A UK based digital intervention to enable parents to keep abreast of their children’s growth and to support reductions in childhood obesity – A Mixed Methods Study

Rinita Dam  
Birmingham City University, UK

**Background:** To understand the health risk of the local population and to combat rising levels of childhood obesity, Manchester University NHS Foundation Trust has developed the Children’s Health and Monitoring Programme (CHAMP). CHAMP includes: (a) annual weighing and measuring for primary school children (age 4 to 11), and (b) a feedback system to convey Body Mass Index (BMI) results to parents via a secure website.

**Objective:** To investigate how effectively CHAMP engaged with parents and supported reductions in childhood obesity.

**Methods:** A mixed-methods design was used. Anonymised CHAMP registration and BMI data were collected between September 2013 and March 2017. BMI change over time was compared in matched cohorts of children whose parents had and had not registered with the CHAMP website. Qualitative focus groups and interviews were used to explore perspectives among 29 key informants (parents and staff) from six schools in Manchester.

**Results:** Overweight children whose parents had not registered with the CHAMP website gained a median of 0.14 BMI centiles between measurements, whilst children of CHAMP-registered parents decreased their BMIs by a median of 0.4 UK90 centiles per year (P=0.02). Qualitative analysis revealed a minority of parents had made lifestyle changes within their families to improve their health directly in response to the feedback received from the CHAMP website. Thematic analysis yielded further subthemes concerning psychological impacts of CHAMP on families.

**Conclusion:** CHAMP, which is unique as both a monitoring system and community based intervention, supports parents in making positive lifestyle choices which may benefit their child’s growth trajectory.

Rinita.Dam@bcu.ac.uk