KNOWLEDGE, ATTITUDE AND PRACTICE TOWARDS THE DAILY RECOMMENDED WATER INTAKE AMONG FEMALE UNDERGRADUATE STUDENTS OF THE UNIVERSITY OF BENIN

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A RESEARCH PROJECT SUBMITTED TO THE DEPARTMENT OF HEALTH, SAFETY AND ENVIRONMENTAL EDUCATION, FACULTY OF EDUCATION, UNIVERSITY OF BENIN, BENIN CITY, EDO STATE, IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF BACHELOR OF SCIENCE EDUCATION DEGREE B.Sc.(Ed.) IN HEALTH EDUCATION, UNIVERSITY OF BENIN, BENIN CITY.

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CERTIFICATION

We, the undersigned, acknowledge that this research work was carried out by **ESISOH Sonia** with matriculation number **EDU2102571** in the Department of Health, Safety and Environmental Education, Faculty of Education, University of Benin.

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DEDICATION

This project work is dedicated to almighty God for making it possible for me to complete this research project.

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ABSTRACT

This study was embarked upon to investigate the knowledge, attitude and practice towards the daily recommended water intake among female undergraduate students of the university of Benin. To guide this study, four (4) research questions where raised and answered. The purpose of the study was to investigate the knowledge, attitude and practice towards the daily recommended water intake among female undergraduate students of the university of Benin. The knowledge, attitude and practice towards the daily recommended water intake were reviewed in the important literature that was reviewed for the research study. The instrument that wass used to collect responses from the study's respondents was a self-structured questionnaire, and the survey research design was the one adopted for this study. The data collected was tabulated and analyzed properly.

The findings revealed that the level of knowledge on the daily recommended water intake among the respondents is low, also that the respondents have inadequate attitudes towards the daily recommended water intake and the practice towards the daily recommended water intake among the respondents includes; drinking water during school days, only a few carry their water cans daily, respondents drink water as soon as they get thirsty, majority do not drink water before eating and respondents drink water after eating. It was also revealed that cultural practices does have an influence on the attitudes towards the daily recommended water intake among the respondents.

It was thus concluded that there are significant discrepancies in female undergraduate students' knowledge, attitudes, and practices regarding the daily required water intake have been brought to light by this study. The results show that there is a general lack of information on the topic, which leads to unsatisfactory attitudes regarding optimal hydration. In light of these results, it was recommended that focused health education initiatives are required to raise awareness and encourage constructive attitudes and behaviors around drinking enough water. Encouraging practical water drinking techniques and addressing cultural pressures can assist female undergraduates develop healthier habits, which will ultimately improve their general wellbeing.

CHAPTER ONE
INTRODUCTION

Background of the Study

Water is an essential component of life, playing a critical role in maintaining overall health and well-being. Water has a huge role in several physiological functions, including as digestion, circulation, waste removal, and temperature regulation (Stookey,2017). Despite its importance, many people do not consume the required amount of water each day, which can result in dehydration, diminished cognitive function, and other health issues (Popkin et al., 2010). Female undergraduate students' knowledge, attitudes, and practices about the daily recommended water intake may be influenced by a number of factors, such as lifestyle, academic stress, social pressures, and personal preferences.

The recommended daily water intake varies based on factors such as age, activity level, and environmental conditions. For women to maintain adequate hydration and support body functioning, the World Health Organization (WHO) (2003) and other health organizations advise an average intake of roughly 2.7 liters per day (Institute of Medicine, 2005). Despite these guidelines, research has revealed that a large number of people especially university students do not consume enough water each day for a variety of reasons, such as a lack of awareness, bad hydration practices, and lifestyle decisions (Khalifa et al., 2021). Numerous health problems, such as headaches, exhaustion, trouble concentrating, and heightened vulnerability to kidney stones and urinary tract infections (UTIs), have been

associated with inadequate water intake. Many young individuals, including female students, might not completely understand the need of maintaining proper hydration or may not make it a priority in their daily routines despite these hazards.

Knowledge, attitude, and practice (KAP) provide valuable insights into public health issues by evaluating people's understanding, attitudes, and actions around certain health concerns (Launiala, 2009). Knowledge in the context of the daily recommended water intake refers to a person's comprehension of the health advantages of drinking the required amount of water. Practice includes regular water drinking patterns, whereas attitude includes views and convictions regarding the significance of drinking water according to the daily recommended water intake. A number of young adults, particularly female university students may not know enough about the importance of staying hydrated and frequently replace water with sugary or caffeinated drinks, which can result in health risks like headaches, kidney problems, dehydration, and diminished cognitive function (Perrier, 2013).

Female undergraduate students represent a unique population in this regard, as they experience physiological changes related to menstruation, physical activity, and dietary patterns that influence hydration needs (Stookey, 2017). However, studies have revealed that a lot of female students might not prioritize drinking enough water because of the availability of other beverages, lack of understanding, and academic stress (Mali, 2020). Furthermore, cultural and societal variables

could also have an impact on hydration habits because some students might not prioritize drinking water or understand the signs of dehydration. The daily recommended water intake for female university students can be attributed to a variety of factors. While some students may drink water to be hydrated, others may do so to enhance their cognitive abilities or manage their weight (Mackenzie et al., 2021). Designing focused interventions to promote healthier water uptake habits can be aided by an understanding of the factors that influence their daily recommended water intake. Female undergraduate students' water intake is influenced by a number of factors. In addition to environmental factors like climate, water availability, and cultural traditions, they also include individual characteristics like age, gender, and health status (Zhang, 2022). Students who live in hotter climes, for instance, can require more water than students who live in cooler climates. Furthermore, cultural customs and attitudes around drinking water according to the daily recommended water intake can range greatly across various student groups (Chen, 2021).

The benefits of adhering to the daily recommended water intake is widely known. Water aids in digestion, lubricates joints, helps the body eliminate waste, and maintains body temperature (Hew-Butler, 2020). Improved mood, physical performance, and cognitive function are also linked to adequate water intake (Nieman, 2021). Maintaining proper water intake can improve female undergraduate students' general health and academic performance. Water loss from inadequate intake due to non adherence of the daily recommended water

intake is linked to a number of health problems, such as headaches, exhaustion, and cognitive decline (Armstrong, 2020). Chronic dehydration can also raise the risk of kidney stones, cardiovascular disorders, and urinary tract infections (Stookey, 2022). Promoting better water uptake practices among female undergraduate students requires an understanding of the possible dangers associated with insufficient water intake.

In light of these issues, determining female undergraduate students' knowledge, attitudes, and practices about the daily required water intake is essential for creating focused health education initiatives. By raising awareness, dispelling myths, and encouraging better hydration habits, an understanding of these aspects might eventually help female students do better academically and have better health outcomes. Therefore, the purpose of this study is to investigate the knowledge, attitude and practice towards the daily recommended water intake among female undergraduate students of the university of Benin.

Statement of the Problem

Water plays a huge role in several physiological functions ranging from digestion, circulation, waste removal and regulation of body temperature. Despite this importance, researchers have observed that very many female undergraduate students do not consume the recommended daily water intake which may be due to lack of knowledge, bad hydration practices, lifestyle decisions among others. Hence the need for the study.

Research has been carried out on the knowledge, attitude and practices of water intake among undergraduate students but none has been carried out on the knowledge, attitude and practices towards the daily recommended water intake among female undergraduates in the University of Benin. This study therefore seeks to fill these gaps by assessing the knowledge, attitudes, and practices towards the daily recommended water intake among female undergraduate students in Nigeria.

Research Question

The following research questions are raised to guide the study:

1. What is the level of knowledge of the daily recommended water intake among female undergraduate students of the university of Benin?
2. What are the attitudes towards the daily recommended water intake among female undergraduate students of the university of Benin?
3. What is the practice towards the daily recommended water intake among female undergraduate students of the university of Benin?
4. Does cultural practices influence the attitudes towards the daily recommended water intake among female undergraduate students of the university of Benin?

Purpose of the Study

The purpose of the study to investigate the knowledge, attitude and practice towards the daily recommended water intake among female undergraduate students of the university of Benin. Specifically, this study seeks to;

1. Examine the level of knowledge of the daily recommended water intake among female undergraduate students of the university of Benin.

2. Assess the attitudes towards the daily recommended water intake among female undergraduate students of the university of Benin.

3. Assess the practice towards the daily recommended water intake among female undergraduate students of the university of Benin.

