Nusantara Journal of Behavioral and Social Science. 3(4), 2024; 185-190
ISSN 2828-1039 (print), ISSN 2828-0733 (online)
https://doi.org/10.47679/njbss.202466

RESEARCH ARTICLE

Rural India, the problem of open defecation and India′s public health programs: Lessons in social learning

Abhay Chawla

Published online: 30 November 2024

Abstract: Open defecation (OD) remains a significant public health and environmental challenge, particularly in rural India, where socio-economic and cultural barriers hinder the adoption of sanitation facilities. Despite over two decades of government initiatives, including the Total Sanitation Campaign (TSC), Nirmal Bharat Abhiyan (NBA), and Swachh Bharat Mission (SBM), achieving an Open Defecation Free (ODF) status has proven elusive. This paper examines the systemic limitations of these programs, focusing on the disconnect between policy objectives and community realities. Drawing from the author′s field experience in Haryana, the study highlights critical barriers, including inadequate water supply, economic constraints, and insufficient integration of social learning strategies. The analysis underscores the failure of top-down approaches that emphasize latrine construction while neglecting socio-cultural dynamics and local engagement. The lack of trained personnel, culturally relevant messaging, and participatory planning has resulted in low adoption rates and widespread skepticism about sanitation programs. Using Bandura′s social learning theory, the paper advocates for community-led approaches that leverage social networks and behavioral modeling to foster sustainable change. By comparing India's experiences with successful sanitation strategies in countries like Bangladesh, this study emphasizes the need for context-specific, inclusive, and adaptive solutions. The findings contribute to the broader discourse on public health, demonstrating that sustainable sanitation requires a holistic approach integrating technology, behavior change, and community ownership. Policymakers must prioritize cultural sensitivity and social learning to bridge the gap between infrastructure provision and behavioral adoption, ensuring long-term public health benefits.

Keywords: Open defecation, sanitation programs, social learning, rural India, public health.

INTRODUCTION

Open defecation (OD), the practice of defecating in open spaces, has been a persistent issue, particularly in rural and underserved regions. Historically, this practice was commonplace before the advent of public health awareness and sanitation infrastructure. The discovery of germs and a growing understanding of public health and human dignity have led to global efforts to mitigate OD, with sanitation becoming a critical focus (World Health Organization [WHO], 2020). Despite these advancements, over 1.7 billion people worldwide still lack basic sanitation services, with 494 million continuing to defecate in the open (WHO, 2020).

In developing countries such as India, where a large population faces poverty and constrained governmental resources, eliminating OD presents a significant challenge. According to a joint monitoring program by WHO and UNICEF (2021), 15% of India's population practices OD, with rural areas exhibiting a higher prevalence at 22%. This disparity underscores the urgent need for targeted interventions to address this issue comprehensively.

The persistence of OD in India is not merely a matter of infrastructure but also of behavioral and cultural dynamics. Vulnerable groups, particularly women and children, bear the brunt of the adverse effects of OD. It has been linked to increased risks of waterborne diseases, malnutrition, and safety concerns for women (Coffey et al., 2017). Addressing OD requires not just technological solutions but also behavioral change, which necessitates a deep understanding of the socio-cultural fabric of rural communities.

This paper builds on the author's immersive experience as a consultant to the District Rural Development Agency (DRDA) in Gurgaon, Haryana. The author contends that the public health programs aimed at reducing OD in India have largely overlooked the crucial role of social learning. Programs like the Swachh Bharat Mission (SBM) have focused predominantly on the construction of latrines, adopting a top-down, bureaucratic approach with limited regard for local psychology, cultural contexts, and existing social networks. Such an approach may have inadvertently hindered India′s progress towards achieving an Open Defecation Free (ODF) status.

Theoretically, social learning plays a pivotal role in fostering sustainable behavioral change. Bandura's social

[1] Academic Counsellor, IGNOU University, Maidan Garhi, New Delhi, India

*) corresponding author

Abhay Chawla

Email: abhaychawla13@duck.com

Submitted: 30 June 2024 Revised: 15 November 2024 Accepted: 25 November 2024

learning theory emphasizes the importance of observing, modeling, and imitating behaviors, attitudes, and emotional reactions of others in a social context (Bandura, 1977). Applying this framework, effective sanitation programs must leverage social networks and cultural influencers to encourage the adoption of sanitation technologies like flush toilets. By addressing cultural norms and misconceptions, social learning can bridge the gap between infrastructure availability and behavioral adoption.

