITERATURE REVIEW

Sanitation and hygiene have been coming a long way in India, as with increasing population, health issues have been igniting year by year. A study done by Singh (2017) studied the issues and challenges of the health

sector in India. This paper showed that health plays an important role in a person's life and also discussed the health programs implemented by the government. The results showed that underdeveloped country could improve their health sector by investing more in the health sector. (Storrier, 2017) Along with investing it is necessary to know human rights about sanitation facilities, in which the government has various legal laws made for the proper sanitation facilities.

Virendra Kumar (2016), had a study done on health planning through Village Health Sanitation and Nutrition Committees (VHSNC). The study shows that VHSNCs are playing a significant role in health and sanitation planning. The rural area in India needs much attention than the Urban area in India. Various planning and strategy need to be implemented to create the possible awareness that people need to have about sanitation.

(Wankhade, 2015) There are also some challenges of VHSNCs that not every one of them was taking an interest and not giving significant attention. Not only was the rural area taken care of, but as well as the urban sanitation in India, which puts its focus on access to water and proper sanitation toilets for urban poor.

The various facilities provided towards sanitation and hygiene help the people having access to the resources, but due to a few factors, it is difficult. For instance, Moazzem Hossain (2014) found out that income inequality is directly linked to the lack of sanitation facilities which an individual should get. The study also found that even after having money, people are not willing to use toilets. So along with their accessibility, it is their behavior that resists in adapting to the changes being made. Due to less exposure, they find it hard to accept the various facilities that are being provided for their health.

Singh M. K. (2014) explored sanitation in rural India, in which he brought about that in rural India, there is a major problem of defecation outside, and even if they are aware of the sanitation facilities, they are not availing the benefits given by the government. It is difficult for them to understand government policies.

Worley (2014), states that open defecation is everyone's problem in India. The government has provided huge funds and facilities for sanitation, but the toilets built in India have still remained unused and used for some other purposes. To contribute, in this situation, initiation has been developed by the government, Swachh Bharat Abhiyan, which has come about for the improvement of the country (Bhagat, 2014).



Nath (2013) suggests that improvement is a much-needed factor in India, specifically the rural area. There is a huge scope of development, which can prevent cross-infection. This not only helps the country's health but also has an impact on the social and economic development of India (Duncan Mara, 2012).

As stated correctly by Ganesh S Kumar (2011), all the development is all about various intervention strategies related to environmental sanitation in India. The change needs to be quickly made as the increase in population will mean the need to educate the people more; hence the urgent need for sanitation in India is necessary (Kaul, 2011). Kaul also found that 55% of the population has no access to toilets in rural areas, hence to become the superpower in a holistic sense, India needs to overcome the problem of sanitation and health issues related to sanitation.

Rai (2011) explored an evaluation of the sustained impact of a sanitation campaign in rural India. The key findings of this study show that 90% of the household in the rural area say that they practice open defecation, suggesting that household which owns latrines are not used by them.

Ramani (2006) observed that from various improvements and health systems provided in India with the opportunities and challenges, it was noticed that as a whole, there had been many initiatives taken by the government, which as a result, ranks the health system 118 among 191 WHO member countries. The main key development advantage is the women of the country, as the women of the house mostly do the household work. The treat due to the unavailability of water is although a problem for them working in homes. It has also has proven that women use water productively, hence having an increase in their income-earning potential (Upadhyay, 2005). This possible way solution through government and the people themselves can work hand in hand to create a sustainable environment in India.

Both government and non-governmental practices can help suppress this crisis; a study done by (Kaane, 1997) suggested that libraries can contribute to the valuable information needed for the transformation of rural people. Bridging the gap between the people and the ongoing crisis of sanitation is a challenge for the community. The growing population is estimated to reach more than china by 2045, which will have an impact on the literacy rate as well; hence urbanization can provide another door to economic development (Aspalter, 2002).

Buam (2005), focuses on India to which there are also various areas in which the initiatives could be focused

upon. Technology is one of the main factors which can bring about change rapidly. The concept of connecting rural India into the digital era is a big challenge, but the results are effective in terms of their response. The information technology (IT) revolution has come a long way in transforming into a global society in a short span of time. Knowing that India's population is increasing, it is the most efficient way to reach a vast population quickly.

