

Appendix 1

Synthesis of three studies conducted to assess school health leaders, staff and nurses and children's needs regarding a daily school-based PA* programme (Step 1 of IMP)

Stakeholders	School staff, nurses and health school's leaders	Schoolchildren (Phase 1)	Schoolchildren (Phase 2)
Population	Local health school's leaders, school staff members and nurses from 11 schools in the Sidon district, Lebanon.	Children aged 10–12 years in grades 5 and 6 from two schools in the Sidon district, Lebanon (Santina et al., 2017).	Children aged 10–12 years in grades 5 and 6 from two schools in the Saida district, Lebanon (Santina et al., 2017).
Objectives	To explore the school staff, nurses and health school's leaders' perceived facilitating factors and barriers regarding school-based PA programmes.	To explore schoolchildren's beliefs regarding their engagement in daily school-based PA.	To identify factors, from an extended version of the Planned behaviour theory, associated with children's participation in daily school-based PA.
Design	Qualitative descriptive exploratory study.	Qualitative descriptive exploratory study.	Cross-sectional study.
Methods	Interviews with 5 school health leaders and 5 meeting groups with 46 school staff members and nurses.	Four focus groups with 36 schoolchildren (n = 20 boys and 16 girls).	Self-administered questionnaire completed by 276 children.
Key results	Perceived barriers were predominantly organisational, including lack of time and skills in PA, lack of financial support, inadequate school facilities and fear of school administration in relation to safety. Perceived facilitating factors were including a clear PA safety policy to improve training for school staff and nurses, provide children a PA-educational tools and adopt a PA-friendly school environment.	Facilitating factors improving children's positive intentions to engage in school-based PA include providing sports equipment. Barriers include inclement weather, school restrictions on the use of PA facilities and equipment and an inappropriate playground for some types of play.	Daily school-based PA recommendations were not respected by children, and the children's intention to engage in daily school-based PA was high. The psychosocial factors associated with children's engagement in daily school-based PA included intention, perceived behaviour control, self-identity, perceived barriers and female gender.

*School-based PA was defined as an engagement in at least 10 min/day of classroom MVPA and 20 min/day of recess MVPA, totalling at least 30 min/day of MVPA at school.

Appendix 2

Main components of the IMove30+ programme.

10-min breaks for structured classroom MVPA: Let's Move the Class!

Daily in-class activities were led by teachers with the help of a booklet filled with ideas for enjoyable MVPA activities appropriate for girls and boys.

20-min of structured and unstructured MVPA during recess times: Choose Your Recess!

Daily activities were offered in indoor or outdoor playgrounds. Each morning, children chose one recess activity from a list proposed by the school staff. Structured activities were led by educational staff (classroom teachers or physical education teachers) and were aimed at improving children's abilities in a variety of sports and games (e.g. basketball, Zumba dance). Unstructured MVPA implies self-selected free play supervised by educational staff (e.g. Dragon Chain, Tank Assault). Each teacher supervised a maximum of 25 children. Children could enter contests and win the prizes mentioned in Table 4.

Educational programme based on an assignment booklet: This is Our Way to Move!

An assignment booklet was provided to each child that included in-class activities and homework to be completed with parents. The assignments targeted the children's knowledge, perceived behavioural control, self-identity, and intention. The booklet covered five modules: (1) ABCs of PA (information on PA and health); (2) My active life (thoughts on barriers and facilitators of PA); (3) Take action (being physically active during structured and unstructured PA); (4) Move to live together (how to be an active child); and (5) A fun and active life at school (PA as a way of life).

Parent information

Monthly newsletters and correspondence with the parents kept them informed about the activities conducted, benefits of PA, and the importance of being an active family. Parents were encouraged to support their children in practising PA.

Educational staff involvement

During a four-day workshop, educational staff members were trained to lead 10-min in-class breaks and 20-min structured and unstructured recess activities. They were provided with a facilitator manual that included step-by-step instructions to implement activities and a suggested timetable for diversifying activities.

Student follow-up system

The children's attendance for activities was electronically recorded daily and analysed by the school nurse and a member of the research team. Qualitative annotations could be added by the teachers. This system helped detect children who required personalised support from educational staff, such as those less active or affected by impeding factors.

PA events at school

A monthly social event promoting PA was organised (e.g. biking and hiking trips, a PA celebration day, and an interview day where children were photographed and interviewed by journalists about the programme).

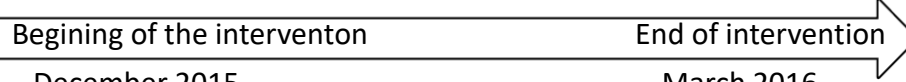
School environmental changes

A redesigned physical classroom and playground infrastructure were established to provide children more opportunities for standing during the school day and moving in a dynamic and fun space that promoted PA. An updated procedure for using sports equipment and improving the attractiveness of the playground was performed.

Appendix 3

Overview of the programme and its time frame.

Activities	Time point (per week)*															
	Summer 2015	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14
School environmental changes																
Teachers and nurses' training																
Baseline assessment																
10 min of MVPA in classroom																
20 min of MVPA during recess																
Educational programme using assignment booklet																
PA events at school																
Letters to parents																
Student follow-up system																
Process evaluation																
Post-intervention assessment																



Beginning of the intervention End of intervention

December 2015 March 2016

Note: * Black cells refer to data collection conducted for both groups; shaded cells refer to implementation activities for the intervention group; white cells indicate that no activity was conducted at this time point.