

Intersectoral working in schools between education staff and primary healthcare professionals

Case study description

Title of the initiative / case study	<i>Movimente</i> Program: A school-based cluster randomized controlled trial aiming to increase physical activity and reduce sedentary behaviour among Brazilian adolescents
Country / Territory	Brazil
Summary of the intersectoral initiative	<p>The <i>Movimente</i> Program is a school-based, cluster randomized controlled trial that aims to increase physical activity (PA) and decrease sedentary behaviour (SB) in adolescents (7th-9th grade) in public schools in Southern Brazil. Secondary outcomes included psychosocial factors related to PA and SB (e.g., social support and self-efficacy), health (e.g., quality of life and nutritional status) and education (e.g., academic performance) outcomes. Three main actions were carried out during the school year (March-December 2017): Teacher training (virtual and face-to-face meetings conducted by health professionals and researchers to provide insights on how to incorporate health topics during classroom activities); improvements in the PA school environment (revitalization of courts, creation of new line markings and provision of sports equipment); and educational strategies (folders and banners with health messages approaching SB, PA, and healthy eating).</p> <p>Teachers were encouraged to discuss the contents with students and to carry out activities involving parents to disseminate information to students' families.). Teachers and coordinators implemented all strategies. Support was provided by the research team to answer questions. The assessment was performed at baseline and post-intervention (quantitatively and qualitatively) using validated questionnaires/devices and semistructured interviews, respectively. The Program reduced sedentary behaviour and improved psychosocial aspects related to physical</p>

	activity (perception of the school environment and social support from general and Physical Education teachers). Students and teachers had a positive perception of the Program, recognizing its relevance for the school community. Strategies to improve teacher and parents participation are needed to increase the success of programs.
Focus of the initiative	Both mental health and physical health
Goal and objectives Overall goals and specific objectives.	<p>Overall goals:</p> <ul style="list-style-type: none"> - To promote physical activity and reduce sedentary behaviour among students from 7th to 9th grades of municipal schools in southern Brazil. <p>Specific objectives:</p> <ol style="list-style-type: none"> I. Evaluate the effect of an intervention program on PA and sedentary behaviour. II. To analyze the impact of an intervention program on intrapersonal, interpersonal factors and environmental factors associated with the practice of PA and sedentary behaviour. III. Identify possible mediating variables associated with the evolution of an intervention program on PA and sedentary behaviour. IV. Evaluate the impact of an intervention program based on behavioural changes (PA and sedentary behaviour) on school performance. V. Check the impact of an intervention program on other components related to the student's health (for example, eating habits and nutritional status). VI. Evaluate the implementation of the intervention program behaviour.
School setting	12-15 years old
- Age group of students covered (0-18)	
- Number of students in the school	1427
- Public (<i>no fees</i>) or Private (<i>pay fees</i>)?	Public
- Location	Urban
- Socioeconomic environment	Underprivileged
Description of the initiative	The initiative was driven by the alarming prevalence of low physical activity levels and high sedentary behaviour. At that time, around 61% of students from 9th grade did not engage
- What was the driver to start the initiative? <i>Was it the pandemic, or something else?</i>	

<ul style="list-style-type: none"> - From when to when did the initiative take place? <i>Does it continue now?</i> - Did it get funding? How was it funded? - What type of activities took place <i>e.g. health professionals seeing students or staff for consultations, health professionals training education staff, teachers training health professionals?</i> 	<p>in recommended levels of physical activity, and 49% spent 2 hours or more per day on screen time activities. Furthermore, health promotion in the school context was an emerging field in Brazil, and there was little evidence available on effective strategies to improve health in the school setting.</p> <p>The initiative took place from March to December in 2017, corresponding to a school year. A maintenance evaluation was carried out six months later to assess whether the schools were still implementing the actions even without the participation of health professionals and researchers. The second edition of the Program is under development. The initiative was partially funded by the Conselho Nacional de Desenvolvimento Científico e Tecnológico, Brazil (The National Council for Scientific and Technological Development, Brazil, process nº 446227/2014-5), with a total of approximately \$6,683 American dollars. The funding was used to purchase accelerometers to evaluate the primary outcomes. In addition, the researchers (master's and doctorate students) received scholarships funded by the Coordenação de Aperfeiçoamento de Pessoal de Nível Superior, Brasil (The Coordination for the Improvement of Higher Education Personnel, Brazil). The development and implementation of the intervention strategies were possible due to the support of the University and the community partners, detailed below in the partners' section. The initiative included three main components: a) environmental changes to increase physical activity and reduce sedentary behaviour: revitalization in the courts, creation of new line markings, and provision of sports equipment (rackets, jumps rope, balls to play basket, soccer, volley, etc.); b) health education component: informative folders and banners with health messages; and c) teacher training: virtual and face-to-face meetings organized by health professionals and researchers. The aim was to provide insights on implementing health topics in classrooms and discuss the importance of health promotion and its impact on</p>
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	<p>educational outcomes (behaviour, concentration, study habits, and academic performance). A handbook developed by the research team, including several lesson plan ideas, was given to teachers. The training was also developed for Physical Education teachers, and the discussion focused on increasing students' engagement in PE classes by increasing students' pleasure, attitude, self-efficacy, and enjoyment. PE teachers were also encouraged to include health topics in their classes. Throughout the year, researchers were available to support teachers in implementing activities.</p>
<p>Partners</p> <ul style="list-style-type: none"> - Who are the partners involved? - Who are the education professionals involved in the initiative? - Who are the health professionals involved in the initiative? - Where are the health professionals located? (e.g. In the school, in the community?) - At what stage/s did intersectoral work happen (eg conceptualization, co-design, implementation or evaluation)? 	<p>The project was coordinated by professor Kelly Samara Silva, Ph.D., who established partnerships with the University, other investigators, the Municipal Department of Education, and the school community. The partners were a team of approximately 15 researchers (undergraduate, master's and doctoral students), and professors from the Sports Center of the Federal University of Santa Catarina and Federal Institute of Ceará, Brazil. The education professionals were the Department of Education of Florianopolis, schools' principals, and teachers. Their role was essential for the development and implementation of the Program. The Department of Education provided support authorizing the execution of the program. Schools' principals (n=3) provided support for the implementation of the intervention at the schools, and teachers (13 out of 63) from different disciplines (e.g., Physical Education, Mathematics) participated in the training and implemented the intervention in the classrooms.</p> <p>Health professionals were researchers and professors at the Sports Center and the Nutrition Department of the Federal University of Santa Catarina. The central role of these professionals was to guarantee that health topics, such as nutrition, were being addressed appropriately during the intervention.</p> <p>The researchers from the Federal University of</p>

