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Original Article

Public Health Section

Household Survey on the Role of Social Norms in Defecation Practices in Aurangabad, Bihar, India

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ABSTRACT

Introduction: In the recent decade, the study of social norms has become popular as it can explain and change harmful social behaviours, such as Open Defecation (OD). Open defecation is is a threat to public health. It causes diarrheal infections. Households formed the unit of study as they constitute an essential social institution to adopt and use latrines.

Aim: To compare the social norms of the latrine user and OD practitioners of households with regard to disgust, purity and pollution, latrine and OD beliefs, and the preference for latrines that differ in cost.

Materials and Methods: The cross-sectional study was conducted among 486 participants at Aurangabad district, Bihar, India, from July 2019 to January 2020. The district is one of the worst performers in latrine adoption in the country, according to the census of India 2011, Swachh Bharat Mission 2016, and NFHS-5 2019-21 data. A pretested questionnaire prepared by Research Institute for Compassionate Economics (RICE) was used as a tool for data collection. Data collected were entered into Statistical Package for Social Sciences (SPSS) version 25.0. Descriptive data analysiswas performed and represented in tabular forms. The categories of households were made on the basis of the defecation practices (latrine user and OD practitioners).

Results: The study found that social norms regarding purity and pollution were the same across the two groups. Both the groups (latrine user and OD practitioners) agreed that OD was disgusting and polluting behaviour. The two groups were coherent in the preference for latrines based on cost.

Conclusion: The social norms are evolving in the study setting. Households have recognised the relevance of latrine use in contemporary times. The gap in practice is the only difference between the two groups of households.

Keywords: Belief, Community, Comfort, Cost, Health, Illiteracy, Poverty, Motivation, Pollution

INTRODUCTION

Social norms are an integral part of any community. A community is built by a group of individuals who share and abide by unwritten rules [1-3]. These rules govern the social behaviours of individuals without the force of law [3,4]. These norms are outcomes of social interactions between individuals; the norms may or may not be expressed explicitly, and any sanctions for deviation from norms are imposed through social networks and not by the legal system [3].

Social norms operate at collective as well as personal levels [1]. People living together get benefitted from social norms as they maintain social order and facilitate co-operation in the social sphere [5]. The health and well-being of individuals in a community are directly determined by the social norms [5-8]. Individuals live to fulfill behavioural standards that exist in their community [9] determined by gender, age, caste, socio-economic conditions. However, it does not always about the positive impacts of social norms. Health and development practitioners worry about the persistence of harmful practices and behaviours backed by social norms [1,10].

Behaviour change led by new social norms can help stop harmful practices/ behaviour. The study of norms can reveal why people adhere toharmful norms and how they can be changed. It would enhance the policy intervention strategies to deal with poor health conditions [1].

In Open Defecation (OD), behaviour change in all households living in the neighborhood is necessary. Latrine construction has an externality effect benefiting neighborhood areas [11]. However, the chain of fecal-oral transmission will sustain if a few or a single individual continues to defecate in the open. It is a negative externality of OD [12]. Hence, the social norm is both a collective matter where individuals play an important role.

The interrelatedness of perceptions is driven by behavioural standards an individual tries to live. Behavioural standards are societal standards that make individuals self-aware to get along well with others [13]. It implies that a typical individual who lives in OD prevalent area would also be practicing OD. He would not like to appear different from the rest of the people living in his neighborhood [14].

The behavioural requirements of excretion demand the separation of feces from human contacts so efficiently that one never has to care about it. Itis the minimum and utmost criteria to adopt a latrine. It is well perceived that only a costlier large concrete pit or conventional latrine can fulfill that condition [15]. In anthropological explanations of purity, the concept includes taboo and purification rituals. Taboos are mystically sanctioned prohibitions or kinds of disapprobation. At the same time, purification rituals are rites to remove perceived contextual or categorical pollution from a person, group, or object [16].

The concept of pollution is contextual or categorical as it is used in a wide variety of phenomena. Pollution results from illegitimate mixing or conflation of two or more separate entities. For example, a dead body retains the quality of a living person, but the body cannot move or breathe. Therefore, the body conflates human qualities and is typically considered dangerous. Similarly, blood outside the body, excrement, vomit, nail clippings, is polluting because such entities breach their appropriate boundaries [17]. Therefore, they need to be separated from humans and houses. A person gets temporarily impure when bodily entities come out of his body. He is supposed to separate himself from the community until he regains purity by bath or ablution [18].