OD is not an issue confined to India; it remains a global concern, with lessons from India's experience offering valuable insights for other developing countries. Understanding the socio-economic and cultural factors that hinder sanitation adoption can guide more inclusive and sustainable approaches worldwide. The author argues that by integrating social learning into program design and execution, India and other nations can make meaningful strides in addressing OD and its associated public health challenges.

BACKGROUND

Efforts to address open defecation (OD) in India began in earnest with the launch of the Total Sanitation Campaign (TSC) by the Government of India in 1999. The TSC was designed to promote sanitation through community engagement and the provision of financial incentives for household latrine construction. Over the years, the program evolved into the Nirmal Bharat Abhiyan (NBA) in 2012 and later, the Swachh Bharat Mission (SBM) in 2014. Each phase aimed to accelerate the progress toward achieving an Open Defecation Free (ODF) India by focusing on latrine construction and behavioral change campaigns (Ministry of Drinking Water and Sanitation, 2014).

The TSC initially targeted Below Poverty Line (BPL) households, providing financial subsidies for the construction of latrines. These subsidies, however, were disbursed only after the completion and certification of construction by the local governing bodies (panchayats). Above Poverty Line (APL) households were not eligible for these subsidies, creating an economic divide in access to sanitation infrastructure (Government of India, 2017). The subsequent iterations, NBA and SBM, retained similar approaches but scaled up efforts to align with national and international commitments to sanitation, including the United Nations' Sustainable Development Goals (SDGs).

During 2007-2008, the author served as a consultant for the District Rural Development Agency (DRDA) in Gurgaon, Haryana. This role involved extensive fieldwork across the district's blocks—Gurgaon, Sohna, Pataudi, and Farrukhnagar—engaging with stakeholders such as village heads (sarpanches), Accredited Social Health Activists (ASHAs), anganwadi workers, school teachers, and community members. The author's participation in town hall meetings revealed critical challenges faced by rural communities in adopting household latrines, despite the government's efforts.

While the government emphasized health, hygiene, and dignity as key motivators for latrine adoption, the concerns voiced by rural populations often centered on practical and logistical barriers. One significant issue was the lack of water access, as many rural households did not have piped water, rendering flush latrines impractical. According to the 2011 Census, only 31% of rural households had access to tap water, while the majority relied on handpumps and wells, which were frequently inadequate for supporting sanitation facilities (Census of India, 2011). Another barrier was space constraints, particularly among Below Poverty Line (BPL) households, which often lacked the physical space needed for latrine construction, including pits for waste collection. This challenge was further exacerbated in larger households, a common feature in rural areas (Coffey et al., 2017). Finally, economic barriers posed a considerable challenge. The financial subsidies provided under the Swachh Bharat Mission (SBM), amounting to INR 12,000 per latrine, were insufficient to cover the actual construction costs, which were estimated to be three times higher. Additionally, the requirement for households to make an upfront investment, coupled with the bureaucratic complexities involved in claiming subsidies, further deterred participation (Gupta et al., 2019).

The sanitation programs largely failed to account for the socio-cultural and behavioral dynamics influencing latrine adoption in rural areas. Despite government messaging emphasizing the health risks of OD and the dignity associated with sanitation, these narratives often clashed with the lived realities and perceptions of rural communities. Questions raised during community meetings, such as, "Why should we prioritize latrines when the government cannot provide tap water?" and "Why does animal excreta not cause diseases if human waste does?" highlighted the disconnect between official narratives and community understanding.

A significant limitation was the lack of trained masons and the absence of low-cost sanitation solutions tailored to rural contexts. Many rural masons discouraged the construction of pit latrines, citing their limited lifespan and the higher profitability of septic tank systems. This gap in technical expertise further alienated rural populations from the program's goals (Loughborough University, 2018).

