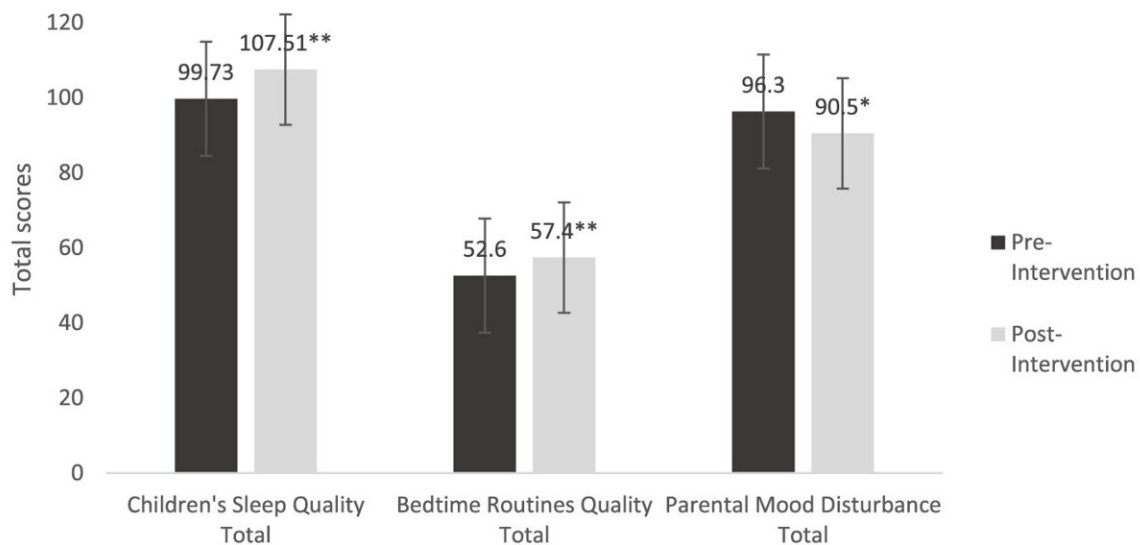


Trial reveals benefits of text message support on children's bedtime routines

April 11 2022, by Mike Addelman

Changes in total scores for sleep, bedtime routines and parental mood disturbance pre-post-intervention with confidence intervals



****result significant in the <.001 level**

***result significant in the <.005 level**

Credit: *Pilot and Feasibility Studies* (2022). DOI: 10.1186/s40814-022-01039-7

A proof-of-concept study of an intervention which sends support and information to parents at bedtime by text message has been shown to improve the quality of their children's sleep.

Devised by researchers at The Universities of Manchester, the system—costing under £2 per family for a week—was also shown to improve the overall quality of [bedtime](#) routines as well as parental mood.

The 50 first-time parents with children aged 1–3 were recruited to study received a variety of text messages for seven consecutive nights providing information on achieving optimal bedtime routines. The messages were co-designed with the parents.

A focus group of 25 of the parents was also held after the study was completed to gather feedback on the intervention. They provided expressed their support and desire to see an intervention like the one trialed more widely available. The results, obtained from pre and post intervention questionnaires, are published in the journal *BMC Pilot and Feasibility Studies*.

The study team examined six key areas for achieving good bedtime routines: brushing teeth before bed; time consistency for going to bed; book reading before bed; avoiding food/drinks before bed; avoiding use of electronic devices before bed; and calming activities with child before bed including bath, shower, and talking.

As a result of the study:

- The children's sleep increased by an average of 8% with less night-waking episodes and with children feeling better the next day after having a good night's sleep
- The overall quality of bedtime routines improved by an average score of 4.8% with parents achieving more optimal, bedtime routine activities such as brushing teeth before bed, minimizing consumption of sugar before bed, reading a book or storytelling before bed, avoiding use of electronic devices and interacting with their children more in calming, beneficial activities

- Parental mood was improved by an average score of 5.8% with parents reported feeling less tense, less fatigued and reporting higher self-esteem

Text messages have been used extensively within health behavior change programs, though they have never been used to deliver a standalone intervention for bedtime.

Dr. Georgios Kitsaras who led the study said: "We know that there is strong link between the quality of bedtime routines and children's sleep. We also know that poor sleep hygiene affects children's development, [school performance](#), mood and cognitive functioning and development as well as the well-being of parents.

"Organizations like the BBC and NHS are all engaged in this debate- but up to now, there has been sparse evidence of how best to help parents achieve better bedtime routines. Parents are on the receiving end of, at times, conflicting information and so we need to untie conflicting signals and messages parents receive.

"This lack of a clear consensus-based definition of limits health professionals' ability to communicate best practice effectively with families. So any intervention which is shown to be effective is most welcome and could make a real difference to families. The low cost of the intervention, its adaptability and practicability also make it important in times of strained healthcare budgets and healthcare staff under pressure."

He added: "The preliminary data from this low cost intervention is very encouraging: we saw beneficial effects across three key outcomes: children's sleep quality, bedtime routine quality and parental mood disturbance. And parents felt less tense, less fatigued, less confused, less angry while also reporting higher vigor and self-esteem.

"The impact on tooth brushing was particularly encouraging as poor oral hygiene practices can increase the likelihood of tooth and gum disease. In England alone, 30% three-year-olds and 25% of five-year-olds have active dental disease, leading, at times, to extraction under general anesthetic. It is therefore essential to ensure that all children have good oral hygiene practices and limit their exposure to sugar at all times, including at bedtime."

More information: George Kitsaras et al, Bedtime Routines Intervention for Children (BRIC) project: results from a non-randomised feasibility, proof-of concept study, *Pilot and Feasibility Studies* (2022).
[DOI: 10.1186/s40814-022-01039-7](https://doi.org/10.1186/s40814-022-01039-7)

Provided by University of Manchester

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