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The effectiveness of a 10-week family-focused e-Health healthy lifestyle program for school-aged children with overweight or obesity

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Childhood obesity persists at historically high rates globally, including an increasing number of children with severe obesity⁽¹⁻³⁾. Despite the growing demand of families with children needing treatment, effective interventions are largely unavailable or inaccessible^(4,5). Using technology to transform such services that are conventionally delivered in person and offering electronic health (e-Health) interventions, may address limitations of current childhood obesity treatment. A randomised control trial (RCT) with a waitlisted control group evaluated the effectiveness of a 10-week family-focused web-based healthy lifestyle program with health coaching sessions, for treating childhood overweight and obesity, over 10 weeks. Outcome measures included change in children's body mass index (BMI) z-score, waist circumference, dietary intake, physical activity, and quality of life, collected online at baseline and end of the web-based program (10 weeks). A total of 148 children (125 families) aged 7–13 years, with BMI \geq 85th percentile, living in Victoria, Australia, were recruited and randomised to intervention (Cohort 1) or waitlist control (Cohort 2), of which 102 children (85 families) completed the RCT. Cohort 2 received no intervention during the control period. A clinically meaningful decrease in BMI z-score, in the context of weight maintenance and height growth, was observed in Cohort 1 compared to a negligible change found in Cohort 2 (mean difference in change in BMI z-score Cohort 1 vs Cohort 2 = -0.1 ; 95% confidence interval, -0.2 , -0.0). Compared with Cohort 2, Cohort 1 adopted health-supporting lifestyle behaviours, such as improved diet quality and increased physical activity; and reported a clinically significant improvement in children's quality of life at 10 weeks. Cohort 2 demonstrated similar changes in outcome measures after receiving the web-based program. Findings from this study furthers the growing body of evidence on the potential of e-Health interventions to upscale childhood obesity treatment. E-Health interventions, including a low-intensity program that requires minimal contact time with health professionals online, can enhance the effectiveness of conventional treatment services.

References

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