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Correlates of food choice in unemployed young people: The role of demographic factors, self-efficacy, food involvement, food poverty and physical activity

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ABSTRACT

Associations between socio-demographic and psychological factors and food choice patterns were explored in unemployed young people who constitute a vulnerable group at risk of poor dietary health. Volunteers ($N = 168$), male ($n = 97$) and female ($n = 71$), aged 15–25 years were recruited through United Kingdom (UK) community-based organisations serving young people not in education training or employment (NEET). Survey questionnaire enquired on food poverty, physical activity and measured responses to the Food Involvement Scale (FIS), Food Self-Efficacy Scale (FSS) and a 19-item Food Frequency Questionnaire (FFQ). A path analysis was undertaken to explore associations between age, gender, food poverty, age at leaving school, food self-efficacy (FS-E), food involvement (FI) (kitchen; uninvolved; enjoyment), physical activity and the four food choice patterns (junk food; healthy; fast food; high fat). FS-E was strong in the model and increased with age. FS-E was positively associated with more frequent choice of healthy food and less frequent junk or high fat food (having controlled for age, gender and age at leaving school). FI (kitchen and enjoyment) increased with age. Higher FI (kitchen) was associated with less frequent junk food and fast food choice. Being uninvolved with food was associated with more frequent fast food choice. Those who left school after the age of 16 years reported more frequent physical activity. Of the indirect effects, younger individuals had lower FI (kitchen) which led to frequent junk and fast food choice. Females who were older had higher FI (enjoyment) which led to less frequent fast food choice. Those who had left school before the age of 16 had low food involvement (uninvolved) which led to frequent junk food choice. Multiple indices implied that data were a good fit to the model which indicated a need to enhance food self-efficacy and encourage food involvement in order to improve dietary health among these disadvantaged young people.

1. Introduction

A substantial proportion (9.7%) of young Europeans aged 15–24 years, are currently unemployed (EU Labour Force Survey, 2012). Although education is mandatory up to the age of 16 years, the number of young people in the United Kingdom who leave mainstream education at the age of 16 years and who are not in education, employment or training (NEET) is increasing (Institute for Public Policy Research, 2010) with as many as 13% of 16–19 year olds in Northern Ireland (NI) unemployed (Bennett, 2010; Department of Employment, 2010; Monteith, Lloyd, & McKee, 2008). Most research directed toward understanding young people's food choices has been conducted within the school environment (Shepherd et al., 2006). Unemployed young people, however, constitute a vulnerable group who have been under-researched and who may be especially at risk of adverse health behaviour and outcomes (McCoy, Kelly, & Watson, 2007) and who may be especially at risk of inadequate diet (Ball et al., 2009). Previous research has suggested that young people have a tendency toward consumption of 'junk' (energy dense/low nutrient) food (Fraser, Clarke, Cade, & Edwards, 2011; Fraser, Edwards, Cade, & Clarke, 2011; Kerr et al., 2009; Larson et al., 2008; Share & Stewart-Knox, 2012) which increases through adolescence

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(Larson et al., 2008) and is associated with socio-economic deprivation (Fraser, Clarke, et al., 2011).

Young people's food choices are multifactorally determined (Story, Neumark-Sztainer, & French, 2002) and include socio-demographic factors (Share & Stewart-Knox, 2012; Shepherd et al., 2006) and physical activity, which declines during the transition from adolescence to adulthood (de Vet, de Ridder, & de Wit, 2011; Pearson & Biddle, 2011). Qualitative studies of disadvantaged young people aged 15–24 years in Australia (Booth, 2006; Crawford et al., 2014) and the UK (Davison, Share, Hennessy, & Stewart-Knox, 2014) have also indicated that such young people experience a considerable degree of food insecurity and that this is at least in part, a result of structural barriers to the access of healthy food (Crawford et al., 2014; Davison et al., 2014).

Psychological factors are also likely to determine food choice in young people. Self-efficacy, a key psychological construct in Social Cognitive Theory, is defined as an individual's perceived ability to achieve a desired outcome (Bandura, 1995). Self-efficacy has been found to be associated with eating behaviour among young people residing in Ireland (Fitzgerald, Heary, Kelly, Nixon, & Shevlin, 2013), the UK (Lubans et al., 2012), the USA (Bruening, Kubik, Kenyon, Davey, & Story, 2010; Franko, Cousineau, Rodgers, Roehrig, & Hoffman, 2013; Granner & Evans, 2012; Kinard & Webster, 2012) and Australia (Pearson, Ball, & Crawford, 2012, 2011). Food involvement, defined as 'the level of importance of food in a person's life' (Bell & Marshall, 2003 p. 236) appears lacking among young people (Watt & Sheiham, 1996) and has also been found to be associated with healthier eating in adolescents in the USA (Larson, Perry, Story, & Neumark-Szstainer, 2006; Laska, Larson, Neumark-Sztainer, & Story, 2012). UK research has suggested that educational attainment is associated with food involvement particularly that which is concerned with food purchase, preparation and choice (Bell and Marshall, 2003). There is also evidence that this impacts upon food choice. Women who have spent less time in education report lower food involvement and less fruit and vegetable consumption (Jarman et al., 2012).

