

## PalArch's Journal of Archaeology of Egypt / Egyptology

### KNOWLEDGE AND AWARENESS ABOUT BENEFITS OF DRINKING HOT WATER- A SURVEY

*M.Subaraman<sup>1</sup>, R. Gayatri Devi<sup>2</sup>, Jothi priya.A<sup>3</sup>*

<sup>1</sup>Saveetha Dental College, Saveetha Institute of Medical and Technical Sciences (SIMATS),  
Saveetha University, Chennai, India.

<sup>2</sup> Assistant Professor Department of physiology, Saveetha Dental College, Saveetha Institute  
of Medical and Technical Sciences (SIMATS), Saveetha University, Chennai, India

<sup>3</sup> Assistant Professor Department of physiology, Saveetha Dental College,  
Saveetha Institute of Medical and Technical Sciences (SIMATS), Saveetha University,  
Chennai, India.

<sup>1</sup>151901051.sdc@saveetha.com, <sup>2</sup>gayatridevi@saveetha.com, <sup>3</sup>jothipriya.sdc@saveetha.com

**M. Subaraman, R. Gayatri Devi, Jothi priya. A. KNOWLEDGE AND AWARENESS  
ABOUT BENEFITS OF DRINKING HOT WATER- A SURVEY-- Palarch's Journal  
Of Archaeology Of Egypt/Egyptology 17(7), 1630-1638. ISSN 1567-214x**

**Keywords: hot water, awareness, consumption, benefits**

#### **ABSTRACT**

The hot water with beverage type and milk have important modulatory roles. The drinking hot water had a favorable impact on intestinal movement. Consumption of hot beverages stimulates the overall physiological process faster than normal rate. Drinking hot water can lubricate in the body. It will be beneficial to patients who have arthritis. Hot water can reduce the lower esophageal sphincter resting pressure and shorten the contraction duration of the esophageal body and relieve symptoms. The aim of the study is to assess an awareness and knowledge about the benefits of drinking hot water. A self designed questionnaire of 10 questions was framed based on the knowledge and awareness of benefits of drinking hot water among the population and it was circulated through online using survey monkey. 100 participants were included in this study. In the present study, around 88% of people were aware that drinking hot water leads to healthier digestion, and 77% of people were aware that consuming hot water daily leads to help in body detoxification. Similarly, 76% of people were aware of consuming hot water daily helps in improving blood circulation. From this study, it is evident that the majority of them reported positively. The study concluded that most of them are aware of the benefits of drinking hot water

## INTRODUCTION

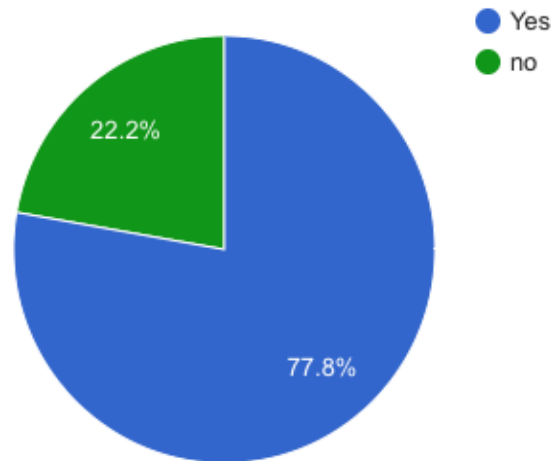
Drinking hot water gains some of the health benefits. Hot water that can improve health, but researchers have just started to look into the benefits of drinking hot water. Some study reported that the temperature range from 55 to 65°C was critical for the elimination of pathogenic bacterial components (Spinks *et al.*, 2006). The beverage type hot water and milk have important modulatory roles (Quinlan, Lane and Aspinall, 1997). Multiple evidence reports that cold exposure changes the composition of the gut microbiota and reduces intestinal immunity in early postweaning livestock. However, little is known about the effects of drinking warm water (WW) on gut microbiota during winter. The cold temperature can cause problems to human health, especially in children who experience a greater risk of gastrointestinal diseases, such as diarrhea, under colder conditions (Xu *et al.*, 2013; Thiam *et al.*, 2017) (Kelley, 1980). Similar effects have been reported in early livestock, who suffer from both cold stress and weaning stress during winter, leading to higher mortality and risk of diarrhea, and increased economic losses in farmed animals (Kelley, 1980; Laine *et al.*, 2008; LaVoy, McFarlin and Simpson, 2011). Previous literature have reported that low-temperature environments and weaning stress impaired intestinal mucosal immunity, barrier function, and the homeostasis of cecal microflora (Heaney and Shrestha, 1985; Kaushik and Kaur, 2005; Yang *et al.*, 2011). When animals switch from warm mother milk to cold water the situation gets worse. Interestingly, drinking warm water or warm milk replacers has been found to have a good effect on the growth performance of animals during winter (Osborne, Hacker and McBride, 2002). The drinking hot water had a favorable impact on intestinal movement. Ingestion of hot beverages stimulates the overall physiological process faster than normal rate. Drinking hot water can lubricate the body. It will be beneficial to patients who have arthritis. (Watson, no date; Osborne, Hacker and McBride, 2002). Hot water can reduce the lower esophageal sphincter resting pressure and shorten the contraction duration of the esophageal body and relieve symptoms. Drinking hot water would assist lower esophageal sphincter relaxation. Drinking hot water can prevent from ageing and clears skin, prevent signs of premature ageing like wrinkles, dry skin, etc... (Watson, no date; Osborne, Hacker and McBride, 2002; Çalışkan, Bulut and Konan, 2016; *12 Super Health Benefits of Drinking Hot (Warm) Water*, 2019).

