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40th WEDC International Conference, Loughborough, UK, 2017LOCAL ACTION WITH INTERNATIONAL COOPERATION TO IMPROVE AND
SUSTAIN WATER, SANITATION AND HYGIENE SERVICES**Why do women in India not use public toilets?
Patterns and determinants of usage by women in Warangal City***Y. M. Reddy, V. S. Chary & R. Srividya (India)*

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This paper is part of an extended study to assess the needs of women for public toilets (PT) and sanitation facilities in the city of Warangal, Telangana, India. A quantitative dip-stick study with a sample size of 197 women followed by 21 in-depth interviews was undertaken among a cross-section of women from various walks of life, different ages and qualifications. From the content analysis of the interviews and network analysis of the most commonly co-occurring words, the broad themes that emerged as sanitation needs of women in public spaces were related to high demand for exclusive toilets for women with specific facilities and caretakers who collect money and keep the toilets clean, with particular need for women caretakers to add to the feeling of security. A strong need greater number of well-maintained sanitation facilities in places such as bus stops and railway stations and access to the toilets from main roads rather from interior roads were other aspects that emerged.

Introduction

Greater Warangal Municipal Corporation (GWMC) has taken several initiatives towards improving sanitation in Warangal, the second largest city in the state of Telangana. One of the key interventions is providing Public Toilets (PTs) in areas with high population density (market areas, bus terminals, railway station, intersections, near hospitals etc) to address open defecation/ urination. Thirty-eight (38) PTs were built through Public Private Partnership model with well-defined service level standards and user charges for cost recovery. These toilets have provision for western commode, urinals, handwashing stations, soap and bathing arrangement for men, women and people with special needs. The maintenance of the facilities is being monitored regularly by GWMC to ensure compliance with service standards.

It was observed that the number of women visiting PTs is extremely limited vis-à-vis the predicted demand. This evaluation study is carried out by Administrative Staff College of India (ASCI) to understand the patterns and determinants of PT usage by women.

While a good body of work is available through mass media as journalistic writing and also from legal sources, there is very little scholarly work done in this area of toilet needs for women (Knight & Bichard, 2011; Anthony & Dufresne, 2007; Banzhaf, 2002). The social and psychological issues in restroom design for women have not been studied in detail. Given the enormous interest in sanitation facilities supported by the Government of India's Clean India Mission, though there is increased provision of toilets no provisions have been made to either study or implement women- focused sanitation facilities. There are no established research studies or frameworks that appear to support the needs of safe and hygienic sanitation facilities for women.

This study captures the experiences, usage patterns and needs of women in the city of Warangal, the second largest city in the newly formed state of Telangana using qualitative and quantitative approaches. This study forms part of sanitation improvement program being initiated by the City of Warangal.

Methodology

This study aims to understand the barriers and enablers for usage of PTs and to identify access, design and service related improvements for enhanced usage by women. The first part of the study was a quantitative

dipstick study undertaken to understand the usage and satisfaction levels amongst women with the existing PT facilities in the City. It also identified the attributes of a 'good' PT facility as described by the respondents. The dipstick study, a short survey for exploratory understanding of women's need before designing a more elaborate qualitative study, included 197 women from various walks of life, different ages, qualifications and occupations. The second part of the study, based on these insights was in-depth interviews with 21 women. The sample of women selected for these studies were identified from 14 of the 28 locations around the city in order to ensure geographic spread. Women were also selected carefully to ensure a demographic spread in terms of age, education and occupation. Statistical tools (non-metric multi-dimensional Scaling (NMDS) based co-occurrence (Sorensen's coefficient) and similarity analysis were used to draw inferences. This data was further analysed using network analysis, which revealed strong relationships among some of the concepts.

Results of the study

The dipstick study identified the following:

1. Relatively older women (women surveyed were aged 15 – 74 and older women were those over the age of 35) had higher awareness of sanitation hygiene issues while occupational difference did not make a difference to awareness levels. While a majority of the women were aware of the hygiene issues, they were unable to point out or name specific hygiene issues such as diarrhea and urinary tract infections.
2. Women who over 10 min away from their homes used PTs and hence distance away from home was a reason for use of PT.
3. Less educated women used the PTs more often than more educated women. This is perhaps women who worked in public spaces were often less educated than those who had access to offices and places where they worked.
4. About 52.8% of sample use PTs. Most of the users stated good experience. All of them pay over Rs.5 for the use of PT. Most (70%) do not wash their hands with soap after use of PT.
5. Some reasons for not using Public Toilets was lack of cleanliness, inappropriate location, presence of too many men near the entrance, presence of male caretaker.
6. Trained Caretaker, Caretakers' behavior and availability of western toilets seems to make a difference to those who don't use toilets.
7. Colours in the toilet, caretaker and fees makes a difference to usage frequency of women using toilets.

Based on these results, in-depth interviews were executed to understand the specific needs, experience and preference of women in using PTs. The 21 women respondents from various income groups, educational qualifications and belonging to various strata of society ranging from street vendors to museum managers have indicated that they require certain exclusive facilities and feel that having women caretakers makes them feel more secure. The access from main roads and in locations such as petrol bunks¹/bus-stops/railway stations where they stop during travel appear to be important locations for such toilets.