Disgust is a moral emotional response to contamination caused to the purity [19,20]. Predecessor of modern human beings possessed a distaste system that protected them against toxins ingestion and contaminants. In the process of evolution, distaste system developed as disgust that guards the body and soul against

contamination, impurity, and degradation. Therefore, anything that may contaminate the self physically or spiritually or cause threat to the status of being civilized is rejected as a result of disgust [20].

The present study attempted to investigate the norms controlling defecation practices. It will include disgust and perceived purity and impurity of individuals.The study considers behaviour and perception of individuals as determinants of social norms. The study is based on individuals' perceptions, opinions, and beliefs.

MATERIALS AND METHODS

The cross-sectional study was conducted among 486 participants at Aurangabad district, Bihar, India, from July 2019 to January 2020. Aurangabad is a high OD prevalent district (78.2% of households without a sanitary latrine on the premises) according to the census of India 2011 [21]. The study is affiliated with the Tata Institute of Social Sciences (TISS), Mumbai. The TISS's Ethical Committee's guidelines were followed to ensure the rights of human subjects taking part in the study. All the participants were explained and provided with the participants' information sheets. Additionally, all the participants had provided written consent forms to participate in the study. The district is one of the worst performers in latrine adoption in the country, according to the census of India 2011 [22], and Swachh Survekshan Grameen 2022 [23].

Participants were not informed prior to the visit. The objective of the visit was to investigate the households' defecation practices and socio-economic conditions; therefore, a cross-sectional design was the most appropriate method for the study.

Sample size calculation: The sample size was calculated using a formula for prevalence. There are 11 blocks in the district; all of them were selected for the study. Block-wise lists of villages were drawn from the census of India (2011) [21]. Two villages were selected from each block; one village was of maximum (coded 1 in [Table/Fig-1], and another one had minimum (coded 2 in [Table/Fig-1] latrine ownerships.

Prevalence (district)	Prevalence (block)	Sample	Sample Distribution
District=78.2%*	Block 1=69.2%*	67	Lalu Chak (1)=33
			Ratanpur (2)=34
	Block 2=77.4%*	44	Gamhariya (1)=22
			Indrarh (2)=22
	Block 3=59.9%*	100	Karman (1)=50
			Anandpura (2)=50
	Block 4=87.0%*	24	Ingunahi (1)=12
			SurjuKhap (2)=12
	Block 5=74.3%*	52	Fateha (1)=26
			Narayanpur (2)=26
	Block 6=78.2%*	43	Hakaspur Tika (1)=21
			Ahiyapur (2)=22
	Block 7=82.5%*	35	Dariyapur (1)=17
			Barahi (2)=18
	Block 8=83.6%*	31	Karea (1)=15
			Hetampur (2)=16
	Block 9=83.6%*	30	Kasimpur (1)=15
			Bhakhra (2)=15
	Block 10=83.1%*	30	Narayanpur (1)=15
			Adri (2)=15
	Block 11=84.5%*	30	BhaluaChak (1)=15
			Chamotha (2)=15
Total		486	

[Table/Fig-1]: Sampling and data collection.
*Census (2011), Percentage of households to total households by amenities and assets, Registrar General of India, Ministry of home affairs, Government of India [21]

The following formula used for sample calculation:

$$n = \frac{1}{\alpha^2} * \frac{q}{P} * D^2$$

Where, $\alpha^2=(0.1)^2$

$D^2=1.5$

Sample calculated using the above formula was 476.

Data collection: All the households in selected villages were considered potential participants. If any household refused to participate, their neighboring household was given a chance to participate. The researcher himself engaged in data collection; he was well versed in the local language. All the participants were above 18 years of age and taking part in household activities and decision-making.

The data collection was carried out in a detailed questionnaire of the Research Institute for Compassionate Economics (RICE) [24]. The questionnaire sections used in this paper were 'disgust and purity', 'latrine use behaviour', 'open defecation behaviour', and 'knowledge about latrines/ motivation to construct.' Participants were categorised into two groups;

- Latrine users
- Open defecation practitioners

The responses were categorised and assigned codes and compared with the two groups. Participants were free to make multiple choices in several inquiries.

