

The FIT FIRST 10 Dose–Response Study: Evaluating Implementation Outcomes

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Purpose: Aligned with the UN Sustainable Development Goals, promoting physical activity (PA) in schools requires scalable and sustainable strategies. This study evaluated the implementation of FIT FIRST 10 (FF10), a Danish multi-sport programme designed to enhance PA, fitness, and wellbeing among 2nd and 3rd graders. We assessed implementation fidelity, feasibility, and determinants of sustainability, with a focus on how programme dosage influenced real-world delivery.

Methods: FF10 was implemented over 20 weeks in a cluster randomised controlled trial involving 27 schools. Schools were randomised to full dose (3 × 40 min/week, n = 9), half dose (1.5 × 40 min/week, n = 9), or control (n = 9). Intervention teachers received a one-day training course, printed manuals, and sports equipment. Fidelity was tracked through weekly teacher log-books. Implementation outcomes – acceptability, appropriateness, feasibility – and COM-B-based determinants were measured via online questionnaires. Descriptive statistics were used to compare mean scores across groups.

Results: Eighteen intervention schools (38 classes) participated: nine schools (18 classes) in the full-dose group and nine schools (20 classes) in the half-dose group. On average, teachers in the full-dose group delivered 2.8 sessions per week (standard deviation (SD) = 0.4), while those in the half-dose group delivered 2.0 sessions (SD = 0.5), indicating high fidelity relative to assigned dose. Teacher scores for implementation outcomes were moderate to high. In the half-dose group, mean scores were: acceptability: 4.0, appropriateness: 3.7, and feasibility: 3.8. In the full-dose group, the corresponding scores were: 3.7, 3.6, 3.7. Social opportunity was rated highly in both groups (>4.0), indicating strong perceived support and norms for delivering the programme. However, motivation was generally lower (<3.5), particularly regarding perceived benefit and ease of integration into existing timetables.

Conclusion: FF10 was delivered with relatively high fidelity across both intervention arms. However, barriers such as time constraints, limited facilities, and low teacher motivation challenge sustainability. Although the half-dose group showed slightly more favourable feasibility scores, differences were modest. Given the small sample size (n = 18 per group), the study may have lacked power to detect statistically significant differences. Therefore, findings should be interpreted cautiously. Future studies with larger samples are needed to better assess how dose influences implementation.

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