

Helping children build healthier habits

Dr Monica Wang of Boston University School of Public Health is using a combination of community based, narrative-led approaches for nutrition promotion in order to encourage children to reduce their sugary drink consumption. Her work seeks to tackle the widespread problem of childhood obesity. Obesity is a problem particularly amongst underserved families including children of low socioeconomic status, and those from ethnic minority backgrounds. Dr Wang's health programme was tested in youth centres, which served a wide cross sector of the population to introduce children, and their parents, to better habits in an informal setting.

beverages. Children were each given a reusable water bottle and encouraged to drink more water. Each session contained both a health component and a narrative component.

The complexity health topics and skills covered in the sessions developed throughout the six-week series. Initially, children were encouraged to drink more water and shown how to set their own consumption goals and track their intake. As the sessions progressed, children were able to explore how they could access water at different locations as well as learning how they could avoid drinks with high sugar content by reading nutritional content information on packaging. The programme built in a visit to a nearby shop to allow children to apply their new skills to a real-world situation.

NARRATIVE-BASED APPROACH

H₂GO! sessions also utilised a narrative-based approach to help children feel "connection with target health messages." The activities included used a variety of media such as print, audio and video. The narrative component of the session was tied closely to the health component to reinforce the content in the minds of the participants. Importantly, these narrative outputs were then transmitted by the child to their parent or guardian.

As children typically consume sugary drinks when they are purchased for them by their parents, it was necessary for parents to also engage with the healthcare messages to achieve long-term change. By using their own family-specific narratives, children were more likely to appeal to their parents' emotions. Dr Wang found this inclusive child-led approach to health education and health behaviour change to be much more engaging than traditional methods. As well as improving the health of the children taking part in the programme, exposing the parents and guardians to culturally tailored narrative messages to encourage them to address their own habits was a key objective of this study. ▶

to "empower children as behaviour change agents within their families."

COMMUNITY-BASED APPROACH

Across the USA, the Boys and Girls Clubs of America run activities for school-aged children in community centres. To reach the target demographic for her research (youth of low socioeconomic status and/or ethnic minority backgrounds), Dr Wang selected two Boys and Girls Clubs in Massachusetts, USA, as pilot sites for a community-based health intervention. With one site maintaining standard practice to act as a comparison site, Dr Wang aims to include a total of 108 parent-child pairs in her research, 54 pairs from each site.

The intervention developed by Dr Wang and her multidisciplinary team is called H₂GO! and involved a series of workshop style sessions delivered once a week by trained staff from the Boys and Girls Clubs. Throughout the scheme, children experienced six group sessions which explored their knowledge, attitudes and behaviours towards different

Childhood obesity is a rapidly developing problem in the United States where one third of children are already overweight or obese. Research has shown that childhood obesity disproportionately affects children from underserved families such as those with a lower socioeconomic status, and those from ethnic minority backgrounds.

Dr Monica Wang of Boston University School of Public Health seeks to understand and tackle disparities in the prevalence of obesity and chronic diseases. Her current work aims to address childhood obesity amongst underserved families by motivating children to moderate their sugary drink intake. Reducing the amount of sugar sweetened beverages consumed by children is considered an important dietary target, as these drinks can lead to energy imbalances which in turn can cause childhood obesity. Typically, these drinks are purchased for children by their parents for consumption at home. Dr Wang uses a community-based approach

Dr Wang uses a community-based approach to empower children as behaviour change agents within their families



Participant learns how to calculate and measure the total amount of sugar in a sugary drink.



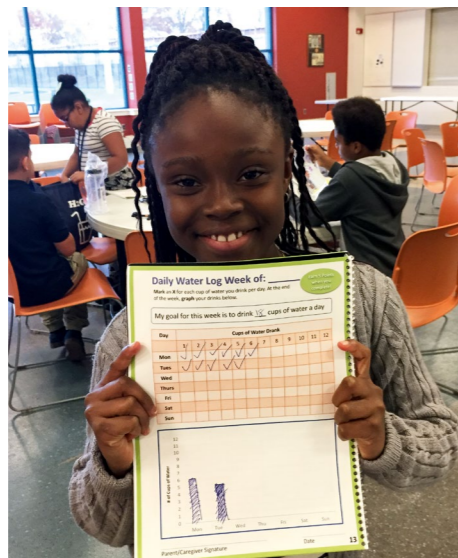
Overall, the programme consisted of several strategies implemented at multiple levels. At a personal level, children received instructions about reading labels and were persuaded of the benefits of water over sugar sweetened beverages. At an interpersonal level, children experienced support from their family and peers to continue their habits alongside guidance from Boys and Girls Club staff. Finally, children experienced social and physical changes to their environment including the provision of drinking cups and water and the opportunity to share the narratives they developed with all Boys and Girls club members.