Participants were free to make more than one response and could emphasise a cause by repetitively mentioning it. During analysis, four broad categories were identified that were presented and accordingly, a total number of responses were counted and reported. The categories were:

1. Cost and poverty,
2. Pleasure, comfort and convenience,
3. Habit, tradition, and always do so
4. Policy failure.

Responses with the least frequencies violating Chi-square assumptions were removed from the test. Similarly, nine categories were identified for benefits of latrine use and causes of latrine adoption: (1) comfort and convenience, (2) latrine improves health, (3) status and social relations, (4) For the sake of women in the family, (5) good for old and disabled people, (6) peace, privacy, and being alone, (7) lack of space for OD, (8) pressurised, (9) keeps environment clean.

The household wealth index was prepared using the methodology provided by World Food Programme [25]. Assets owned by households and their housing characteristics are combined together using Principal Component Analysis (PCA). The economic characteristics of households are converted into one proxy indicator called the wealth index.

STATISTICAL ANALYSIS

After data collection, Statistical Package for Social Sciences (SPSS) version 25.0 was used for data entry and analysis. Data entry was checked, and discrepancies in the entries were rectified thoroughly in two rounds of data cleaning. Incomplete or contradictory information cases were sorted and discarded from the analysis.

RESULTS

The majority of the respondents were males. Most females who participated in the survey belonged to OD practicing households. Overall female representation was 88 (18%) in the data. Two hundred ninety one (60%) participants were above 35 years of age. Less than or equal to 10th grade educated respondents were 205 (42%) in the total sample. About 121 (25%)of respondents were illiterate.

Other backward castes households were the highest in the sample (45.3%), while general and scheduled caste households were almost equal (27%). General category participants hadmaximum latrine use and minimum open defecation compared to other social groups. At the same time, scheduled caste households were engaged in maximum open defecation and minimum latrine use compared to other social groups [Table/Fig-2].

Parameters	Subcategories	Defecation Behaviours		Total (n,%)	p-value (Chi square test)
		Latrine users (n,%)	OD (n,%)		
Gender	Male	186 (46.7)	212 (53.3)	398 (100)	0.07
	Female	32 (36.4)	56 (63.6)	88 (100)	
Age (years)	18 to 35	77 (39.5)	118 (60.5)	195 (100)	0.05
	>35	141 (48.4)	150 (51.6)	291 (100)	
	Mean (SD)	44.8 (16.7)	41.3 (16.5)	42.9 (16.7)	
Education	Illiterate	23 (19.0)	98 (81.0)	121 (100)	<0.001
	≤10th standard	91 (44.4)	114 (55.6)	205 (100)	
	>10th standard	104 (65.0)	56 (35.0)	160 (100)	
Social groups	General	110 (84.0)	21 (16.0)	131 (100)	<0.001
	Other backward castes	78 (35.5)	142 (64.5)	220 (100)	
	Scheduled caste	30 (22.2)	105 (77.8)	135 (100)	
Wealth index	Poor	28 (17.3)	134 (82.7)	162 (100)	<0.001
	Middle	47 (29.0)	115 (71.0)	162 (100)	
	Rich	144 (88.9)	18 (11.1)	162 (100)	

[Table/Fig-2]: Demography of the participants (N=486).
Values represented in frequency (percentage)

Rich households used maximum toilets, while poor householdsused minimum toilets and vice-versa [Table/Fig-2].

Most of the participants (295) refrained from talking about disgust. They did not find items mentioned in the disgust section of the questionnaire were appropriate to be named in a formal interview or survey. Only 191 participants spoke about the disgust they feel from various impure and disgusting things.

The study found that the norms of purity and pollution do not vary across the groups. Seeing someone poop in the field was disgusting to both; latrine users and OD-practicing individuals. Impure things such as someone's vomit, a dead rat, a dirty dog, and a dirty man were lesser impure than someone's poop in the field [Table/Fig-3]. Latrine users' disgust was greater than OD practicing individuals regarding poop in the field. However, it was statistically significant only in two instances out of four inquiries on poop versus other

