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## Research Article

# ASSESSMENT OF KNOWLEDGE, ATTITUDE AND PRACTICES REGARDING OPEN URINATION AT PUBLIC PLACES IN CHANDIGARH, INDIA

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### ABSTRACT

**Aims & Objective:** To access the knowledge attitude, and practice in respect of open urination at public places in Chandigarh.

**Methodology:** This cross-sectional study was done in January 2017 to April 2017 in Chandigarh, India. A total of 400 participants were included in the study by conventional sampling method from the selected public places in Chandigarh. Face-to-face, in-depth interviews were conducted with the participants. Statistical analysis: Pearson correlation, ANOVA, T- test.

**Results:** open urination was found in practice (44.3%). Majority were visitors (87.75%). strong attitude of its continuation was seen despite of having knowledge of its consequences. every one was found indulged doing so irrespective of age group, literacy, marital status or resident/visitors status of the city.

**Conclusion:** Knowledge regarding open urination and its consequence were good among the study population. But Lack of awareness, strong attitude of carelessness toward environmental hygiene, difficulty in locating public toilets and their cleanliness plus involved cost of pay & use on regular basis were found to be significant reasons behind this practice.

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## INTRODUCTION

Sanitation is the most basic of health issue, yet in many parts of India it is greatly disregarded ensuring the proper disposal of human waste is imperative to prevent infections and improve the quality of life. We know that urination at public places/open urination and sanitation is one of the important public health proximate determinants along with nutrition. It is evident that in developing countries like India sanitation & sanitary status of public places are critical issues and needs to be addressed. As a result every year, millions of people suffer and ultimately die from so many preventable diseases. Due to this study based on knowledge, attitude & practices of urination at public places/open urination is significant. Further the study will also helps to have viewpoints of respondents on the mass movement like Swachh Bharat Mission (SBM). This study will be helpful to create awareness among residents about safe sanitation practices and benefits of omitting urination at public places/open urination. Urinating on the public places openly is the major public nuisances. These problems have been in existence despite of some steps taken by concerned authorities [1]. It can often be seen in India that people are peeing

publically almost anywhere against walls or trees, nearby to roads or beneath the tree. This phenomenon links with lack of public toilets, and there are role of cultural factors behind it as well. Addiction to urinate in public without caring at all is the most shocking part of this occurrence. [2].

Because of our poor civic mindset and also due to failure of concerned authorities to provide adequate infrastructure for public hygiene. This problem spreads over large parts. Unhygienic condition of toilets at public places are often the reason behind not utilizing them. It is the mindset of most of Indians that urinating in a public restroom is not hygienic and this view further reflects to everyone. There is a need to educate on utilization of public restrooms. [1]. Urinating publically tarnishes the cities and infects to that person and others as well, bacteria can be found in urine, if urinating person is infected with urinary tract infection it may contaminates the drinking water. As a consequence people on large may get infected to the bacteria, which may cause Pulmonary and GIT diseases. Children's are at optimum risk to get infected if they are likely to come in contact with these sites. Because if there is no adequate disposal of Urine, it can

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be the transmitting spot for spread of infections, roadside urination of people contaminates the soil and provides an ideal spot to bacteria and various harmful microbes for multiplying. Children often play barefoot, if they have even a tiny crack in the feet, it is likely that they can be infected. As a part of their play they often dig their hands either in sand or mud but if they forget to wash their hands these contaminated soil and bacteria obtained from urine could lead to diarrhea, nausea, dysentery and vomiting. Besides this urine contains urea which can infect to human being by attracting cockroaches and flies. If infected food is consumed by the person it may lead to food infection or diseases like- typhoid, cholera, & hepatitis-A. However this was not the chronological trend of hygienic practices either in India or abroad. Since Ancient ruins of Mohenjo-Daro & various other civilizations, shows that Toilets would have been an essential feature. Most of these toilets were identified as post-cremation burial urns or sump pots by early excavators. [1]. There was no similarity between toilets of Indus valley civilization and Roman or Greek Civilizations. The Indus valley civilization had the provision of public restrooms and efficient waste disposal system. They might have utilized a hole in the ground for human urination at open places which was connected to nearby drainage [3]. Traces of wells have been found in Egypt, channels for rain waters in Mesopotamia dated back around 3000 B.C also seems similar to them. From the early Bronze Age so many ancient wells, water pipes and toilets have been found in Mohenjo-Daro by archeologist. Similarly in Europe Bronze Age of Minoan (and Mycenaean) Crete in the second millennium B.C.gives the evidence of first purposeful construction of the water supply, bathrooms, toilets and drainage. The Romans also built many sanitary infrastructures for improving hygiene. In addition to public restrooms, they also built bathhouses and sewerage. A good example of them is Cloacae Maxima which was built in Rome. For implementing sanitary practices within the town they introduced legislation for cleaning the waste of roads and throw them outside the towns [4].