The programs also failed to integrate principles of social learning, which are crucial for fostering sustainable behavioral change. Bandura's (1977) social learning theory posits that individuals are more likely to adopt new behaviors when they observe their peers doing so within their social networks. However, sanitation campaigns in India primarily relied on top-down communication strategies that did not leverage existing social networks or local influencers. As a result, the messaging often lacked cultural relevance and failed to inspire collective action.

The challenges identified during the implementation of the SBM highlight the need for a paradigm shift in India's approach to sanitation. Future programs must move beyond a construction-centric model to incorporate behavioral insights, community engagement, and context-specific solutions. Integrating social learning into program design could enable rural communities to take ownership of sanitation initiatives, ultimately bridging the gap between policy objectives and ground realities.

QUESTIONING THE PREMISE

While many experts have attributed the slow adoption of household latrines in India to cultural beliefs surrounding purity and pollution, there has been little critical examination of the foundational question: "Why is a technology like the latrine considered essential for a poor country like India?" Although numerous studies have highlighted the links between open defecation and health risks, such as waterborne diseases and malnutrition, there appears to be a lack of exploration into alternative technological or non-technological solutions. This gap

raises concerns about whether sufficient research was conducted before implementing large-scale sanitation programs or if international funding agencies shaped these programs without fully considering India's socio-economic and cultural complexities.

Alternative sanitation technologies, such as dry toilets or bio-toilets, offer viable solutions that could address the limitations of flush toilets in rural settings. These technologies, which require minimal water and are more cost-effective, have been successfully implemented in other resource-constrained contexts (Loughborough University, 2018). For instance, Bangladesh has achieved notable success with inexpensive pit latrines, which are simple to construct and maintain (Coffey et al., 2017). In contrast, India's focus on flush latrines has often failed to accommodate the realities of water scarcity, spatial constraints, and financial limitations prevalent in rural communities.

The heavy emphasis on latrine construction in India's sanitation programs, such as the Swachh Bharat Mission (SBM), reveals a reliance on a one-size-fits-all technological solution. This approach often disregards local needs and the socio-cultural environment of the target populations. For instance, the upfront cost of constructing a flush latrine far exceeds the subsidy provided by the government, with the average cost estimated at INR 34,000 compared to the INR 12,000 subsidy (Gupta et al., 2019). This mismatch has resulted in financial barriers for many households, leading to low adoption rates and, in some cases, misuse of subsidies.

Furthermore, the reliance on international frameworks for sanitation—rooted in Western-centric models—has overlooked the importance of integrating indigenous knowledge and local practices. The top-down approach to sanitation planning has failed to engage communities as active stakeholders, resulting in a lack of ownership and long-term sustainability. Questions raised by rural communities, such as "Why doesn't the government prioritize piped water if sanitation is so important?" or "Why is animal waste ignored while human excreta is deemed dangerous?" highlight the disconnect between program messaging and local perceptions.

To move forward, India's sanitation programs must embrace a more inclusive and adaptive strategy. Drawing lessons from Bangladesh, incorporating low-cost technologies, and fostering local innovation could address the socio-economic and logistical barriers hindering progress. Additionally, leveraging social networks and community-driven initiatives can help bridge the gap between policy intentions and ground realities, fostering a deeper understanding of the behavioral and cultural dimensions of sanitation.

LIMITATION OF THE PROJECT

The focus on construction of latrines has inherent technology ecosystem to go along. The flush latrine requires a person with masonry skills for construction besides the requisite raw materials, it requires water to flush and way for that water to be available to be used after using the latrine, it requires a certain area in the household where it can be constructed and finally it requires a way to dispose of the excreta. While urban arears have a space problem and are provided with a sewage system, there is ample space in the rural areas with an absence of sewage systems in large parts of rural India. If there was social learning by the personnel of various agencies during the initial years of the implementation of the project they would have understand the inherent limitations involved with pushing the flush latrines for preventing open defecation. Let's elucidate these limitations.

1. Availability of Water for a Flush Latrine

Sanitation using a latrine is linked with sufficient water as the flush latrine technology needs adequate and continuous supply of water. A little research on the drinking water situation in rural India would have raised a red flag for the policy makers or the project managers of this project. In rural India as per 2011 census (Kumar & Das, 2014), hand-pump (43.6%) was the leading source of drinking water in households followed by tap water (treated-18% & untreated-13%) and well (covered-1.5% & uncovered-12%). These figures would have changed drastically considering the drastic drop in water table across the country. Hence in 2011 as per data available the government was only able to provide 31% of households with treated and untreated tap water (assuming water came in those taps for at least sufficient time to fill household storage). With 69% of household with no assured water the success of a flush latrine technology in rural India was hitting like a roadblock.

