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## Research Article

# AWARENESS AND PRACTICES REGARDING WATER HYGIENE AMONG WOMEN RESIDING IN SELECTED RURAL AREAS-A CROSS SECTIONAL STUDY

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Awareness, Practices, water hygiene.

### ABSTRACT

Environmental Hygiene is a practical control measure use to improve the basic environmental condition affecting the human health. Rural population in developing countries face water shortage as well as related health issues. This study was conducted to assess the awareness and practices regarding water hygiene among women residing in selected rural areas of district Sirmour, H.P.

**Material and Methods:** Quantitative research approach and cross sectional research design was used to assess the knowledge and practices regarding water hygiene among 100 women selected through purposes sampling technique residing in selected rural areas (Kheri, Bagroti, Lanabhalla, Maccher) of district Sirmour, Himachal Pradesh. Structured interview schedule was used to collect the data. Validation of tool was done through various experts' opinion and reliability of tool was .78 checked with Cronbach Alpha. Descriptive statistical analysis (Frequency & Percentage) was performed.

**Results:** The study results revealed that Majority (90%) of water supply was by government. 68% of them faced problem of water shortage most of the time and 58% of them irregular water supply. Most of population (52%) was suffering from the fever due to unclean water. Regarding water practices, most of them (54%) stored water in container. Majority (47%) of them chlorination for purification of water. 92% women stored water for 1 day.

**Conclusion:** It was concluded from the findings of the study that women had very less awareness and inadequate practices regarding water hygiene which emphasis to implement awareness program regarding water hygiene to promote their healthy and safe environment.

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## INTRODUCTION

Water is ultimate necessity for survival of human life. Human body is composed of 50-60% of water.<sup>1</sup> Water plays vital function in human body such maintainance of fluidity of blood, acts as a vehicle of dissolving food etc<sup>2</sup>.

Water is required for various essential activities of domestic, public, industrial, agricultural purposes. There are many sources of water such as Rain, surface water, wells, springs etc<sup>3</sup>. The various infectious diseases resulting from water pollution can be classified into Various groups such as water borne diseases (Cholera, typhoid, gastroenteritis etc.), water washed diseases (scabies, dysentery, trachoma etc.), water based infections etc.<sup>4</sup>

Estimates are that by 2025, 1.8 million people will be living in countries with severe scarcity resources (UN,2011).<sup>5</sup> Reports identify the lack of safe drinking water as the leading cause of hunger, disease and poverty worldwide.<sup>6</sup>

Water is at the hub of economic and social development. Water availability and management impacts on healthy life, education, natural calamities etc. Billions of people have gained access to basic drinking water and sanitation services.<sup>7</sup>

According to the WHO report, many people in the rural areas still don't have the clean water for drinking and washing hands due to which there is increase in the incidence rate of diarrheal disease condition, cholera, typhoid, hepatitis. In the rural areas due to the poor sanitation and hygiene there is increase in the spread of disease like intestinal worms, blind trachoma.<sup>8</sup>

World Bank estimates that 21%of communicable diseases in India are linked to unsafe water and the lack of hygiene practices. Further, more than 500 children under the age of 5 die each day from diarrhoea in India alone. 2.1 billion people around the world don't have access to adequate sanitation.<sup>9</sup>

Women and children spend more than four hours walking for water each day and more than 8,40,000 people die each year

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from water related diseases.<sup>10</sup> Drinking water supply and sanitation in India continue to be inadequate, despite longstanding efforts by the various levels of government and communities at improving coverage.

Without access of clean water, 63 million people are living in rural areas in India. Diseases such as cholera, blinding trachoma, malaria and dengue are expected to become more common and malnutrition more prevalent. Rural communities dependent on farming for their subsistence and advancement. Women typically responsible for collecting water may have to walk even great distances during prolonged dry seasons.<sup>11</sup>

According to WHO (2012), Diarrhoea kills 1.6 million children each year (mainly due to unsafe water and poor sanitation). Malaria kills around 1 million children (exacerbated by poor management of water, inadequate housing etc. Approximately 6,000 children die every week from water related diseases.<sup>12</sup>

According to new report by WHO and UNICEF, 2.1 billion people who do not have access to safely managed water, 844 million do not have even basic drinking water services of the 4.5 billion people who do not have safely managed sanitation; 2.3 billion still do not have basic sanitation services. As a result, every year 3, 61,000 children under 5 year of age die due to diarrhoea related to poor sanitation and contaminated water, which are also linked to transmission of diseases such as cholera, dysentery and typhoid.<sup>13</sup>

**Objectives**

- To assess the awareness regarding water hygiene among women residing in selected rural areas
- To assess the practices regarding water hygiene among women residing in selected rural areas

**MATERIALS AND METHODS**

-Quantitative research approach and cross sectional research design was used to assess the knowledge and practices regarding water hygiene among 100 women selected through purposes sampling technique residing in selected rural areas (Kheri, Bagroti, Lana bhalta, Maccher) of district Sirmour, Himachal Pradesh.