	<p>Santa Catarina made daily visits to the schools throughout the year.</p> <p>Intersectoral work took place in implementation (researchers provided training to coordinators and teachers on how to implement actions throughout the year and were available to support and answer questions) and evaluation (after the intervention, teachers were asked qualitatively and quantitatively to provide information and suggestions, describe barriers and facilitators on the implementation program).</p>
<p>Results of the initiative</p> <ul style="list-style-type: none"> - What were the deliverables? - Can you give some examples of actions resulting from the initiative? - What do you think was the impact of the initiative, if any? 	<p>The deliverables were:</p> <ul style="list-style-type: none"> - An increase in the students' physical activity level and a decrease in sedentary behaviour. Some examples of actions resulting from the initiative: -Teachers discussed health topics in their classes; -Teachers implemented some of the activities suggested by the research team; -Physical Education teachers developed strategies to improve student participation in their classes; -Parents received folders on health topics, including strategies to motivate their children to increase physical activity and reduce sedentary behaviour; -Coordinators supported teachers to discuss health with students; -Coordinators provided sports material for students. <p>Main impacts from the initiative were:</p> <ul style="list-style-type: none"> - Overall positive teachers' perception: most teachers considered the training very useful and the coordinators supported their participation, recognizing the relevance of the topic; -Overall positive students' perception: most students reported that more active Physical Education classes were offered and health topics were discussed during classes; -The initiative reduced the students' sedentary behaviour; -The initiative improved psychosocial aspects related to physical activity, such as perception of the school environment and social support of teachers across disciplines.
<p>Evaluation of the initiative</p>	<p>Evaluation:</p>

<ul style="list-style-type: none"> - Was the initiative evaluated? If Yes - <i>How, and by whom?</i> - Name two things that went well. - Name two things that could be improved. - What were the main <u>barriers</u> to intersectoral working? - What were the main <u>facilitators</u> for intersectoral working? - What advice would you give to others who would like to do a similar initiative? 	<p>The initiative was evaluated qualitatively and quantitatively by the research team. Changes in physical activity and sedentary behaviour were assessed by outcomes measurements at baseline and post-intervention using validated questionnaires and ActiGraph Accelerometer GT3Xplus. Semi-structured interviews were carried out with teachers and coordinators to qualitatively assess the implementation aspects.</p> <p>Things that went well: In general, students and teachers had a positive perception of the implementation; The coordinators were receptive to the implementation of the Program and strategies.</p> <p>Things that could be improved: Strategies to increase teacher participation could be improved; The interaction between coordinators, parents and teachers and between teachers could be improved.</p> <p>Main barriers: Lack of time of coordinators and teachers; Competitive priorities (calendar and regular school activities); Lack of planning (action planning and reinforcing effort towards behaviour) and specific goals for teachers regarding the activities to be implemented.</p> <p>Main facilitators: Teachers' awareness of the importance of the topic; Teachers were open to working in an interdisciplinary way; Acceptability by school coordinators; Flexibility of the research team to adapt to the routine of the school community.</p> <p>Advice: Include coordinators, parents and teachers during the design of the program to allow a better understanding of the school routine and anticipate possible barriers that may arise during implementation; Reinforce communication between the school community (coordinators and teachers); Avoid complex activities by providing easy-to-implement strategies;</p>
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	<p>Establish realistic goals to be achieved by teachers and coordinators; Include as a primary goal to set strategies to improve the implementation process.</p>
<p>Additional information if available:</p> <ul style="list-style-type: none"> - Links to relevant websites - Link to / title of relevant articles - Other relevant resources 	<p>All relevant information, materials, and publications can be found at https://movimente.ufsc.br/en/</p>