2. Housing

Census of India 2011 puts rural households at 221 million. Out of these only 206 million were found to be occupied at the time of census. Among this 52 million were permanent, 30.1 semi-permanent (Kumar, Deka, & Sinha, 2016). Also the same census tells us that good houses in the rural areas are less than half (46 per cent). This itself denotes a huge problem which comes in the way of individual household latrines i.e. if a family does not have a good livable permanent house how will they afford to construct a latrine.

On top of the above it was estimated that a total housing shortage of 48.8 million houses for the plan period (2012-17) (MoRD 2011). According to it, 90 per cent of these shortages are for BPL families which turn out to be 43.93 million houses which is a huge red flag for an individual household latrine construction. Hence giving subsidies for latrine construction when the below poverty households either do not have a house or a decent house will inevitably lead to non-deserving candidates siphoning off the subsidies meant for the deserving leading to a situation where it appears latrines are being constructed but they are not.

3. Subsidy for construction

The subsidy for individual household latrine construction is larger at Rs 12,000 under Swaacch Bharat Mission compared to the Nirmal Bharat Abhiyan's (NBA, 2012-2014) Rs 10,000, and the Total Sanitation Campaign's (TSC, 2001-2011) Rs 4,500.

Gupta, Khalid et.al (2019) writing in "The India Form" state:

Many households in rural India do not want to build or use affordable latrines (Coffey & Spears 2017). Unlike in neighbouring Bangladesh, where inexpensive pit latrines are the norm, many households in rural India prefer expensive latrines with large pits or containment chambers (Coffey et al 2017).

Large pits and containment chambers require less frequent emptying than affordable latrine pits, so they help

their owners avoid hiring a manual scavenger. Such latrines are, however, substantially more expensive than the Rs 12,000 provided by the SBM. Indeed, the average cost of a latrine that a household constructed itself in the 2018 survey cost nearly three times that much, about Rs 34,000.

As noted in the article and as was experienced firsthand constructing a latrine is substantially more expensive that the subsidy offered. If one was to add the fact that the initial investment has to be done by the household and the cost of recovering the subsidy which usually involved intensive follow up and visiting the BDO (Block Development Office) the whole latrine project is unviable for the household commercially and hence another aspect of hesitation. On top of this the corruption in the process of subsidy disbursement dissuades many to attempt the process.

4. Community Toilets

One of the critical aspects of the whole scheme is community toilets. Community toilets are proposed in villages where individual households don't have land, water or resources for construction. So obviously it seems people in the project development were aware of the limitations of land, water and resources.

As per the latest document of Swacch Bharat Mission (SBM), "Community Sanitary Complexes comprising an appropriate number of toilet seats, bathing cubicles, washing platforms, wash basins etc., can be set up in a place in the village acceptable and accessible to all. The maximum support per-unit prescribed for a Community Sanitary Complex is Rs. 2 lacs. Sharing pattern amongst Central Government, State Government and the Community is in the ratio of 60:30:10.

If Social Networks were consulted on community toilets, project planners would have known that the community toilets can be constructed only on panchayat land which is normally far away from where the community stays, secondly nobody owns this structure hence the upkeep of the structure and providing water and cleanliness has no accountability leading to these structures either never used or go into disuse. The author came across many such structure during his tenure which were half finished providing no benefit to anybody from the community.

There was subsequently an idea generated at the local official level to allow individual latrines in the community toilets to be allocated to households but as these were far from residences with no ownership, these structures become haunts for anti-social elements of the villages and hence went into disuse, the tragedy of commons.