The aim of the study is to assess an awareness and knowledge about the benefits of drinking hot water .

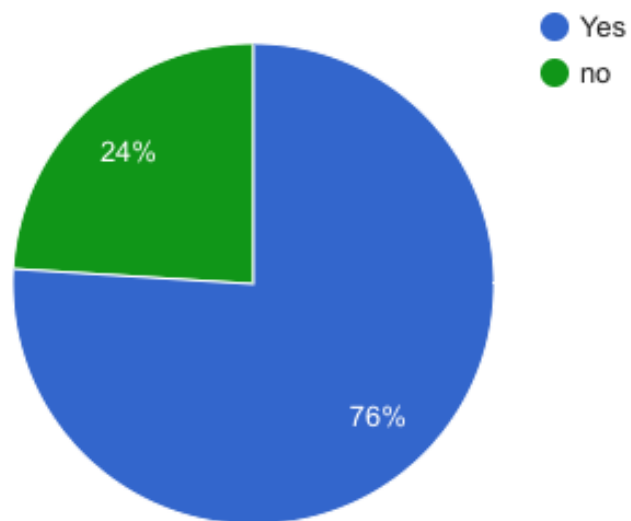
## MATERIAL AND METHODS

**This** is a cross sectional survey based study. A self designed questionnaire of 10 questions were framed based on the knowledge and awareness of benefits of drinking hot water among the population of Tamilnadu and it was circulated through online using survey monkey. 100 participants were included in this study. Before proceeding to start the survey, a detailed explanation was shared to all participants. Once the survey was completed, data was collected and analysed with statistics.

