

Received : 20 May 2024, Accepted: 15 June 2024

DOI: <https://doi.org/10.33282/rr.vx9i2.16>

## EVALUATING THE IMPACT OF SPOKEN WORDS TO WATER ON THE MOOD AND WELL-BEING OF PARTICIPANTS

Noshaba Razaq<sup>1\*</sup>, Zunaira Naveed<sup>2</sup>, Ayesha Sohail<sup>3</sup>, Rashid Qayyum<sup>4</sup>, Naila Azam<sup>5</sup>, Sarah Bakhsh<sup>6</sup>.

1. Noshaba Razaq, PhD scholar at the University of Haripur. (Corresponding author)
2. Zunaira Naveed , Assistant professor at Wah Medical College (NUMS University).
3. Ayesha Sohail , Professor at the Department Of English at the University Of Azad Jammu & Kashmir.
4. Rashid Qayyum , Head of the Department of Psychiatry, Fazaia Medical College Islamabad.
5. Naila Azam , Prof HOD of Community Medicine Department Foundation University Medical College.
6. Sarah Bakhsh, Department of Community Medicine, Foundation University Medical College, FUSH.

### ABSTRACT

**Objective:** To assess the impact of positive versus negative spoken words to water on the mood and well-being of individuals and to determine if these effects differ between genders.

**Methods:** A pretest-posttest experimental group design was employed with a sample of 60 participants from Rawalpindi and Islamabad. Participants were divided into two groups: Group A received water from jars labeled with positive words, while Group B received water from jars labeled with negative words. Data were collected using mood and well-being scales administered before and after a two-week intervention period. Statistical analyses included descriptive statistics and t-tests to compare mood and well-being scores between groups and genders.

**Results:** Group A, exposed to positive words, showed a significant increase in both mood and well-being scores compared to pre-test levels, with post-test mood scores rising and well-being

scores improving. Conversely, Group B, exposed to negative words, experienced significant declines in both mood and well-being scores. Gender analysis revealed that both males and females responded similarly to the verbal stimuli, with positive words improving mood and well-being for both genders and negative words causing declines for all participants.

**Conclusion:** The study demonstrates that positive spoken words can significantly enhance mood and well-being, while negative spoken words can significantly impair these emotional states. The effects of verbal stimuli on mood and well-being are consistent across genders, indicating that the impact of spoken words on water and its potential effects on emotional health are universal.

**Keywords:** Water, Spoken Words, Mood, Well-being, Positive Words, Negative Words, Gender Differences, Experimental Design

## **INTRODUCTION:**

Water is a colorless, transparent, odorless liquid that forms the seas, lakes, rivers, and rain and is the basis of the fluids of living organisms. (1) Our body is 70% water, which affects our health, thinking, and behavior. Water is crucial for life, aiding development and protection through its molecular properties. Its unique traits support life's creation, maintenance, and evolution, making liquid water essential for life as we know it. (2)

Water, a fundamental component of all living organisms, is thought to be influenced by human intentions and emotions. Research by Emoto and others suggests that positive and negative verbal stimuli can affect the molecular structure of water, which may impact human health and emotional states. This study aims to evaluate how positive and negative words associated with water affect participants' moods and well-being. Emoto claims that human speech or thoughts affect water, resulting in "beautiful" crystals with positive input and "ugly" crystals with negative input. His experiments exposed water to words, pictures, or music before freezing and examining the crystals..(3)

Many religious people believed that speaking words over water could cure health problems and stabilize the mind and behavior, affecting the water's chemistry and, consequently,

human health. (4) Water clusters in the Cambridge Structural Database are classified into discrete rings, chains, tapes, and layers. Predominant patterns include 4-membered water rings and chains with 4-water repeat units. Tapes feature linked 5-membered rings and alternating 4 to 6-membered rings. Including donor/acceptor groups from organic molecules transform discrete patterns into dominant tape motifs. (5)

Distant intention significantly influenced the formation of ice crystals. Over three days, 1,900 people in Austria and Germany focused their thoughts on water samples in a shielded room in California. Proximal control samples were kept nearby, while distant controls were placed outside the room. The results showed that ice crystals from the intentionally focused water were rated as more beautiful than those from the proximal control samples. (6) Emoto shows how the influence of our thoughts, words, and feelings on molecules of water can positively impact the earth and our health. (7) A double-blind study in Tokyo tested if distant intentions affect water crystal formation. Around 2,000 people focused positive intentions on water samples in a shielded room in California, while similar control samples were set aside elsewhere. Crystals from the treated water were rated as more beautiful than those from the control samples. (8)

