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ABSTRACT TITLE

Using interactive digital technology to predict and prevent childhood overweight

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ABSTRACT TEXT

Background: Obesity risk factors can be identified during infancy, providing an opportunity for early intervention. ProAsk is an interactive digital intervention that supports health professionals to quantify and communicate an infant's overweight risk status, prompting discussion of parental strategies to reduce future risk. **Aim:** To investigate user experiences of an interactive digital intervention that assesses overweight risk during infancy and supports motivational behaviour change by parents to reduce their infants' future risk.

Method: The study was conducted in four economically deprived localities in the UK. Qualitative data on user experiences of ProAsk were collected at the end of a feasibility study of the intervention in which health visitors (public health nurses) used ProAsk with parents when the infants were three months old. Semi-structured interviews with parents (N=12) and health visitors (N=15) were

conducted when the infants were 6 months old. Interview data were transcribed and analysed thematically using an inductive, interpretative approach. **Results:** The analysis identified four key themes: engaging and empowering with digital technology; unfamiliar technology presents challenge and opportunity; trust in the risk score; resistance to targeting. **Conclusions:** Interactive digital technology was found to actively engage parents, and enabled them to take ownership of the process of seeking strategies to reduce infant risk of overweight. However, cognitive and motivational biases that prevent effective overweight risk communication represent barriers to targeting the intervention at those infants most at risk of becoming overweight.

Keywords: infancy, intervention, obesity, overweight, prevention
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