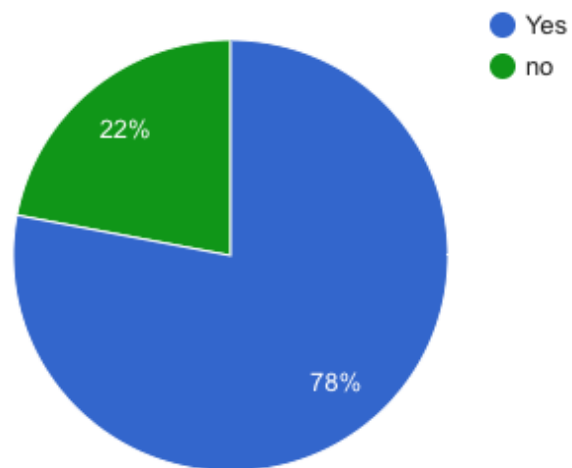
## RESULT AND DISCUSSION



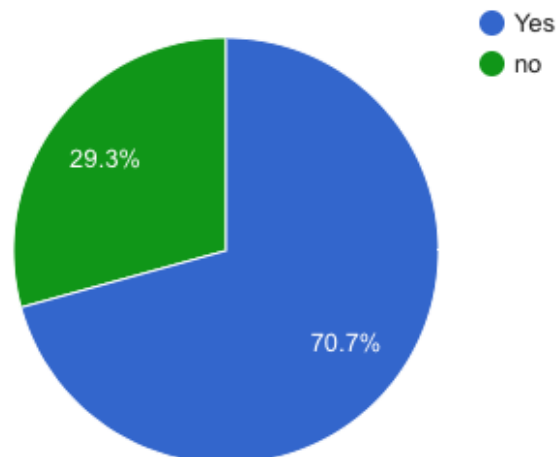
**Figure 1: Pie chart depicts the awareness level of participants when they questioned about drinking hot water leads to healthier digestion**



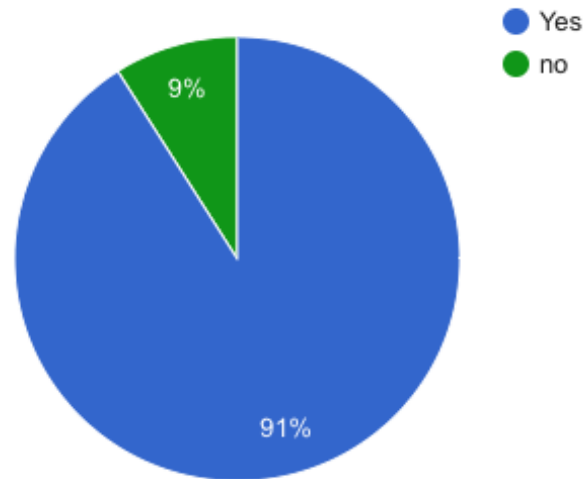
**Figure 2: Pie chart depicts the awareness level of participants when they asked about consuming hot water daily leads to help in body detoxification.**



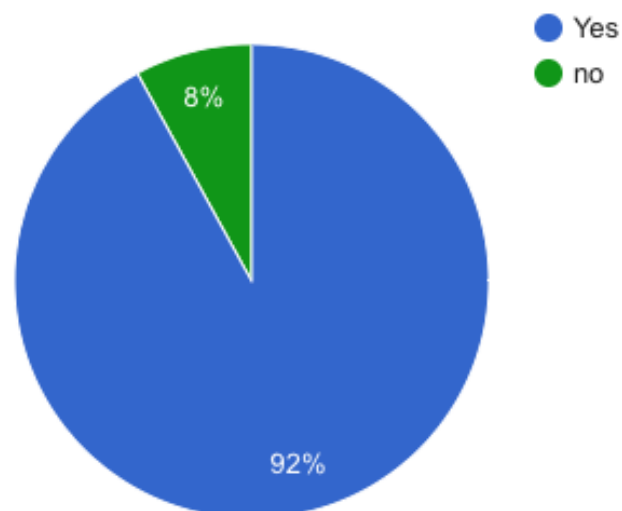
**Figure 3: Pie chart depicts the awareness level of participants when they questioned about consuming hot water daily helps in improving blood circulation**



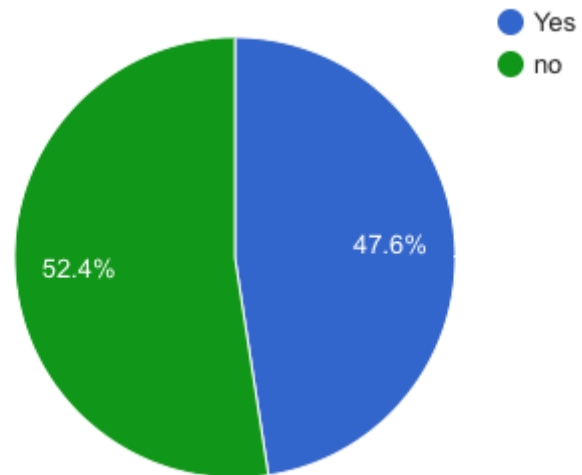
**Figure 4: Pie chart depicts the awareness level of participants when they questioned about consuming hot water leads to weight reduction.**