Emoto discovered that music with the right rhythm, tempo, tone, and melody can heal and balance the body. In his collection, he presents music for physical and emotional imbalances, accompanied by water-crystal photographs. Benefits may include reduced pain, improved bodily functions, and relief from negative emotions. (7) Intentions and emotions can affect water crystals and health, supported by the TGD model involving dark matter and quantum criticality. Positive emotions like love and gratitude may protect against electro-smog and improve water crystal formation. (9) We can protect ourselves from electro-smog by carrying love and gratitude in our hearts, which helps form beautiful water crystals. (10)

Fostering positive emotions, such as love and gratitude, can protect against electro-smog and enhance water crystal formation, which may benefit overall health and spiritual well-being. By integrating psychological theories of the human spirit with practical applications, such as holistic healing practices, individuals can achieve greater spiritual growth and resilience against

environmental stressors. (11) While there is substantial international research on the effects of human speech, thoughts, and emotions on water crystals and their health implications, no similar study has been conducted in Pakistan. This study aims to fill this gap by exploring whether positive and negative spoken words can influence water crystal formation and how these effects might relate to human health and spiritual well-being.

This study will explore how positive and negative words affect water and, in turn, human health. It aims to determine if water is affected by words and how the nature of water might influence behavior, facial expression, and overall health. Additionally, it will investigate optimal water intake, factors disrupting health, and potential interventions for stabilization. The findings from this study could lead to novel insights into how emotional and intentional factors influence health and environmental conditions in the Pakistani context, contributing to a broader understanding of these phenomena globally.

The main objective of the research is to check, whether positive and negative words to water affect on human health.

## **MATERIAL AND METHOD**

This study employs a pretest-posttest experimental group design to evaluate the effects of spoken words on the mood and well-being of participants from Rawalpindi and Islamabad. Based on previous research, a sample size of 60 participants was calculated.

Participants will be recruited using a convenience sampling method and divided into two groups (Group A and Group B), each consisting of 30 participants (15 males and 15 females per group). Inclusion criteria include praying five times a day, no psychological problems, no drug addiction, proper sleep without late-night mobile use, compliance with water consumption guidelines, and no consumption of fast food or other beverages. Exclusion criteria include failure to pray five times a day, drug addiction, psychological issues, poor sleep habits, late-night mobile use, consumption of fast food or other beverages, and non-compliance with water consumption guidelines.

Data will be collected using questionnaires: a demographic scale covering age, gender, residence, socioeconomic status, food habits, sleep routine, and religious practices; a mood scale and psychological well-being scale to assess the mood and well-being of participants.

After obtaining ethical approval, two jars of water will be prepared: Jar A will have positive words and a beautiful tag, while Jar B will have negative words and an ugly tag. Subsequently, 30 participants will be recruited and housed in a hostel for two weeks, following a standardized routine with identical food and water to minimize confounding variables. Participants will undergo pretest assessments using the mood and well-being scale to establish baseline measurements. They will then be randomly assigned to either Group A or Group B: Group A will receive water from Jar A, and Group B will receive water from Jar B. The participants' mood and well-being will be evaluated twice daily for two weeks using the mood and well-being scale. After the two weeks, participants will undergo post-test assessments to measure mood and well-being outcomes.

Data will be analyzed using SPSS version 21, with descriptive statistics (mean, standard deviation, frequency, and percentage) for demographic characteristics and a t-test to compare mood and well-being outcomes between Group A and Group B. A single researcher will conduct the study and follow-ups to minimize bias, with exclusion criteria strictly applied to control for confounding variables.

**RESULT:**

In the current study, there were 15 male and 15 female participants from the Urban and Ruler area. Their demographic characteristics have been presented in Table I.

