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Public Perception of Quality and Support for Required Access to Drinking Water in Schools and Parks

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Abstract

Purpose—We assessed public support for required water access in schools and parks and perceived safety and taste of water in these settings to inform efforts to increase access to and consumption of tap water.

Design—Cross-sectional survey of the U.S. public collected from August to November 2011.

Setting—Random-digit dialed telephone survey.

Subjects—Participants (n=1,218) aged 17 and older from 1,055 U.S. counties in 46 states.

Measures—Perceived safety and taste of water in schools and parks as well as support for required access to water in these settings.

Analysis—Survey-adjusted perceived safety and taste as well as support for required access were estimated.

Results—There was broad support for required access to water throughout the day in schools (96%) and parks (89%). Few participants believed water was unsafe in schools (10%) or parks (18%).

Conclusion—This study provides evidence of public support for efforts to increase access to drinking water in schools and parks and documents overall high levels of perceived taste and safety of water provided in these settings.

Keywords

water; schools; recreational facilities; public opinion

Indexing Key Words

Research; Descriptive; Non-experimental; Cognitive; School; Nutrition; Built environment; Youth; Education/income level; geographic location; race/ethnicity

Purpose

More than half of children and adolescents in the U.S. are inadequately hydrated.¹ The Institute of Medicine recommended that access to water should be increased in schools and recreation areas to increase water consumption.² A 2015 survey of U.S. adults found that 91 percent agreed that ensuring access to and promoting consumption of water in schools is the top or a high priority to improve student health.³ Ensuring access may not increase water consumption if there are negative perceptions about tap water safety or taste.⁴ This study assessed perceived safety and taste of water in schools and parks among a sample of U.S. adults and support for required access to water in schools and parks. This is the first study of which we are aware that has assessed public support for required access to water in both schools and parks. Quantifying public support for access to drinking water in schools and parks and assessing taste and safety perceptions can inform strategies to increase water access in these settings.

Methods

Design

Data were analyzed from a random-digit dialed landline and cell phone telephone survey of participants 17 years of age and older. The survey assessed support for a range of policies related to physical activity and healthy environments in schools and communities. For this paper, data were analyzed from questions on perceived safety and taste of water in schools and parks as well as support for required access to water in schools and parks. The survey was conducted by [REMOVED FOR BLINDING] fielded by Clearwater research and was approved by [REMOVED FOR BLINDING] Institutional Review Board. The survey was fielded from August through November 2011.

Sample

Participants (n=1,218) were sampled from 884 U.S. counties with high obesity prevalence and high physical inactivity and 171 U.S. counties with low obesity prevalence and low physical inactivity across 46 states. Additional detail on the sampling strategy and survey methodology is available in a previously published paper.⁵ Response rates were between 38% and 46% for landline households and between 9% and 27% for cellular phones,

depending on county strata. The weighted sample is representative of the sampled counties, which include 60.1 million residents, or 19% of the U.S. population. The sample is similar to the U.S. national population in terms of gender, age, race/ethnicity, and homeownership, but is more highly educated and more likely to live in rural counties (data not shown).

Measures

Participants were asked in separate questions whether the water in their local schools and parks was safe to drink. Responses were dichotomized to align the results with previous research on the topic. Response options included “very safe,” “somewhat safe,” “somewhat unsafe,” and “very unsafe,” or “not applicable/no water available,” which were dichotomized as “safe” (very or somewhat) vs. “unsafe” (somewhat or very). Participants were also asked whether they thought that the water in their local schools and parks tastes good or bad. Response options included “very good,” “somewhat good,” “somewhat bad,” and “very bad,” which were dichotomized as “good” (very or somewhat) vs. “bad” (somewhat or very). Finally, participants were asked whether they supported rules requiring schools to provide students access to drinking water throughout the day or rules requiring parks to provide access to drinking water. Response options included “strongly support,” “somewhat support,” “somewhat oppose,” or “strongly oppose,” which were dichotomized as “support” (strongly or somewhat) vs. “oppose” (somewhat or strongly). These questions were developed for the current study and do not have established validity and reliability.

Analysis

Survey-adjusted proportions of perceived taste and safety and support for required access were estimated. All analyses were conducted using SAS version 9.3 (SAS Institute, Inc, Cary, North Carolina).

Results

In schools, 90% of respondents believed that water was safe (data not shown). Perceived safety in parks was lower; 82% believed that water in parks was safe. In schools, 87% of respondents believed that water tasted good, compared to 78% in parks. In schools, 96% supported required access to water throughout the day, compared to 89% who supported required access to water in parks.

Discussion

Summary

This study found near unanimous public support for required water access throughout the school day and in parks. Consistent with previous research, this study found that only 10% of adult participants believed that water in schools was somewhat or very unsafe.⁴ This result is lower than the 19% of youth in a national survey who disagreed that local tap water is safe and 38% who disagreed that water fountains in schools are clean and safe.⁶ Perceived safety of water in parks was lower, with 18% of respondents who believed that water in parks was unsafe.

Limitations

Because the study's sampling protocol was designed to assess attitudes towards physical activity policies, the sample was not drawn from a national sampling frame, although the characteristics of the sample were generally similar to the national population. Despite the limitations of this sample, these data fill a gap in the limited published information on public perception of water in parks and support for increased access in schools and parks. This survey only included adults and did not assess the safety and taste perceptions of school-age youth. The survey questions did not specify whether the water in question was free vs. for sale or tap vs. bottled, which may have affected perceived safety and taste. This study is unable to link perceived safety and taste to water or other beverage consumption, which was not measured. Because the questions on policy support followed questions on perceived safety and taste, participants may have assumed that water was universally available in these settings, which could lead to higher support. Finally, perceptions regarding water safety and taste as well as policy support for required access may have changed since the 2011 survey.

Significance

The federal Healthy, Hunger-Free Kids Act of 2010 required schools participating in the National School Lunch Program and School Breakfast Program to provide access to free drinking water during meals by the 2011–2012 school year.⁷ In a 2011–2012 national survey of school principals, almost 9 of 10 students attended schools meeting this requirement.⁸ However, one quarter of adolescents surveyed in California from 2012–2013 reported no access to free drinking water during lunch.⁹ Students with access to drinking water during lunch reported consuming more water throughout the day. Only four states have laws that require water availability throughout the school day.¹⁰ While federal law requires access to water during meals, current policy does not require access throughout the day, for which this study found high public support.

Less has been reported about access to water in parks. Based on a 2009 national survey, 55% of adults reported having access to drinking water fountains in parks or playgrounds.¹¹ Almost one fifth of respondents in the current survey expressed concerns about the safety of water available in their local park.

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SO WHAT? Implications for Health Promotion Practitioners and Researchers

What is already known on this topic?

Increasing water access in public settings and promoting the safety and quality of tap water are two strategies to increase water intake among youth.

What does this article add?

This is the first study to evaluate public support for required access to water in both schools and parks, finding nearly unanimous support for these efforts.

What are the implications for health promotion practice or research?

Currently, only four states require access to water throughout the school day. Research on water access in recreational facilities is limited. Efforts to promote water access can leverage public support for policy change identified in this study but may need to address safety concerns of some individuals, particularly in parks.