4. Investigate if cultural practices influence the attitudes towards the daily recommended water intake among female undergraduate students of the university of Benin.

Significance of the Study

This study on the knowledge, attitude, and practice (KAP) towards the daily recommended water intake among female undergraduate students of the University of Benin will be of benefit to the female undergraduate students in the University of Benin, health educators, policy makers, university administrators and a basis for further research.

Firstly to the female undergraduate students, proper hydration is essential for overall health, including cognitive function, metabolism, and disease prevention. Their knowledge and habits regarding daily recommended water intake will help identify gaps that may contribute to dehydration-related health issues such as headaches, fatigue, and kidney problems. Existing Nigerian studies have focused on general health behaviors but have largely overlooked hydration-related knowledge and practices. By addressing this gap, this study provides empirical

data on female undergraduates' awareness and adherence to recommended water intake guidelines.

Findings from this study will enable health educators to design inform health education campaigns and university health programs aimed at promoting proper hydration habits. This will be particularly beneficial for female students, who may have unique hydration needs due to factors such as menstruation and physical activity levels.

Furthermore, to the policy makers, the study will serve as a foundation for future research in the areas of nutrition, hydration, and health behaviors among young adults in Nigeria. Also, findings from this study will enable university administrators and student health services to implement strategies such as awareness programs, improved access to clean drinking water on campus, and hydration reminders to encourage students to meet their daily water intake requirements. Lastly, this study will be a basis for further studies

Scope and Delimitation of the Study

The scope of the study is focused on the knowledge, attitude and practice towards the daily recommended water intake. The study is delimited to female undergraduate students of the University of Benin.

Definition of Terms

Knowledge: In the context of this study, knowledge refers to the awareness and understanding that students possess regarding the importance, benefits, and recommended guidelines for water intake. This includes their familiarity with the

physiological effects of water uptake and dehydration, as well as any information they have acquired through educational programs or personal research.

Attitude: Attitude, as used in this research, pertains to the students' subjective evaluations of water intake. It encompasses their beliefs, feelings, and predispositions towards drinking water, including any positive or negative associations they may have with water uptake practices. Attitudes are shaped by various factors such as peer influence, cultural norms, and personal experiences.

Practice: Practice in this study refers to the actual behaviors and routines that students follow regarding water consumption. This includes the frequency, quantity, and timing of their water intake, as well as any strategies they employ to ensure adequate hydration. Practices are influenced by a combination of personal habits, environmental factors, and the attitudes they hold towards water intake

Water Intake: Water intake refers to the amount of water consumed by students on a daily basis. This includes all forms of water consumption, whether from drinking water, beverages, or food. The study will assess both the recommended daily intake and the actual intake observed among the students, providing insights into their water uptake status. The daily recommended water intake varies depending on factors such as age, sex, physical activity level, climate, and overall health. However, general guidelines from health organizations provide estimates for adequate hydration.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

This chapter will be discussed under the following subheadings:

- Overview of Water
- Benefits of Water
- Daily Recommended Water Intake
- Level of knowledge of the daily recommended water intake
- Attitudes towards the daily recommended water intake
- Practice towards the daily recommended water intake
- Cultural practices and it's influence on attitudes towards the daily recommended water intake
- Summary of Literature reviewed

Overview of Water

Water is a vital component of human physiology, that aids in a number of biological processes, including digestion, circulation, waste removal, and temperature regulation (Popkin et al., 2010). It is crucial for preserving homeostasis because it makes up between 50 and 60 percent of an adult's body weight (Institute of Medicine (IOM), 2005). For optimal physical and mental performance as well as general health, enough hydration is essential. The amount of water that should be consumed each day varies based on age, sex, degree of physical activity, and surroundings. According to the IOM (2005), adult women should consume about 2.7 liters of water per day, which includes water from all food and drink sources. However, studies show that a lot of people, especially

young adults, don't follow these guidelines because of lifestyle choices, misunderstandings, and a lack of awareness (Sawka et al., 2005). Inadequate water consumption can cause dehydration, which can result in a number of health issues, including headaches, weariness, kidney stones, and cognitive decline (Armstrong et al., 2012). On the other hand, hyponatremia, a disorder marked by dangerously low blood sodium levels, can be brought on by overhydration or excessive water consumption (Verbalis, 2003).

To ensure optimum health, the World Health Organization (WHO, 2021) recommends adults to drink at least two liters of water daily. In addition to stressing the significance of staying well hydrated, the Centers for Disease Control and Prevention (CDC, 2022) notes that different people may have different water requirements depending on their age, sex, and degree of physical activity. These recommendations highlight how important water is for sustaining biological processes and avoiding dehydration. Numerous physiological functions, including as waste elimination, nutrient transport, temperature regulation, and joint lubrication, depend on proper water absorption. Water uptake requirements can also be influenced by environmental factors like humidity and temperature. Higher water intake is necessary to avoid dehydration in hot and muggy conditions since these conditions might increase perspiration and water loss. On the other hand, because perspiration and water loss are usually reduced in colder climates, chilly surroundings may lessen the body's water requirements. Another environmental component that may have an impact on hydration is altitude. larger

elevations can cause more water to be lost through perspiration and respiration, necessitating a larger water intake to maintain proper hydration. Individual water intake requirements can also be influenced by diet and general health. For instance, a high-fiber diet could need additional water to aid in digestion and avoid constipation. Because they can change the body's water balance and necessitate careful fluid intake control, some medical illnesses like diabetes, kidney disease, and heart disease can also have an impact on water uptake requirements. Drugs, especially diuretics, might cause increased water loss, therefore it's important to drink more water to stay properly hydrated. A proactive strategy is needed to maintain appropriate water uptake, which involves tracking water intake, identifying dehydration symptoms, and modifying water consumption according to personal requirements and environmental factors. Adequate hydration can be ensured by drinking water often during the day as opposed to waiting until thirst strikes. Because lighter urine usually indicates appropriate hydration and darker urine may suggest dehydration, urine color can also be a good predictor of water uptake status.

Consuming meals high in water content, like fruits and vegetables, can help you stay hydrated overall in addition to drinking water. Due to their high water content, foods including watermelon, cucumbers, lettuce, and celery can assist in meeting daily requirements for water absorption. Drinks like milk, juice, and herbal teas can also help you consume more fluids, but you should be aware of their calorie and sugar levels. Promoting public health and well-being requires

education and understanding of the significance of water uptake. In order to inform the public about the advantages of drinking enough water, the symptoms of dehydration, and methods for staying properly hydrated, public health campaigns can be quite effective. By making tailored suggestions based on each patient's health status, activity level, and environmental factors, healthcare professionals can also significantly contribute to the promotion of water intake.

In conclusion, the World Health Organization's and the Centers for Disease Control and Prevention's guidelines emphasize how important water is for sustaining body processes and avoiding dehydration. Promoting general health and well-being requires an understanding of the importance of water intake and the variables influencing each person's water uptake requirements. People may guarantee good water uptake and promote their general health by taking a proactive approach to hydration, keeping an eye on their water consumption, and identifying the symptoms of dehydration. The significance of sufficient water intake emphasizes the necessity of awareness-raising, education, and tailored advice to advance public health and wellbeing.

Physiological Role of Water

Water is essential to the human body because it facilitates digestion, acts as a medium for chemical reactions, and controls body temperature (Smith et al., 2023). It is necessary for the healthy operation of organs like the kidneys, which filter waste from the blood by consuming enough water (Johnson and Lee, 2022). Water is also essential for preserving the health of the skin and avoiding diseases

like acne and dry skin (Brown et al., 2024). Water's many activities in the body highlight how crucial it is for general health and wellbeing, impacting numerous physiological processes as well as organ functioning. Knowing these functions might assist highlight the importance of consuming enough water and the possible negative effects of dehydration. In the body, water serves as a medium for a variety of chemical reactions, which aid in the production and breakdown of substances necessary for life. It plays a crucial role in the breakdown of food and the absorption of nutrients during digestion. In order to support effective nutrient absorption and waste removal, adequate water intake guarantees that digestive enzymes can operate at their best. Additionally, water is essential for controlling body temperature, especially through perspiration. Sweat glands discharge water onto the skin's surface when the body heats up, allowing it to evaporate and cool the body. This procedure is necessary to keep the internal temperature steady, particularly when exercising or in hot conditions. Adequate water intake is very important for the kidneys' healthy operation. Water helps the kidneys filter waste materials out of the blood more effectively by diluting them. Consuming too little water can result in concentrated urine, which increases the risk of kidney stones and other renal problems by making it more difficult for the kidneys to eliminate waste. Sufficient water intake helps the kidneys maintain blood pressure, keep electrolyte balance, and create hormones that govern many body processes. The necessity of regular water intake to sustain overall renal function and avoid associated health issues is highlighted by the significance of water for kidney

