**Abstract**

Hydration is a major concern amongst adolescent athletes. The purpose of this nutrition program was to increase knowledge of hydration status and prevent dehydration of female cross country runners of Sheyenne High School. Methods: A questionnaire was developed to determine the runners’ dietary and fluid intake. These assessment results indicated that the 13 female cross country runners of Sheyenne High School had inadequate knowledge regarding hydration status and recommended daily fluid intake which translated into inadequate fluid intake overall. An intervention was developed that consisted of a 30-minute educational presentation, that included a brochure about hydration status and water bottles as visuals to reinforce the presentation. The post-intervention evaluation consisted of five multiple choice questions and asked feedback as to what runners would have liked to learn further. Results: After the educational presentation, the evaluation showed that 100% of the runners were able to distinguish between hydration and dehydration, calculate recommended fluid intake, and report the importance of hydration.

In summary, despite the lack of knowledge runners had regarding hydration status initially, the presented information about hydration improved the runners’ knowledge and had a positive impact on the individuals.

**Purpose**

The purpose of this intervention was to educate Sheyenne High School female cross country runners on how to calculate their individual fluid needs and the importance of hydration in the body.

**Assessment**

**Participants**
- Sheyenne High School cross country team, West Fargo, ND
- 13 Females, ages 13-18
- Caucasian

**Experimental Measure**
- Community needs assessment
- Pre-evaluation
- Post-evaluation

**Hypothesis:** Daily hydration intake is inadequate in adolescent distance runners.
- Inadequate knowledge of accurate fluid ounces
- Expectation of coaches knowledge for proper hydration
- Lack of water access throughout school day
- Inadequate knowledge of other healthy fluids to consume

**Outcome Objectives**
1. The population will be able to calculate daily fluid intake using the hydration calculation formula.
2. The population will be able to identify at least one role water plays in improving athletic performance.
3. The population will be able to determine hydration status in relation to urine color using the urine color chart provided.

**Daily Fluid Intake Calculation:**

• ½ body weight (lbs.) + 16 ounces per 30 minutes exercise

**Results**

- **Figure 1**
  - Water consumption needs assessment
  - Pre- and Post-Evaluation Analysis
  - Energy consumption and hydration status

- **Figure 2**
  - Outcome objective results pre- and post-evaluation

**Community Intervention**

- Presented a short analysis on community assessment findings
- Explained the signs of dehydration using a urine color analysis
- Explained the importance of hydration status
- Explained how to calculate daily water intake
- Presented samples of fluid ounces with household water bottles
- Summarized key points and presented a post-evaluation

**Conclusions**

- Sheyenne High School cross country runners gained knowledge about hydration intake
- Participants showed ideas of how to incorporate water into daily living.
- Participants intended to apply gained knowledge to improve athletic performance.

**Implications**

- Hydration education can inform and allow adolescent runners to increase hydration status.
- Communication amongst adolescent runners about hydration can have a positive influence on hydration status.
- More research needs to be conducted to determine average beverages and hydration status impact.

**References**

5. Moriah Anderson, DEP Student; Gabrielle Hartz, DPD Student; Kelley Sampson, DPD Student; Ardith Brunt, PhD, RD
   - *Health of Sheyenne High School Female Cross Country Runners*.