S.No.	Which disgusts the most?	Household Defecation Behaviour			p-value
		Latrine (n,%)	OD (n,%)	Total (n,%)	
a	Dirty man	9 (9%)	7 (7.7%)	16 (8.4%)	0.656
	Dirty dog	63 (63%)	53 (58.2%)	116 (60.7%)	
	Both are equally disgusting	28 (28%)	31 (34.1%)	59 (30.9%)	
b	Rat	20 (20%)	17 (18.7%)	37 (19.4%)	0.137
	Vomit	43 (43%)	28 (30.8%)	71 (37.2%)	
	Both are disgusting	37 (37%)	46 (50.5%)	83 (43.5%)	
c	Poop	68 (68%)	51 (56%)	119 (62.3%)	**0.012**
	Dirty man	8 (8%)	2 (2.2%)	10 (5.2%)	
	Both are disgusting	24 (24%)	38 (41.8%)	62 (32.5%)	
d	Rat	1 (1%)	2 (2.2%)	3 (1.6%)	0.172*
	Poop	72 (72%)	54 (59.3%)	126 (66%)	
	Both are disgusting	27 (27%)	35 (38.5%)	62 (32.5%)	
e	Dirty dog	41 (41%)	36 (39.6%)	77 (40.3%)	0.374
	Vomit	16 (16%)	9 (9.9%)	25 (13.1%)	
	Both are disgusting	43 (43%)	46 (50.5%)	89 (46.6%)	
f	Poop	51 (51%)	30 (33%)	81 (42.4%)	0.030
	Dirty dog	6 (6%)	11 (12.1%)	17 (8.9%)	
	Both are disgusting	43 (43%)	50 (54.9%)	93 (48.7%)	
g	Vomit	3 (3%)	1 (1.1%)	4 (2.1%)	0.390*
	Poop	61 (61%)	50 (54.9%)	111 (58.1%)	
	Both are disgusting	36 (36%)	40 (44%)	76 (39.8%)	

[Table/Fig-3]: Disgust comparison through various impure entitiesin the two groups (n=191).
p-value<0.05 was considered as statistically significant; *Expected counts were less than 5 for more than 20% of cells.

disgusting things. In the rest of the instances, the two groups were not significantly different, or both held a similar level of disgust.

House, sources of drinking water (well), and places of worship held the highest moral and social worth in societies and individuals' life. These entities strived to be pure and free from any impurity. Proximity was a matter of concern about defecation practices. [Table/Fig-4] suggests that OD is extremely disliked if it is practiced near a house, a well, or a place of worship. However, latrine use was also disliked if it was constructed near a well and a place of worship. Both the groups of households were not significantly different regarding the proximity of OD and latrine from the spaces of importance. However, latrine construction was encouraged near and far from the house. However, nearly half of the sample disagree that a latrine can be built inside the house. Also, a small group considered OD as pure if practiced far from the house. Among the two groups, social norms were not significantly different concerning the proximity of defecation spots. The Chi-square test [Table/Fig-4] was found to be significant where some OD-practicing households had a different opinion than most of the latrine-using households about the practice of OD near the house. But the association was statistically nullified due to a violation of a Chi-square assumption where it was shown that more than 20% of cells had less than five expected counts. Also, the two groups remain largely against OD near the house. Hence, the two groups were not different in terms of social norms regarding defecation practices.Chi-square test findings showed that notions of purity and impurity were similar across latrine users and OD practitioners.

S.No.	Variables	Household Defecation Behaviour			p-value
		Latrine (n,%)	OD (n,%)	Total (n,%)	
a	Latrine constructed far from the house.				
	Pure	11 (5)	24 (9)	35 (7.2)	0.097
	Does not matter	207 (95)	244 (91)	451 (92.8)	
b	Defecating in the open far from the house				
	Pure	35 (16.1)	42 (15.7)	77 (15.8)	0.95
	Not pure	166 (76.1)	203 (75.7)	369 (75.9)	
	Does not matter	17 (7.8)	23 (8.6)	40 (8.2)	
c	Latrine constructed near the house				
	Pure	142 (65.1)	192 (71.6)	334 (68.7)	0.192
	Not pure	8 (3.7)	12 (4.5)	20 (4.1)	
	Does not matter	68 (31.2)	64 (23.9)	132 (27.2)	
d	Defecating in the open near the house				
	Pure	0	5 (1.9)	5 (1)	0.024*
	Not pure	215 (98.6)	252 (94)	467 (96.1)	
	Does not matter	3 (1.4)	11 (4.1)	14 (2.9)	
e	Latrine constructed inside the house				
	Pure	85 (39)	83 (31)	168 (34.6)	0.18
	Not pure	99 (45.4)	137 (51.1)	236 (48.6)	
	Does not matter	34 (15.6)	48 (17.9)	82 (16.9)	

f	Latrine constructed near a well				
	Pure	0 (0)	1 (0.4)	1 (0.2)	0.481*
	Not pure	217 (99.5)	264 (98.5)	481 (99)	
	Does not matter	1 (0.5)	3 (1.1)	4 (0.8)	
g	Defecating in the open near a well				
	Pure	0 (0)	1 (0.4)	1 (0.2)	0.481*
	Not pure	217 (99.5)	264 (98.5)	481 (99)	
	Does not matter	1 (0.5)	3 (1.1)	4 (0.8)	
h	Latrine constructed near a mosque/ temple				
	Not pure	217 (99.5)	265 (98.9)	482 (99.2)	0.423*
	Does not matter	1 (0.5)	3 (1.1)	4 (0.8)	
i	Defecating in the open near a mosque/ temple				
	Not pure	217 (99.5)	265 (98.9)	482 (99.2)	0.423*
	Does not matter	1 (0.5)	3 (1.1)	4 (0.8)	

