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Implementing fundamental movement skill intervention to combat childhood obesity: A protocol based on current evidence of best practice

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There is a body of evidence indicating a 'vicious cycle of obesity' comprising low motor competency, low physical activity and high body weight status. We propose that this cycle can be broken by improving motor competency. Therefore, the purpose of this article is to explain the general considerations and pedagogical approaches underpinning an intervention to improve fundamental movement skills (FMS). In general, interventions should be task-based, non-competitive and targeting children aged 12-13 at school. This time period is particularly important as most children have their FMS well-developed. Those that have less skill than peers at this age are prone to be trapped in the 'vicious cycle'. Teachers should specialize in FMS and the training should target at FMS which help developing sports, specific skills in the PE curriculum with evidence-based pedagogy showing positive results. Regarding the pedagogy, the 'teaching games for understanding' (TGfU) pedagogical model was shown to be effective in improving motivation, engagement and enjoyment but not motor skills whilst the skill-drill pedagogy was demonstrated to be effective in improving motor skill but not affectively. In order to maximize both affective and FMS, the TGfU was modified to increase technical awareness. That is, the principles of biomechanics should be integrated and individualized into coaching and using FMS assessment as pedagogy to maximize the learning outcomes and to assess them objectively. Consequently, the interventions are group-based, skills-oriented but game-centered. Consideration of all of these components has been lacking in many interventions to date. This article concludes with an intervention example illustrating the application of the modified TGfU model.

Biography

Allan Chak Lun Fu is a Physiotherapist working in Australia and Hong Kong. Since 2014, he has been funded by the International Postgraduate Research Scholarship from the Department of Education & Training, Australia for his PhD candidature at the University of Sydney. His research interests include motor control, skill acquisition and interventions for clinical groups including obese children and particularly children with poor movement skills. He is currently working in a project to quantitatively identify and improve the motor skills for both normal weight and obese secondary school children with poor motor skills.

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