The overall structure of the network² suggests that there is a strong link between women's feeling of security, women feeling comfortable in using the waiting rooms and the presence of a woman caretaker. There is a strong tie between water supply, basic sanitation facility and hand wash, which is again closely linked to water facilities and maintenance and exclusive women toilets. The need for Indian Commodes³, Western Commodes and shower facility is linked to their access and usability. Locations where these toilets are available such as railway stations, petrol bunks and bus stops are also important.

The analysis of linked concepts and narratives indicate that most women looking for sanitation facilities in public are quite distressed with the existing state of facilities, location and infrastructure. There is huge scope and potential to initiate and develop facilities to address these societal issues.

This paper identifies and defines the various themes developed as part of the qualitative study and indicates the relationship between these themes in understanding the scope of the issue. The five themes etched out in the form of narratives from the respondents own words help to develop broad idea of the thoughts and emotions of women in Warangal towards Public Toilet and their usage. The paper also captures among these experiences, the wish list of these women for more useful sanitation facilities.

Some of the needs of the women elicited from the themes are:

1. Basic needs of women in toilets will include running water supply for toilets and hand-wash. The facility for hand-wash should be separate and include soap. The toilets for women has to be exclusive and properly maintained in terms of availability and disposal of sanitary pads.

2. Women feel more secure if there is a women caretaker. Although they don't expect the caretaker to clean the toilets themselves, they believe that the toilets are better maintained. They feel secure enough to wait or rest near a toilet with a women caretaker.
3. Public Toilets are mostly accessed by women when they are travelling and hence they expect clean and well maintained toilets in bus-stops, railway stations and petrol bunks. They would like adequate water supply in these places as well.
4. While women would like to find public toilets where it is easily accessible such as a main road, they also feel uncomfortable to be spotted going into one in a main road. Hence they prefer to have it slightly interior or in arterial roads.
5. The women prefer to have both Indian and Western Toilets. Depending on the location, shower and wash facility are also desired – especially if they are travelers who have spent a long time on the road. They think of the caretaker as well as part of infrastructure.

This study opens up several areas for investigation. The Experience of Warangal may not be the same everywhere. Warangal is developing city in a newly formed state of South Indian. The needs could change depending on geography and cultural backgrounds. Hence, while this study was informative and insightful for the context, it should be taken as a well thought out process of need assessment and should be rolled out to other geographies as well.

The study draws out women's experiences with Public Toilets and it was interesting to note that a lot of these references were made in the context of Public Toilet usage at Bus Stops, Railway Stations and Petrol Bunks (Location), indicating that women have had their Public Toilet experiences largely in Public Places while travelling. Hence, an initiative could be taken to revamp the Public Toilets in these locations with specific needs in mind. The interviewed women had indicated a preference for Indian Commodes, they also said having western would be useful in specific contexts of physical limitations⁴. The actual usage and preference of one type of commode over another could be investigated as observational behavioral studies. Yet another question that draws from the insights of this study is that while women felt most comfortable with Women Caretakers, they expressed that even a male caretaker was preferable to not having one. Hence, the age of the male caretaker they would feel comfortable with at the public toilet could be investigated subsequently.

The study indicates that women want clean and well maintained toilets but do not expect the caretakers to clean the toilet. Most women were comfortable with self cleaning toilets, but were unsure of the efficacy of coin based E-Toilets that lock and flush automatically. E-Toilets are present all over the country and hence, gender segregated user data could be collected to examine the usage patterns in these Public Toilets. There are different maintenance models for Public Toilets and the usage and maintenance of the facilities is a function of the type of model in terms of construction and maintenance. The design of toilet, including elements of ventilation, access, lighting etc., could have a bearing on the usage behavior. It would be useful to study user behavior across different models and designs.

The findings from this research, contributes to the broad area of assessment of sanitation needs and specifically addresses needs of women. Conclusions from the qualitative assessment of this on-going study was used by the city government in designing and setting up sanitation facilities for women in Warangal city. Four women exclusive toilets have been commissioned while locations for 6 are being identified. Also, the experience gained would inform provision of sanitation facilities for women in other cities in India being taken up under Swachh Bharat Mission. While there are broad requirements that have been presented in this study, it is perhaps wise to use this as a basic checklist to identify requirements every time investment is made for building public toilets. In addition to the practical outcome of supporting toilet provision for women in the Warangal region, this study hopes to contribute to a fundamental understanding of attitude and usage of toilets among women. The results of this study are being used as an initial framework to reconstitute behavior change models appropriate to the region.

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Notes

- ¹ Petrol Bunks = Gas Stations/Refueling locations for vehicles
- ² Network refers of the Network of all co-occurring phrases culled out through text analysis of the interview transcripts.
- ³ Commodes are toilet bowls. These come in the Indian/Squat style or in the Western/Sitting style
- ⁴ Those with knee pains and physical disabilities find squatting difficult and prefer the western style of toilet bowls

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