[Table/Fig-4]: Impurity caused by defecation spaces to the places ofimportance (n=486).
Values represented in frequency (percentage)
*Expected counts were less than 5 for more than 20% of cells

Causes and motivations for defecation behaviours: An examination of opinion on defecation practices revealed that nearly fifty percent (48.8%) of latrine users think OD happens due to cost and poverty. 'Cost and poverty' is a category drawn from statements such as; "they are poor people who do not have a house that can accommodate a latrine," "OD is not a choice one has to practice it due to lack of money", "people are not having land how they are supposed to own a latrine and stop OD." While the statements that highlighted OD as a choice (8%) were made as "they (OD practitioners) enjoy walking to the fields", "they get fresh air." The third category was identified as 'habit and tradition' (39.3%). According to this category, latrine users believe that OD is a result of long-held beliefs that people do not want to give up or they do not want to change their behaviour. "These people are demeaning the government's efforts by holding their backward thinking", "backward castes practice OD", and "they (OD practitioners) do not care about sanitation" were some of the statements. Some latrine users had an opinion (4%) that it is a structural or policy failure that is lacking to make people shift from OD to latrine use. They mentioned that "there are widespread misconceptions about latrines", and "they (OD practitioners) do not know the benefits of the latrine." Hence, latrine users as a group are not homogenous in perceiving the cause of OD.

On the other hand, OD practitioners were coherent in mentioning the cause of their behaviour. It is 'cost and poverty' compelling them to OD (76%). "We are 'Nat'; what option do we have." This was the response of a household to the question of why they were practicing OD. 'Nat' is a community that migrates from one place to another; they do not own land and house; they live in tents.

Less than twenty percent (19.4%) of OD practitioners appreciated OD behaviour by counting the perceived benefits of OD. In this relatively smaller category, participants mentioned that "the early morning walk to reach OD spot is good for health" in another instance, a participant said, "the walk for OD saves people from the risk of diabetes." The two groups' perceived causes of OD are statistically significant [Table/Fig-5]. It means the two groups widely differ in opinion regarding OD. The norms that shape opinions to establish the cause of OD are situational for latrine users but experiential for OD practitioners.

For latrine users, latrine use is important mainly for three reasons; viz. comfort and convenience (21.9%), good health (27.8%), and women's dignity (21.2%). The response of latrine users when asked about the cause and motivation to adopt latrine, they stated, "latrine use is a healthy practice," and "there is no trouble in monsoon." Some other latrine owners said, "constructed out of fear that police will arrest," and "ward members were constantly pressurizing to build a latrine." On the other hand, OD practicing householdsconsider comfort and convenience as the most significant benefit of latrine use (32.1%). Then women's dignity (20.4%) and health benefits (19%) were mentioned most by OD practitioners as the benefits of latrine use. They stated that "in an emergency, one does not have to go outside," "it (latrine) can stop the scuffles due to OD," and "the space for OD is declining due to expansion of population, it (latrine) is need of contemporary time." The association is statistically significant [Table/Fig-5]. It shows that the two groups (latrine users and OD practitioners) have different sets of opinions regarding the cause of latrine and the benefits of latrine adoption. However, the attitude towards latrines was positive for both groups.