- Sample size calculation was done through formula  $4pq/d^2$ , where p=80% and d=.08 and we got sample size of 100 women
- Structured interview schedule was used to collect the data. Validation of tool was done through various experts' opinion and reliability of tool was .78 checked with Cronbach Alpha. It was consisted of two parts:

**Part-A-Demographic variables**

**Part-B-Assessment of the awareness and practices regarding water hygiene.**

Descriptive statistical analysis (Frequency & Percentage) was performed.

**Ethical Considerations**

1. Administrative permission and ethical clearance was obtained from research and ethical committee of Akal College of Nursing, Baru Sahib. Permission was taken from village Pradhan.

2. Written Informed consent was taken from women.
3. The purpose for carrying out research study was explained to the women and assurance for confidentiality was given.

**RESULTS**

Table 1 revealed that 36% of women belong to 42-53 years of age group. 97% of women were Hindu. 90% of them were married. 37% of women have middle class education and 72% of them were living in nuclear families.89% of them living in pucca house. 58% of women have family income less than 5000. Majority of them (86 %), received information through mass media.

**Objective:1** To assess the awareness regarding water hygiene among women in selected rural areas The study results revealed that 90% of water supply is by government and 40% of them received water supply in morning.

**Table 1** Frequency and Percentage Distribution of women in rural areas in terms of awareness regarding Water practices N=100

S.No	Demographic variables	(n)	(%)
1.	<b>Age (in yrs)</b>		
	a. 18 – 29	35	35%
	b. 30 – 41	24	24%
	c. 42 – 53	36	36%
	d. 54 – 65	5	5%
2.	<b>Religion</b>		
	a. Sikh	2	2%
	b. Hindu	97	97%
	c. Christian	0	0%
	d. Other	1	1%
3.	<b>Marital status :</b>		
	a. Married	90	90%
	b. Unmarried	5	5%
	c. Widow	4	4%
	d. Divorced	1	1%
4.	<b>Level of Education</b>		
	a. Illiterate		
	b. Primary	10	10%
	c. Middle	21	21%
	d. Senior secondary	37	37%
		32	32%
5.	<b>Type of Family</b>		
	a. Nuclear	72	72%
	b. Joint	28	28%
6.	<b>Type of House:</b>		
	a. Kucha	11	11%
	b. Pucca	89	89%
7.	<b>Family Monthly Income</b>		
	a.< 5000	58	58%
	b. 5001-10000	38	38%
	c. 10000-15000	4	4%
	d. >15000	1	1%
8.	<b>Source of Information</b>		
	a.Mass media	86	86%
	b. Health worker	9	9%
	c. others	5	5%

Most of time (88%), females >15 years of age fetch water for household work from source.68% of them frequently faced problem of shortage of water. 58% of them have irregular water supply. 52% of them stated that fever is the most common effect of using unsafe drinking water on human health followed by GI diseases 36% respectively.(table 2).

**Table 2** Frequency and Percentage Distribution of women related to awareness regarding water hygiene

N=100

S. No	Questions related to awareness of water hygiene	(%)
1.	Who is the supplier of water in your community?	
	a) Govt	90%
	b) Private	6%
	c) Public	3%
	d) None	1%
2.	What is the timing of water supply in your area?	
	a) Morning	40%
	b) Evening	18%
	c) Morning and evening	7%
	d) All the time	35%
3.	Who fetches the water from source for your household work majority of times?	
	a) Female ≤15 yrs	3%
	b) Female >15 yrs	88%
	c) Male >15 yrs	5%
	d) Male ≤15 yrs	4%
4.	What Frequency of water shortage is faced in year?	
	a) Once or more	7%
	b) Most often	68%
	c) No shortage	25%
5.	What are the problems you faced in water supply?	
	a) Unclean	26%
	b) Saline	4%
	c) Too far	12%
	d) Irregular	58%
6.	What are the most common effects of using unsafe drinking water on human health in your community?	
	a) Fever	52%
	b) GI disease	36%
	c) Other health problems	12%

**Objective: 2** To identify the practices regarding water hygiene among women in selected rural areas

**Table 3** Frequency and Percentage Distribution of women related to practices regarding water hygiene N=100

S. No	Water practices	(%)
1.	Where do you store the drinking water?	
	a) Water tank	42%
	b) Container	54%
	c) Others	4%
2.	What is the average period of water storage?	
	a) 1day	92%
	b) 2-3 days	4%
	c) More than week	4%
3.	How often do you clean storage container?	
	a) Daily	92%
	b) Weekly	7%
	c) Monthly	1%
	d) Never	0%
4.	Which method is used in your community being used to purify the water?	
	a) Boiling	36%
	b) Chlorination	47%
	c) Filtration	8%
	d) Nothing	9%
5.	What is the common reason for not treating water or purifying available water?	
	a) Water is already clean	78%
	b) Expensive methods	1%
	c) Don't know the methods of cleaning	9%
	d) Takes too much time	12%
6.	What are the Challenges in procuring water?	
	a) Timings	6%
	b) Distant source	4%
	c) No challenge	69%
	d) Irregular Supply	21%

