



Research report

Family circumstance and adolescent dietary behaviours

Natalie Pearson^{a,*}, Abbie MacFarlane^b, David Crawford^b, Stuart J.H. Biddle^a^a School of Sport and Exercise Sciences, Loughborough University, Loughborough, Leicestershire, LE11 3TU, United Kingdom^b Centre for Physical Activity and Nutrition Research, School of Exercise and Nutrition Sciences, Deakin University, Australia

ARTICLE INFO

Article history:

Received 20 August 2008

Received in revised form 8 March 2009

Accepted 10 March 2009

Keywords:

Adolescents

Family circumstance

Parental marital status

Maternal education

Maternal employment status

Siblings

Dietary behaviours

ABSTRACT

The available information on the contribution of family circumstance to adolescent dietary behaviours is inconsistent. Indicators of family circumstance may impact adolescent behaviours by influencing their daily home environment. This study examined cross-sectional and longitudinal relationships between indicators of family circumstance and (i) breakfast skipping and (ii) consumption of snack food, fast food, fruits and vegetables among adolescents. Dietary behaviour was assessed using a web-based survey completed by 1884 adolescents from years 7 and 9 of secondary schools in Victoria, Australia, at baseline and 2 years later. Five indicators of family circumstance (parental marital status, maternal education, maternal employment status, number of brothers and number of sisters) were assessed with a questionnaire completed by parents at baseline only. Logistic regression was used to examine cross-sectional associations between indicators of family circumstance and dietary behaviours. Multinomial logistic regression was used to examine associations between indicators of family circumstance and 2-year change in dietary behaviours. Individual indicators of family circumstance were differentially associated with adolescent dietary behaviours. Cross-sectional and longitudinal associations differed for adolescent boys and girls highlighting the importance of assessing specific dietary behaviours and food types individually by gender. This study highlights the complexity of the relationships between family circumstance and adolescent dietary behaviours. Future research needs to assess the efficacy of strategies promoting maternal nutritional knowledge on the dietary behaviours of adolescents.

© 2009 Elsevier Ltd. All rights reserved.

Introduction

The dietary behaviours of adolescents are likely to play an important role in the development of a range of chronic health conditions including overweight and obesity (Stockman, Schenkel, Brown, & Duncan, 2005). For example, breakfast skipping has been associated with overweight in young adulthood (Crossman, Anne Sullivan, & Benin, 2006) and is relatively common among adolescents in Western countries (Keski-Rahkonen, Kaprio, Rissanen, Virkkunen, & Rose, 2003). In addition, diets poor in fruits and vegetables and high in fast foods and unhealthy snacks have been associated with higher body mass index (Maskarinec, Novotny, & Tasaki, 2000; Rennie, Johnson, & Jebb, 2005); yet, relatively few adolescents consume diets in line with current dietary recommendations (Currie et al., 2004; Guenther, Dodd, Reedy, & Krebs-Smith, 2006; Magarey, Daniels, & Smith, 2001). Exploring factors that influence adolescents' dietary behaviours is imperative for

identifying target groups and informing interventions aimed at promoting healthy eating.

The family environment has been identified as a critical context for the development of eating behaviours (Tinsley, 2003). The influence of family circumstance (e.g. parental marital status, parental education level, parental employment status, sibling status) on adolescents' food habits/choices has not been comprehensively explored, yet such characteristics may impact adolescent behaviours by influencing their daily home environment. Previous studies have focused on single components of family circumstance (e.g. parental education level) (Videon & Manning, 2003), which limits the ability to compare the influence of different aspects of family circumstance on dietary behaviour across studies (due to different samples and methodologies). It is important to consider the influence of multiple indicators of family circumstance on eating behaviour in the same sample of adolescents, using the same methodology, because differential associations may point to different underlying pathways (Hesketh, Crawford, & Salmon, 2006). For example, the pathways may relate to differences in financial resources, parental time available (e.g. to shop and prepare foods) and sibling modelling to facilitate adolescent healthy eating.

* Corresponding author.

E-mail address: N.Pearson@lboro.ac.uk (N. Pearson).

The current literature examining the influence of indicators of family circumstance on adolescent dietary behaviours has been largely cross-sectional and has yielded equivocal results. Living in single-parent families has been positively associated with inconsistent meal patterns (Johansen, Rasmussen, & Madsen, 2006; Siega-Riz, Carson, & Popkin, 1998), but has also shown no association with fruit, juice and vegetable consumption (Hannon, Bowen, Moinpour, & McLerran, 2003) and fat consumption (Darke, Disselduff, & Try, 1980). While some studies have shown parental education level to be negatively associated with breakfast skipping among adolescents (Videon & Manning, 2003) and snack consumption among adolescent girls (Lowry, Kann, Collins, & Kolbe, 1996; Margarey & Boulton, 1997), other studies have found no relationship between parent education and breakfast skipping among adolescents (Shaw, 1998; Shi, Lien, Kumar, & Holmboe-Ottesen, 2005) and snack consumption among adolescent boys (Lowry et al., 1996; Margarey & Boulton, 1997). A recent review has shown that parental occupation is positively associated with adolescents' fruit consumption but is not associated with adolescents' vegetable consumption (Pearson, Biddle, & Gorely, 2008). Sibling status (i.e. the presence or absence of brothers and/or sisters), although likely to influence the dietary behaviours of adolescents, has not been examined in this context. Several physical activity studies, however, have shown that children with siblings spend more time in moderate-to-vigorous-intensity physical activity (Bagley, Salmon, & Crawford, 2006; Hesketh et al., 2006), indicating a modelling or companionship effect.

