



Contents lists available at ScienceDirect

Preventive Medicine

journal homepage: www.elsevier.com/locate/ypmed

Review

Q2 Effectiveness of universal parental support interventions addressing
 3 children's dietary habits, physical activity and bodyweight:
 4 A systematic review

Q3 Manzur Kader^a, Elinor Sundblom^{a,b}, Liselotte Schäfer Elinder^{a,b,*}

^a Department of Public Health Sciences, Karolinska Institutet, Tomtebodavägen 18A, 171 77 Stockholm, Sweden

^b Centre for Epidemiology and Community Medicine, Stockholm County Council, Box 1497, 171 29 Solna, Sweden

ARTICLE INFO

Available online xxxx

Keywords:

Counselling
 Group education
 Information
 Obesity
 Sedentary behaviour
 Socioeconomic status

ABSTRACT

Objectives. The evidence regarding effectiveness of parental support interventions targeting children's health behaviours is weak. We aimed to review: 1) effectiveness of universal parental support interventions to promote dietary habits, physical activity (PA) or prevent overweight and obesity among children 2–18 years and 2) effectiveness in relation to family socio-economic position.

Methods. Thirty five studies from 1990 to 2013 were identified from major databases. Quality was assessed by four criteria accounting for selection and attrition bias, fidelity to intervention, and outcome measurement methodology, categorizing studies as strong, moderate or weak.

Results. Four intervention types were identified: face-to-face counselling, group education, information sent home, and telephone counselling. Face-to-face or telephone counselling was effective in changing children's diet, while there was only weak evidence for improvement in PA. Sending home information was not effective. Concerning body weight, group education seemed more promising than counselling. Intervention effectiveness was generally higher in younger compared to older children. In groups with low socio-economic position, group-based approaches appeared promising.

Conclusion. In the future efforts should be made to improve reporting of intervention content, include a power calculation for the main outcome, the use of high quality outcome assessment methodology, and a follow-up period of at least 6 months.

© 2015 Published by Elsevier Inc.

Contents

| | | |
|----|--|---|
| 42 | Introduction | 0 |
| 43 | Method | 0 |
| 44 | Study selection criteria | 0 |
| 45 | Types of studies | 0 |
| 46 | Types of participants | 0 |
| 47 | Type of intervention | 0 |
| 48 | Type of outcome measure | 0 |
| 49 | Exclusion criteria | 0 |
| 50 | Other criteria | 0 |
| 51 | Search strategies and study identification | 0 |
| 52 | Data extraction and quality assessment | 0 |
| 53 | Results | 0 |
| 54 | Diet | 0 |
| 55 | Physical activity and sedentary behaviour | 0 |
| 56 | Child weight status | 0 |
| 57 | Age-group | 0 |
| 58 | Socioeconomic position | 0 |
| 59 | Use of theory | 0 |

* Corresponding author at: Department of Public Health Sciences, Karolinska Institutet, Tomtebodavägen 18A, 171 77 Stockholm, Sweden.
 E-mail addresses: manzur.kader@med.lu.se (M. Kader), elinor.sundblom@sl.se (E. Sundblom), liselotte.schafer-elinder@ki.se (L.S. Elinder).

| | | |
|----|--------------------------------|---|
| 60 | Discussion | 0 |
| 61 | Strengths and limitations | 0 |
| 62 | Conclusion | 0 |
| 63 | Funding | 0 |
| 64 | Conflict of interest statement | 0 |
| 65 | Uncited reference | 0 |
| 66 | Acknowledgments | 0 |
| 67 | References | 0 |

68

Q4 Introduction

The Global Burden of Disease Study provides convincing evidence for the fundamental importance of diet and physical activity (PA) for health and disease, particularly in the aetiology of cardiovascular diseases, cancers, obesity and type-2 diabetes (Lim et al., 2013; Wang et al., 2012). Therefore, promotion of health-related behaviours from young age is recommended by the WHO (2004), the European Commission (2007) and national authorities. Parents have a high degree of responsibility and control over young children's dietary and PA habits in the home environment (Anzman et al., 2010; Hendrie et al., 2013). Parents' skills and family functioning (Kitzman-Ulrich et al., 2010), parental styles and feeding practices (Gerards et al., 2011; Sleddens et al., 2011; Xu et al., 2013) and parents' own behaviour, acting as role models, are some of the most important determinants of children's health-related behaviours (Birch and Ventura, 2009; Lindsay et al., 2006). Factors perceived by parents as making a healthy diet and adequate PA difficult to achieve, are child resistance, low availability of healthy food, a busy lifestyle, the influence of food advertising, weather conditions and keeping children occupied (Slater et al., 2010). Therefore it is important to develop effective interventions, addressing these determinants and barriers. However, the transition from childhood to adolescence is marked by greater autonomy and decision-making power of children (Golan and Crow, 2004), and therefore it can be hypothesized that the influence of parents and of parental support programmes will decrease as children grow older. Another aspect to consider is socioeconomic position (SEP). It is a general finding that in developed countries, individuals with lower SEP face much higher obesity rates than those with higher education and income, which is true for both adults (Magnusson et al., 2014; McLaren, 2007) and children (de Onis et al., 2010).

