



## **A STUDY TO ASSESS THE KNOWLEDGE, ATTITUDE AND PRACTICE OF WATER CONSERVATION METHODS AMONG SELECTED HIGH SCHOOL STUDENTS OF INDORE, MADHYA PRADESH**

**<sup>1</sup>Dr. Peter Jasper Youtham, <sup>2</sup>Mr. Sumant Kumar Vyas**

<sup>1</sup>Guide, Ph.D. Nursing, <sup>2</sup>Ph.D. Research Scholar

### **Introduction**

Water is the elixir of life. We need water for literally every purpose. Right from the cell in the body water is indispensable. It is estimated that water requirement for drinking and domestic use is around 150-200 litres per head per day. But at present, water has become something so hard to find; it has become a depleted. At present, approximately 1.2 billion people live in areas wherein water is scarce and 1.6 billion people face economic water shortage.

WHO/UNICEF Joint Monitoring Programme for water supply and sanitation released in 2019, estimates that 36% of the world's population – 2.5 billion people lack improved sanitation facilities and 768 million people still use unsafe drinking water sources. Poor farmers and wage earners are less productive due to illness, health systems are overwhelmed and national economies suffer.

An improved understanding of daily water consumption practices will encourage consumers to adopt water conservation behavior. Studies have shown that people often have misconceptions on actual water consumption. Some users tend to underestimate their water consumption. However, studies are lacking on consumer misconceptions regarding actual water consumption on specific water-use patterns and their relation to the socio-demographic profiles of users and household conservation awareness there is

currently acute water shortage in various parts of the world and therefore it is essential that all people are aware of the importance of saving water.

Students play an important role as they are the generation who are about to face huge problems regarding water shortage and therefore it is very important that they know the importance of conserving water and protecting natural resources of fresh water. Hence this study was planned to assess the knowledge, attitude and practice of water conservation methods among high school students.

## **Method**

A cross sectional study was conducted among high school students from Indore. Prior permission was obtained from the authorities before the start of the study. The data was collected by the medical under graduate students who were trained beforehand for this purpose and it was supervised by the faculty. The data was collected using pre tested and validated questionnaire containing details of socio demographic details, knowledge, attitude and practice of water conservation methods were asked in local language. The data was collected from a school which was selected by simple random method, for this purpose all the high schools in the city limit were line listed and one school was selected randomly using lottery method and all the students in high school who were present on the day of data collection and willing to participate were included in the study.

## **Results**

The study was conducted among 210 high school students of Indore. Since the students are from high school the common age group was between 13 to 15 years and most of the study participants belong to the age 14 years. When the students were asked about the knowledge of water conservation and about drinking water most of the students had adequate knowledge. Around 62% of the students correctly told the source of water and more than 92 % of the students were aware of water recycling. Almost all the students were aware of rain water harvesting (99.5%) out of 82% of the students found it to be economical and 94 % of the students rightly said that this process will improve the ground water level. Boiling is the common method of purifying followed by the students at home (46%). More than two third of the study participant were using bore

well as a source of drinking water (76%). Majority of the students uses bucket water to take bath (56.2%) compared to shower (16.2%). Around 73 % of the students close the water tap while brushing. More than 75 % of the students closes the water tap completely after using. Around 86 % of the students had no water leakage at their home. 18 % of the students responded that they always use the running water for cleaning vessels. About washing the vehicles only 12 % of the participants responded that they wash it every day while 41 % of the participants wash their vehicle once in a while. Majority of the study participants (34.3%) always reuse the water and in 74 % of their homes had water harvesting facility.

More than 90 % of the study participants felt harvesting water is essential and 68 % of the students have experienced water shortage in their home. 43 % of the students thought that they are wasting water and when asked about the main reason for water shortage the students responded that failure to store the incoming water (26.2 %) and wasting water (26.2 %) as the main reason for shortage of water. Majority of the student (52 %) felt they are responsible for the water shortage. Newspaper and magazines (33.8%) were the main source of awareness and information about water conservation and harvesting for the students.

## **Conclusion**

In conclusion, we found from our study that the knowledge of the students about water conservation and harvesting is high so as they practice the method of water conservation in their homes, the attitude towards water conservation and harvesting is on a positive note, these students who are ambassadors of the future having a positive attitude shows that the practice of water conservation and water harvesting in future is in safe hands. Even though the proportion of students with positive attitude were higher the job is not done until most of the population shows a similar attitude towards water conservation and harvesting.

## **Reference**

1. Neal, B.; Mackellar, P.; Davies, R.G.; Ampt, E. Drought response measures in dampening urban demand. *Inst. Civ.Eng.* 2014, 167, 435–441.
2. Lindsay, J.; Dean, A.J.; Supski, S. Responding to the Millennium drought:

- Comparing domestic water cultures in three Australian cities. *Reg. Environ. Chang.* 2017, 17, 565–577.
3. Dolnicar, S.; Hurlimann, A.; Grün, B. Water conservation behavior in Australia. *J. Environ. Manag.* 2012, 105, 44–52.
  4. Corral-Verdugo, V.; Frias-Armenta, M.; Perez-Urias, F.; Orduna-Cabrera, V.; Espinoza- Gallego, N. Residential water consumption, motivation for conserving water and the continuing tragedy of the commons. *Environ. Manag.* 2002, 30, 527–535.
  5. Corral-Verdugo, V.; Frías-Armenta, M. Personal normative beliefs, antisocial behavior, and residential water conservation. *Environ. Behav.* 2006, 3, 406–421. *Water* 2014, 6 1783
  6. Matos, C.; Teixeira, C.A.; Bento, R.; Varajão, J.; Bentes, I. An exploratory study on the influence of sociodemographic characteristics on water end uses inside buildings. *Sci. Total Environ.* 2014, 466, 467–474.
  7. Clark, W.A. Obstacles and Opportunities for Water Conservation in Blagoevgrad, Bulgaria. Available online: <https://etda.libraries.psu.edu/paper/6567/1821> (accessed on 06.01.2021).
  8. Beal, C.D.; Stewart, R.A.; Fielding, K. A novel mixed method smart metering approach to reconciling differences between perceived and actual residential end use water consumption. *J. Clean. Prod.* 2013, 60, 116–128.
  9. Justes, A.; Barberán, R.; Farizo, B.A. Economic valuation of domestic water uses. *Sci. Total Environ.* 2014, 472, 712–718.