BSU-NASA Partnership on Childhood Obesity Prevention

A partnership of the Systems-Oriented Global Childhood Obesity Intervention Program at BSU (SGCOIP) and the United States National Aeronautics and Space Administration (NASA)

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http://cms.bsu.edu/academics/centersandinstitutes/wellness/about
http://trainlikeanastronaut.org

Mission X Expansion

Expanding the reach: The SGCOIP and the NASA Mission X team are working with collaborators worldwide to build MX programs, as well as working with existing countries to encourage new and improved intervention and health promotion programs. Adapting the Mission X curriculum to fit with different cultures, socio-demographics, and age groups, allows the SGCOIP and NASA to reach a large number of children and families.

NASA Mission X: South Korea Project

An early childhood health promotion program:
- In 2014 South Korea joined as a new participant in the MX program
- 220 children joined a 6-week early childhood health promotion project targeted at kindergarteners and parents.
- After intervention, the children improved physical activity, dietary pattern, dietary habit and nutrition knowledge
- Parental attitude and knowledge regarding their children’s health also improved
- New funding has been obtained to expand this program in 2015 and 2016

What is the reach of NASA Mission X?

MX spans across the globe with nearly 40,000 participants and more than 805 teams. Currently there are 38 countries participating, with the support of adults who are implementing the MX challenge into their respective schools and communities.

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Partnership Mission

1) Develop effective and sustainable solutions to prevent childhood obesity.
2) Facilitate interdisciplinary collaboration and integration of resources in childhood obesity prevention programs worldwide.
3) Promote innovative childhood obesity prevention research.
4) Work with interdisciplinary public health professionals and train future leaders on childhood obesity prevention.
The Partnership between BSU & NASA

The National Aeronautics and Space Administration (NASA) Lyndon B. Johnson Space Center and Dr. Wang’s research teams have signed a Space Act Agreement (SAA) to become formal partners to work on their NASA Mission X (MX) global child fitness promotion program and the Systems-Oriented Global Childhood Obesity Prevention Program. The major aims of the collaboration are:

1. To evaluate the utility of NASA’s Mission X international fitness challenge as a model for increasing children’s daily physical fitness as well as their perceived value of living a healthy lifestyle
2. To improve the program and develop new programs that help prevent and control the growing childhood obesity epidemic across the globe
3. To expand the MX project as a health promotion program worldwide

What is the SGCOIP at BSU doing with NASA?

1. Providing expertise and assessing the effectiveness of the MX program
2. Providing suggestions and guidance of the ongoing content development for future MX challenges
3. Assisting enhancement of program components using new intervention strategies
4. Communicating and collaborating with researchers in other countries
5. Helping NASA Mission X establish relationships with new countries
6. Sharing data, knowledge, and ideas, as well as writing research papers

What is Mission X?

(NASA’s Global Child Fitness Program)

Mission X: Train Like an Astronaut is a project developed by the Johnson Space Center’s Human Research Program (HRP) and Research-to-Outreach (RTO) program to promote exercise and nutrition education in a fun and easily accessible way to children around the globe. Teachers instruct a curriculum developed by NASA throughout the school day and/or in after-school programs. The Mission X curriculum focuses on three main strategies: decreasing sedentary time, increasing daily physical activity, and making diet modifications. The program imparts this knowledge with a space theme and takes a child through “what it takes to be an astronaut,” physically and mentally.

Evaluation of MX 2014-2016 data:

The team led by Dr. Youfa Wang is evaluating various effects of the school-based health and education promotion program. The team is comparing pre-and post-test data that was collected in 2014-2016. Additionally, the team will make recommendations for improved data collection and analysis methods in the future.

PlanetFit Kids (Obesity Prevention Program)

Our new web-and-family based childhood obesity prevention program: The SGCOIP is developing a web-and-family based childhood obesity prevention program called, “PlanetFit Kids: Promoting Lifestyle and Nutrition Education Teaching Families (through) Interactive Technology,” which aims to:

- Test the feasibility and effectiveness of a web-based intervention program for children and their parents
- Test the effectiveness of the program on outcomes such as parent and child knowledge, attitude, belief, weight status, eating behavior and physical activity behavior
- Test the intervention effect on parenting and decision-making

Eligible families will create a profile on the PlanetFit Kids website and participate in a six-month web-based intervention that educates on healthy behaviors for the family, such as how to cook nutritious meals together and use items in the household for everyday exercise.

The website will be developed as a unique and effective platform to combat the childhood obesity epidemic. If successful, this project would have the potential to be adapted and expanded to reach families all over the world!