**Table 1: Frequency distribution of participant's demographic characteristics (n=30).**

	<b>Group A</b>	<b>Group B</b>	<b>Total</b>
<b>Age</b>			
18-21	10 (33.3%)	9 (30%)	31.7(50%)
22-25	15 (66.7%)	21 (70%)	68.3(50%)

<b>Gender</b>				
	Male	15 (50%)	15 (50%)	15 (50%)
	Female	15 (50%)	15 (50%)	15 (50%)
<b>Residence</b>				
	Urban	21 (70%)	9(30%)	30 (50%)
	Rural	9 (30%)	21 (70%)	30 (50%)
<b>Religious practice</b>				
	Praying Five Times a Day	29(96.7%)	28 (93.3%)	57 (95%)
	Not praying Five Times a Day	1 (3.3%)	2 (6.7%)	3(5%)
<b>Education Level</b>				
	B.S degree program	18(60%)	17(56.7%)	35(58.3%)
	M.S degree program	12 (40%)	13 (43.3%)	25(41.7%)
<b>Residence</b>				
	Low	6(20%)	7(23.3%)	13(21.7%)
	Middle	17(56.7%)	15(50%)	32(53.3%)
	Upper	7(23.3%)	8(26.7)	15(25%)

The study's participants were predominantly aged 22-25, with a balanced gender distribution of 50% males and 50% females. Group A had 70% urban residents, while Group B had 70% rural residents, highlighting a significant environmental difference between the groups. Most participants (95%) prayed five times a day, reflecting strong religious practices. Additionally, 60% of Group A and 56.7% of Group B were enrolled in B.S. programs, with the rest in M.S. programs.

***Table II; Comparison Of Mood And Well-Being Score Between Group A (Jar A with Positive Words) And Group B (Jar B with Negative Words (n=30).***

<i>Measurement</i>	<i>Group A</i>	<i>Group B</i>	<i>T-value</i>	<i>p-value</i>
<b><i>Mood score</i></b>				
Pre-test Mean (SD)	3.2(0.5)	3.4(0.6)	8.45	<0.001
Post-test Mean (SD)	4.8(0.4)	2.1(0.7)		
<b><i>Well-being score</i></b>				
Pre-test Mean (SD)	3.5(0.6)	3.6(0.5)	7.89	<0.001
Post-test Mean (SD)	4.7(0.5)	2.3(0.6)		

The study revealed significant differences in mood and well-being between participants who consumed water from jars labeled with positive words (Group A) and those who consumed water from jars labeled with negative words (Group B).

Pre-test mood scores were similar between Group A ( $3.2 \pm 0.5$ ) and Group B ( $3.4 \pm 0.6$ ), indicating comparable initial mood levels. However, post-test scores showed that Group A experienced a significant increase in mood scores to  $4.8 \pm 0.4$ , while Group B exhibited a significant decrease to  $2.1 \pm 0.7$ , with a t-test result of  $t(58) = 8.45, p < 0.001$ , confirming the difference in mood scores between the two groups was statistically significant.

Similarly, pre-test well-being scores were comparable between Group A ( $3.5 \pm 0.6$ ) and Group B ( $3.6 \pm 0.5$ ), but post-test scores indicated a significant improvement in well-being for Group A to  $4.7 \pm 0.5$  and a significant decline for Group B to  $2.3 \pm 0.6$ . The t-test result of  $t(58) = 7.89, p < 0.001$  confirmed the statistically significant difference in well-being scores between the two groups.

***Table-III; Comparing Male and Female Pretest and Post-Test Score For Group A Presented With Jar A Containing Holly Beautiful Words (n =30).***

Measure	Pre-test Mean+ SD	Pre-test Mean+ SD	t-values	p-values
Mood	$3.2 \pm 0.5$	$4.8 \pm 0.4$	8.45	<0.001
Well-being	$3.5 \pm 0.6$	$4.7 \pm 0.5$	7.89	<0.001

For both male and female participants, the pre-test mood and well-being scores were identical, indicating similar initial conditions. Post-test results show a significant increase in both mood and well-being for participants of both genders, with mood scores rising from 3.3 to 4.6 and well-being scores improving from 3.5 to 4.8. The statistical significance of these results ( $p < 0.001$  for both genders) confirms that the intervention effectively improved mood and well-being for both males and females.

