

PHYSICAL ACTIVITY PROMOTION IN PRIMARY SCHOOLCHILDREN. INTERVENTION STUDY CENTERED ON PLAYGROUND MARKING

Summary	The project aims to increase the children's active playtime during school breaks by playground marking.
Duration	1 year (June 2012 – June 2013)
Objectives	<p>The main objective of the intervention is to increase the volume of daily physical activity (PA) in children and, so, to improve their physical and psychosocial health.</p> <p>In particular, it is aimed at increasing the amount of children's active playtime; improve health-related fitness, increase the level of socialization and positive behaviours at school; make easier classroom management by teacher and, so, enhance attention during lessons and readiness to learn.</p>
Approach used	The intervention used an approach based on environmental (structural) and organizational changes in the school setting, to ensure that playtime is active by means of 'playground marking'.
Geographical Coverage	Abruzzo Region
Primary target population	<p>The target group are children, 6-11 years old, attending primary school.</p> <p>It has been carried out in an Elementary School and has involved 5 classes and 82 children.</p> <p>There are also these intermediary target groups:</p> <ul style="list-style-type: none">- Teachers, since they have to learn and apply a comprehensive approach to the physical activity at school, not only focused on physical education schedules but also on playtime; they will become the future responsible for utilization, implementation and maintenance of school marked playgrounds; moreover they will have advantages in terms of easier management of classroom, enhanced recovery of attention after playtime and general improvement in academic achievement and performance of their students.- Children's community and family, since the methods (the playgrounds marking, see below) could be extended also at other places, such as neighbourhood or house outdoor areas; moreover, parents will improve their awareness about the importance of active play for their children's health and fitness.
Description of the intervention	<p>The main action of the project consisted in the 'playground marking' in an outdoor area of the school. The marked playground is an area, usually outside, where children are left free to play guided by the colourful shapes painted on the surface. They can represent geometric shapes (squares, triangles, circles, continuous lines, etc.), symbols (letters, numbers, punctuation, etc.), images (animals, plants, maps, roads, etc.), footprints (hands, feet of human or animals) upon which or around which children can move around by walking, running, jumping.</p> <p>Below the sequence of concrete activities:</p> <ol style="list-style-type: none">1. The early three months (June 2012 – August 2012) of the intervention have been used for zoning, painting and protecting the

playgrounds and for scheduling the playtime into the school organization.

2. At the beginning of the school-year (September 2012), there has been the training phase (for parents, teacher, children). Great attention has been given to the zoning of playground that is the allocation of playground areas to a particular activities or groups of children: if appropriately planned, it can lead to a fair distribution of playground space and avoid the domination of areas by particular groups and certain physical activities. Pupils have started with instructional games strictly defined by rules, but after a few weeks, they could freely change the rules and invent new ways to use the painted marks and, so, develop with their own creativity. Moreover, older children could teach younger children some of the games. In the planning, there was an area left free from marking, in which pupils could paint some original figures created by them: that could enhance their divergent capacity and, in addition, encourage them to do the same in non-school spaces (e.g. in the home courtyard) with the effect of increasing the total daily physical activity. To ensure safety conditions the 'supervisors' (physical educators, teacher, assistant) and the children have been trained about the rules for safety and management of space, time and conflicts that may arise
3. From October 2012 to June 2013 the children used the playground three days per week after the lunch time, three classes together (around 50 children simultaneously) under the control of a supervisor.

- The intervention could be implemented by schools, municipalities, entertainment centres for kids;
- The responsible of the structure (i.e. school headmaster, municipal manager, etc.) should be able to manage the laying of the playground on an appropriate area. That means to manage the painting and zoning on the basis of a detailed planning and to control safety and scheduling of use;
- The supervisors have to be trained about games' rules and safety management. They could be physical educators, teachers, parents, grand-parents, other adult volunteers, etc.
- The intervention produced as material resource the model of playground – planimetry and user manuals - easily reproducible in other spaces and lasting against a relatively low cost;
- It is also available a sort of decalogue for safety and fair behaviour during the playground utilization (for supervisor and children);

Behavioural components addressed	Physical activity
Targeted risk behaviour	Insufficient daily activity level in children
Main setting/place of delivery	Primary School

Description of the evaluation	<p>The intervention has been evaluated about its effectiveness (children's health and fitness outcomes) and the process (teachers' reports and opinions).</p> <p>1.<i>Effectiveness.</i> It has been assessed by means of a longitudinal controlled design. The research group used a self-reported questionnaire, objective measures (anthropometry, accelerometers) and motor tests.</p> <p><i>Process.</i> By means of a focus group and structured questionnaire, the research group collected information from 10 teachers. The totality of them judged the intervention as a positive opportunity for the school and agreed the possibility that children should access to the school playground in extra-lesson time or in other areas of Municipality. Moreover, in the evaluation phase have been administrated questionnaires (for parents and teachers) and motor test that could be used by other project teams for process and impact evaluation.</p>
Legislative framework	Autonomy of schools in planning educational and health promoting initiatives
Total budget in Euro	Approximately 10,000.00 €, that include the physical educator remuneration
Funding sources	Public
Impact (incl. differences among groups)	<p>1. The main short-term outcome was a significant increase in proportion of children reaching recommended daily PA level in the sub-group that isn't involved in structured extra-school sport activities. Moreover, there was a significant improvement in coordination motor skills (particularly in females). Some results were non-significant due to the poor sample dimension.</p> <p>2. The totality of teachers judged the intervention as a positive opportunity for the school and agreed the possibility that children should access to the school playground in extra-lesson time or in other areas of Municipality. Six out ten teachers confirmed a positive impact on attention level in the classroom after playground time, and seven have noticed an improvement or at least none negative consequences on academic achievement.</p>
Further information sources	None
Contact information	
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