MEASURING SUCCESS

To find out how successful the six sessions were for health outcomes, Dr Wang and her team took a baseline measurement and repeated the measurements two and six months after completion of the programme. At each of these points, the study team assessed water and sugary beverage consumption and knowledge and attitudes related to beverage consumption among the children and adults participating in the study through self-report surveys. Additional items assessed in the surveys included activity level and broader dietary behaviours such as fast food consumption. Finally, the height, weight and waist circumference of each child was measured by trained staff.

FUTURE WORK

Dr Wang seeks to help children make life long changes to their habits through the



Top: One wave of H₂GO!-ers celebrate graduating the programme. Left: A participant demonstrates her water daily water log. Right: Participants complete a scavenger hunt of different types of beverages at a local market. Bottom: Study team and community partner.

H₂GO! sessions used a narrative-based approach to help children feel connection with target health messages ”

Q&A

Could H₂GO! be taken to other Boys and Girls Clubs across the US in its current format?

Yes, the H₂GO! programme was designed based on formative research with Boys and Girls Club attendees and staff to produce activities that could be integrated within existing Boys and Girls Club structures. H₂GO! includes a pictorial booklet with activity pages and fun facts for children, as well as a detailed staff manual with instructions on how to lead each programme session.

Has the attitude of the young people towards the programme surprised you?

One concern our team had was that children might focus on the negative or discouraged health behaviours (e.g., limit sugary drink intake) and view this as an infringement on their personal choices. However, H₂GO! placed a heavy emphasis on encouraging water intake, and children really responded to this. For example, children informally called themselves members of “The Water Club” and viewed themselves as part of a special group. Several children wanted to complete the programme again – this level of enthusiasm generated interest from other Club members to sign up for future waves of this programme.

Have you experienced enthusiasm from parents and guardians to participate in the programme?

Yes, parents and guardians are most excited to see the narrative materials their children create. It has been very rewarding to see the level of engagement and interest from parents since we know that their involvement and support is critical for supporting dietary behaviour change and

childhood obesity prevention efforts. This format of family-based programming invites parents and guardians to participate and be engaged with the material alongside their children without requiring extensive time commitment or resources.

What has been the most enjoyable part of the programme to oversee?

Seeing children take ownership of the health messages and re-create them through their own narratives was incredibly inspiring. For example, some children loved working with Photoshop to pair images with creative slogans. Others really enjoyed creating audio narratives (e.g., songs, work skits, raps) in the Club recording studios or acting out short skits. This process not only reinforces the concepts taught but also gives children the opportunity to make health messages relevant to themselves, their families, and their peers, which in turn empowers them to be agents of change in the community.

How did your multidisciplinary team help to shape the project as it developed?

The design of the programme was an iterative process that built upon the expertise of scientists (psychologists, epidemiologists, and social and behavioural researchers) as well as input from the community (children, parents, and Boys and Girls Club staff). A preliminary version of H₂GO! was developed and pilot-tested among a small sample of 12 parent-child pairs. Focus groups and informal interviews with the pilot study sample helped inform the refinement of programme materials and activities. This type of process invites the community to participate and maximises the potential for dissemination.

H₂GO! programme by putting the ability to change their behaviour in their own hands. She also hopes that the scheme will equip participants with the skills to better understand health messages in the media and, in turn, communicate these messages to their families. The current five-year funding award for the H₂GO! programme will help Dr Wang develop her training into developing

future behavioural interventions. Her long-term goal is to build upon the premise of H₂GO! and design a programme consisting of community-based and population-based interventions to help prevent family obesity. The consequences of successful implementation of such programmes could improve the health and even life expectancies of future young generations.

Detail

RESEARCH OBJECTIVES

Dr Wang is the Principal Investigator on a K-01 award from the National Institutes of Diabetes and Digestive and Kidney Diseases (NIIDDK) to reduce sugar-sweetened beverage purchase and consumption among children and families. This research looks at addressing racial/ethnic and socioeconomic disparities in obesity and chronic diseases and the design, implementation, evaluation, and dissemination of culturally-tailored programmes and policies that promote healthy eating and physical activity among underserved children and families.

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COLLABORATORS

University of Massachusetts Medical School, Boys and Girls Club of Worcester, Lawrence Boys and Girls Club, Boys and Girls Club of Greater Lowell

BIO

Dr Wang is an Assistant Professor at the Boston University School of Public Health. As a social and behavioural scientist, her research focuses on addressing disparities in obesity and chronic diseases through community-engaged research, as well as the design, implementation, evaluation, and dissemination of culturally-tailored interventions that promote healthy eating and physical activity among underserved children and families.

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