In addition to the research above, another study conducted by (Dangwal, 2005), it was figured out that children who were provided with unlimited access to computers had an impact on their ability to educate themselves as they would play outdoors. Hence, since children are the next generation of lives, it is equally important to provide them with the knowledge so that in their growing process, they can explain to their parents how certain things should be done.

In terms of the business sector, they can also contribute highly to the initiation as it is part of their corporate social responsibility, which makes them have a road-map in helping the needful, for instance, the Sacro-civic Society, where human development is the priority (Gupta, 2005).

All parameters are equally vital when considering the health system in India (rural and urban). It consists of all the aspects of behavioral changes with the changes in infrastructure as well. Without any of them, it is difficult to proceed further. However, due to government policies and reforms, India is becoming fewer in number with the sanitation problems as promotions done by known people and celebrities are taking steps to eradicate the problem.

RESEARCH METHODOLOGY

Type of Study

To make sure that the right type of research will be used, the very first step in the research is to know the type of study, so that you can later categorize the type of research you will use to gather information. In this particular study, descriptive research has been approached, for a reason being that this particular census is an on-going crisis that many people across the globe face and has been researched upon by various researchers as well.

Type of Research and Data Collection

The primary focus of this research is to understand the various challenges and problems that occur in the three

rural areas (Gam: Bhatpore, Baben, and Ena) of Surat City; hence gathering information from various sources is mandatory to validate and make the research a reliable source. The nature of this study revolves around both primary and secondary research.

Data collection

- Primary research, in this case, has been done by an interview taken in the specific rural areas to gain rich data as to what the villagers go through in the whole process of keeping themselves hygienic, government facilities provided to them, and educating their children about hygiene and sanitation. The data for this was Interview and Schedule (See Appendix B)¹ that was prepared in Gujarati, which was later translated in English for comprehension purposes. There were 11 questions, which formulated around the idea of sanitation and hygiene as well as their mindset as to how it is being done at their own home and whether or not they would accept the change when brought about. The last question was a composite of 8 parts which focused on women hygiene during their Menstrual Cycle (See Appendix B)². A total of 50 respondents were collected across the villages, with 23 being female and 27 being from the male category.
- The next type of tool that we used was secondary research, which opens up to the various journals, articles, books, etc., which consist of valuable information about sanitation and hygiene. The topmost data that was collected was through WHO and UNICEF, which contribute highly to this area of research. From these various case studies provided useful information as to how the people adapt to the change and how their situation has become with this on-going issue.

Sampling

The sample size for the primary data was 50 respondents (households) across the villages mentioned above, hence falling under simple random sampling.

For the further analysis of the information gathered, through primary (interview) and secondary research (journals and articles), different analytical approaches were used. For primary research, One- Way ANOVA was utilized using the Jamovi – SPSS tool. This analysis has provided valuable inputs into the research and resulted in providing a substantial report.

¹ See Appendix B

² See Appendix B

TECHNIQUE ANALYSED

One-Way ANOVA

This was used for our data because the hypothesis formed from the various dependent and independent variables was taken into consideration their association between the two. One-Way ANOVA considers one independent variable against another categorical variable, which is to be compared, and whether or not it is associated with the independent variable alone. Basically, to be more specific, this test's assumption is known as the assumption of independence because the null hypothesis concludes that: The value of one of the observations mentioned is not related to any other observation.

FINDINGS

Categories from Open-Ended Questions and the Coding References

There was a total of 12 categories (See Appendix C)³ made, but 8 main categories were used in associating variables in the hypothesis. The categories used for hypothesis are mentioned below:

Family Members

- 1-3: (Coding reference: 1)
- 4-6: (Coding reference: 2)
- 7-9: (Coding reference: 3)
- 10-12: (Coding reference: 4)

Occupation

- Service (Coding reference: 1)
- Business (Coding reference: 2)
- Self-professional (Coding reference: 3)
- Agriculture (Coding reference: 4)
- Other (Coding reference: 5)

What is sanitation and hygiene for you?

- No insects/fly (Coding reference: 1)
- No garbage outside the house (Coding reference: 2)
- Clean house (Coding reference: 3)
- Clean body (Coding reference: 4)

Access to toilets

- Govt. toilets (Coding reference: 1)
- Private toilet inside house (Coding reference: 2)
- Private Toilet outside house (Coding reference: 3)
- Go to field despite of having toilet in house (Coding reference: 4)
- Field only (Coding reference: 5)

³ See Appendix C.