S.No.	Causes of Open Defecation	Latrine users (n,%)	OD practitioners (n,%)	Total	p-value (Chi-square test)
1.	Cost and poverty; lack of space, no right on land, poor tenancy	159 (48.8)	223 (76.0)	382 (61.6)	<0.001
2.	Pleasure, comfort & convenience; fresh air, walk, etc	26 (8.0)	57 (19.4)	83 (13.4)	
3.	Habit, tradition, always done so; low and backward caste people do that, they do not care about sanitation, intentionally demeaning government's efforts	128 (39.3)	4 (1.3)	132 (21.3)	
4.	Policy failure; Illiteracy; Low awareness, backwardness, misconceptions about latrine	13 (4.0)	10 (3.4)	23 (3.7)	
	Total	326 (100)	294 (100)	620 (100)	
Benefits of Latrine Use and Cause of Latrine Adoption					
1.	Comfort and convenience; good for children, useful in sudden nature's call, time-saving, no risk like OD in monsoon, protection from snake and scorpion stings, safety and security	118 (21.9)	225 (32.1)	343 (27.7)	<0.001
2.	Latrine improves health	150 (27.8)	133 (19.0)	283 (22.8)	
3.	Status and social relations; good for guests, no insult and humiliation due to OD	74 (13.7)	47 (6.7)	121 (9.8)	
4.	For the sake of women in the family	114 (21.2)	143 (20.4)	257 (20.7)	
5.	Good for old and disabled people	10 (1.9)	49 (7.0)	59 (4.8)	
6.	Peace, privacy, and being alone	51 (9.5)	75 (10.7)	126 (10.2)	
7.	Lack of space for OD;frequent floods	5 (0.9)	8 (1.1)	13 (1.0)	
8.	Pressurized; government is pressurizing, no ration supply, no admission of children in school, if latrine is not constructed	13 (2.4)	7 (1.0)	20 (1.6)	
9.	Keeps environment clean; manure, biogas, clean village, no disgust visible, need of contemporary times	4 (0.7)	13 (1.9)	17 (1.4)	
	Total	539 (100)	700 (100)	1239 (100)	

[Table/Fig-5]: Causes, benefits, and harms of latrine use and open defecation.
The data was analysed response-wise and not case-wise. Participants were free to make more than one response. During analysis, four broad categories were identified and accordingly, a total number of responses were counted and reported: [1] cost and poverty, [2] pleasure, comfort and convenience, [3] Habit, tradition, and always do so [4] Policy failure

Indian public sanitation scheme provides INR 12000 as assistance to construct an individual household latrine [26]. This assistance is enough to build a kutcha latrine. [Table/Fig-6] represents two questions; the first was asked to latrine users, and the second was asked to OD practitioners. The nature of the questions was the same. It was intended to know the desirability of latrines based on cost. INR 12000 was considered a separating point for two types of latrines; with INR 12000 or less, one can build a kutcha latrine, and with more than INR 12000, one can build a pukka concrete pit latrine.

Latrine cost	Yes (n,%)	No (n,%)	Total (n,%)	p-value
Latrine users: Did you want your latrine to be made some other way?				
≤INR 12000	20 (47.6)	22 (52.4)	42 (100)	<0.0001
>INR 12000	20 (9.6)	189 (90.4)	209 (100)	
Total	40 (15.9)	211 (84.1)	251 (100)	
OD practitioners: Will you construct a latrine at this cost?				
≤INR 12000	20 (38.5)	32 (61.5)	52 (100)	<0.0001
>INR 12000	96 (88.1)	13 (11.9)	109 (100)	
Total	116 (72.0)	45 (28.0)	161 (100)	

[Table/Fig-6]: Latrine preferences based on cost.

Latrine users who already own a latrine were asked whether they wanted it to be made some other way. It is asked whether they were satisfied or dissatisfied with their latrine. The cost of making those latrines was categorised into two and cross-tabulated. It gave a statistically significant result that shows that 47.6% of participants were not satisfied with the latrine they had that cost them INR 12000 and less, and they mentioned that they wanted to build the latrine some other way. At the same time, 90.4% of participants were satisfied with the latrine they owned that cost more than INR 12000 and did not want it to be another way.

At the same time, OD practitioners were asked how much a good latrine costs and whether they will adopt a latrine of that cost. Their responses were again categorised into two categories: latrines costing less than or equal to INR 12000 and more than INR 12000. The preference or desire for OD practitioners for latrines is also based on cost. Of those who said a good latrine could be built with INR 12000 and less, 61.5% did not want to accept it, while those participantswho said a good latrine would cost more than INR 12000, 88.1% said they would accept that latrine.The Chi-square test was found significant. It means social norms control preferences that are indirectly related to cost, but there are other factors beyond the scope of the present study that can be studied in future research.

DISCUSSION

Social norms are embedded in behaviours [4]. If a group's collective conscience is that the open defecation is impure, the group will act effectively to adopt a latrine. There would be a lesser chance that group members deviate from latrine use despite having a latrine [27]. If the latrine is regarded as essential by the group, it will make efforts to own the latrine. The present study found that households have moved away from approving OD, unlike the households in 2014 who were approving OD by saying that latrine would not improve their health [26]. However, this realisation of latrine benefits and usefulness did not result in OD free households, as seen in the present study. It is because conventional and expensive latrines are most desirable than low-cost latrines, these findings are supported study done by Nawab B et al., [15].