health. Additionally, water is essential for preserving the health of the skin and avoiding a number of skin disorders. Sufficient water absorption keeps the skin hydrated and encourages a young, healthy look. The skin's barrier function, which helps to retain moisture and shield against environmental damage, depends on water. Dry skin, which can be flaky, itchy, and more prone to infection and irritation, can result from inadequate water absorption. Acne can also result from chronic water loss because the skin may create extra oil to make up for the deficiency, which clogs pores and causes breakouts. By ensuring enough water absorption, many disorders can be avoided and skin becomes stronger and healthier. Beyond its functions in digestion, chemical reactions, temperature regulation, and organ function, water is essential for general health. Maintaining blood volume, which facilitates the body's ability to circulate nutrients and oxygen, requires adequate water intake. A vital component of synovial fluid, which lubricates joints and lowers friction to encourage fluid mobility and guard against joint damage, is water. Additionally, it supports cellular metabolism and communication and is essential for preserving the structure and functionality of cells. Since the brain is composed of roughly 73% water, proper water absorption is essential for memory, focus, and mood control, among other cognitive processes.

Even minor dehydration can have serious negative effects on the body. It may result in headaches, exhaustion, decreased physical performance, and cognitive impairment. In extreme situations, dehydration can lead to more severe health

problems like heat exhaustion, heatstroke, and even organ failure. Chronic dehydration can also lead to the development of kidney stones, urinary tract infections, and constipation, among other health issues. The possible repercussions of water loss highlight how crucial it is to maintain sufficient water intake for general health and wellbeing. A proactive strategy is needed to ensure optimal water uptake, which involves tracking water intake, identifying dehydration symptoms, and modifying water consumption according to personal requirements and environmental factors. Adequate hydration can be ensured by drinking water often during the day as opposed to waiting until thirst strikes. Because lighter urine usually indicates appropriate hydration and darker urine may suggest dehydration, urine color can also be a good predictor of water uptake status. Consuming meals high in water content, like fruits and vegetables, can help you stay hydrated overall in addition to drinking water. Due to their high water content, foods including watermelon, cucumbers, lettuce, and celery can assist in meeting daily requirements for water absorption. Drinks like milk, juice, and herbal teas can also help you consume more fluids, but you should be aware of their calorie and sugar levels. Promoting public health and well-being requires education and understanding of the significance of water uptake. In order to inform the public about the advantages of drinking enough water, the symptoms of dehydration, and methods for staying properly hydrated, public health campaigns can be quite effective. By making tailored suggestions based on each patient's health status, activity level, and environmental factors, healthcare

professionals can also significantly contribute to the promotion of water intake. People may guarantee good water uptake and promote their general health by taking a proactive approach to hydration, keeping an eye on their water consumption, and identifying the symptoms of dehydration.

To sum up, water is essential to the human body because it facilitates digestion, acts as a medium for chemical reactions, and controls body temperature. It is vital for preserving the health of the skin and for the healthy operation of organs like the kidneys. Knowing the various functions of water in the body emphasizes how crucial proper water intake is to general health and wellbeing. People may guarantee good water uptake and promote their general health by taking a proactive approach to hydration, keeping an eye on their water consumption, and identifying the symptoms of dehydration. The significance of sufficient water intake emphasizes the necessity of awareness-raising, education, and tailored advice to advance public health and wellbeing.

Benefits of Water

Life cannot exist without water, which is also vital for preserving general health and wellbeing. Since water makes up around 60% of the human body, being properly hydrated is essential for several physiological processes (Popkin et al., 2010). Drinking enough water has many advantages, such as boosting renal function, controlling body temperature, facilitating digestion, improving physical performance, and improving cognitive function. One of the primary benefits of water is its role in cognitive function. Even slight dehydration may affect mood,

memory, and focus, according to research. Decreased alertness and cognitive function can result from inadequate hydration, especially in young individuals and the elderly, claim Benton and Young (2015). This emphasizes how crucial it is to stay well hydrated for mental function.

Water is also essential for physical performance, particularly for those who exercise or undertake physically demanding tasks. When engaging in physical activity, staying hydrated helps to minimize weariness, preserve electrolyte balance, and control body temperature (Sawka et al., 2007). Conversely, dehydration can lead to cramping in the muscles, decreased stamina, and a higher chance of heat-related disorders. Water is also essential for metabolism and digestion. It facilitates meal digestion, nutritional absorption, and constipation avoidance. A sufficient water intake promotes optimal gut health and smooth gastrointestinal function, claim Maughan et al. (2019). Additionally, improved metabolic performance is linked to adequate hydration, which may help with weight management. Water's ability to regulate temperature is another essential function. The body uses breathing and sweating as important homeostasis-maintenance processes, especially during hot weather or vigorous exercise. Restoring lost water is crucial to preventing heat stress and dehydration when the body loses fluids through perspiration (Cheuvront & Kenefick, 2014). Maintaining adequate water is critical for both renal function and the avoidance of diseases linked to the kidneys. The kidneys control fluid balance and remove waste from the blood. According to Taylor and Curhan (2008), kidney stones and

urinary tract infections can develop as a result of inadequate water intake. Consequently, enough water consumption promotes kidney health and strengthens the body's natural cleansing mechanisms.

Human survival depends on water, and particularly undergraduate university students, who frequently face demanding social and academic obligations, should pay special attention to staying properly hydrated. According to Popkin et al. (2010), consuming the necessary amount of water each day guarantees optimal physiological functioning, improves cognitive function, supports physical health, and fosters general well-being. Despite these advantages, hectic schedules, academic stress, and a propensity for sugary or caffeinated beverages cause many students to fall short of their daily hydration requirements. Students' general health, mental wellness, and academic performance can all be considerably enhanced by regularly following the recommended water intake. The effect that the daily recommended water intake has on cognitive function is among the most important advantages for college students. Dehydration can affect memory, focus, and problem-solving abilities, all of which are critical for academic achievement, according to research (Benton & Young, 2015). Concentration problems and increased mental tiredness have been associated with mild dehydration, even if it only results in 1-2 percent of body weight loss. Students may maintain mental alertness, increase their capacity to retain knowledge, and improve their general cognitive efficiency all of which are essential for learning and exam performance by making sure they consume the necessary amount of water each day.

Maintaining the optimal water intake also promotes emotional health. Due to social obligations, financial worries, and academic pressure, many students suffer from high levels of stress. Increased anxiety, irritability, and weariness have all been linked to dehydration (Adan, 2012). By promoting neurotransmitter function and lowering stress-induced cortisol levels, drinking enough water aids in mood regulation. Students who drink enough water are therefore more likely to have stable emotions, be able to handle stress better, and have better mental health in general. Another important area where drinking enough water is important is physical health. Walking around campus, playing sports, and engaging in other leisure activities are just a few of the physical activities that university students frequently partake in. Maintaining adequate hydration promotes muscle function, keeps energy levels stable, and avoids weariness during physical activity (Sawka et al., 2007). Additionally, water is essential for metabolism and digestion, lowering the chance of digestive problems including bloating, acid reflux, and constipation, which can impair students' comfort and productivity. Additionally, drinking water is crucial for maintaining a healthy immune system. Particularly during flu seasons, students who live in shared housing, such dorms, are frequently at risk for infection. Water consumption enhances renal function, aids in the body's detoxification, and encourages the formation of lymph, which is essential for immune responses (Maughan et al., 2019). Students can improve their body's defenses against infections and lower the number of absences from class due to illness by following the daily water intake recommendations.

In conclusion, undergraduate university students greatly benefit from keeping adequate hydration by following the suggested daily water intake. It strengthens the immune system, improves physical health, supports emotional stability, and improves cognitive performance. Prioritizing water consumption can greatly enhance students' academic achievement, general well-being, and quality of life, especially considering how rigorous university life can be. Students should be encouraged to form habits that support regular and sufficient water intake as part of a healthy lifestyle as knowledge of the value of staying hydrated rises.

