

Skip a Rope for Fitness (SkaRF): A School-Based Intervention to Promote Physical Activity and Fundamental Movement Skills in Maltese Children

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Physical inactivity among children is a growing concern across Europe. In Malta, only 24% of eleven-year-olds meet the WHO's recommended 60 minutes of moderate-to-vigorous physical activity (MVPA) daily. The SkaRF (Skip a Rope for Fitness) project was developed as a school-based intervention to increase physical activity and improve motor competence through rope skipping. This quasi-experimental study was implemented over three years with students aged 8 to 11. In Phase 1, 60 Year 4 students were divided into experimental and control groups. The experimental group engaged in 15-minute daily skipping sessions for four weeks. In Phase 2, the former control group joined the intervention in Year 5. In Phase 3, all students repeated the four-week intervention in Year 6. Five testing points were recorded: pre- and post-intervention in Phases 1 and 2, and post-intervention in Phase 3.

Measures included fitness tests (20 m *t*-test, 540 m run, standing broad jump), rope skipping (qualitative and quantitative), BMI, and five-day accelerometry (*ActiGraph GT3X*) for MVPA and sedentary time. Paired samples *t*-test examined changes over time, while independent samples *t*-test compared gender differences.

No baseline differences were observed between groups. By the end of Phase 2, only the 20 m agility *t*-test showed a significant advantage for the experimental group. However, the experimental group consistently outperformed in rope skipping skills at all stages, suggesting early exposure had lasting benefits.

Initial gender differences in favour of boys were seen in the 540 m and standing broad jump tests but were not maintained beyond Phase 1. Notably, girls showed superior rope skipping performance across all phases.

Despite the intervention, MVPA levels never exceeded 45 minutes, and sedentary time remained close to eight hours per day, underlining the need for effective school-based interventions. Teacher feedback affirmed the feasibility of incorporating structured skipping sessions into the school day to boost activity levels and reduce classroom sedentary time.

The study concludes that short, low-cost interventions can effectively improve motor competence, particularly when introduced early. Expanding the programme nationally and ensuring access to equipment and space in schools is recommended to support active lifestyles among children.