Regular Cleaning of surroundings

- Surroundings not cleaned at all (Coding reference: 1)
- Surroundings cleaned by SMC (Coding reference: 2)
- Surroundings cleaned by Panchayat (Coding reference: 3)
- Surroundings cleaned by self (Coding reference: 4)

Source of drinking and cooking water

- Panchayat (Coding reference: 1)
- RO Water installed at home (Coding reference: 2)
- Packed mineral water (Coding reference: 3)

Reason for health issues

- Mosquitos due to dirty surroundings (Coding reference: 1)
- Skin disease due to contaminated food (Coding reference: 2)
- Weather (Coding reference: 3)
- Cleaning Home (Coding reference: 4)

As per the government policy Rs.20, 000 was to be allotted for the washroom in a home. Have they been provided? If yes, is there a change?

- Yes (Coding reference: 1)
- No (Coding reference: 2)

Hypothesis Formulation

For the analysis to take place, several hypotheses have to be made in order to come to a conclusion with variables identifies in the primary research. From the variables found above, there were four hypothesis statements that were formulated:

Hypothesis 1

H0: There is no significant association between the ideologies of hygiene/sanitation and the occupation.

H1.: There is a significant association between the ideologies of hygiene/sanitation and the occupations.

Independent variable = Occupation

Dependent variable = Ideologies of hygiene/sanitation

Hypothesis 2

H0: There is no significant association between the cleanliness of the surroundings and their health problems.

H1: There is a significant association between keeping the surroundings clean and their health problems.

Independent variable = Cleanliness of the surrounding.

Dependent variable = Health problems

Hypothesis 3

H0: There is no significant association between the occupation and source of water

H1: There is a significant association between the occupation and the source of water utilized.

Independent variable = Occupation

Dependent variable = Source of water.

Hypothesis 4

H0: There is no significant association between health problems and access to toilets

H1: There is a significant association between health problems and access to toilets.

Independent variable = Access to toilets.

Dependent variable = Health Problems

A	B	C	D	E	F
Family members	Occupation	Mediclaim	What is sanitation/hygiene for you	Does your children know the basic etiquet	Access to toilets
2	1	2	3	1	2
2	4	2	3	1	3
2	1	2	1	1	3
1	1	2	3	1	2
2	5	2	3	1	3
1	4	2	1	1	3
3	4	2	2	1	2
2	5	2	3	2	2
2	1	2	3	1	3
2	3	2	2	1	2
3	4	2	3	1	2
2	3	2	4	1	2
1	4	2	1	1	4
2	1	2	3	1	2
1	4	2	3	1	2
2	4	2	3	1	2
1	3	2	3	1	3
1	1	2	3	1	3
2	5	2	2	1	3
2	1	2	3	1	3
2	1	2	4	1	2

Figure 1: Glimpse of coding done from categories.

Statistical Tool Jamovi -SPSS: One-Way ANOVA Test

The tool used to conduct the ANOVA test was a software known as Jamovi. This software allows one to input the data and coding material and generate the tables of the values needed to interpret the associations.

The first step to generate the values was to code the responses according to their answers given, which was done in excel, a glimpse of the codes can be seen below from MS.Excel:

The next step for applying the statistical tool was to test the hypothesis one by one by inserting the coding material for the same in the software.

Hypothesis 1: Statistical Tool Applied (One-Way ANOVA)

- The ideology of Sanitation and Hygiene: Dependent
- Occupation: Independent

	What is sanitation/hygiene for you	Occupation
1	3	1
2	3	4
3	1	1
4	3	1
5	3	5
6	1	4
7	2	4
8	3	5
9	3	1
10	2	3
11	3	4
12	4	3
13	1	4
14	3	1
15	3	4
16	3	4
17	3	3
18	3	1
19	2	5
20	3	1
21	4	1
22	3	1
23	3	3
24	1	4
25	2	4

Figure 2: Jamovi Spss Coding outline.