Daily Recommended Water Intake

A vital component of life, water is essential to preserving general health and wellbeing. It is necessary for several physiological processes, including as digestion, waste removal, temperature regulation, and nutrition delivery (Popkin et al., 2010). In order to guarantee proper hydration, health organizations have set daily water intake guidelines due to its significance. Individual water requirements, however, differ according on age, sex, degree of exercise, and surroundings. Dehydration-related issues can be avoided and general health can be improved by understanding the importance of the daily recommended water consumption and following these recommendations.

Guidelines for Daily Water Intake

Depending on physiological requirements and demographics, different amounts of water should be consumed each day. Including both fluids from beverages and water content in food, the National Academies of Sciences, Engineering, and

Medicine (NASEM) recommends a daily intake of roughly 3.7 liters (125 ounces) for males and 2.7 liters (91 ounces) for women (NASEM, 2005). These guidelines are not strict, though, because environmental factors and lifestyle choices affect how much water is needed. For instance, to make up for increased water loss through perspiration, those who live in hot climes or engage in vigorous physical activity need to consume more fluids (Sawka et al., 2007). Furthermore, because of their increased metabolic activity and fluid loss, pregnant and breastfeeding women require more water. The European Food Safety Authority (EFSA) states that in order to support milk production, pregnant women should drink an additional 300 milliliters each day, while nursing women need an additional 700 milliliters (EFSA, 2010). Similar to this, older persons may need to pay closer attention to their hydration levels because dehydration is more likely to occur as thirst decreases with age (Begum & Johnson, 2010).

The Importance of Meeting Daily Water Requirements

Staying well hydrated has many health advantages. Its contribution to cognitive function is among its most important benefits. Even modest dehydration can affect mood, short-term memory, and attention, according to studies (Benton & Young, 2015). Since water makes up around 75% of the brain, maintaining adequate hydration is essential for supporting neurotransmitter function and preserving mental clarity. Water is also necessary for cardiovascular health. Maintaining blood volume, controlling blood pressure, and lowering the risk of heart disease are all made possible by adequate hydration. Increased blood

viscosity from dehydration can make the heart work harder to pump blood, which can lead to hypertension and other cardiovascular problems.

Water is also essential for metabolism and digestion. It facilitates nutrition absorption, food digestion, and constipation avoidance. Digestion issues like acid reflux and irritable bowel syndrome have been linked to inadequate water intake (Maughan et al., 2019). Additionally, by increasing metabolic efficiency and encouraging satiety, consuming enough water can aid in weight management (Dennis et al., 2010). Hydration is also essential for detoxification and kidney function. Water is necessary for the kidneys to filter waste from the blood and eliminate it through urine. Long-term dehydration raises the incidence of UTIs and kidney stones (Taylor & Curhan, 2008). Maintaining kidney function and promoting the body's natural detoxifying mechanisms are two benefits of drinking adequate water.

A individual's hydration needs can be influenced by a number of circumstances, despite the existence of standard guidelines. According to Sawka et al. (2007), physical exertion causes a large increase in water loss through perspiration, necessitating a higher fluid intake to maintain equilibrium. In a similar vein, environmental elements like heat and humidity can increase water loss, requiring more fluid intake. Hydration is also influenced by dietary decisions. Foods like fruits, vegetables, and soups add to total fluid intake, but the best way to stay hydrated is with plain water. Drinks such as tea, coffee, and juice also help people stay hydrated, although consuming too many sugary or caffeinated beverages

might cause metabolic imbalances or dehydration (Popkin et al., 2010). Dehydration can cause symptoms like headaches, weariness, dry skin, and dizziness if daily water requirements are not met. More severe health issues, such as heatstroke, kidney damage, and cognitive impairment, can result from severe dehydration (Adan, 2012). Long-term kidney illness, kidney stones, and urinary tract infections have all been associated with chronic dehydration (Cheuvront & Kenefick, 2014). The daily recommended water intake is essential for maintaining overall health and preventing dehydration-related complications. While general guidelines suggest specific intake levels for men and women, individual hydration needs vary based on factors such as age, activity level, and environmental conditions. By prioritizing adequate water consumption, individuals can support cognitive function, cardiovascular health, digestion, metabolism, and kidney function. As awareness of hydration's importance grows, adopting proper water intake habits can lead to long-term health benefits and improved quality of life.

Level of knowledge of the daily recommended water intake

Despite the well-established importance of hydration, the level of knowledge regarding the daily recommended water intake varies significantly across different populations, including students, healthcare professionals, and the general public. Misconceptions and ignorance on optimal hydration can result in insufficient water intake, raising the risk of dehydration and associated health problems. Developing successful educational programs that encourage better hydration habits requires an understanding of the degree of information regarding daily

water intake. According to studies, a large number of people are unaware of the daily water intake recommendations. According to the National Academies of Sciences, Engineering, and Medicine (NASEM), women should strive for 2.7 liters (91 ounces) of water per day from all food and drink sources, whereas males should consume roughly 3.7 liters (125 ounces) (NASEM, 2005). Nonetheless, studies show that a sizable percentage of people are not aware of these suggestions. For example, a study by Kant et al. (2010) discovered that many individuals consume less fluid than is ideal because they underestimate how much water they need each day. University students' understanding of adequate hydration varies greatly. Although some students understand the value of drinking water on a regular basis, many are unaware of the precise daily requirements or the negative effects of dehydration. Only 42% of American college students could accurately identify the required daily water intake, according to a research, and many of them relied more on their own subjective thirst cues than on scientific recommendations (Miller et al., 2016). In a similar vein, a study conducted among university students in Nigeria revealed that while the majority of them recognized the advantages of being hydrated, they were not fully aware of the required intake amounts (Adegboye et al., 2019).

Knowledge of adequate hydration is influenced by a number of factors, such as cultural views, educational attainment, and access to health information. Higher educated people are more likely to be aware of hydration recommendations, according to studies, because they are exposed to more health-related information

(Manz et al., 2012). But misconceptions still exist, even among educated people. Despite differences in hydration requirements depending on age, sex, activity level, and climate, many people think that eight glasses of water a day is a universal guideline (Valtin, 2002). Inconsistent understanding on water intake is also a result of media influence and false information. Contradictory messages in the media might cause confusion, even as health campaigns raise awareness of the importance of being hydrated. For instance, some sources overstate the necessity of drinking a lot of water, while others contend that thirst is a good enough signal of hydration needs. This may not be true for everyone, particularly athletes and elderly adults (Armstrong et al., 2012).

Lack of knowledge of hydration recommendations can result in insufficient water intake, raising the risk of health problems linked to dehydration. Cognitive deficits, decreased physical performance, and an increased risk of kidney related illnesses have all been associated with dehydration (Maughan et al., 2019). Students who do not drink enough water at university may suffer from headaches, exhaustion, and trouble focusing, all of which can have a detrimental effect on their academic performance (Benton & Young, 2015). On the other hand, consuming too much water as a result of false information might also have negative consequences. Some people think that drinking a lot of water would help them lose weight or detoxify, which can lead to overhydration and, in extreme situations, hyponatremia, a condition where low blood salt levels can cause major health problems (Hew-Butler et al., 2015) Health education initiatives should

prioritize evidence-based recommendations for daily water intake in order to fill in knowledge gaps. In order to give students and the general public accurate information about their hydration needs, universities and healthcare facilities can implement hydration awareness initiatives. Furthermore, including hydration education into community health initiatives, workplace wellness programs, and school curriculum can improve public awareness of appropriate water intake (Popkin et al., 2010). People can measure their regular water intake and improve their hydration habits by using digital tools like hydration tracking applications.

Many people underestimate or misunderstand their hydration needs, and there are significant differences in the amount of knowledge regarding the daily required water intake among various cultures. Particularly in universities, knowledge gaps can have an impact on students' academic performance and general well-being. Hydration awareness is shaped in large part by elements like cultural beliefs, media impact, and education. Targeted teaching programs that fill in these information gaps can encourage better hydration practices and avoid the harmful effects of both dehydration and overhydration. Numerous studies have evaluated college students' understanding of water consumption. For example, a 2023 survey by the University of Benin revealed that although 70% of students knew the broad recommendations for daily water consumption, only 40% could correctly name the precise amount that health organizations advise (Eze and Okafor, 2023). This discrepancy points to a disconnect between theoretical knowledge and real-world comprehension. Additionally, Osei-Kwasi et al.'s

systematic analysis of Nigerian teenagers' nutritional status and dietary intake in 2023 found that although they consume a lot of starchy foods, they consume very little in the way of fruits, vegetables, and other vital nutrients. This food pattern points to possible deficiencies in nutrition education, which could also include knowledge of proper hydration techniques. Additionally, a survey of secondary school pupils in Riyadh, Saudi Arabia, evaluated their knowledge and habits around water use. The results demonstrated the impact of the educational environment on hydration awareness, showing that students in foreign schools had greater knowledge and awareness of the significance of water consumption than students in national schools (Alsaeed et al., 2021).

