

Characterising the determinants of fruit and vegetable consumption in pre-school children using a mixed methods approach



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BACKGROUND

Energy balance related behaviours (EBRB), especially those associated with eating are established in the first five years of life (Betoko et al, 2013 and Birch and Anzman, 2010). A diet rich in fruit and vegetables is known to reduce the risk of obesity and other serious obesity-related diseases (Christian et al, 2013).



Identifying determinants (including barriers and facilitators) of fruit and vegetable consumption and understanding how these impact on health-related behaviours is essential when designing effective and sustainable interventions to prevent obesity in young children (Lakshman et al, 2013).

METHODS

PHASE 1

- A systematic review of both quantitative and qualitative evidence was performed to identify determinants of fruit and vegetable intake in preschool children. The protocol for the systematic review was published and registered with PROSPERO (CRD42012002881).
- Quantitative evidence will be summarised using Forest or Harvest plots and narrative synthesis. Qualitative data will be analysed using the Theoretical Domains Framework (TDF) by applying a framework synthesis approach and NVivo software (Heslehurst et al, 2014).

PHASE 2

- Case studies will be carried out in a preschool setting to further explore and/or confirm evidence identified in the SR. Participant observation will be used as the primary research tool along with other creative methods suitable for use with young children, e.g. role play and arts based techniques (Driessnack and Furukawa, 2011) . Specific methods used will be determined as and when data emerges.

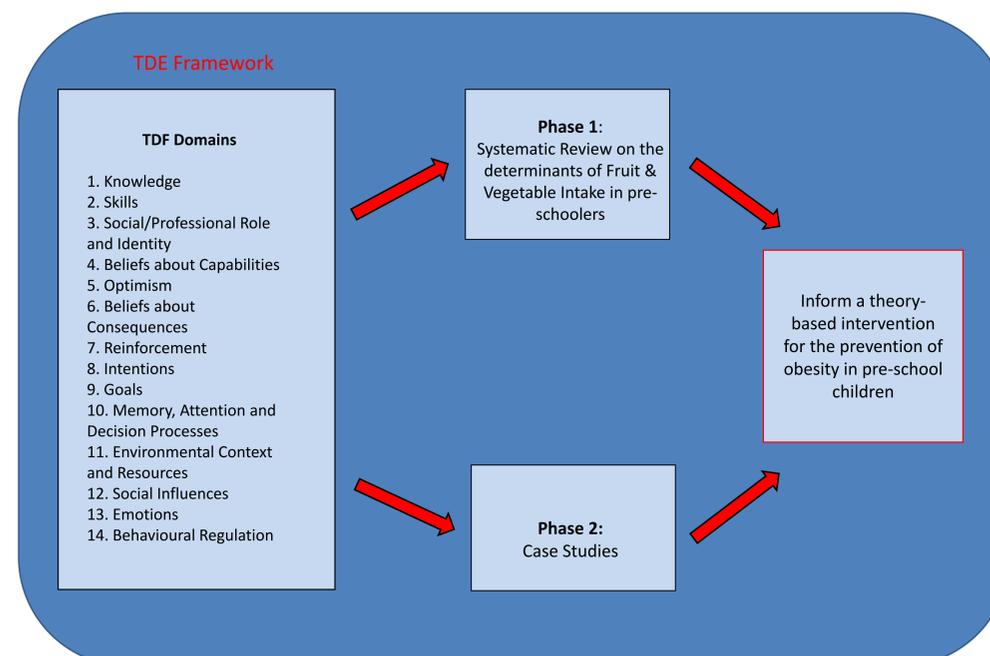
Theoretical Domains Framework (TDF)

The use of theory as an important component of intervention development is encouraged by the Medical Research Council (MRC, 2008). However there are a multitude of behaviour change theories in existence, which are both heterogeneous and overlapping. This can make it difficult to select and apply appropriate theories for behavioural interventions (Michie et al, 2008).

The TDF was designed to overcome these issues by being more accessible and user friendly across a number of disciplines including behaviour change research . The TDF is an integrative theoretical framework comprised of 33 psychological theories, integrated into 14 domains (Fig 1).

These domains represent the scope of theoretical constructs which are considered either barriers or facilitators of specific behaviours, in this case EBRB's (F&V intake).

Figure 1: Application of TDF



RESULTS

36 quantitative and 13 qualitative studies were identified. Data is currently being analysed. However determinants which show associations with F&V intake include; parental knowledge, parental education, SES, modelling of healthful behaviour, age, pressure to eat and food restriction. Emerging barriers and facilitators to F&V intake include; accessibility, time constraints, cost of food, influence of caregivers, child behaviour and lack of parental/caregiver education and knowledge.

DISCUSSION

This project aims to identify determinants of F&V intake in young children. Using the TDF as an analytical tool will ascertain the most relevant psychological domains that are barriers and facilitators to F&V intake. Data generated in both phases of this PhD will inform the development of a theory based behaviour change obesity prevention intervention, aimed at increasing F&V consumption in preschool children.



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