EATING FOODS SURPLUS TO REQUIREMENTS: WHERE, WITH WHOM AND WHY ARE ADOLESCENTS EATING NON-CORE FOODS?

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Introduction

- Non-core (NC) foods are considered surplus to requirements because they offer no essential nutrients for good health.
- Adolescents eat too many NC foods, especially sugar-sweetened drinks, crisps, chips and chocolate.
- A diet high in NC foods in adolescence is associated with increased adiposity and body mass index (BMI).
- Understanding the eating context of adolescents’ consumption of NC foods, can highlight problematic environments, which we can then target within interventions to reduce intake and adolescents’ obesity levels.

Aim

- To investigate ‘where’ and ‘with whom’ adolescents consume NC foods and reasons for consumption.

Methods

Mixed Methods

1) Quantitative Study

Setting: UK National Diet and Nutrition Survey (NDNS) 2008-2012
Sample: 884 adolescents, 11-18 years (50% boys)
Dietary Assessment: 4-day food diaries
- Foods are classified as NC based on fat & sugar cut-off point per 100g of food
- Eating occasions (EOs) are defined as food entries consumed together by the same person, on the same day and time.
- Eating contexts: 7 ‘where’ (home, school, eateries, etc.) & 5 ‘with whom’ categories (alone, parents, friends, etc.)
Analysis: Multilevel (2-level) linear models to examine the independent association of eating contexts with adolescents’ NC food consumption, adjusting for covariates.
Covariates: EO level – time of day, day of the week, TV watching, Adolescent level – age, gender, BMI, total energy intake, SES

2) Qualitative Study

Setting: Four secondary schools from the Bristol area, UK
Sample: 18 adolescents, 14-16 years (17% boys)
Method: Face-to-face interviews, conducted, recorded, transcribed, analysed – thematic analysis

Results

- Eateries were the eating context with the highest NC food intake, where adolescents consume 101 more NC kcal compared to eating at home, regardless of their individual characteristics (Figure 1).
- NC food intake at an EO is much more variable within than between adolescents.

Figure 1: Associations of eating context with adolescents’ NC energy intake (kcal/EO).

<table>
<thead>
<tr>
<th>Eating context</th>
<th>NC energy intake (kcal/EO)</th>
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<tbody>
<tr>
<td>Home &amp; Alone</td>
<td></td>
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<tr>
<td>Friend’s/Relative’s house</td>
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<tr>
<td>School</td>
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<td>Eateries</td>
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<td>On the go</td>
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<td>Activity Places</td>
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<td>Work</td>
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<td>Parents/Carers</td>
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<td>Parents &amp; siblings</td>
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<td>Family &amp; friends</td>
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<tr>
<td>Friends</td>
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<tr>
<td>Not specified</td>
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1) Why adolescents prefer eating at eateries?
   Variety of food options
   Socialising

2) What factors influence how adolescents choose their food in eateries?
   Norm of eating
   Social aspects, e.g. peer conformity, parental level of control
   Functional eating
   With friends

Conclusions

- Eateries are a high risk eating environment for adolescents.

References

Ambrosini et al., 2016, J Nutr
Rangan et al., 2008, Eur J Clin Nutr
Toumpakari et al., 2016 Pub Health Nutr

INTERVENTIONS

- Reduce NC food intake
  Reformulation of foods

- Reduce frequency of visits to eateries
  Reduction in portion sizes

Enhance eating environment at home
  • Variety of food options
  • Social/relaxing atmosphere