



A Comparative study to assess the Attitude regarding water conservation methods among population of rural and urban areas of Guntur at Andhra Pradesh



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Abstract: Background: Water is the very basis of life and is the foundation for human survival and development. Sustainable and equitable use of water over millennium has been ensured by cultural adaptation to water availability through water conservation technologies, agricultural systems and cropping patterns adapted to different climatic zones, and conservation-based life styles. **Aim:** The aim of the study was to assess the Attitude regarding water conservation methods among population of rural and urban areas of Guntur district, Andhra Pradesh. **Objectives:** 1. To assess the Attitude regarding water conservation methods among rural and urban population. 2. To compare the Attitude regarding water conservation methods between the urban and rural population 3. To determine the association between Rural and urban area population and Attitude regarding water conservation methods with their selected base line variables. **Methodology:** A Quantitative non experimental Design was adopted. 150 Males and Females were selected by Purposive sampling technique. **Results:** In Rural population mean score was 23.8 with standard deviation of 3.53 and In Urban population mean score was 23.35 with standard deviation of 3.24. The obtained calculated 't' value was 1.09, which is less than the table value of 1.96. It determines that there was no significant difference between rural and urban area respondents Attitude regarding water conservation Methods. **Conclusions:** In the present study concluded that comparing the level of Attitude between urban population and rural populations, urban population having Moderately favorable attitude than rural population regarding water conservation methods. **Keywords: Water conservation, Attitude, rural area, Urban Area.**

Introduction: Water is essential to life because it heavily influences public health and living standard. However, water is unequally distributed throughout the world. At present, approximately 1.2 billion people live-in areas wherein water is scarce and 1.6 billion people face economic water shortage. Therefore, the World Health Organization, United Nations Children's Fund, various governments, and public and private sector entities have exerted intensive efforts to provide sufficient water supply to residents, particularly in rural areas in developing countries. Over 2 billion people have gained access to improved water supplies

since 1990.

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. Therefore the researcher has



developed a curiosity to undertake this study in order to elicit current knowledge and attitude of public on water conservation methods.

Need for the study: Water is one of the most crucial elements in our national developmental planning for the 21st century. The proper management of our limited water resources will be essential to ensure food security for our growing population and to eliminate poverty. It will be essential also to avoid the growing conflicts and the possibility of social unrest in the country in future due to water scarcity.

Current empirical evidence suggests that climate change affect both the quantity and quality of available freshwater resources mainly through reduced groundwater recharge and lowering of water tables. Therefore the introduction of demand management interventions is likely to impact on households, an understanding of public attitudes, behaviors, and perceptions of household water use is important for successfully communicating with the public. There is no research carried out regarding water conservation methods in this geographical location. The research in the present study aimed at assessing the attitudes of people regarding water conservation methods household water use and in general, with the purpose of informing management strategies and enabling successful communication with the public . It focuses on household water use from the householders' perspective, presenting existing and new conservation methods available to conserve water.

Aim of the Study: The aim of the study was to assess the Attitude regarding water conservation methods among population of rural and urban areas of Guntur district, Andhra Pradesh.

Statement of the problem: A Comparative study to assess the attitude regarding water conservation methods among population of rural and urban areas of Guntur district, Andhra Pradesh.

Objectives of the Study:

1. To assess the attitude regarding water conservation methods among rural and urban population.
2. To compare the attitude regarding water conservation methods between the urban and rural population.
3. To determine the association between Rural and urban area population and attitude regarding water conservation methods with their selected base line variables.

Operational definitions:

1. Attitude: In the present study the attitudes refers to the beliefs and opinions of population regarding water conservation methods measured by their responses to attitude items on likert scale.

2. Water conservation Methods: In the present study it refers to a process of preservation, control, development of water resources both surface and ground water.

Assumptions: Increased attitude among rural and urban people can bring about better attitude regarding water conservation methods.

Hypothesis of study:

1. H1 - There will be a significant difference between rural and urban areas of population regarding Attitude level of water conservation methods.
2. H2 - There will be association between urban and rural population and attitude with their selected demographic variables.

Limitations: The study is limited only to the selected population of Rural and urban areas of Guntur district.

Materials and methods:

Sampling and data collection: Comparative descriptive study, used to assess the level of knowledge regarding Water conservation methods among population of rural and urban areas of Guntur district, Andhra Pradesh. Purposive sampling Technique was used. The study includes the



population who are Available at the time of data collection, willing to participate in the study, Able to read Telugu or English. The study excludes the population who are not available at the time of data collection, not willing to participate in the study, mentally and physically challenged. Prior Permission was obtained from medical officer and local leaders to conduct the study.