5. Knowledge and Expertise of Latrine Construction

The prevalent information for rural sanitation in the public domain involves single pit, twin pit or septic tank toilets. For example Loughborough University has a detailed guidebook on pit latrines on their website https://wedc-knowledge.lboro.ac.uk/resources/booklets/G005-Latrine-slabs-on-line.pdf. Between the information disseminated as desirable for sanitation and the construction worker in the village (village mason or plumber etc.) who did the latrine construction, there was a huge gap. For example, most village masons or plumber discouraged the construction of pit toilets because most users believed a pit will fill up very fast especially in households with large families. This coupled with the conventional mason/plumber's knowledge of constructing a septic tank toilet plus the greed of more money in this type of construction as it involves more time and material deterred the masons as well as rural folks to get cheaper latrines constructed. There was also no social learning on constructing cheaper pit toilets and their cleaning.

6. Communication Message

The absence of bottom up approach was also very visible in the communication messages which were being disseminated by staff and others in the project team. For starters very, few people in the implementing and other government agencies believed that public health and sanitation were important subject and defecation was very much a private affair allowing households and communities to figure their strategies on disposing and dealing with excreta. Besides this being a governmental project with targets on latrine construction, most officers were too keen to force the message they acquired from agencies which funded the project and did the initial handholding. The message acquired remained constant across regions of the country discounting the culture and diversity of India and the focus seemed to be on latrine construction rather than on health and hygiene.

The story by Gupta, Khalid et.al (2019) on "The India Form" illustrates this point clearly.

Most local officials were also familiar with key messages of Community Led Total Sanitation (CLTS) – that open defecation spreads diseases; that disgust can be used to motivate latrine construction and use; and that in the absence of latrines people who defecate in the open should cover their feces. Despite familiarity with these messages, however, local officials often had little time to pass them on to households.

This was demonstrated by an incident in one of the villages where the author was part of a local official team projecting a documentary film to the household members of a village sarpanch, hoping to motivate him to be a trendsetter in his village. This documentary film was made by a UN agency on sanitation which was captured how this agency had motivated villages in a Nanded district in the state of Maharashtra to stop open defection and focus on constructing and using latrines. The local officials believed that the documentary was impactful as it content was made in simple language and showed people of the agency working with village community to stop open defecation. After sitting through the forty-five-minute documentary the only comment the sarpanch made was "but this was from Maharashtra", essentially negating any messages on sanitation and open defecation. This clearly demonstrated mass media being inadequate for social learning as well as the huge diversity in culture and local conditions across the country. (Later research on this village found that as this village adjoined an industrial area, households had created additional structures to sublet their units to migrant workers who worked in the industries. To cut costs, not enough latrines were constructed and workers were encouraged to go to the fields for defecation, hence the hesitation of the sarpanch to take on this subject of stopping open defecation).

The story in "The India Forum", Coercion, Construction, and 'ODF paper pe': Swachh Bharat According to Local Officials, tells you the shortcomings of the flush latrine construction approach for an open defecation free India. The following paragraph explains

why latrine construction is the reason of coercion and misplaced focus for an open defecation free India.

This pressure extended up and down the bureaucracy and is likely to have been an important reason why coercion was so common. The husband of a sarpanch in Madhya Pradesh explained that in his district, "The divisional [CEO] madame got the ration stopped. She did this because people were not getting latrines built in their houses...she did not do anything wrong...she may otherwise not have done this, had she not had pressure of her bosses. She was pressured to get latrines constructed in her jurisdiction."

The local population which is supposed to take benefit of a particular development is not being considered as a stakeholder by the government, the classic mistake all development communication books and theories talk about, one which should never be made in social development. People are the reason why any particular development activity is being undertaken and if they are not a part of planning, implementation and execution, the activity will never be successful. So while the bureaucracy believes it is executing a Community based community led project as do the project papers indicate, community or the project officers have no latitude to experiment, learn and implement solutions which are truly community led.

SOCIAL LEARNING

The failure to integrate social networks and effective social learning mechanisms into sanitation programs has led to significant and often unintended consequences, as illustrated by the anecdote of the "Dhamaka Latrine." This story, widely shared among project workers and villagers in Haryana, serves as a cautionary example of how misinformation and a lack of community engagement can derail well-intentioned public health initiatives.

The story revolves around makeshift latrines constructed by rural residents in response to government campaigns promoting sanitation. These latrines typically consisted of a deep pit for waste, temporary walls for privacy, and a cloth covering as an entrance. Motivated by coercive messages emphasizing that "open defecation spreads germs," villagers interpreted this to mean that defecating in an enclosed space was inherently beneficial. However, due to insufficient guidance and training, these latrines were often poorly designed and implemented.