A number of systematic reviews have looked at interventions aiming to prevent obesity in children (Waters et al., 2011), interventions that involved parents to improve children's weight-related behaviours (Golley et al., 2011), diet (Hingle et al., 2010), PA (O'Connor et al., 2009), and interventions aiming to reduce socioeconomic inequalities in obesity among children (Hillier-Brown et al., 2014; Laws et al., 2014). However, none of these reviews focused on universal (population-based) interventions targeting parents as the main component. Therefore, in this review we summarise recent knowledge regarding the effectiveness of universal interventions targeting parents as the main component or in combined interventions but with the parental component evaluated separately. We also looked at the use of theory, which is generally recommended in intervention development to understand causal mechanisms (Michie et al., 2009).

The aim of the current review was twofold: 1) to identify and review the effectiveness of universal parental support interventions designed to promote healthy dietary habits, PA or prevent overweight and obesity among children aged 2–18 years, according to type of intervention and age; and 2) to review the effectiveness of parental support interventions in relation to family SEP.

Method

The review process was carried out according to the guidelines provided by the Swedish Council on Health Technology Assessment (2013).

Study selection criteria

The review included interventions studies published from January 1990 to November 2013, in peer-reviewed English-language journals.

Types of studies

Prospective studies of any intervention duration, which evaluated the effectiveness of a controlled intervention (randomised or non-randomised), with outcomes measured at baseline and post-intervention in both groups, with or without follow-up.

Types of participants

The study included at least one parent or caregiver of a child 2–18 years, either with or without their child.

Type of intervention

Any type of intervention where the main component was parental involvement and with relevant outcomes. If the intervention was combined e.g. in a school-based intervention, the parental component should be clearly described and evaluated on its own.

Type of outcome measure

- Studies with at least one of the following outcomes at child level:
- Dietary habits. Studies examined the child's intake of various food items, such as fruit, vegetables, fish and energy dense food (e.g. sweetened beverages), macronutrients (e.g. fat) and macro-minerals (e.g. calcium). 139–141
 - Physical activity. Studies measured physical activity objectively or subjectively. 142
 - Sedentary behaviour. The total time for sedentary behaviour was measured such as television viewing, playing video games or using the Internet, not only hours of any specific sedentary behaviour such as television viewing. 143–145
 - Weight status. Studies measured height and weight and calculated BMI z-score or BMI percentile, percent body fat or prevalence of overweight and obesity. 146–148

Exclusion criteria

Observational studies (e.g. cross-sectional association or correlation study), reviews, meta-analysis, editorials, unpublished reports, conference papers, dissertations, qualitative studies and study protocols were excluded, studies targeting risk groups selectively, e.g. being physically inactive or overweight, pilot studies with number of participants lower than 50, studies with outcomes of intake of vitamins and trace minerals only, studies not applicable to the general population (i.e. weaning/preterm infants, athletes, weight loss diets, eating disorders, behavioural/learning difficulties, disabilities, diabetes and asthma).

Other criteria

A study was classified as effective where there was a statistically significant change ($P < 0.05$) in one or several of the specific outcomes defined above in the intervention group relative to the control group. The definition of the study sample as having low SEP or belonging to a minority group was based on the original authors' definition.

Search strategies and study identification

Six electronic databases were searched (Medline, PsycINFO, Web of Science, CINAHL, ERIC, Cochrane CENTRAL). Specific search strategies for the different databases included combinations of the following key words: 'parental support', 'prevention', 'intervention', 'children', 'adolescents', 'teenagers', 'diet', 'food habits', 'physical activity', 'exercise' and 'overweight', and 'obesity'. Citations 165–169

Download English Version:

<https://daneshyari.com/en/article/6046706>

Download Persian Version:

<https://daneshyari.com/article/6046706>

[Daneshyari.com](https://daneshyari.com)