Open defecation practicing households and latrine-using households share almost the same social norms regarding purity and pollution in the current study. However, OD households find it difficult to adopt latrines due to a lack of resources. In the past five years (2014-19), beliefs regarding latrine use and open defecation have changed, but practices have not changed correspondingly. It is only due to a lack of financial resources. Social norms are changing, and defecation behaviours are also shifting towards latrine use. The shift in beliefs were faster than shift in behaviour. However, perceived causes of OD (by latrine users) and experiential causes of OD (by OD practitioners) differ. It reflects a rift in social norms in two groups where they were similar in perceiving ritual purity and impurity but different in perceptions of the cause of problematic behaviour.

The cause of latrine adoption (by latrine users) and the perceived benefits of latrine adoption (by OD practitioners) are also mutually distancing the opinions of the two groups,although the two groups responded in favor of latrine despite the different reasons.

Social norms of purity and impurity are strongly holding the attainment of ODF goals of the Swachh Bharat Mission (SBM). The interconnected factors of social and economic nature are interwoven through social norms that affect latrine adoption in Aurangabad. The new twin pit latrine, which is cost-effective, has to be legitimized in the community so that it should not be disliked like other impure things. Also, poverty is a real factor affecting the goal of SBM. It is hard to envisage households with latrines but without house and land ownership.

Limitation(s)

Representation of women is lacking in the data. Women play essential roles in household decision-making. Their worldview regarding latrine use and open defecation is much anticipated. Being a male, the researcher was not a preferred individual to interview the women in the field. The study is about a district in Bihar. It reveals the issues of households of that particular district, while other districts in the same state and other states can reveal further issues related to the topic.

CONCLUSION(S)

The comparison of the two groups, latrine users and OD practitioners, about social norms revealed that the two groups criticised OD equally and supported latrine use. Despite this consensus across the population, there is a contention about the existence of OD and reasons to adopt a latrine between the two groups. Households in the field were aware of latrine use, but not for appropriate reasons. The motivation to shift towards latrine comes from a comfort point of view (for OD practitioners) but not from a health point of view. Similarly, OD is considered an individual's and a group's problem (by latrine users) and not a community's problem. At the same time, the expensive latrine is idealised through social norms where the cheapest twin pit latrines are not preferred. Hence, the progress toward an open defecation-free community is a long process unless the social norm is corrected from considering latrine a luxury to a necessity.

REFERENCES

[1] Legros S, Cislaghi B. Mapping the social-norms literature: An overview of reviews. Perspect Psychol Sci. 2020;15(1):62-80.
[2] Hechter M, Opp KD. Introduction. In: Hechter M, Opp KD, editors. Social Norms. Russell Sage Foundation; 2001:xi-xx. [cited 2021 Oct 10]. Available from: https://bit.ly/3mUPri2.
[3] Cialdini RB, Trost MR. Social influence: Social norms, conformity, and compliance. In: Gilbert DT, Fiske ST, Lindzey G, editors. The Handbook of Social Psychology. McGraw-Hill; 1998:151-92.
[4] Reese G, Amir R, Cameron JE. The interplay between social identities and globalization. In: The Psychology of Globalization. Elsevier; 2019:71-99. [cited 2022 Apr 7] Available from: https://linkinghub.elsevier.com/retrieve/pii/C2016003228X.
[5] Anderson JE, Dunning D. Behavioural norms: Variants and their identification: norms and their variants. Soc Personal Psychol Compass. 2014;8(12):721-38.
[6] Dannals JE, Miller DT. Social Norms in Organizations. In: Oxford Research Encyclopedia of Business and Management . Oxford University Press; 2017 [cited 2022 Apr 7]. Available from: http://business.oxfordre.com/view/10.1093/acrefore/9780190224851.001.0001/acrefore-9780190224851-e-139.
[7] Mahmoud MA, Ahmad MS, Mohd Yusoff MZ, Mustapha A. A review of norms and normative multiagent systems. Sci World J. 2014;2014:01-23.