One infamous incident involved an elderly man who, while using such a latrine, lit a cigarette and inadvertently ignited methane gas that had accumulated in the pit, causing an explosion. Dubbed the "Dhamaka Latrine," this event became a source of ridicule and skepticism among villagers, ultimately undermining the credibility of the sanitation program.

This anecdote underscores the importance of accurate communication and community involvement in sanitation initiatives. The lack of social learning mechanisms resulted in misinterpretations that not only led to safety hazards but also eroded trust in government interventions.

Social learning, as defined by Bandura (1977), emphasizes the role of observation and modeling in acquiring new behaviors. In the context of sanitation, individuals are more likely to adopt latrines when they see others in their community successfully using them. However, India's sanitation programs largely relied on top-down approaches that failed to leverage the potential of local social networks.

Effective social learning strategies require active community participation and the involvement of cultural influencers. For example, community-based approaches, such as participatory rural appraisal and small group demonstrations, have been successfully implemented in Bangladesh to promote the adoption of inexpensive pit latrines (Coffey et al., 2017). These methods build trust and ownership, ensuring that new practices align with local values and conditions.

India's sanitation campaigns, such as the Swachh Bharat Mission (SBM), prioritized the rapid construction of latrines but overlooked the socio-cultural and behavioral dimensions of adoption. The reliance on coercion and uniform messaging often alienated rural communities, as exemplified by questions raised during community meetings: "Why does animal excreta not spread diseases if human waste does?" and "Why doesn't the government prioritize piped water before promoting latrines?" These concerns highlight the disconnect between policy objectives and community perceptions (Gupta et al., 2019).

Additionally, the absence of locally relevant training for masons and community members further compounded the problem. Most rural masons discouraged the construction of affordable pit latrines in favor of more expensive septic tank systems, which were perceived as more profitable but unsuitable for many households (Loughborough University, 2018).

To address the challenges faced by sanitation programs in India, future initiatives should adopt comprehensive social learning strategies. First, community-led demonstrations can be organized to provide practical workshops where local influencers model the construction and maintenance of affordable latrines. Such hands-on training fosters trust and builds community capacity. Second, communication campaigns must be tailored to the cultural and contextual realities of target communities. By incorporating traditional storytelling or folk media, these messages can resonate more deeply with local populations and effectively convey the importance of sanitation practices (UNICEF, 2023). Third, engaging community leaders, such as elders, schoolteachers, and health workers, is essential. These individuals often hold significant influence and can serve as role models to inspire behavioral change within their communities (Coffey et al., 2017). Finally, continuous feedback mechanisms should be established to create channels for communities to voice their concerns and provide input on program implementation. Such systems ensure that interventions remain adaptive and responsive to the evolving needs and challenges of the communities they aim to serve.

India's experience offers valuable lessons for other developing countries grappling with sanitation challenges. For example, Bangladesh's adoption of inexpensive pit latrines demonstrates how low-cost solutions can achieve high rates of acceptance when coupled with effective social learning and community participation. Similarly, Kenya's Community-Led Total Sanitation (CLTS) approach highlights the importance of fostering collective responsibility and using local motivators to drive behavioral change (Kar & Chambers, 2008).

CONCLUSION

The adoption of flush latrines as a technological solution to address open defecation in India illustrates the complexities of implementing large-scale public health

programs. A fundamental principle of any successful technology adoption is its affordability, accessibility, and alignment with the socio-cultural context of its target audience. History has shown that technologies such as mobile phones or televisions are widely adopted when their benefits are clearly understood, and they integrate seamlessly into existing social and economic structures. In contrast, flush latrines in India have faced significant challenges, including inadequate infrastructure, limited community engagement, and a lack of social learning mechanisms.

Despite over two decades of government initiatives, beginning with the Total Sanitation Campaign (TSC) in 1999, followed by the Nirmal Bharat Abhiyan (NBA) and the Swachh Bharat Mission (SBM), achieving Open Defecation Free (ODF) status remains an elusive goal. The lack of water supply, spatial constraints, and economic barriers are recurring issues that continue to hinder the adoption of household latrines. Vandana Kumari's statement, quoted by Sharma (2021), encapsulates the ongoing struggle: "We have been defecating in the open for many years; it has become more of a habit now. Toilets constructed in households are mostly left unused."