Given that most previous studies that have examined associations between family circumstance and adolescent dietary behaviour have been cross-sectional and only considered single indicators of family circumstance the purpose of this study was to examine the influence of multiple indicators of family circumstance on adolescent dietary behaviours and changes in dietary behaviours over a 2-year period. This study is important because identifying indicators of family circumstance that are associated with adolescent dietary behaviours is fundamental for identifying target groups and developing tailored interventions to promote healthy eating as well as identifying potential moderators of effectiveness. Data on five indicators of family circumstance (marital status, mothers' education level, mothers' employment status, number of brothers and number of sisters) were obtained for a sample of secondary school-aged adolescents. These data were related to adolescents' dietary intake (snacks, fast food, vegetables and fruit) and breakfast skipping cross-sectionally and prospectively 2 years later.

Methods

Study procedure

The Youth Eating Patterns (YEP) study is a longitudinal study of dietary behaviours among adolescents in Melbourne, Australia. All co-educational state (government) and Catholic secondary schools (years 7–12) with enrolments over 200, located in the southern metropolitan region of Melbourne and the non-metropolitan region of Gippsland, to the east of Melbourne, were invited to participate in the study. Of the 70 schools (47 metropolitan and 23 non-metropolitan) that met these criteria, 37 schools (20 metropolitan and 17 non-metropolitan) agreed to participate. The YEP survey is an online food habits survey and was administered by teachers during a class when students had access to computers. The survey was administered during 2004 and 2005 (baseline, T1), and again 2 years later in 2006 and 2007 (follow-up, T2). Study procedures were approved by the Ethics committee of Deakin University and the Victorian Department of Education and Training and the Catholic Education Office. A detailed description

of the YEP survey, participant recruitment and study procedures have been provided in previous publications (MacFarlane, Crawford, Ball, Savige, & Worsley, 2007; Savige, Ball, Worsley, & Crawford, 2007).

Subjects

All students ($n = 9842$) from year 7 (aged 12–13 years) and year 9 (aged 14–15 years) from participating schools were invited to complete the online survey at baseline. Teachers distributed parental consent forms via students asking permission for their child to participate in the study. The consent form also asked parents to provide information about their family circumstances (e.g., marital status, education level, employment status, number of children). Parental consent was obtained for 4502 (46%) of all eligible students. Online surveys were completed at baseline by 3264 adolescents. Of these, 1884 (58%) completed the YEP survey at the 2-year follow-up.

Comparison of these 1884 adolescents with those who were not followed up ($n = 1380$) showed no significant differences in breakfast skipping, consumption of snacks, fruit and vegetables, sibling status and parental employment. However, a significantly ($p < 0.05$) higher proportion of adolescents that were followed up, compared to those who were not, were girls (55.4% compared to 44.6%), were in year 7 at baseline (65.2% compared to 38.4%), had parents that were married (75.1% compared to 67.1%), and had mothers who had completed year 12 of secondary school (21.8% compared to 17.9%). A lower proportion of those that were followed-up reported consuming fast foods every day (0.9% compared to 1.8%).

Measures

The YEP survey collected information on demographic characteristics of adolescents including date of birth, school year and gender.

Family circumstance

The parental consent form, completed at baseline only, requested details of family circumstance including parents' marital status, highest level of education, current employment status, and the gender and number of children living in the household. Based on gender, respondent information was converted to maternal and paternal information. Only maternal characteristics are presented here and included in analyses as 84% of respondents were mothers. Furthermore, mothers tend to be the gatekeepers of their child's food intake (Hannon et al., 2003). Maternal education was collapsed into low (completed year 10 of secondary school or less), medium (completed year 12 of secondary school/or technical certificate or apprenticeship) or high (university or tertiary qualification). Maternal employment was collapsed into three categories: full-time, part-time or not in paid employment. Parental marital status was dichotomized as dual-parent (i.e. married or de facto) or single-parent (i.e. divorced, widowed, or separated). Sibling status was categorised into 'none' or 'one or more' brothers and 'none' or 'one or more' sisters.

Adolescent dietary behaviours

Adolescent food intake was assessed at baseline and follow-up with a 37-item food frequency questionnaire (FFQ), based on previously validated indices of food intake (Marks et al., 2001) and is described in detail in previous publications (MacFarlane et al., 2007; Savige et al., 2007). Adolescents were asked how often they skipped breakfast, ate snacks (e.g. chocolate/crisps/salty snacks), fast food (e.g. McDonalds®), vegetables and fruit in the past month. For the purpose of this study the frequency of each dietary

Download English Version:

<https://daneshyari.com/en/article/941022>

Download Persian Version:

<https://daneshyari.com/article/941022>

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