[8] Young HP. The Evolution of Social Norms. Annu Rev Econ. 2015;7(1):359-87.
[9] O'Connell K. What Influences Open Defecation and Latrine Ownership in Rural Households?: Findings from Global Review [Internet]. Water and Sanitation Program; 2014. Available from: https://www.wsp.org/sites/wsp/files/publications/WSP-What-Influences-Open-Defecation-Global-Sanitation-Review.pdf.
[10] Mackie G. What are Social Norms? How are They Measured? UNICEF/ University of California; 2015.
[11] Andres LA, Briceño B, Chase C, Echenique JA. Sanitation and externalities: Evidence from early childhood health in rural India. The World Bank; 2014 [cited 2022 Apr 12]. (Policy Research Working Papers). Available from: http://elibrary.worldbank.org/doi/book/10.1596/1813-9450-6737
[12] Coffey D, Gupta A, Hathi P, Spears D, Srivastav N, Vyas S. Understanding open defecation in rural India: Untouchability, pollution, and latrine pits. Econ Polit Wkly. 2017;52(1):59-66.
[13] Wiekens CJ, Stapel DA. Self-awareness and saliency of social versus Individualistic Behavioural Standards. Soc Psychol. 2010;41(1):10-19.
[14] Helbing D, Yu W, Opp KD, Rauhut H. The emergence of homogeneous norms in heterogeneous populations [Internet]. Santa Fe Institute; 2022 [cited 2022 Aug 10]. Available from: https://www.santafe.edu/research/results/working-papers/the-emergence-of-homogeneous-norms-in-heterogeneou.
[15] Nawab B, Nyborg ILP, Esser KB, Jenssen PD. Cultural preferences in designing ecological sanitation systems in North West Frontier Province, Pakistan. J Environ Psychol. 2006;26(3):236-46.
[16] Forth G. Purity, Pollution, and Systems of Classification. In: Callan H, editor. The International Encyclopedia of Anthropology [Internet]. 1st ed. Wiley; 2017 [cited 2022 Apr 12].1-13. Available from: https://onlinelibrary.wiley.com/doi/10.1002/9781118924396.wbiea2003.
[17] Douglas M. Purity and danger an analysis of concept of pollution and taboo. London: Routledge; 1966.
[18] Dumont L. Homo Hierarchicus: The caste system and its implication. Oxford University Press; 1982.
[19] Haidt J. The Moral Emotions. In: Davidson RJ, Scherer KR, Goldsmith, editors. Handbood of affective sciences. Oxford: Oxford University Press. 2003;852-70.
[20] Horberg EJ, Oveis C, Keltner D, Cohen AB. Disgust and the moralization of purity. J Pers Soc Psychol. 2009;97(6):963-76.
[21] Census. Percentage of Households to Total Households by Amenities and Assets [Internet]. New Delhi: Registrar General of India, Ministry of Home Affairs, Government of India; 2011 [cited 2022 Aug 11]. Report No.: PC11_HL14. Available from: https://censusindia.gov.in/census.website/data/census-tables.
[22] Census. Percentage of Households to Total Households by Amenities and Assets [Internet]. New Delhi: Registrar General of India, Ministry of Home Affairs, Government of India; 2011 [cited 2022 Aug 11]. Report No.: PC11_HL14. Available from: https://censusindia.gov.in/census.website/data/census-tables.
[23] Swachh Survekshan Grameen 2022 [Internet]. Department of Drinking Water and Sanitation, Ministry of Jal Shakti, Government of India; 2022 [cited 2022 Nov 17]. Available from: https://swachhbharatmission.gov.in/sbmcms/writereaddata/Portal/Images/pdf/SSG-2022-report.pdf.
[24] SQUAT survey. Research Institute for Compassionate Economics (RICE); 2014.
[25] Hjelm L, Mathiassen A, Miller D, Wadhwa A. VAM Guidance Paper: Creation of a Wealth Index. wfp.org; 2017. Available from: https://www.wfp.org/publications/creation-wealth-index-june-2017.
[26] Government of India. Swachh Bharat Mission - Grameen: World's Largest Behaviour Change Programme [Internet]. Ministry of Information and Broadcasting; 2021 [cited 2022 Aug 15]. Available from: https://swachhbharatmission.gov.in/SBMCMS/writereaddata/portal/images/pdf/SBM_G_booklet.pdf.
[27] Gauri V, Rahman T, Sen IK. Shifting social norms to reduce open defecation in rural India. Behav Public Policy. 2020:01-25.
[28] Coffey D, Gupta A, Hathi P, Khurana N, Spears D, Srivastav N, et al. Revealed preference for open defecation: Evidence from a new survey in rural north India. Econ Polit Wkly. 2014;49(38):43-55.

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