

Junk food intake in children reduced by health education that addresses emotional issues

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N° 84503 Health education program at the "happy life, healthy heart" school: a randomized clinical trial
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Background - School interventions based on playful activities are good strategies to provide health knowledge to children, impacting on healthy habits and potentiating the prevention of cardiovascular diseases.

Purpose- To verify whether classroom intervention for cardiovascular health prevention increases the health knowledge of schoolchildren and makes behavioral changes in the lifestyle of teachers and students.

Methods - The study was placed in ten public schools of Frederico Westphalen, a city in the south of Brazil, where students from the 1st to 5th grade of elementary school aged 6 to 12 years and 32 teachers were recruited. Randomized clinical trial which examined the effects of an intervention with teachers and students on their health knowledge. Subjects such as cardiovascular health, nutrition and physical activity (PA) were broached with the teachers undergoing training and with students in classroom by the teachers themselves. Nutritional status of schoolchildren was evaluated by weight, height and z-score, level of PA and food consumption by DAFA questionnaire and health knowledge by CARDIOKIDS. Socio-demographic, nutrition and physical activity data of the teachers were evaluated by semi-structured questionnaire.

Results - A total of 473 students were evaluated, 211 (44.6%) in the Control Group (8.8 ± 1.5 years, 57.3% girls) and 262 (55.4%) in the Intervention Group (8.5 ± 1.6 years, 51.1% boys). 32 teachers were also divided into CG (CGt), 43.8% (n = 14, Age 39.2 ± 7.7) and IG (IGt), 56.3% (n = 18, Age 43.4 ± 9.6). CARDIOKIDS demonstrated that there was no interaction effect of time and group on the level of children's knowledge (effect size = 2.293, p = 0.131), indicating an improvement in both groups. In relation to food consumption, IG increased 15.2% and 19.8% the number of students who followed the recommendations of pizza/hamburger (p <0.001) and soft drinks (p <0.001) respectively. In IGt there was an increase of 27.9% in the number of teachers who started practicing PA after the intervention.

Conclusions - Both groups of students increased the level of knowledge, but only the IG changed food behavior. This change was observed by greater adherence to the Brazilian Food Guide recommendations of not consuming pizza/hamburger and soft drinks. Teachers of the IGt started to practice more physical activity.

Teacher training followed by classroom education with information, activities, and emotional support improves lifestyles in teachers and students, according to research to be presented at ESC Congress 2019 together with the World Congress of Cardiology.(1) The study suggests that knowledge alone is insufficient to change behavior. Credit: European Society of Cardiology

Teacher training followed by classroom education with information, activities, and emotional support improves lifestyles in teachers and students, according to research to be presented at ESC Congress 2019 together with the World Congress of Cardiology. The study suggests that knowledge alone is insufficient to change behaviour.

"Numerous studies have addressed [health issues](#) in the [school setting](#), but most have focused on [physical activity](#) and nutrition, with little attention to emotional issues such as self-esteem, depression and eating behaviours," said study author Dr. Carolinne Santin Dal Ri, a paediatrician at the Institute of Cardiology of Rio Grande do Sul, Porto Alegre, Brazil.

The Happy Life, Healthy Heart programme randomly allocated ten public schools in the city of Frederico Westphalen, Brazil, to the [intervention group](#) (five schools) or [control group](#) (five schools). The study included 473 students aged 6 to 12 and 32 teachers. Baseline assessments included weight, height, physical activity, [food intake](#), and health knowledge in children; and physical activity and food consumption in teachers. Measurements were repeated after the intervention was completed.

The intervention had two stages: [teacher training](#) followed by students in

the classroom. Teachers attended four meetings over a four-month period, were given a booklet, and had access to video lessons. The material was in seven chapters:

- 1) risk factors for cardiovascular diseases in childhood;
- 2) choice of healthy foods;
- 3) food labelling;
- 4) sodium, sugars and fats;
- 5) emotional health and quality of life;
- 6) physical activity; and

- 7) healthy practices and changes in habits.

Each section contained theory plus suggestions for classroom activities based on the theme, age of the children, and intended goals.

In the classroom, teachers covered one theme per week, including at least one activity. Teachers were free to choose or amend the activities and could incorporate them into projects based on the school's syllabus. To encourage teacher participation, a group was created on a social network where they received messages and reminders from the researcher on the topic they were supposed to work on. Teachers also shared their own experiences. The researcher visited the intervention schools to stimulate teachers and offer guidance.

For the control group schools, teachers did not participate in the training course and students attended the school's usual classes about health and healthy eating based on the curriculum.

Both students and teachers benefitted from the intervention. The proportion of students following Brazilian Food Guide advice to avoid pizza/hamburgers and soft drinks increased significantly by 15% and 20%, respectively. In addition, there was a 28% increase in the number

of teachers who were physically active.

Dr. Santin Dal Ri said: "Children in both the intervention and control groups increased their level of health knowledge during the study. But only those in the intervention group changed their eating behaviours. This suggests that information on its own does not lead to lifestyle improvements. In our study, a programme that combined information with playful activities and [emotional support](#) was beneficial for children and teachers."

More information: The abstract "Health education program at the "happy life, healthy heart" school: a randomized clinical trial" will be presented during [Poster Session 7](#): Public health on Tuesday 3 September at 14:00 to 18:00 CEST in the Poster Area.

Provided by European Society of Cardiology

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