primary studies - published RCT

The effects of an intensive behavior and nutrition intervention compared to standard of care on weight outcomes in CF.

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Study design (if review, criteria of inclusion for studies)

randomized clinical trial

Participants

Participants (n=67) were children ages 4-12 with CF, who participated in a randomized clinical trial of behavior plus nutrition intervention versus nutrition education alone, and a matched Comparison Sample (n=346) receiving standard of care drawn from the Cystic Fibrosis Foundation (CFF) Registry.

Interventions

Children in the Clinical Trial Group participated in a 9-week, nutrition intervention and were followed at regular intervals (3, 6, 12, 18, and 24 months) for 2 years post-treatment to obtain anthropometric and pulmonary function data. For each child in the Comparison Sample, these measures were obtained from the CFF Registry at matching intervals for the 27-month period corresponding to the clinical trial.

Outcome measures

The primary outcome was change in body mass index z-score (BMI z-score) over 2 years. An exploratory outcome was forced expiratory volume at 1-sec (FEV(1)) over 2 years.

Main results

Over 27 months, children in the Clinical Trial Group (the combined sample of the behavior plus nutrition and the nutrition alone) demonstrated significantly less decline in BMI z-score, -0.05 (SD=0.68, CI=-0.23 to 0.13), as compared to children in the Comparison Sample, -0.21 (SD=0.67, CI= -0.31 to -0.11). No statistically significant differences were found for decline in FEV(1) between children in the Clinical Trial Group and the Comparison Sample.

Authors' conclusions

The key implication of these findings is that intensive behavioral and nutritional intervention is effective and needs to be adapted so that it can be broadly disseminated into clinical practice.

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See also

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Keywords

Caloric Intake; Child; non pharmacological intervention - diet; non pharmacological intervention - psyco-soc-edu-org; Supplementation; Behavioural interventions;