The financial burden placed on rural households further exacerbates the problem. Subsidies provided under SBM fall significantly short of the actual costs of latrine construction, with average expenses estimated to be nearly three times higher (Gupta et al., 2019). This economic disparity, combined with bureaucratic inefficiencies in subsidy disbursement, has resulted in a lack of motivation and trust among the rural population.

Moreover, the top-down, bureaucratic approach that prioritizes latrine construction over behavioral change has limited the program's effectiveness. As evidenced by stories like the "Dhamaka Latrine," the absence of community-led social learning has led to misinterpretations, safety hazards, and resistance. Policies have failed to account for the diversity of local cultures and the importance of involving communities in planning and implementation.

Looking ahead, it is imperative for policymakers to acknowledge that sanitation is about more than just toilets—it encompasses behaviors, facilities, and services that together create a hygienic environment. Future programs must integrate community-based approaches and leverage social learning to build trust, foster ownership, and drive sustainable behavioral change. Tailored messaging, participatory methods, and adaptive solutions that address local needs and concerns are essential to bridging the gap between policy intent and ground realities.

As UNICEF (2023) aptly states, "Sanitation is about more than just toilets. Behaviors, facilities, and services together provide the hygienic environment children need to fight diseases and grow up healthy." By embracing this holistic perspective and implementing strategies rooted in cultural sensitivity and social inclusion, India can make meaningful progress toward achieving its ODF goals and improving public health outcomes.

Declaration

i. Ethics approval and consent to participate: Not Applicable
ii. Consent for publication: Not Applicable
iii. Availability of Data and Material (ADM) : Not Applicable
iv. Competing interests: Not Applicable
v. Funding: Not Applicable
vi. Authors' contributions: Not Applicable
vii. Acknowledgment: Not Applicable

REFERENCES

Bandura, A. (1977). *Social Learning Theory*. Englewood Cliffs, NJ: Prentice Hall.

Census of India. (2011). *Household drinking water and sanitation data highlights*. Office of the Registrar General and Census Commissioner.

Coffey, D., Gupta, A., Hathi, P., Spears, D., Srivastav, N., & Vyas, S. (2017). Understanding open defecation in rural India: Untouchability, pollution, and latrine pits. *Economic & Political Weekly, 52*(1), 59–66.

Gupta, A., Khalid, N., et al. (2019). Coercion, construction, and 'ODF paper pe': Swachh Bharat according to local officials. *The India Forum*. Retrieved from https://www.theindiaforum.in/article/swachh-bharat-mission-according-local-government-officials

Kumar, A., & Das, K. C. (2014). Drinking water and sanitation facility in India and its linkages with diarrhoea among children under five: Evidences from recent data. *International Journal of Humanities and Social Science Invention*, 3(4), 50-60. ISSN (Online): 2319-7722, ISSN (Print): 2319-7714.

Kumar, A., Deka, A., & Sinha, R. (2016). *Rural housing in India: Status and policy challenges*. Lokashraya Foundation.

Loughborough University. (2018). *Guidelines for pit latrines*. Retrieved from https://wedc-knowledge.lboro.ac.uk/resources/booklets/G005-Latrine-slabs-on-line.pdf

Ministry of Drinking Water and Sanitation. (2014). *Swachh Bharat Mission guidelines*. Government of India.

Sharma, Ananya (2021, Oct 28). *Here's Why India Is Struggling to Be Truly Open Defecation Free : Why is it that even with an increase in households with improved sanitation conditions, India is not meeting its ODF expectations?* https://thewire.in/government/heres-why-india-is-struggling-to-be-truly-open-defecation-free .

UNICEF (2023, July 5). *Progress on household drinking water, sanitation and hygiene 2000-2022: Special focus on gender.* https://data.unicef.org/resources/jmp-report-2023/

UNICEF. (2021). Progress on household drinking water, sanitation and hygiene 2000–2022: Special focus on gender. Retrieved from https://data.unicef.org/resources/jmp-report-2023/

World Health Organization. (2020). Sanitation facts. Retrieved from https://www.who.int