

JOINT EVENT

29<sup>th</sup> International Conference on **Pediatric Nursing & Healthcare**  
&  
31<sup>st</sup> World Congress on **Advanced Nursing Practice**  
August 16-17, 2018 | Madrid, Spain

### **Effect of the NASA mission X program for promoting children's healthy eating and active living in rural district elementary schools: A clustered randomized controlled trial**

**Hsing-Yu Yang, Hsin-Jen Chen and Youfa Wang**  
Mackay Medical College, Taiwan

**Introduction:** Childhood obesity is a major global public health issue. This study assessed the effect adapted by the USA National Aeronautics and Space Administration's (NASA's) mission X (MX) program on children's knowledge, attitude, and practice of healthy eating and active living (HEAL) and weight status in rural elementary schools in Taiwan.

**Methods:** An 8-week cluster randomized control trial was conducted in 2016-2017 school year. Eight rural elementary schools were randomized into intervention and control groups. All 3rd and 4th graders were invited to join, N=92 in intervention, 109 in control group. The intervention group received the intervention (included four sessions aimed to train students with exercises like crab walk, bear crawl, squat, pushup, rope-jumping, and running across cones. Two other sessions aimed to improve students' water drinking in school, and their knowledge of food groups and balanced diet. The two other sessions were circuit trainings.). Child weight, height, HEAL (spell out) knowledge, attitude, and practice related to xx were measured at baseline and post-intervention. Mixed-effect model was used in analysis.

**Results:** Compared to the control group, the intervention group had significantly more improvements in physical activity knowledge score (+0.91 vs. +0.25,  $p=0.002$ ), diet knowledge score (+0.62 vs. +0.17,  $p=0.044$ ), and score of interests in NASA and space exploration (+0.34 vs. -0.07,  $p<0.0001$ ). BMI increased from 18.4 to 18.6 ( $p<0.05$ ) for the control group but did not change for the intervention group. The changes in BMI between groups did not differ significantly.

**Conclusion:** The adapted NASA MX program was feasible and acceptable among rural students in Taiwan. The program improved children's HEAL knowledge.

#### **Biography**

Hsing Yu Yang was a supervisor in the Department of Nursing at Mackay Memorial Hospital, where she has devoted 90 percent of her personal experiences to nursing research, education and practice. She has extensive experience in clinical practice and teaching, program development and administration over twenty-seven years. After 25 years of clinical administration in that role, she recently entered Mackay Medical College as an Assistant Professor to teach academic education of nursing. She is a frequent consultant and speaker on topics such as clinical nursing spiritual education, adult and schoolchild obesity, and nursing organizational change.

hyyang@mmc.edu.tw

#### **Notes:**