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The Stated Conclusions Are Contradicted by the Data, Based on Inappropriate Statistics, and Should Be Corrected: Comment on “Intervention for childhood obesity based on parents only or parents and child compared with follow-up alone”

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Yackobovitch-Gavan et al. [1] executed a three-arm parallel randomized controlled trial (RCT). Participants were randomly assigned to one of three groups: a control group or one of two behavioral interventions, towards either both parents and children, or parents only. The “primary outcome measures were the change in BMI-SDS [BMI-standard deviation score] from baseline at completion of the intervention (3 months) and at the end of follow-up (24 months) in each of the groups.” In parallel RCTs, the correct analyses for inferences about treatment effects compare outcomes *among* randomized groups [2–5]. Yackobovitch-Gavan et al. did these analyses (“comparison of the change in BMI-SDS after 3 months among the groups yielded no significant difference ($P = .440$)”) with similarly non-significant *among-group* findings at 24 months ($P = 0.208$). Therefore, the correct conclusion to draw for this study is that the data did *not* show that either of the treatment interventions was effective with respect to the primary outcomes.

Instead, the abstract concludes that “[a]n intervention programme that focuses on both parents and children was found to have positive short-term and long-term effects on BMI-SDS”. The analytic strategy used to reach this conclusion, a DINS (difference in nominal significance) error, can result in an inflated Type-I error rate higher than 50% with more than two groups [3–5]; its invalidity has been noted repeatedly in the literature [3–7].

Because the primary conclusions communicated by Yackobovitch-Gavan and colleagues are not substantiated by the data, we believe that the paper should be corrected.

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Competing interests.

None pertinent.

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