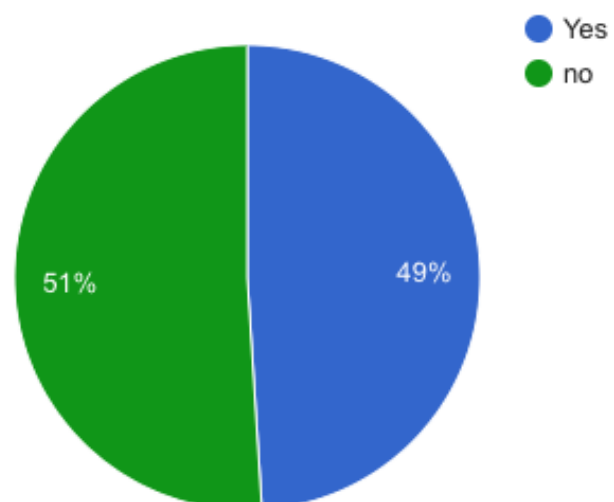
**Figure 5: Pie chart depicts the awareness level of participants when they questioned about consuming hot water daily may offer some internal pain relief.**



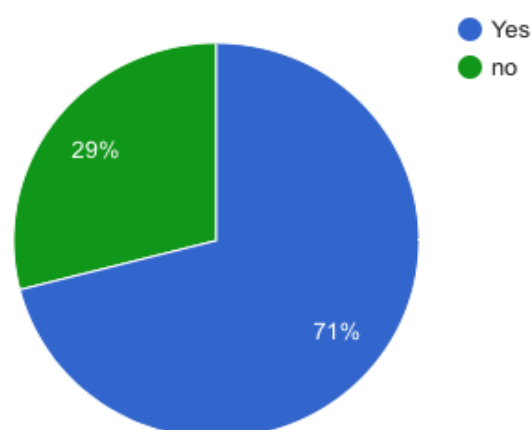
**Figure 6: Pie chart depicts the awareness level of participants when they questioned about consuming hot water daily helps in getting relief from coughing and cold.**



**Figure 7: Pie chart depicts the awareness level of participants when they questioned about consumption of hot liquid such as tea, coffee can reduce stress and anxiety.**



**Figure 8: Pie chart depicts the awareness level of participants when they questioned about consuming hot water daily helps to maintain the skin tone.**



**Figure 9: Pie chart depicts the awareness level of participants when they questioned about consuming hot water daily helps to prevent constipation.**

In the present study, 77.8% of people were aware that drinking hot water leads to healthier digestion (as shown in fig1). 76% of people were aware that consuming hot water daily leads to help in body detoxification (as shown in fig2). 78% of people were aware that consuming hot water daily helps in improving blood circulation (as shown in fig 3). When the study population questioned about consuming hot water leads to weight reduction, 70.7% of people were aware of it (as shown in fig 4). 91% were also aware that consuming hot water daily may offer some internal pain relief (as shown in fig5). Similarly, 92% of people were aware that consuming hot water daily helps in getting relief from coughing and cold (as shown in fig6). When the question was raised about the consumption of hot liquid such as tea, coffee can reduce stress and anxiety, the majority of participants 47.6% of people were aware (as shown in fig 7). 49% of people were not aware that consuming hot water daily helps to maintain the skin tone (as shown in fig 8). 71% of people were aware that consuming hot water daily helps to prevent constipation (as shown in fig 9).

Hot water plays an important role in reducing esophageal sphincter resting pressure, shortens the contraction duration of the esophageal body, prevents from ageing and clears skin, and prevents premature ageing like wrinkles. Drinking hot water reduces the problem of constipation and thereby it results in reducing digestive illness and leads to a healthier digestion as was proved in the study carried out by BIOSIL 2013) (Holford, 2017). In the present study, around 87.63% of the participants believe that hot water leads to healthier digestion which results similar to the previous study statement. In the previous study carried out by (Concepción Vinader- Caerols 2012) among the Young Population to analyse the effects of Alcohol, Coffee, and Tobacco, Alone or in Combination, on Physiological Parameters and Anxiety proved that coffee plays a role in reducing the anxiety by a comparison done between two groups of people in the study (Vinader-Caerols *et al.*, 2012; Holford, 2017). When

compared with our study the results showed that around 74.49% participants answered that hot liquids such as tea, coffee reduce anxiety. In the present study, around 77.78% participants answered that consumption of hot water plays a role in weight reduction is similar to findings of the study carried out by (Tsung-Han Yang 2017) that hot water extract of many natural substance like ginger reduced body weight and adipose tissue weight (Yang, Yao and Chiang, 2017)

## CONCLUSION

From this study, it is evident that the majority of them reported positively. The study concluded that most of them are aware of the benefits of drinking hot water.