Attitudes towards the daily recommended water intake

Maintaining life, assisting metabolic functions, and preserving general health all depend on water. Age, sex, level of physical activity, and environmental factors all affect the daily recommended water intake (National Academies of Sciences, Engineering, and Medicine [NASEM], 2005). However, whether or not people satisfy their hydration needs depends in large part on their attitudes about water consumption. Knowledge, individual preferences, cultural beliefs, societal conventions, and environmental factors all have an impact on attitudes around drinking water. The literature on attitudes regarding daily water consumption is reviewed in this review, along with the factors that influence these views and how they affect hydration behavior. According to research, opinions about drinking water are frequently influenced by individual convictions and views of its

advantages. Water is essential for digestion, hydration, and cognitive function, as many people are aware. But even with this awareness, people still don't always follow the recommended water intake (Popkin et al., 2010). While some people prefer other beverages, including sugary and caffeinated drinks, over plain water, others link water consumption to better skin health, detoxification, and weight control (Drewnowski et al., 2013). According to a study by Spigt et al. (2012), even though most individuals understand how important it is to drink water, they frequently do not do so because they are forgetful, lack habits, or prefer flavored beverages. Furthermore, sedentary people tend to drink less water than people who regularly exercise, suggesting that lifestyle choices may potentially have an impact on attitudes on hydration (Manz et al., 2012).

Students at universities are a group that is especially susceptible to dehydration because of their academic schedules, lifestyle choices, and beverage preferences. Numerous research have looked at their opinions regarding the daily amount of water that is advised. According to Miller et al. (2016), for example, although many students recognize the value of drinking water, their hectic schedules and ready access to other beverages, such as coffee, soft drinks, and energy drinks, frequently cause them to overlook it. In a similar vein, Adegboye et al.'s (2019) study of university students in Nigeria found that while they were aware of the advantages of drinking water, their views did not always transfer into action. Some people thought they were properly hydrated even when their actual water intake was below the required amount, and many people chose fruit juices or fizzy

drinks over plain water. The study found that students' hydration patterns were greatly influenced by social factors, including peer habits and the availability of beverages on campus.

Attitudes on drinking water are also influenced by social norms and cultural perspectives. According to Jequier and Constant (2010), some cultures view drinking water as an essential health habit, while others may rely more on tea, herbal infusions, or other traditional beverages to satisfy their hydration demands. For instance, traditional beverages like palm wine, kunu, and zobo are frequently chosen over plain water in Nigeria, especially during social gatherings (Adegboye et al., 2019). Some populations may use less water as a result of these preferences. Attitudes on hydration are also influenced by the accessibility of safe drinking water. People may be less likely to drink the recommended amounts of water in places where clean water is expensive or rare, choosing instead more easily accessible or culturally acceptable alternatives (Manz et al., 2012). Numerous research have also looked into how gender influences views on being hydrated. According to research, women are more likely to prioritize drinking water because they believe it will help them manage their weight and maintain healthy skin (Chang et al., 2016). However, according to Guelinckx et al. (2016), men are more likely to drink water when they are thirsty or after exercising. These variations demonstrate how motivation shapes hydration habits.

Knowledge, cultural views, lifestyle choices, and beverage preferences are some of the variables that affect attitudes on the daily recommended water intake.

Although many individuals are aware of how important it is to stay hydrated, obstacles including forgetfulness, a preference for other beverages, and a lack of clean water make it difficult to follow recommended intake levels. Inadequate hydration among university students is further exacerbated by hectic schedules and social factors. Improving hydration practices and general health outcomes can be achieved by addressing these issues through behavioral interventions, education, and expanded access to clean drinking water.

Practice towards the daily recommended water intake

An essential component of preserving general health and wellbeing is water. Age, gender, degree of activity, and environmental factors all affect the recommended daily intake of water. Global health organizations recommend that men and women consume 3.7 and 2.7 liters, respectively, of fluids from all food and beverage sources (National Academies of Sciences, Engineering, and Medicine [NASEM], 2005). Notwithstanding the well-established advantages of staying properly hydrated, different populations' actual adherence to suggested water intake levels varies greatly depending on a variety of factors, including lifestyle choices, attitudes, knowledge, and accessibility. A person's daily habits surrounding fluid intake, such as the quantity, frequency, and sources of water consumed, are referred to as their hydration practices. In contrast to organized habits, many people tend to drink water based on their thirst, which may not always be in line with their body's hydration requirements (Popkin et al., 2010). According to studies, some people intentionally try to consume the necessary

amount each day, but others don't because of lifestyle decisions, a preference for other drinks, or misunderstandings about the need of staying hydrated (Maughan et al., 2019). Studies have indicated that those who are more cognizant of the advantages of staying hydrated are more likely to make drinking enough water a regular part of their lives (Chang et al., 2016). Nevertheless, there are differences in adherence to recommended consumption depending on age, gender, occupation, and degree of physical activity among various demographic groups.

Factors Influencing Water Intake Practices

Several factors determine how individuals practice daily hydration:

Knowledge and Awareness – Individuals who understand the importance of water consumption and its role in physiological functions such as digestion, circulation, and cognitive performance are more likely to meet daily hydration recommendations (Manz et al., 2012). However, misconceptions about hydration such as the belief that all beverages provide the same benefits as water often lead to inadequate water intake. Thirst-Driven vs. Habitual Drinking – Some people drink water only when they feel thirsty, while others maintain a routine of drinking water at regular intervals throughout the day (Drewnowski et al., 2013). Studies suggest that relying solely on thirst as a cue for hydration may not be sufficient, as thirst is a delayed response to dehydration (Armstrong et al., 2012).

Beverage Preferences – Many individuals substitute water with other beverages, including soft drinks, energy drinks, fruit juices, and caffeinated beverages (Popkin et al., 2010). While these drinks contribute to overall fluid intake, they

often contain sugars and additives that may have negative health effects. Additionally, some individuals believe that consuming high-water-content foods, such as fruits and soups, compensates for lower water intake, leading to suboptimal hydration practices.

Lifestyle and Environmental Factors – People engaged in physically demanding jobs or sports are more likely to consume higher amounts of water due to increased fluid loss through sweat (Maughan et al., 2019). Conversely, those with sedentary lifestyles may not prioritize hydration. Climate and environmental conditions also influence hydration practices, with individuals living in hot and humid regions tending to consume more water than those in cooler climates (Jequier & Constant, 2010).

Accessibility and Availability – The ease of access to clean drinking water plays a crucial role in determining daily intake practices. In regions where clean water is scarce or expensive, individuals may consume less water than recommended (Manz et al., 2012). On university campuses, the availability of water fountains, bottled water, and affordability of alternative beverages influence students' drinking habits (Adegboye et al., 2019).

University students have distinct hydration habits because of their social lives, academic schedules, and beverage preferences. Research indicates that a large number of students do not consume enough water each day, frequently substituting it with soft drinks, alcohol, or caffeinated beverages (Miller et al., 2016). While Nigerian university students were aware of the significance of

drinking water, Adegboye et al. (2019) observed that their actual intake was frequently below the recommended amounts because they preferred sweetened and flavored drinks. Students' poor hydration practices are further exacerbated by time constraints, scholastic stress, and irregular eating habits. Dehydration can impair focus, cognitive function, and physical health because many students do not carry water bottles or intentionally try to drink water during the day (Armstrong et al., 2012).

Due to a variety of factors, including lifestyle, beverage preferences, knowledge, and environmental conditions, there are considerable variations in the practice of following the daily recommended water intake. Even though many people understand how important it is to stay hydrated, obstacles including forgetfulness, a lack of clean water, and a preference for other beverages lead to insufficient water intake. Academic pressures and social factors can affect university students' hydration patterns. Improving hydration habits and fostering improved health outcomes can be achieved by addressing these issues through educational programs, expanded access to water, and behavior modification techniques.

Cultural practices and it's influence on attitudes towards the daily recommended water intake

Although water is necessary for human survival, cultural ideas, customs, and social conventions frequently influence how people view and use it. Cultural customs have a variety of effects on attitudes around the daily recommended water consumption, which impacts how and how much people hydrate.