The rows went till the 50, as those were the number of respondents gathered. After inputting the coding material, the ANOVA -Test option was selected, and within the ANOVA-Test the One-way- ANOVA Test was chosen, in which the dependent and independent variables were dragged in the respective boxes, and the descriptive option tables was selected as seen below:

On the right the figure above was displayed but at the left the results were given with the respective values:

The value that has to be looked it is the P-value for further interpretation. Similarly, all hypothesis was tested the same and the results were as follow:

Hypothesis 2: One-Way ANNOVA Test

- Cleanliness of the surrounding: Independent
- Health problems: Dependent

Hypothesis 3: One-Way ANNOVA Test

- Occupation: Independent
- Source of water: Dependent

Hypothesis 4: One-Way ANNOVA Test

- Occupation: Independent
- Access to toilets: Dependent

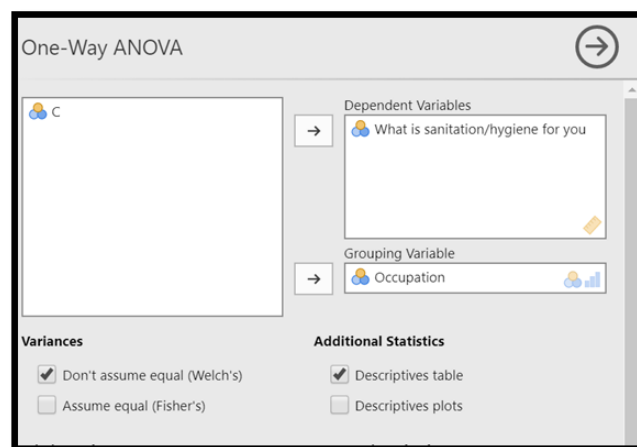


Figure 3: One-Way Annova Test

	F	df1	df2	p
What is sanitation/hygiene for you	0.490	3	9.22	0.698

	Occupation	N	Mean	SD	SE
What is sanitation/hygiene for you	1	24	2.71	0.806	0.165
	3	8	2.50	0.926	0.327
	4	15	2.33	0.976	0.252
	5	3	2.67	0.577	0.333

Figure 4: One-Way ANNOVA Test Results



One-Way ANOVA				
One-Way ANOVA (Welch's)				
	F	df1	df2	p
Health Problems	4.79	3	8.76	0.030

Group Descriptives					
	Cleanliness of the surrounding	N	Mean	SD	SE
Health Problems	1	14	2.71	0.726	0.194
	2	19	1.95	0.780	0.179
	3	14	1.57	0.852	0.228
	4	3	1.67	1.155	0.667

Figure 5: One-Way ANNOVA Test Results

One-Way ANOVA				
One-Way ANOVA (Welch's)				
	F	df1	df2	p
Source of water	3.17	3	21.8	0.045

Group Descriptives					
	Occupation	N	Mean	SD	SE
Source of water	1	21	1.71	0.784	0.171
	2	10	1.10	0.316	0.100
	3	9	1.33	0.500	0.167
	4	10	1.40	0.699	0.221

Figure 6: One-Way ANNOVA Test Results

One-Way ANOVA				
One-Way ANOVA (Welch's)				
	F	df1	df2	p
Access to toilets	0.477	3	8.58	0.707

Group Descriptives					
	Occupation	N	Mean	SD	SE
Access to toilets	1	24	2.33	0.637	0.130
	3	8	2.63	0.744	0.263
	4	15	2.47	0.640	0.165
	5	3	2.67	0.577	0.333

Figure 7: One-Way ANNOVA Test Results

Primary Data Interpretation

Since the P-value is more than our significant level (95%/0.05) we have fail to reject H₀, which means that there is no association between the ideologies of sanitation and hygiene and their occupation.

There level of understanding of cleanliness has nothing to do with the occupation, hence there could be other factors that may have led them to have certain ideologies about cleanliness which could include factors like:

- Passing on of generational teaching
- Through word-of-mouth of peers
- Something that they have seen others doing.
- From endorsements who spread the word through various campaigns.

The P-value in this test is less than 0.05, hence we have rejected H₀, which means that there is a significant association between the two variables (cleanliness of surrounding and health issues).

The health issues are dependent upon the cleanliness of the surrounding, this is a huge insight that is valuable for villagers also as a research perspective in order to take a step forward for the society. They may fall sick often by working and sweeping their surrounding and picking garbage, whereas the facilities that the Panchayat and SMC provide is not enough or is not in function at all.

But we also have to understand that the health issues also come weather change, which could be another reason they need to have good dusting done around their premises.

The p-value here has shown that it is less than a significant level, which reveals that there is a significant association between the source of water and occupation. According to our variables created, the source of water does depend on the occupation.

This is a bit prominent in the rural area because not everyone can afford R.O (purifiers for water), Boring water, and mineral water for usage in their drinking and cooking sources. Also, the other option the villagers have is to use the pipeline, which the Panchayat (village council) gives for the citizens, which may not be sufficient and as clean as the other source of water.

