

# A Study Conducted to Know About the Knowledge On Water-Health Relationship Among Dental Students in Khammam

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**Abstract:** Water is essential for life which represents as a critical nutrient whose absence will be lethal within days. Water carries nutrients to all the cells in our body and oxygen to our brain. Water allows body to absorb and assimilate minerals, vitamins, aminoacids and other substances. Water allows to maximize physical performance, eliminate toxins and waste and helps to regulate body temperature. The main aim of this article is to study water-health relationship among Mamata Dental students. This paper offers an overview of hydration status.

A semi-structural questionnaire was used to collect the data from 200 students of Mamata Dental College, Khammam in 2019 among which 184 are females and 16 are males.

**Keywords:** Hydration, Recommended daily intake, Water, Water intake, Water measurement.

## 1. Introduction

Water is vital for survival, and there is currently great interest in the benefits of good hydration for people to function well, and to look and feel good. Water is a very good solvent-it has the ability to dissolve many substances which improves the circulation of oxygen throughout the body and digestion of food.

Water comprises from 75% body weight in infants to 55% in elderly and is essential for cellular homeostasis and life. Water in the body is distributed into intracellular and extracellular compartments.

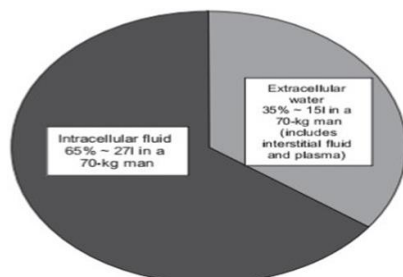


Fig. 1.

A Representation of the compartments and amounts that make up total body water.

Water performs number of functions in body, acts as a key component of the fluid that forms the basis of saliva that helps us to swallow, and of the synovial fluids that cushion the joints and of the fluids that fill and lubricate our eyes. Water helps in Thermo Regulation. Hydration status is critical to the body process of temperature control. Body water loss through sweat is an important cooling mechanism in hot climates and in physical activity. Water losses via skin in the form of sweat is dependent upon environmental temperature, humidity, activity levels and type of clothing. Adequate fluid intake is important for maintaining good circulation, thermo regulation, metabolism, and elimination of waste. Kidneys are crucial in regulating water balance and removes waste from the body. Water regulation is hormonally mediated with the goal of maintaining the range of plasma osmolality. Dehydration results from a decrease in total body water content either due to less intake or more fluid loss. Dehydration symptoms include dry mouth, tongue thirst, headache, lethargy and obesity.

## 2. Materials and Methodology

### Permission:

Permission was taken from head of the department of Public Health Dentistry. Questionnaire and informed consent is yet to be explained.

### Study design:

The present study is cross-sectional in design. A convenience sampling method was followed where a protested, self-administered questionnaire was distributed to the students of Mamata dental college, Khammam.

Informed consent was taken from the study participants, who were willing to participate in the study and who were present on the day of the study. The present study was scheduled in the month of December ,2019.

*Inclusion criteria:*

III BDS and interns who were present during day of survey are included.

*Exclusion criteria:*

Students who were absent during the day of survey and not willing to participate are excluded.

*Study procedure:*

Questionnaire was distributed to III BDS and interns during the working hours 9am to 4pm. Questionnaire consists of demographic data and 15 questions with options. Data was collected by designed questionnaire about water, hydration and health.

*Statistical analysis:*

Statistical analysis was done by using SPSS 25.0 version. Descriptive statistics were performed; chi-square test was used to find the association among categorical variables.

**3. Results**

Overall 200 students i.e., III BDS and interns were included in the study, majority of population participated in the survey were interns (52%) and most of them were females (92%).

**A. Demographic data**

Table 1  
Gender

	Frequency	Percentage
Male	16	8.0
Female	184	92.0
Total	200	100

Table 2  
Year of study

	Frequency	Percentage
III BDS	96	48.0
Interns	104	52.0
Total	200	100

In the above table, III BDS are about 48% and interns are about 52%.

Table 3  
What kind of liquids do you consume regularly?

		Frequency	Percentage
Valid	Water	148	74.0
	Coffee & Tea	32	16.0
	Beverages	20	10.0
	Total	200	100

From the above table, majority of the students (74%) answered that they consume water as a liquid regularly and 10% of students consume beverages.

Table 4  
Adequate fluid is important for

		Frequency	Percentage
Valid	Elimination of waste	80	40.0
	Thermoregulation	52	26.0
	Maintaining good circulation	16	8.0
	Metabolism	52	26.0
	Total	200	100

From the above table, Majority of the students (40%) answered that adequate fluid is important for elimination of waste.

Table 5  
Does water act as a blood thinning factor?

		Frequency	Percentage
Valid	Yes	108	54.0
	No	92	46.0
	Total	200	100

From the above table, Majority of the students (54%) answered that water act as a blood thinning factor.

Table 6  
Dehydration is a risk factor for

		Frequency	Percentage
Valid	Delirium	16	8.0
	Dementia	8	4.0
	Headache	24	12.0
	All the above	152	76.0
	Total	200	100

From the above table, Majority of the students (76%) answered that Delirium, Dementia, Headache are risk factors for dehydration.

**4. Discussion**

My study includes to assess the knowledge on Water-Health relationship among the dental students.

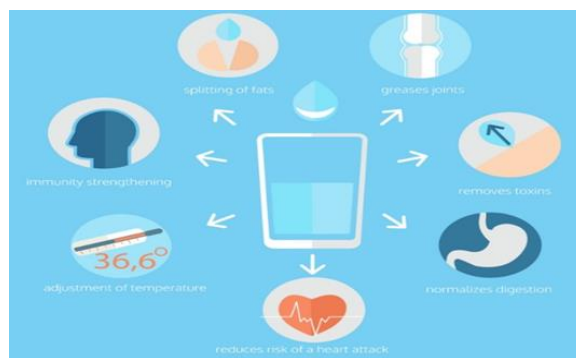


Fig. 2. Be sure you stay hydrated

This study was set to find out number of issues related to water, hydration and health. As undoubtedly, the most important nutrient and the only one whose absence will be lethal within days, understanding of water measurement and requirements are very important. Survey was done among students of Mamata Dental College -revealed that 74% of students consume water regularly, 40% know that adequate fluid intake is important for elimination of waste, 54% know that water acts as a blood thinning factor and 76% know about dehydration and its risk factors.

**5. Conclusion**

So, I conclude that my study provides some sense of the

importance of water to our health, water and its role, water measurements and water requirements. Water is essential for survival, and maintaining optimum hydration which is required for body to function efficiently. Recommended daily water intake is 6-8 glasses/day.

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