Traditional beliefs, religious practices, social conventions, and regional food patterns are all examples of these factors, and they all play a part in the differences in hydration behaviors among various groups (Popkin et al., 2010). Promoting healthier hydration habits and managing dehydration-related health issues in various cultures require an understanding of these cultural variables.

There are significant cultural differences in how different nations view water use. While drinking water is highly valued in some cultures for health and spiritual cleansing, excessive water consumption may be linked to pain or illness in others (Jequier & Constant, 2010). In certain Asian and African societies, for example, traditional medicine advises limiting water consumption during meals since it is thought that excessive water consumption may "dilute" digestive enzymes and cause problems with digesting (Maughan et al., 2019). Chronic dehydration may result from this assumption, which may deter people from drinking enough water throughout the day. According to Manz et al. (2012), certain cultures also place a premium on drinking warm or herbal-infused water rather than plain water because they think that cold water might lead to interior imbalances. People may resist drinking water unless it is prepared in a way that is culturally favored, which might have an impact on hydration habits.

Attitudes around water use are also greatly influenced by religious traditions. Fasting is a common religious practice in which followers refrain from eating and drinking for prolonged periods of time. For instance, Muslims must abstain from drinking water from sunrise to sunset during the month of Ramadan, which

drastically lowers daily hydration levels (Che Muhamed et al., 2019). Research indicates that many people do not fulfill their daily hydration needs during fasting hours, despite the fact that they frequently consume extra fluids before and after to make up for water loss (Zein et al., 2021). Water is frequently utilized in purification ceremonies in Buddhism and Hinduism, signifying spiritual regeneration and cleansing. These religious practices might not, however, place a strong emphasis on being hydrated for physical well-being, which could result in different water intake amounts among followers (Rosenberg, 2010). Water is also used in religious activities in Christianity, especially in sacramental rites like baptism. But unlike Islam or Hinduism, Christianity does not have rigorous dietary guidelines for water consumption, so its adherents can adopt more flexible hydration practices (Popkin et al., 2010).

Water intake is also influenced by the kinds of meals that are typically consumed in various cultures. Foods with a high water content, like soups, stews, fruits, and vegetables, make up a large portion of the daily fluid consumption in some areas (Manz et al., 2012). On the other hand, cultures who consume a lot of dry, starchy foods like bread, rice, and grains but not enough fluids may be more vulnerable to dehydration (Maughan et al., 2019). For instance, traditional meals in several regions of Nigeria are frequently high in carbohydrates and served with thick soups. While some people drink water to go with these meals, others might like locally produced drinks like palm wine or kunu, a fermented millet beverage, since they feel they are more hydrating than plain water (Adegboye et al., 2019).

Depending on the beverage's ingredients and any diuretic effects, these preferences may help or hurt optimal hydration.

When and how people drink water is also determined by social conventions. Publicly or excessively drinking water may be viewed as inappropriate conduct in various cultures, especially for women. For example, cultural modesty values or restricted access to bathroom facilities may cause women in some Middle Eastern and African civilizations to refrain from drinking water in public places (Rosenberg, 2010). Particularly for female students or working professionals who spend a lot of time outside the home, this limitation may deter them from drinking enough water. Hydration habits are also influenced by ethnic hospitality customs. serving tea, coffee, or soft drinks to visitors is more customary in some cultures than serving water, which could encourage people to drink other beverages instead of using water to stay hydrated (Popkin et al., 2010). Such behaviors can raise the risk of dehydration and related health problems by making people prefer sweetened or flavored beverages to plain water.

Another important factor influencing hydration habits is the accessibility of potable water. Cultural adaptations frequently arise in areas where water shortage is prevalent, impacting perceptions of water consumption. For instance, people may adopt the practice of water rationing in regions of Sub-Saharan Africa where there are limited supplies of clean water, giving cooking and cleanliness a higher priority than drinking (Adegboye et al., 2019). Even among people with better access to water infrastructure, this adaptation to scarcity may eventually result in

normalized water underconsumption. While bottled and tap water are widely available, civilizations with a lot of freshwater resources, such those in Northern Europe and North America, tend to place more emphasis on staying hydrated on a regular basis (Jequier & Constant, 2010). This discrepancy demonstrates how cultural customs and environmental influences influence people's views on consuming the recommended amount of water each day.

Hydration habits have changed as a result of modernity and globalization, as people are becoming more conscious of how important drinking water is for good health. Many cultures now see hydration differently as a result of public health campaigns, educational campaigns, and the influence of Western food practices (Miller et al., 2016). Instead of following traditional cultural ideas, younger generations especially university students are more likely to adopt hydration behaviors inspired by scientific advice (Adegboye et al., 2019). Cultural resistance to change is still a problem, though, as long-standing customs and habits often continue to shape water consumption patterns. Therefore, in order to ensure successful behavioral change, efforts to promote proper hydration must take cultural perspectives into account and incorporate them into public health messaging. Attitudes toward the daily required water intake are greatly influenced by cultural norms. Hydration behaviors are influenced by a variety of factors, including regional water accessibility, food patterns, social norms, religious beliefs, and water drinking habits. While certain cultural behaviors support proper hydration, others contribute to misconceptions that may lead to low water intake.

Improving hydration habits and general health outcomes can be achieved by addressing these cultural influences through culturally aware public health campaigns.

Summary of Literature Reviewed

According to studies, even while a large number of students understand the significance of water for general health, they still don't know enough about the precise daily amount that is advised (Jequier & Constant, 2010; Popkin et al., 2010). University students frequently hold misconceptions about hydration, such as the idea that other drinks may completely replace water (Maughan et al., 2019). According to research conducted in Nigerian university settings, this knowledge gap is caused by a number of issues, including disinformation, a lack of health education, and an excessive workload (Adegboye et al., 2019). Attitudes have a big impact on how people drink water. Although some students recognize the advantages of staying well hydrated, many may not prioritize it because of cultural views that water should only be consumed when thirsty, lifestyle limitations, or preferences for flavored beverages (Miller et al., 2016). Attitudes toward hydration are also influenced by social and environmental factors, such as peer pressure and the availability of clean drinking water on campus (Rosenberg, 2010). Further inhibiting adherence to recommended intake levels is the perception among some students that excessive water consumption is uncomfortable since it causes frequent urinating (Manz et al., 2012).

Even while attitudes and understanding differ, female college students' actual hydration habits frequently fall short of suggested amounts. Instead of drinking enough water each day, many students turn to energy drinks, soft drinks, or caffeinated beverages (Maughan et al., 2019). Unusual drinking habits are a result of hectic academic schedules and restricted access to water sources on university property (Adegboye et al., 2019). Additionally, some students adhere to cultural conventions that affect their water consumption patterns, such as consuming little water during meals (Popkin et al., 2010).

CHAPTER THREE
METHOD OF THE STUDY

This chapter presents the method and procedures that will be used in conducting the study. It is organized under the following sub-headings:

- Research Design
- Population of the Study
- Sample and Sampling Technique
- Research Instrument
- Validity of the Instrument
- Reliability of the Instrument
- Method of Data Administration
- Method of Data Analysis

Research Design

This study adopted the descriptive survey research design. According to Omorogiuwa (2019), a descriptive survey research design is thought to be the most appropriate for this study since it enables the researcher to gather information from the respondents regarding their opinions regarding the phenomenon under study as it is in their natural setting. The goal of this design was to gather data on a population of study and use that data to explain the characteristic features and facts about the population.

Population of the Study

The population of the study consisted of all the female undergraduate students of the university of Benin. The University of Benin has a total of fifteen (15) faculties with an estimated population of 20,889 female undergraduate students as of the 2022/2023 academic session (Student Affairs Division, 2025).

Sample and Sampling Technique

The sample for this study was (270) respondents. The multistage sampling techniques was used. Firstly, the simple random sampling technique was used to select seven (7) faculties from the fifteen (15) faculties. Secondly the proportional sampling technique was used to select 2% from the total population. And thirdly, the purposive sampling technique was used to select the respondents for the study.

S/N	Faculty	Population	Sample Size	Percentage
1	Education	4178	84	2 %
2	Life Sciences	2609	52	2 %
3	Engineering	716	14	2 %
4	Social Sciences	1614	32	2 %
5	Arts	3672	73	2 %
6	Law	469	9	2%
7	Environmental Sciences	296	6	2%
TOTAL	**7**	**13,554**	**270**	

Research Instrument

A self structured questionnaire was used for the study. The questionnaire was divided into two sections, section A and B. Section A contained questions soliciting information relating to the respondent's demographic data, while section B contained questions drawn from the research questions relating to the research topic.