Occupations such as agriculture and business are probably the reason why few villagers were able to afford. Still, those were not able to come under the category of self-professionals (Cow and goat breeding) and others (snack stalls).

Here the p-value is more than 0.05; hence the H₀ was rejected, as shown above, resulting in that there

Table 1: Hypothesis evaluation.

Hypothesis	P-value analysis	Reject/ Fail to reject H ₀
1	0.698 > 0.05	Fail to Reject H ₀

Table 2: Hypothesis evaluation.

Hypothesis	P-value analysis	Reject/ Fail to Reject H ₀
2	0.030 < 0.05	Rejected H ₀

Table 3: Hypothesis Evaluation.

Hypothesis	P-value analysis	Reject/ Fail to Reject H ₀
3	0.045 < 0.05	Rejected H ₀

is no significant difference between access to toilets and occupation. This was an interesting finding that was analyzed in the research because villagers do not keep much space for toilets, but if they do it is of a small area that is outside their home.

From this, it was prominent to observe that their houses were built in the past with the in-built and out-built toilets to utilize. But within that occupation did was not the major factor of whether or not they had access to toilets, probably for a reason being that :

- Having women in the house for the usage of toilets.
- Other social norms that have to be followed.
- Religion purpose
- Resistant to change of defecating inside and not outside.

Apart from this interpretation through ANOVA testing for the selected categories, there was also a set of 8 questions (See Appendix B)⁴ Which were for the women regarding the menstrual cycle. Out of 50 respondents, 23 respondents were female, who responded to this section. The set of questions were close-ended and had to be answered in either yes or no. The questions presented below are three main questions which showed variation in answers:

From this, the analysis was done through MS. Excel for creating bar graphs to see the ratio between the yes and no respectively. For question number 1, the following chart was developed:

The bar graph shows a unique interpretation that for them, social activities meant a small gathering by the village (or) going for a feast nearby, which was quite shocking. Because in the past, being in your menstrual cycle would restrain you from going outside and sit together for any occasion. Although the difference between the two is of 1, it still provides the information that the generation of thoughts is slowly changing, and

4. See Appendix.

Table 4: Hypothesis evaluation

Hypothesis	p-value analysis	Reject/ Fail to Reject H0
4	0.707 > 0.05	Fail to Reject H0

Table 5: Hypothesis evaluation

Q.1 Daily Schedule: Tick the appropriate answer.	
Questions:	
Do you participate in social activities?	Yes No
Do you cook food during that period?	Yes No
Do you sit with your family for meals during the cycle?	Yes No

people are adapting change.

The second question showed the result, as displayed below:

This result was one of the questions in which the research showed valuable insights as well. In the Indian community, being in your menstrual time sometimes is possessed to be impure for mindsets across villagers. Hence, entering the Holy Place (or) near the kitchen is forbidden. But from the responses that were generated, it presented a whole different era of possession of the concept of the menstrual cycle. The women in the household responded that "We have no choice because our men work and come late at night." Certain laws of society need to be broken by women so that their household get necessities such as Food.

The last question that had a major impact on the analysis is as shown below:

As mentioned earlier, how women are considered impure at this time, the majority of women (18) had



Figure 8: Analysis of Menstrual cycle core questions.



Figure 9: Analysis of Menstrual cycle core questions.



Figure 10: Analysis of Menstrual cycle core questions.

said that they with their family because they have no problem. But a few were resistant to express the reason why, because they themselves were not as expressive for the matter. Also, few of the no's were due to their discipline of feeding the family first and then sitting at the end of the meal to eat.

IMPLICATIONS

The analysis used in the research is both quantitative and qualitative approach, which was developed through questionnaires and various research studies. The main idea was to have information from various sources (primary/ secondary), form categories within the responses and keywords obtained, and deduce an implication deduce with respect to the credibility of the paper. This will help understand the problems and their behavioral approach towards sanitation and hygiene, which can aid in developing possible solutions. From the above analysis and information gathering, there were few implications derived as mentioned below:

- Norms
- Money
- Status
- Education
- Workload
- Generation to generation

Norms

Growing up in the various rural areas, they have been taught to behave and do certain things in a particular manner, hence going against or changing their habit or routine creates a hindrance in their mindset. The next norm was keeping the washroom in-house, in which it was a major religious concern for them.

