The determination of the dietary interventions that lead to effective weight management in overweight and obese children and adolescents aged 5 -18 years old: A systematic review

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Background: The incidence of childhood obesity is increasing rapidly and has become a major public health concern. Diet plays an important role in the successful treatment and management of obesity. However, what is effective for practice is limited.

Aim: Aim of the study is to determine the optimal long term evidence on the most effective dietary intervention/s which lead to successful weight management in overweight or obese children and adolescents aged 5 to18 years.

Method: Literature published in English language dated from 2005 until 2015 was searched using the following electronic databases: PubMed, ISI Web of Science, CINAHL, EMBASE, Cochrane Library and Dare.

Selection Criteria: Studies assessed the efficacy of dietary interventions to treat or manage overweight conditions and obesity for the follow-up period of ≥6 months, in children aged 5 to 18 years who were defined as overweight or obese (overweight: ≥ 85th [±1SD- ≤±2SD] and obese: ≥95th [>+2SD]) and studies reported BMI z scores or percentage of body fat as their primary outcome.

Data Collection: The author and two reviewers searched the databases independently to identify studies for retrieval and assessed each article for inclusion. Cochrane risk of bias assessment tool was used to assess the methodological quality for each study by the author and two reviewers independently.

Results: There were nine controlled studies that met the inclusion criteria. The interventions that include dietary components result in significant weight loss. Family based lifestyle interventions including the dietary component which focuses on encouraging healthy eating, increased fruit and vegetable intake in addition to physical activity and behavior therapy are useful elements for the treatment and management of childhood obesity.

Conclusions: The results suggest that children in family based lifestyle modification interventions which included a dietary component, achieved significant weight change. However, specific details and adequate descriptions on the dietary interventions, diet-specific outcomes as well as the dietary adherence are needed to inform best practice.

Biography
Abrar Alshahrani completed his BSc and MSc in Clinical Nutrition. Currently, he is a PhD student at University of Nottingham in Nutritional Science.

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