There appear to be no previously published surveys of unemployed young people that have considered food choice. Those surveys which exist have focussed upon nutrient intake (Mark, Lambert, O'Loughlin, & Gray-Donald, 2012) or acquisition of food through welfare agencies (Booth, 2006) rather than food choice *per se*. Given that both the prior qualitative research (Davison et al., 2014; Share, Hennessy, Stewart-Knox, & Davison, 2013) and previous studies have indicated that young peoples' food choices are associated with physical activity (de Vet et al., 2011; Pearson & Biddle, 2011), food poverty (Booth, 2006; Crawford et al., 2014; Mark et al., 2012), self-efficacy (Bruening et al., 2010; Fitzgerald et al., 2013; Franko et al., 2013; Granner & Evans, 2012; Kinard & Webster, 2012; Lubans et al., 2012; Pearson et al., 2012) and food involvement (Bell and Marshall, 2003; Jarman et al., 2012; Larson et al., 2006; Laska et al., 2012), items reflecting these issues have been included in the questionnaire. The aim of this study has been to determine intervention needs among young people not in education, employment or training, a purpose that has also informed selection of items and constructs for inclusion. No previous studies appear to have considered the above factors *together* as potential correlates of dietary habits in young people. This survey, therefore, sought to understand the degree to which self-efficacy, food involvement, physical activity, age at leaving school and food poverty were associated with food choice patterns in this important, disadvantaged, under-researched group of young people. It is anticipated that the results will inform policy toward addressing dietary health related inequality among these young people.

2. Method

The study was of a cross-sectional, self-complete survey design.

2.1. Sampling

The study took place in Northern Ireland (UK). Community-based organisations with a remit to enable young people to get into education or employment or training were considered eligible to participate. Initial contact with youth and training service providers was via telephone. Of the thirteen organisations contacted, all agreed to participate. All young people attending each centre on the day of data collection freely volunteered to take part and give of their time to complete the questionnaire. There were no refusals.

2.2. Questionnaire

Self-administered questionnaire was used to record demographic characteristics, food choices, physical activity, food poverty, food involvement and self-efficacy. Questionnaire content was informed by prior qualitative studies (Share et al., 2013) and review of the literature on food issues in young people.

2.3. Procedure

Ethical approval was granted by the University Research Ethical Committee. The survey was piloted on a sub-sample (n = 12). There appeared to be confusion over the meaning of the response option 'somewhat confident' in the self-efficacy scale. The wording of the item, therefore, was changed to 'a little confident'. Data collection took place in youth service provider organisations located in greater Belfast and Counties Armagh, Antrim and Londonderry during November and December 2011. Informed consent was obtained from the young people prior to completion of the questionnaire. Parental consent was not required given nearly half (47%) were living independently and all were over the age of consent which is 16 years in the UK. In the interests of confidentially, no names were recorded. The questionnaire was completed in groups of five to six in a quiet room within the premises of the respective organisation. Prior to completion of the questionnaire, the researcher read aloud an information sheet, detailing the questions and explaining the response formats to each scale. The questionnaire took 15–20 min to complete.

2.4. Data analysis

2.4.1. Preliminary analyses

Exploratory factor analysis was conducted on the Food Frequency Questionnaire (FFQ), Food Involvement Scale (FIS) and Food Self Efficacy Scale (FSES) using the statistical software package SPSS (version 19). Maximum likelihood estimation was used along with a promax factor rotation. The Bartlett method was used for the factor scores as this procedure produces unbiased estimates of the true scores (Hershberger, 2005).

2.4.1.1. Food Frequency Questionnaire (FFQ). The 19-item Food Frequency Questionnaire (FFQ) previously employed in the WHO Health Behaviour of School Children (HBSC) Survey (Nic Gabhainn, Kelly, & Molcho, 2007) was used to assess the frequency consumption of a variety of food: fruit; vegetables; sweets; cheese; other dairy (yoghurt); crisps; chips/fried potatoes; white bread; wholemeal bread; cake; biscuits; burgers/sausages; fish; and drinks: low fat milk; whole milk; cola and/or other sugar sweetened soft drinks; diet soft drinks; stimulant/energy drinks; and,