For example, they feel that having a worship place as well as a washroom under the same shelter is unholy and that it disrespects the Gods. Another reason to

neglect the facility was due to the mess it created after utilizing it.

Money

This was the most influential factor, as their main source of income is derived from their occupation, such as Agriculture, Self-professional, Business. Hence, when it was questioned to add a washroom in their homes from the money earned, their response included using the money in their children's education, then making a washroom as they already have an open jungle nearby to go to.

Status

Being hygienic meant having cleanliness in their surroundings, but there were steps taken towards cleanliness only when a person designated at a high position would join them near their village or if there an occasion to take place, otherwise no one bothered.

Education

Education for the rural villages is something kept on their priority list. If they have the money to change their homes or construct washrooms, they still would utilize the money in their children's education or save it up for their necessary household utensils, which is a good sign. However, at the same prioritizing sanitation and hygiene inside their home is equally important.

Workload

These key words focus onto the shifts (sunrise to sunset) the parents have to take care of; as a result, they are not able to keep an eye on their children's daily activities (nutrition intake, washing hands, drinking clean water, etc.).

Generation to Generation

All in all, this factor was additionally added, for the reason being that we are able to measure how the past generation functioned in various ways and how their mindset is still towards the taboo of their social norms. But with growing awareness, there are campaigns and another participative NGO's taking a step towards a better India, which will definitely show results in the years to come.

To Better Understand and Imply the Possible Solutions, a Table has been Shown Below

The table above shows four categories formed from where the solutions could arise. Each category has certain features that have to be taken care of for a better livelihood. The most important category that

Table 6: Categories from coding and research material.

<i>Focus</i>	<i>Opportunity of progress</i>	<i>Ability to change</i>	<i>Motivation for better society</i>
Villagers	Availability of facilities	Knowledge through various sources	Attitudes and beliefs
Generational Gap	Social norms	Self-realization	Emotional drivers
Education system	Village – Abhyan Approach	Roles and decisions of parenting Affordability	Willingness to pay

has been analyzed is the 'motivation for better society' because the features developed below shows precise information as to what is the motivation factor that derives them to either accept sanitation and hygiene on themselves or to neglect it.

LIMITATIONS

Each and every research conducted has its own limitations and backdrops. Similarly, this study has a few limitations that occurred, which can be further improvised.

- Time constraint due to the research being for an academic purpose.
- Geographically limited; the research was conducted in three villages of Surat, India, limiting the sample size to the area; hence generalizing the study cannot be done.
- Convenient Sampling/Simple random; the study conducted the interview in the remote areas in Surat, India hence limiting the population of that city only.
- There could have been a casual approach while responding to the interview/schedule by some respondents.
- Since we were females, some male respondents were uncomfortable to answer us, could have created data that may not be credible enough.
- Age group: Earlier, the study was going to use the age group, but due to the audience's lack of knowledge and unawareness of their age, it had to be discarded. Otherwise, it could have provided valuable insight for various findings.
- Sample size: The respondents were 50 in total across three villages. Comparatively, it is a small sample; hence if more samples were taken, it could have been more generalized and credible.

CONCLUSION

The world we live in will always have people belonging from various parts of the country, city, or town. The responsibility of maintaining sanitation and hygiene in society should be derived from the citizens in the same

area, which provides belongingness to one's beliefs and values. This has been prominently observed from the hypothesis as well, which resulted to failing to reject the null hypothesis for hypothesis 1 and 4, where there P-value was more than 0.05:

Hypothesis 1: $0.698 > 0.05$

Hypothesis 4: $0.707 > 0.05$

On the other hand, the observations related to the cleanliness of the surrounding and occupation had rejected the null hypothesis with the following p-values being less than 0.05:

Hypothesis 2: $0.030 < 0.05$

Hypothesis 3: $0.045 < 0.05$

The application of this research study also come to a conclusion that Construction is easy, but behavioral change is not. Being able to construct homes, but not utilizing the facility to its maximum potential, creates the issue of their behavioral change. They may be aware of all the ongoing issues and crisis, but still may be reluctant to change as it is out of their comfort zone.

To conclude, both awareness and acceptability play a vital role in having cleanliness in the rural areas of Gujarat. To bring a change, the responsible citizen of the country, for the most part, us, as an individual, need to contribute and spread the importance for the development of the country as well as one's health.

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