## ACKNOWLEDGEMENT

We thank Saveetha Dental College for providing us the support to conduct the study.

## CONFLICT OF INTEREST

The author declares that there was no conflict of interest in the present study.

## REFERENCE

1. Spinks AT, Dunstan RH, Coombes P, Kuczera G. Bacterial water quality of rainwater fed domestic hot water systems. In 2nd IWA Leading-Edge Conference on Sustainability in Water-Limited Environments 2006 Mar 31 (p. 179).
2. Quinlan P, Lane J, Aspinall L. Effects of hot tea, coffee and water ingestion on physiological responses and mood: the role of caffeine, water and beverage type. *Psychopharmacology*. 1997 Nov 1;134(2):164-73.
3. Xu, Z.; Huang, C.; Turner, L.R.; Su, H.; Qiao, Z.; Tong, S. Is diurnal temperature range a risk factor for childhood diarrhea? *PLoS ONE* 2013, 8, e64713. [CrossRef]
4. Thiam, S.; Diene, A.N.; Sy, I.; Winkler, M.S.; Schindler, C.; Ndione, J.A.; Faye, O.; Vounatsou, P.; Utzinger, J.; Cisse, G. Association between Childhood Diarrhoeal Incidence and Climatic Factors in Urban and Rural Settings in the Health District of Mbour, Senegal. *Int. J. Environ. Res. Public Health* 2017, 14, 1049. [CrossRef] [PubMed]
5. Kelley, K.W. Stress and immune function: A bibliographic review. *Ann. Rech. Vet.* 1980, 11, 445–478. [CrossRef]
6. Laine, T.M.; Lyytikäinen, T.; Yliaho, M.; Anttila, M. Risk factors for post-weaning diarrhoea on piglet producing farms in Finland. *Acta Vet. Scand.* 2008, 50, 21. [CrossRef]
7. LaVoy, E.C.; McFarlin, B.K.; Simpson, R.J. Immune responses to exercising in a cold environment. *Wilderness Environ. Med.* 2011, 22, 343–351. [CrossRef]
8. Yang, X.J.; Li, W.L.; Feng, Y.; Yao, J.H. Effects of immune stress on growth performance, immunity, and cecal microflora in chickens. *Poult. Sci.* 2011, 90, 2740–2746. [CrossRef]



9. Kaushik, S.; Kaur, J. Effect of chronic cold stress on intestinal epithelial cell proliferation and inflammation in rats. *Stress* 2005, 8, 191–197. [CrossRef] [PubMed]
10. Heaney, D.P.; Jnb, S. Effects of warm versus cold milk replacers and of free-choice hay postweaning on performance of artificially reared lambs. *Can. J. Anim. Sci* 1986, 65, 871–878. [CrossRef]
11. Osborne, V.R.; Hacker, R.R.; McBride, B.W. Effects of heated drinking water on the production responses of lactating Holstein and Jersey cows. *Can. J. Anim. Sci.* 2002, 82, 267–273. [CrossRef]
12. <https://www.healthline.com/health/benefits-of-drinking-hot-water>
13. <https://parenting.firstcry.com/articles/incredible-benefits-of-drinking-hot-water-for-your-overall-health/>
14. Caliskan N, Bulut H, Konan A. The Effect of Warm Water Intake on Bowel Movements in the Early Postoperative Stage of Patients Having Undergone Laparoscopic Cholecystectomy, A Randomized Controlled Trial. 2016;39(5):340-347. doi:10.1097/SGA.000000000000181
15. Morefield, Scott. "Ways to Improve your Digestion Naturally with much Ease."
16. Vinader-Caerols, Concepción, et al. "Effects of alcohol, coffee, and tobacco, alone or in combination, on physiological parameters and anxiety in a young population." *Journal of caffeine research* 2.2 (2012): 70-76.
17. Yang, Tsung-Han, Hsien-Tsung Yao, and Meng-Tsan Chiang. "Red algae (*Gelidium amansii*) hot-water extract ameliorates lipid metabolism in hamsters fed a high-fat diet." *journal of food and drug analysis* 25.4 (2017): 931-938.