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Targeting parental recognition and understanding of childhood overweight to improve child weight outcomes: The impact of the MapMe intervention at 12 months follow-up

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Introduction: Evidence indicates parents typically do not classify their child as overweight (OW) even when they are, according to commonly

used clinical criteria. This is postulated to be a barrier to parents taking appropriate action for their child's weight gain. We developed the MapMe intervention to improve parental recognition of childhood OW in paper- and web-based formats and targeted families of 4–5 and 10–11 year olds. MapMe includes body image scales of known weight status and information on childhood OW and modifiable health related behaviours. The impact of MapMe on recognition of OW has been reported[1]. The aim of this study was to assess its impact on child weight outcomes 12 months post intervention.

Methods: A 3 arm randomised controlled trial tested the impact of MapMe on child weight outcomes 12 months post intervention[2]. Parents of 4–5 and 10–11 year old children were recruited via schools which were randomised to either the paper-based, web-based or control (no intervention) group. Child height and weight measurements were taken at baseline and 12 months follow up and body mass index (BMI) calculated. Weight status was determined using UK90 criteria[3].

Results: 2933 families were recruited (53% boys; 48% 4–5 years). 2210 children had valid BMI data at both timepoints of which 334 were OW/very OW at baseline. Of these OW/very OW children 137 improved their weight status between baseline and follow up, 68% of which were in an intervention group. There was a significant reduction in BMI centile in OW/very OW children in all study groups (web-based: –2.4, $p < 0.001$; paper-based: –2.1, $p < 0.001$; control: –1.0, $p = 0.009$). When the difference in change between groups was assessed there was a significantly greater reduction in those children in an intervention group compared to control (–1.19, $p = 0.033$). When the intervention groups were examined separately the difference in change between the web-based and control groups approached significance (–1.31, $p = 0.059$).

Conclusion: Since most OW/very OW children who improved their weight status were part of a family allocated to an intervention group and differences in BMI centile change were more marked in those in an intervention group, these data indicate that the MapMe intervention, particularly in its web-based format, can help OW/very OW children's weight outcomes. Further work is required to replicate these findings and investigate mechanisms of action.

Conflict of Interest: None disclosed

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References:

1 Jones et al.: (2016) Obes Rev.
2 Parkinson et al.: (2015) BMC Public Health.
3 Cole et al.: (1995) Arch Dis Child.