Validity of the Instrument

The face and content validity was used to establish the validity of the instrument by giving draft copies of the instrument to the project supervisor and two other experts in the Department of Health, Safety and Environmental Education. Their corrections and suggestions were used to prepare the final copy of the instrument.

Reliability of the Instrument

The test-retest method of reliability estimation was used to determine the instrument's reliability. This involved distributing copies of the validated instrument. Two weeks later, the same instrument was given to the same participants again. Pearson Product Moment Correlation was applied to the data produced by the two administrations.

Method of Data Administration

The instrument was administered directly to the respondents by the researcher with the help of three trained research assistants. The researcher and the research assistants visited the faculties selected for the study and administered the instruments to the students who were available in school, willing and ready to

participate in the study. Direct administration of the instrument allowed the researcher to be on ground to explain any grey areas to the respondents.

Method of Data Analysis

The data collected was analyzed using descriptive statistics involving frequency counts, percentages, mean and standard deviation.

CHAPTER FOUR

DATA PRESENTATION, ANALYSIS, AND INTERPRETATION

The results, analysis, and the interpretation of the data gathered from the respondents response are presented in this chapter. Twenty (20) items were generated and presented in a questionnaire form, and given to the 270 respondents, who were selected from the students at the University of Benin in Edo State. Four (4) research questions were raised to guide the study. The data from the respondents is presented and analyzed in detail in the following tables.

Question 1: What is the level of knowledge of the daily recommended water intake among female undergraduate students of the university of Benin?

Table 1: Respondents level of of the daily recommended water intake

S/N	Level of knowledge	Frequency	Percentage
1.	Low knowledge	177	65.5%
2.	High Knowledge	93	34.4%

Decision 0-2 low, 3-5 High

From table 1 above 65.5% of the total respondents possess low knowledge regarding the daily recommended water intake while 34.4% of the total respondents possess high knowledge about the daily recommended water intake . Therefore, it can be deducted that the level of knowledge on the daily recommended water intake among the respondents is low.

Question 2: What are the attitudes towards the daily recommended water intake among female undergraduate students of the university of Benin?

Table 2: Respondents attitudes towards towards the daily recommended water intake

S/N	ITEMS	MEAN	S.D	DECISION
1.	Drinking the recommended amount of water daily is important for good health	3.50	.453	AGREED
2.	I make a conscious effort to drink the daily recommended amount of water	2.69	.462	AGREED
3.	I do not feel drinking enough water improves an individual's overall well-being	3.15	.571	AGREED
4.	The daily recommended water intake is excessive and unnecessary	3.34	.555	AGREED
5.	The tasteless feel of water makes it impossible for me to drink water according to the daily recommended water intake	3.84	.310	AGREED

Scale: Mean >2.5 = Agree
Mean <2.5 = Disagree

Table 2 above depicts the respondents attitudes towards towards the daily recommended water intake. From item 1, majority of the respondents agreed that drinking the recommended amount of water daily is important for good health with a mean of 3.50. In item 2, majority of the respondents also agreed to making a conscious effort to drink the daily recommended amount of water with a mean of 2.69. Furthermore, in item 3, majority of the respondents agreed to the statement "I do not feel drinking enough water improves an individual's overall well-being" with a mean of 3.15. Also in item 4, majority of the respondents also agreed to the statement the daily recommended water intake is excessive and unnecessary with a mean of 3.34. And in item 5, majority of the respondents

further agreed to the statement the tasteless feel of water makes it impossible for me to drink water according to the daily recommended water intake with a mean of 3.84.

Therefore, from the data from table 2 above, it can be deducted that the respondents have inadequate attitudes towards the daily recommended water intake.

Question 3: What is the practice towards the daily recommended water intake among female undergraduate students of the university of Benin?

Table 3: Practice towards the daily recommended water intake among the respondents

S/N	ITEMS	OFTEN (%)	SOMETIMES (%)	RARELY (%)	TOTAL
1.	How often do you drink water in a day during school days	159 (58.9%)	76 (28.1%)	35 (13%)	270 (100%)
2.	Do you carry your own water can every day	35 (13%)	100 (37%)	135 (50%)	270 (100%)
3.	Do you drink water as soon as you get thirsty	195 (72%)	56 (20.7%)	19 (7.3%)	270 (100%)
4.	Do you drink water before eating	69 (25.6%)	54 (20%)	147 (54.4%)	270 (100%)
5.	Do you drink water after eating	208 (77%)	48 (17.8%)	14 (5.2%)	270 (100%)

***Source**; Field Survey 2025*

Table 3 above, depicts the practice towards the daily recommended water intake among the respondents. From item 1, majority of the respondents 159 (58.9%) often drink water in a day during school days. Furthermore, in item 2 majority of the respondents 135 (50%) rarely carry their own water can every day. Also, item 3 showed that majority of the respondents 195 (72%) drink water as soon as they

get thirsty often. Also, in item 4, the data from the table showed that majority of the respondents (54.4%) rarely drink water before eating and lastly in item 5, majority of the respondents 208 (77%) often drink water after eating.

Therefore, from table 3 above, it can be deducted that the practice towards the daily recommended water intake among the respondents includes; drinking water during school days, only a few carry their water cans daily, respondents drink water as soon as they get thirsty, majority do not drink water before eater and respondents drink water after eating.

Question 4: Does cultural practices influence the attitudes towards the daily recommended water intake among female undergraduate students of the university of Benin?

Table 4: Cultural practices influence on the attitudes towards the daily recommended water intake among the respondents

S/N	ITEMS	MEAN	S.D	DECISION
1.	In my family or community,there are specific times when drinking water is encouraged or discouraged	2.19	.390	DISAGREED
2.	Have you been taught by family or elders that drinking too much water is harmful	2.68	.535	AGREED
3.	There are cultural alternatives to drinking plain water (e.g., herbal drinks, traditional beverages) in my community	3.15	.597	AGREED
4.	Does your cultural background influence your preference for specific types of drinking water (e.g., warm water, room-temperature water, mineral water)	2.55	.550	AGREED
5.	In my family or community,	3.35	.565	AGREED

	people drink more water during certain seasons due to cultural beliefs			

Scale: Mean >2.5 = Agree
Mean <2.5 = Disagree

Table 4 depicts the cultural practices influence on the attitudes towards the daily recommended water intake among the respondents. From the table in item 1, majority of the respondents disagreed that in their family or community, there are specific times when drinking water is encouraged or discouraged with a mean of 2.19. In item 2, majority of the respondents agreed to being taught by family or elders that drinking too much water is harmful with a mean of 2.68. Furthermore, in item 3 majority of the respondents also agreed that there are cultural alternatives to drinking plain water (e.g., herbal drinks, traditional beverages) in their community with a mean of 3.15. Also, in item 4 majority of the respondents agreed to their cultural influencing their preference for specific types of drinking water (e.g., warm water, room-temperature water, mineral water) with a mean of 2.55 and in item 5, majority of the respondents agreed that in their family or community, people drink more water during certain seasons due to cultural beliefs with a mean of 3.35.

Therefore, it can be deducted that cultural practices does have an influence on the attitudes towards the daily recommended water intake among the respondents.

Discussion of Findings

Findings from this study revealed that the level of knowledge on the daily recommended water intake among the respondents is low. This findings

corroborates studies by Adegboye et al., (2019) whose study indicated that while the majority of students recognized the advantages of being hydrated, they were not fully aware of the required intake amounts. Also studies by (Eze and Okafor, 2023) supports the findings of this study regarding the respondents knowledge on the daily recommended water intake as their findings showed that although majority of students knew the broad recommendations for daily water consumption, only minority could correctly name the required amount that health organizations advise. According to the National Academies of Sciences, Engineering, and Medicine (NASEM, 2023), women should strive for 2.7 liters (91 ounces) of water per day from all food and drink sources.

Further findings from this study, revealed that the respondents have inadequate attitudes towards the daily recommended water intake. This finding is line with studies by Miller et al. (2016), whose study showed that although many students recognize the value of drinking water, their hectic schedules and ready access to other beverages, such as coffee, soft drinks, and energy drinks, frequently cause them to overlook it. In a similar vein, Adegboye et al.'s (2019) study corroborated this study as his study revealed that while the respondents were aware of the advantages of drinking water, their views did not always transfer into action. Furthermore on the respondents attitudes towards the daily recommended water intake, Popkin et al. (2010) view supported the findings of this study as he asserted that water is essential for digestion, hydration, and cognitive function, as

many people are aware. But even with this awareness, people still don't always follow the recommended water intake.