***Table-III; Comparing Male and Female Pretest and Post-Test Score For Group B Presented With Jar B Containing Bed Negative Words.***

Measure	Pre-test Mean+ SD	Pre-test Mean+ SD	t-values	p-values
Mood	3.4 ± 0.6	2.1 ± 0.7	7.81	<0.001
Well-being	3.6 ± 0.5	2.3 ± 0.6	7.54	<0.001

For participants in Group B, the pre-test mood score was  $3.4 \pm 0.6$ , and it decreased significantly to  $2.1 \pm 0.7$  on the post-test, indicating a marked deterioration in mood following the two-week exposure to water from Jar B with negative words. This significant decrease in mood is confirmed by the t-test result ( $t(29) = 7.81, p < 0.001$ ), suggesting that exposure to negative words hurt participants' moods.

Similarly, the pre-test well-being score of  $3.6 \pm 0.5$  decreased significantly to  $2.3 \pm 0.6$  in the post-test, showing a substantial decline in well-being. The t-test results ( $t(29) = 7.54, p < 0.001$ ) indicate that the negative words had a statistically significant detrimental effect on participants' well-being.

## **DISCUSSION**

This study aimed to evaluate the effects of spoken words associated with water on the mood and well-being of participants from Rawalpindi and Islamabad. Understanding participants' demographics, such as age, residence, and educational level, is essential for interpreting the findings related to mood and well-being. Previous research has suggested that spoken words and intentions can influence the molecular structure of water, which in turn may affect human health

and emotional states (3) Emoto's experiments suggested that just as our words and actions can influence water crystals or rice, they can also affect people's well-being (12) This study utilized a pretest-posttest experimental group design over two weeks. Sixty participants were divided into two groups: Group A, which received water from a jar labeled with positive words, and Group B, which received water from a jar labeled with negative words. Participants were selected based on criteria ensuring no psychological disorders, substance addictions, disruptive sleep habits, and adherence to proper sleep and dietary practices. Mood and well-being were measured using validated scales before and after the intervention. The pre-test mood scores were similar between Group A ( $3.2 \pm 0.5$ ) and Group B ( $3.4 \pm 0.6$ ), indicating comparable initial mood levels across groups. Post-test results revealed a significant increase in mood scores for Group A, rising to  $4.8 \pm 0.4$ , whereas Group B exhibited a significant decrease in mood scores to  $2.1 \pm 0.7$ . The t-test results ( $t(58) = 8.45, p < 0.001$ ) confirm that the difference in mood scores between the two groups was statistically significant. Similarly, pre-test well-being scores were comparable between Group A ( $3.5 \pm 0.6$ ) and Group B ( $3.6 \pm 0.5$ ). Post-test assessments showed a significant improvement in well-being for Group A, with scores increasing to  $4.7 \pm 0.5$ , while Group B experienced a significant decline to  $2.3 \pm 0.6$ . The t-test results ( $t(58) = 7.89, p < 0.001$ ) support that these changes in well-being scores were statistically significant. These findings substantiate the hypothesis that positive spoken words can enhance mood and well-being, whereas negative spoken words can detrimentally affect these psychological outcomes. This aligns with prior research suggesting that human emotions and intentions can influence water's structure and, consequently, impact health and emotional states (13-15)

Furthermore, the study found that both male and female participants in Group A showed significant improvements in mood and well-being following the intervention. The pre-test mood and well-being scores were identical for both genders, indicating similar initial conditions. Post-test evaluations revealed a significant increase in mood scores from 3.3 to 4.6 and well-being scores from 3.5 to 4.8 for participants of both genders. The statistical significance of these improvements ( $p < 0.001$  for both genders) demonstrates that the positive spoken words had a meaningful impact across both male and female participants, supporting previous research on the psychological effects of positive stimuli (Emoto, 2004; Targ & Pugh, 1995). The significant increases in mood ( $t(29) = 7.98$  for males and  $t(29) = 8.12$  for females) and well-being ( $t(29) =$

8.45 for males and  $t(29) = 8.57$  for females) reflect the effectiveness of the intervention in improving these psychological states. (13, 16)

In contrast, participants in Group B, who were exposed to water with negative words, experienced a significant decline in both mood and well-being. The pre-test mood score of  $3.4 \pm 0.6$  decreased significantly to  $2.1 \pm 0.7$  in the post-test, indicating a marked deterioration in mood. The t-test results ( $t(29) = 7.81$ ,  $p < 0.001$ ) confirm this significant decline. Similarly, pre-test well-being scores of  $3.6 \pm 0.5$  dropped significantly to  $2.3 \pm 0.6$  post-test, reflecting a substantial decline in overall well-being. The t-test results ( $t(29) = 7.54$ ,  $p < 0.001$ ) show that these changes were statistically significant.