The study results revealed that mostly (54%) of women store drinking water in container. 92% of women stored their water for one day. Majority (92%) of women clean their water storage container daily. Most of the women (47%), using chlorination for purification of water followed by 36% women using boiling, 9% women using nothing for purification for water and only 8% use filtration method for purification for water respectively.

Most common reason for not purify the available water is they consider water already clean as stated by 78% women followed by 12% women said it takes too much times for purification of water, 9% women don't know the method of water purification respectively.

Most of the women (69%), having no challenge for procuring water followed by 21% women stated irregular supply of water respectively. (Table 3)

## DISCUSSION

Water is one of the valuable natural resource which is very essential for human life. Clean water can prevent the human beings from various infectious diseases. The current study was conducted in rural setting of Himachal Pradesh (India) to understand the existing water related awareness and practices. The study Results revealed that 90% of water supply is by government and 40% of them received water supply in morning. Most of time (88%), females >15 years of age fetch water for household work from source. 68% of them faced problem of shortage of water. 58% of them have irregular water supply. 52% of them stated that fever is the most common effect of using unsafe drinking water on human health followed by GI diseases 36% respectively. The study results revealed that mostly 54% of women store drinking water in container. 92% of women stored their water for one day Majority of women 92%, clean their water storage container daily. Most of the women (47%), using chlorination for purification of water. Most of the women (69%) having no challenge for procuring water followed by 21% women stated irregular supply of water respectively. This is again consistent with previous report. AnjanaKuberan *et al* (2015) conducted study which revealed almost similar finding of awareness and practices of water hygiene.<sup>14</sup> However, our study does identify the need for educational intervention program to educate the population regarding water hygiene which will improve the quality of drinking water and prevent them from various water borne infectious disease.

## CONCLUSION

The study results revealed that Majority (90%) of water supply was by government. 68% of them faced problem of water shortage most of the time and 58% had irregular water supply. Most of population (52%) was suffering from the fever due to unclean water. Regarding water practices, most of them (54%) stored water in container. Majority 47% using chlorination for purification of water. 92% women stored water for 1 day. To combat with these issues of water hygiene, there is immense need to plan the awareness campaign regarding knowledge and practices of water hygiene.

## References

1. K.Park. Textbook of Preventive and Social Medicine.22<sup>nd</sup> ed. Jabalpur: Bhanot publishers; Pp-655-70
2. K.K Gulani. Community Health Nursing. 2<sup>nd</sup> ed. New Delhi: Kumar publishing house; Pp-242-50.
3. Judith Ann Allender. Community & Public health nursing.8<sup>th</sup> ed. Philadelphia: Lippincott Williams & Wilkins; Pp-289-314.
4. BT Basavanthappa. Community Health Nursing.2<sup>nd</sup> ed. New Dehli: Jaypee brothers;Pp289-314
5. <http://www.who.int/ceh/publications/factsheet/fs284/en>
6. <https://news.un.org/en/story/2009/02/290142-majority-world-population-face-water-shortages-unless-action-taken-warns-migiro>
7. <http://www.worldbank.org/en/topic/water/overview>
8. [http://web.worldbank.org/archive/website01213/WEB/0\\_\\_CO-81.HTM](http://web.worldbank.org/archive/website01213/WEB/0__CO-81.HTM)
9. <https://water.org/our-impact/india/>
10. <https://www.waterforpeople.org/>
11. <https://www.hindustantimes.com/india-news/63-million-people-living-in-rural-india-do-not-have-access-to-clean-water-report/story-qx2cdIe4b6rngNQbZnqZVO.html>
12. [http://www.who.int/water\\_sanitation\\_health/hygiene/sec\\_uring sanitation.pdf?ua=1](http://www.who.int/water_sanitation_health/hygiene/sec_uring sanitation.pdf?ua=1)
13. [https://www.unicef.org/media/media\\_96632.html](https://www.unicef.org/media/media_96632.html)
14. AnjanaKuberan, Awnish Kumar Singh, JyotiBalaKasav, Satish Prasad2, Krishna Mohan Surapaneni, Vandana Upadhyay, Ashish Joshi. Water and sanitation hygiene knowledge, attitude, and practices among household members living in rural setting of India. *Journal of natural sciences, biology and medicine*;2015, 6(3):Pp69-74

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