Description of tool:

Section - A: Deals with demographic variables include age, Gender, education, marital status, type of family, size of family, occupation, Income, type of house, ownership of the house, ownership of land, area of residence, information regarding water conservation methods, sources of getting information.

Section - B: It consists of 20 favorable statements of attitudes regarding water conservation methods. Each statement has 3 point scale ranging from agree, neutral and disagree. Each point of scale carries a score. Agree is given highest score 2, neutral 1, disagree 0. The maximum score was 40. The subjects who got score of 91% - 100% were considered as having highly favorable attitude, and scores of 51% - 90% were considered as moderately favorable attitude and scores of 0% - 50% were considered as having unfavorable attitude towards water conservation methods.

Data collection methods: A formal written permission was obtained from the medical officers of rural and urban health centers of Guntur district, A. P. to conduct the study in selected community areas. The data was collected from 1st February to 29th February 2016, for a period of 1 month. In the rural area of Pedaparimi village the data was gathered from 1st February to 15th February 2016. A group of 75 males and female peoples were selected by using purposive sampling technique based on inclusion and exclusion criteria.

In the urban area of Israelpet, Guntur the data

was collected from 16th February to 29th February. A group of 75 males and female samples were selected by using purposive sampling technique based on inclusion and exclusion criteria followed by brief introduction and a verbal consent was taken and collected data.

Data analysis: Data was analyzed by using descriptive and inferential statistics. Frequency, percentage, Item analysis, mean, standard deviation and chi-square test were done.

Results: Most of the respondents were (47%) of samples in the urban area and (33%) of the samples in rural area belongs to the age group of 20-25 years. Majority (86%) of respondents from urban area were females, (78%) of respondents from rural area.

About (38%) of the respondents were non-formal education in rural area and (54%) were urban area. Just more than (53%) of subjects in the urban area and (51%) in rural area were self employed. About (47%) of the subjects were getting information regarding water conservation methods through print materials in urban area, (34%) of samples in Rural area.

Table 1: Range of score, mean and standard deviation of Attitude of the population in rural and urban areas regarding water conservation methods.

Reference Group	Max score	Range of score	Mean	S.D
Rural respondents	40	15-28	23.8	3.53
Urban respondents		17-30	23.35	3.24

The above table represents that the maximum score for attitude scale was 40 and the range of scores among rural population was 15-28 with mean score of (23.8±3.53). Whereas among the urban subjects the range of score was 17-30 with mean score of (23.35±3.24). This shows that subjects have moderately favorable attitude towards water conservation methods.



Table-2: Distribution of the samples according to their Attitude level among rural population regarding water conservation methods.

Attitude level	Scores	Fre	Per
High favorable Attitude	30-40	18	24
Moderately favorable Attitude	20-29	26	34.6
Un favorable Attitude	0-19	31	41.3

Table-3: Comparison of the Attitude level regarding water conservation methods between the urban and rural population.

Knowledge of Rural & Urban population	Mean	Mean difference	SD	Un paired ttest value
Rural population	24.53	0.73	4.63	t=1.09
Urban population	23.8		3.53	df =148
				p<0.05NS

The obtained calculated 't' value was 1.09, which is less than the table value of 1.96. It determines that there was no significant difference between rural and urban area respondents Attitude level regarding water conservation methods. Therefore the research hypothesis H1 was rejected.

Association between levels of Attitude and socio demographic variables among rural population.

The chi square test was computed to know the association between attitude and selected demographic variables between rural population like age, education status and occupation. The results reveal that there was significant association (0.035) between attitude and their age. While there was no significant association found between attitude and education, occupation.

Conclusion: The results of the study found that over all attitude level regarding water conservation methods was less in rural subjects compared to urban subjects.

Recommendations: Keeping in view the findings of the present study the following recommendations were made.

❖ A qualitative study on knowledge and attitudes and practices regarding water conservation methods can be done.

❖ A similar study can be carried out among teachers and health workers.

❖ Focus group discussion can be undertaken to elicit the current issues with regard to water shortage and their practices with regard to conservation.

❖ An experimental study can be done among domestic and agricultural areas on different methods of water conservation methods.

❖ Pre experimental study can be taken up to evaluate the effectiveness of informational booklet.

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