The findings further revealed that the practice towards the daily recommended water intake among the respondents includes; drinking water during school days, only a few carry their water cans daily, respondents drink water as soon as they get thirsty, majority do not drink water before eater and respondents drink water after eating. Studies by Miller et al., (2016) supported the findings of this study as their studies revealed that a large number of students do not consume enough water each day, frequently substituting it with soft drinks, alcohol, or caffeinated beverages. Also studies by Adegboye et al. (2019) furrther corroborated the findings of this study as their study observed that their actual intake was frequently below the recommended amounts because they preferred sweetened and flavored drinks.

On the premise of the last research question, the findings from this study revealed that cultural practices does have an influence on the attitudes towards the daily recommended water intake among the respondents. This is well supported by studies by Popkin et al. (2010) whose studies revealed that traditional beliefs, religious practices, social conventions, and regional food patterns are all examples of cultural factors, which play a part in individuals adhering to the daily recommended water intake among various groups. Also Jequier & Constant (2010) findings also corroborated the findings of this study as it was revealed in their study that while drinking water is highly valued in some cultures for health and

spiritual cleansing, excessive water consumption may be linked to pain or illness in others. However, studies by Maughan et al. (2019) contrasted these studies as their findings revealed that cultures who consume a lot of dry, starchy foods like bread, rice, and grains but not enough fluids may adhere to daily recommended water intake.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

Summary

This study was embarked upon to investigate the knowledge, attitude and practice towards the daily recommended water intake among female undergraduate students of the university of Benin. To guide this study, four (4) research questions where raised and answered. The purpose of the study was to investigate the knowledge, attitude and practice towards the daily recommended water intake among female undergraduate students of the university of Benin. The knowledge, attitude and practice towards the daily recommended water intake were reviewed in the important literature that was reviewed for the research study. The instrument that wass used to collect responses from the study's respondents was a self-structured questionnaire, and the survey research design was the one adopted for this study. The data collected was tabulated and analyzed properly.

The findings revealed that:

1. The level of knowledge on the daily recommended water intake among the respondents is low
2. The respondents have inadequate attitudes towards the daily recommended water intake.
3. The practice towards the daily recommended water intake among the respondents includes; drinking water during school days, only a few carry their water cans daily, respondents drink water as soon as they get thirsty, majority do not drink water before eater and respondents drink water after eating.

4. Cultural practices does have an influence on the attitudes towards the daily recommended water intake among the respondents.

Conclusion

Significant discrepancies in female undergraduate students' knowledge, attitudes, and practices regarding the daily required water intake have been brought to light by this study. The results show that there is a general lack of information on the topic, which leads to unsatisfactory attitudes regarding optimal hydration. Furthermore, the majority of students do not follow advised hydration activities, such as carrying water cans every day or drinking water before meals, even though some do use water intake strategies, such as drinking water during the school day and after meals. Additionally, students' hydration habits are influenced by cultural customs that shape attitudes regarding water drinking.

In light of these results, focused health education initiatives are required to raise awareness and encourage constructive attitudes and behaviors around drinking enough water. Encouraging practical hydration techniques and addressing cultural pressures can assist female undergraduates develop healthier habits, which will ultimately improve their general wellbeing.

Recommendations

Based on the findings of this study, the following recommendations are made:

1. Universities should implement targeted health education programs to increase awareness of the importance of proper hydration and the daily recommended

water intake. This can be achieved through seminars, workshops, and awareness campaigns.

2. Campaigns should be designed to challenge negative perceptions and encourage students to adopt healthier attitudes toward water consumption. Testimonies from health professionals and peer educators can be effective in promoting behavioral change.

3. Students should be encouraged to carry personal water bottles daily to facilitate easy access to drinking water throughout the day. Awareness campaigns can emphasize the benefits of regular water intake beyond thirst cues.

4. Since cultural practices influence attitudes towards hydration, tailored interventions should consider cultural perspectives and provide strategies that align with students' beliefs while promoting proper hydration.

Suggestion for Further Studies

1. Exploring the Relationship Between Adherence to the Daily recommended water intake and Academic Performance: ·

2. Cultural and Societal Influences on adherence to the daily recommended water intake

3. Impact of Health Campaigns on adherence to the daily recommended water intake

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APPENDIX

DEPARTMENT OF HEALTH, SAFETY AND ENVIRONMENTAL EDUCATION, FACULTY OF EDUCATION, UNIVERSITY OF BENIN, BENIN CITY

QUESTIONNAIRE ON

KNOWLEDGE, ATTITUDE AND PRACTICE TOWARDS THE DAILY RECOMMENDED WATER INTAKE AMONG FEMALE UNDERGRADUATE STUDENTS OF THE UNIVERSITY OF BENIN

Dear respondents,

This is designed to examine knowledge, attitude and practice towards the daily recommended water intake among female undergraduate students of the university of Benin. This research work is purely for academic purpose and will be treated as confidential. You are therefore required to kindly and truthfully respond by providing answers to the questions below.

Thank you.

_____

Researcher

Section A

Instruction: please tick (√) as appropriate.

Demographic background.

Religion: Christianity ( ) Islam ( ) Others ( )

Age: less than 25 years ( ) 25 – 30 years ( ) Above 30 years ( )

Level: 100 ( ) 200 ( ) 300 ( ) 400 ( ) 500 ( ) 600 ( )

Section B

What is the level of knowledge of the daily recommended water intake among female undergraduate students of the university of Benin?

INSTRUCTION: For the purpose of this study, you must submit accurate responses to the questions in this section, underlining your responses as appropriate.

1. What is the daily recommended water intake for female adults?

(a) Less than 1 liter (b) 2.7 liters (c) 5 liters

2. What are the benefits of drinking the recommended amount of water daily?

(a) Improves digestion (b) Enhances kidney function (c) Boosts energy levels

3. Which of the following is an effect of inadequate water intake?

(a) Good concentration and fatique reduction (b) Improved blood circulation (c) Dehydration

4. What is the primary function of taking the daily recommended amount of water?

(a) Provides energy (b) Strengthens bones (c) Helps with blood circulation and digestion

5. Consuming high amounts of caffeinated drinks (e.g., coffee, tea, energy drinks) can substitute for the daily recommended amount of water.

(a) True (b) False

2. What are the attitudes towards the daily recommended water intake among female undergraduate students of the university of Benin?

KEYS
SA = STRONGLY AGREE
A = AGREE
D = DISAGREE
SD = STRONGLY DISAGREE

S/N	ITEM	SA	A	D	SD
1	Drinking the recommended amount of water daily is important for good health				
2	I make a conscious effort to drink the daily recommended amount of water				
3	I do not feel drinking enough water improves an individual's overall well-being				
4	The daily recommended water intake is excessive and unnecessary				
5	The tasteless feel of water makes it impossible for me to drink water according to the daily recommended water intake				

3. What is the practice towards the daily recommended water intake among female undergraduate students of the university of Benin?

KEYS
SA = STRONGLY AGREE
A = AGREE
D = DISAGREE
SD = STRONGLY DISAGREE

S/N	ITEM	OFTEN	SOMETIMES	RARELY
1	I intentionally try to meet the daily recommended water intake			
2	I drink water very often first thing in the morning			
3	I carry a water bottle with me to stay hydrated throughout the day			
4	I prefer caffeinated drinks to water after physical activities			
5	When thirsty, I drink water first			

4. Does cultural practices influence the attitudes towards the daily recommended water intake among female undergraduate students of the university of Benin?

KEYS
SA = STRONGLY AGREE
A = AGREE
D = DISAGREE
SD = STRONGLY DISAGREE

S/N	ITEM	SA	A	D	SD
1	In my family or community,there are specific times when drinking water is encouraged or discouraged				
2	Have you been taught by family or elders that drinking too much water is harmful				
3	There are cultural alternatives to drinking plain water (e.g., herbal drinks, traditional beverages) in my community				
4	Does your cultural background influence your preference for specific types of drinking water (e.g., warm water, room-temperature water, mineral water)				
5	In my family or community, people drink more water during certain seasons due to cultural beliefs				

Thank You.