respectively). Convenient method sampling technique was utilized to collect data set by face to face in depth Interviewing each study participants. For data collection tool a self administered questionnaire was utilized. Local residents as well as visitors (only those who visited Chandigarh at least once in year time frame and both voluntarily signed the written consent both were included into the study. Those who denied to participate and did not sign the consent form were excluded from the sample. Questionnaires were distributed to the participants and after briefing them about how to fill it, they were given about 10-15 minutes to fill it. Informed written consent was taken from each Participant who agreed to participate & they were explained about the nature and objectives of the study, & were assured about confidentiality of their responses. The collected information of each respondent was entered in Microsoft Excel spreadsheet. Data Analysis was done on SPSS software (21.0) as per the objectives. The data was presented in percentages and proportions. All results were calculated at 95% confidence interval. Inferential statistics (Pearson correlation) was used for Bivariate analysis. ANOVA's & t' test analysis was also done.

## RESULTS

Out of total the respondents, 332 (83%) were male and 68 (17.0%) were female. Approximately one third of respondents were in age group of 21- 30 years (73.5%). Most of them were educated till graduate & above. Majority of respondent did practiced open urination, & they were mostly visitors of Chandigarh 351 (87.75%) but few 49 (12.25%) were local residents as well. Most of them were having good knowledge about sanitation and consequence of open urination practices. But they still preferred doing so. There was no significant difference in Knowledge, attitude and practice with respect to different level of age group, gender, marital status, or resident & visitor status of respondents.

**Table 1** Knowledge attitude & practices of the respondent.

Variables	Total (n=400)				
	Percentage				
	Strongly disagree	Disagree	Undecided	Agree	Strongly Agree
Have you ever practiced open urination on public places?	40.7%	0.0%	0.0%	15.0%	44.3%
Are you aware about consequences of open urination on human health, environmental risk, social stigma etc.?	0.30%	11.80%	19.50%	59.80%	8.60%
Do you know importance of SWACHH BHARAT ABHIYAN?	7.50%	8.50%	22.3%	23.50%	38.00%
Have you ever seen any awareness initiative for cessation of open urination by visual, audio, or by print media?	9.30%	8.80%	26.00%	31.80%	24.00%
Is that impressed enough for cessation of practicing open urination?	7.00%	17.80%	27.30%	10.00%	38.00%
Would you still like to openly urinate if public toilets/urinals would be available on public places	7.00%	14.7%	8.00%	15.80%	54.50%
Is it the hygienic status of public toilets which stops you from utilizing them on public places	7.00%	2.80%	0.80%	1.30%	88.10%
Do you find difficult locating public toilets at public places	7.00%	2.80%	8.4%	18.80%	63.00%
Are you practicing open urination at public places at least an year or more	21.00%	6.20%	9.30%	45.30%	18.10%
Are you suffering from any renal disease leading to frequent urgency of micturition	16.2%	44.30%	7.50%	26.00%	6.00%
Any history of persistent fever/diagnosis of typhoid within an year	15.80%	12.50%	10.00%	59.7%	2.00%
Any history of urinary tract infection within an year	20.80%	29.30%	12.60%	34.30%	3.00%
Have you notice the same risk factors (e.g. STI, Fever, Dermatological Complaints, etc.) of open urination among any of your family members	8.50%	46.30%	12.10%	31.30%	1.80%

## MATERIAL & METHOD

A cross sectional study was done in January 2017-April 2017 on 400 participants. At total of 7 major public places in Chandigarh (sector-14, 15, 16, 17, 22, 43 & Railway station

However there was significant difference in knowledge with respect to the different level of education.

