



Association between type of grandparent care and childhood obesity - baseline data from the Chirpy Dragon trial.

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Background

Involvement of informal carers such as grandparents in childcare has been shown to be associated with higher risk of excess weight in children. However, the mechanism by which this occurs, and whether risk differs by grandparents' visiting/live-in status is unclear.

Methods

We used baseline data from a childhood obesity prevention trial (CHIRPY DRAGON) in China (n=979/1622, mean age=6.15 years) to assess the relationship between type of grandparent involvement and risk of obesity. Trained researchers measured the height and weight of eligible children from 40 schools; parents reported the extent of grandparent involvement (sometimes/most of the time versus never) in 10 common childcare responsibilities. Children's weight status (non-overweight versus overweight/obese, defined by WHO 2007 reference) was compared according to type of involvement and whether they were live-in or visiting grandparents. All analyses used logistic regression, controlling for socio-demographic factors, birth weight as well as key dietary, physical activity and sedentary variables.

Results

Over 70% of the children had some grandparent involvement in their care. Children were more likely to be overweight/obese if visiting grandparents were regularly involved in taking them for outdoor activities (adjusted OR=4.88; 95% CI: 1.54-15.47), or were their main carer during the weekend (adjusted OR=3.77; 95% CI: 1.12-12.72) or weekday evenings (adjusted OR=3.51, 95% CI: 1.10-11.16), compared with those whose grandparents never did this. No associations were found among children who lived with at least one grandparent.

Conclusion

Visiting grandparents might be more likely to overindulge grandchildren through treat foods or overfeeding than live-in grandparents, representing an important target for future interventions.