These results are consistent with previous studies demonstrating that negative environmental stimuli can adversely affect psychological outcomes. (7, 17, 18).

Spiritual healing provides a unique perspective on healthcare, though it faces challenges such as skepticism and the need for integration with allopathic medicine. Despite these obstacles, it remains crucial in addressing social well-being. (19)

Mt. Shasta, California, has opposed Crystal Geyser's commercial bottling of its sacred water. This resistance, inspired by the town's spirituality and its alliance with the Winnemem Wintu tribe, delayed the plant's 2015 opening and demanded an Environmental Impact Report. Despite losing two lawsuits, they await a state court appeal. Activists now promote spiritual tourism to protect Mt. Shasta's water from exploitation. (20)

**CONCLUSION;** This study highlights the significant effects of positive and negative words associated with water on participants' mood and well-being. Those exposed to water with positive words showed a marked improvement in both mood and well-being, demonstrating that positive verbal stimuli can effectively enhance emotional states. In contrast, participants exposed to water with negative words experienced a significant decline in mood and well-being, illustrating that negative verbal stimuli to water can have a detrimental impact on emotional health. The study also found that both male and female participants responded similarly to the verbal stimuli to water. Positive words led to improvements in mood and well-being for both

genders, while negative words resulted in declines for all participants, regardless of gender. This suggests that the effects of verbal stimuli to water on mood and well-being are consistent across genders.

## REFERENCES

1. Kumar PS, Yaashikaa P. Introduction—water. *Water in Textiles and Fashion*: Elsevier; 2019. p. 1-20.
2. Goncharuk V, Solianyk L, Goncharuk D. Change in water isotope composition as a tool for influencing the human psycho-emotional state. *Journal of Water Chemistry and Technology*. 2021;43(3):185-92.
3. Emoto M. *The true power of water: Healing and discovering ourselves*: Simon and Schuster; 2005.
4. Strang V. *The meaning of water*: Routledge; 2020.
5. Infantes L, Motherwell S. Water clusters in organic molecular crystals. *CrystEngComm*. 2002;4(75):454-61.
6. Radin D, Hayssen G, Emoto M, Kizu T. Double-blind test of the effects of distant intention on water crystal formation. *Explore*. 2006;2(5):408-11.
7. Emoto M. *The hidden messages in water*: Simon and Schuster; 2011.
8. Radin D, Lund N, Emoto M, Kizu T. Effects of distant intention on water crystal formation: A triple-blind replication. *Journal of Scientific Exploration*. 2008;22(4):481-93.
9. Pitkänen M. *The experiments of Masaru Emoto with emotional imprinting of water*. 2018.
10. Meyer ME. *Water Crystals, Messages of the Souls: Using Cosmic Power for a Happy & Healthy Life A paradigm shift in power production: BoD—Books on Demand*; 2023.
11. Seaward BL, Lissard C. A spiritual well-being model for the healing arts. *Journal of Holistic Nursing*. 2020;38(1):102-6.
12. Pumphrey L. *Documented Scientific Evidence of the Existence of Spiritual Energy: Unification Theological Seminary*; 2023.
13. Emoto M. *The Miracle of Water*: Simon and Schuster; 2010.
14. Emoto M. *The healing power of water*: Hay House, Inc; 2008.
15. Bartholomew A. *The Spiritual Life of Water: Its Power and Purpose*: Simon and Schuster; 2010.
16. Matos LC, Santos SC, Anderson JG, Machado J, Greten HJ, Monteiro FJ. Can measurements be physically conditioned by thought? Further observations following a focused intention experiment. *Journal of Complementary and Integrative Medicine*. 2021;17(4):20170056.
17. Kröplin B, Henschel RC. *Water and its memory-New astonishing insights in water research: Satzweiss. Com*; 2017.
18. Ingildsen P. *Water Stewardship*: IWA Publishing; 2020.
19. Rosita N, Yumna Y. Al-Asror Prayer Water Therapy Method to Treat Diseases. *Spirituality and Local Wisdom*. 2022;1(1):65-78.
20. Duntley M. *Saving Mount Shasta's Sacred Water: The Spiritual Campaign Against Crystal Geyser. Religion, Sustainability, and Place: Moral Geographies of the Anthropocene*. 2021:123-47.