## DISCUSSION

In our study Open urination was observed to be practiced widely in study area. Since 44.3% People strongly agreed on point of ever practiced open urination on public places. Despite of their knowledge about consequences of open urination on human health, environmental risk, social stigma etc they still practiced it. This depicts strong trend of carelessness nature toward hygiene practices. Similar study on hygiene (Sriram & Maheswari 2013) indicates that rest of the population resort on open defecation only 31% of the total sample Population used toilets. They were found to be having Knowledge of its risk since 38.8% of them agreed 28.8% strongly agreed while only 2% disagreed on it. Attitude of respondent's shows that they were resistant doing so since 54.5% strongly agreed 15.8% agreed but only 7% strongly disagreed while 8% remain undecided on it. However difficulty of locating public toilets at public places was also a significant reason behind urinating openly in public since 63% of respondents reported it strongly agreed 18.80% agreed but only 2.8% of them disagreed on it. (Coffey *et al* 2014) reported that 47% of people explained that it is pleasurable, comfortable, or convenient to defecate in open and this was the similar reason among those defecated openly despite of having access to a latrine in their household. Specific reason behind this practice of open urination was found to be unavailability of public toilets since 38.8% agreed & only 7.3% disagreed. Similarly there was no difference found between attitude and practice of doing so either at public place or within their inhabitant area. Since 64% of them strongly agreed, 22.8% agreed & only 3% disagreed. Likewise Report by UNICEF indicates that (UNICEF, 2016) the main reason for open defecation reported by all respondents (whether practicing or not open defecation) was the lack of toilet availability, mentioned by 96.2%. Trend of practicing open urination at public place a year or more was found to be on high rise since 45.3% agreed, 18.3% strongly agreed & only 6.2% of them disagreed. Study by UNICEF in Myanmar found 15.8% respondents stated that at least one member of household members had practiced open defecation at least once during the year preceding the survey, 9.6% reported frequencies of more than two Majority of respondent didn't remembered their frequency of micturition in a day as 43.3% them responded as can't say 3.5% don't know although 33.5% of them were found to be practicing > 3time/day, 18.8% were practicing 1-3time/day & rest 1% > 5times/day respectively. Time of practicing open urination was not revealed by majority of participant since 59.3% of them responded as can't say however 26.3% of them were found to be practicing in evening , 8.8% in afternoon, 3.8% at night & rest 2% at morning time. Majority of respondent were found to be utilizing toilets/urinals in general since 43.5% of them strongly agreed, 23.8% agreed, and only 16.5% disagreed. These results are better than the findings of (Geetha and Kumar) in Pune where optimum usage of toilets was restricted to 51% of the family members, only few (18%) members in the family used the toilets and 31% of the family members did not use the toilet at all. There was no association of urge of micturition in micturating at public place since 46.8% of respondent strongly agreed; however 40.3% disagreed as well. There was no association with diabetic status & renal ailment of respondents on open urination since only 7% of them were found having diabetics. Simultaneously only 6% were strongly agreed and 26% were agreed on having any

renal ailment. Daily Water intake capacity of respondents was also associated with practice of open urination since 62% of them reported agreed and only 10.5% disagreed.

## CONCLUSION

Present study shows that there is no significant difference in knowledge, attitude and practice with respect to marital, age or educational status. Open urination was strongly practiced in study area (44.3%). Despite of familiarity with its consequences they still practiced it (59.8%). This Depicts strong trend of carelessness nature toward hygiene practices. Even availability of public toilets/urinals on public place couldn't discouraged their practice. However hygienic status & difficulty in locating public toilets were also a significant reason behind doing so. 41.8% Respondents were willing to utilize pay and use toilet but not on regular basis.

There is strong need to sensitize the community about disease burden & environmental hygiene.

Future experimental research involving lab testing of samples may yield wider scope than present study with limited resources.

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## Conflicts of Interest

There are no conflict of interest.

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