

Changes in intergenerational eating patterns and the impact on childhood obesity

Abstract

Objective

To examine intergenerational eating patterns within two sets of families, those with an obese child and those with a normal weight child, and to assess the impact of intergenerational influences on children's eating.

Design

A qualitative study, incorporating focus groups and semi-structured interviews.

Setting

Sixteen focus groups and twenty-seven semi-structured interviews with different generations.

Method

Focus groups were conducted in the community with grandparents, parents and children from different families. This was followed by semi-structured interviews, involving individuals from three generations within families with an obese child and within families with a normal weight child.

Results

An examination of intergenerational eating has shown that eating patterns have changed regardless of whether or not families have children who are obese. The grandparent's eating patterns were more structured, whereas the children's eating patterns were less so. There have been more changes, and eating is less structured, within those families with an obese child than those families with a normal weight child.

Conclusion

It is recommended that approaches to tackling childhood obesity concentrate on the family setting and the ways in which professionals can support families to change eating practices. Future research should formally test the relationship between the concept 'structured eating' and the 'what' of eating, in order to determine whether there is a link between intergenerational eating patterns and childhood obesity.

Key words: intergenerational; family eating; eating patterns; childhood obesity

Introduction

The number of people who are obese continues to rise throughout the world. The extent of the problem is such that more than 1.6 billion people are overweight, at least 400 million of them clinically obese¹. Furthermore, WHO predicts that by 2015, approximately 2.3 billion adults will be overweight and more than 700 million will be obese. Perhaps of greater concern is the alarming growth of childhood obesity, which, in line with adult trends, is of epidemic proportions in many countries. WHO estimates that in 2010 the number of overweight children under the age of five is estimated to be over 42 million. This represents an increase of over 50 per cent on figures for 2005, when 20 million children under the age of 5 were classed as overweight². Therefore, little doubt remains that obesity is a major public health concern. Given its association with a wide range of serious conditions, such as mature onset diabetes, hypertension, cardiovascular disease and certain types of cancer³, it is acknowledged as placing "enormous financial burdens on governments and individuals and accounts for up to 6% of total healthcare expenditure in some developed countries"⁴. Indeed, in Britain alone, it is estimated that the "NHS spends £500 million a year treating obesity"⁵.

Preventing weight gain in children is, therefore, recognised as imperative if long-term health benefits and cost savings are to be realised. One way of tackling the problem is through a 'settings-based' approach, which has been advocated as a means of obesity prevention and behaviour change in childhood⁶. Earlier work has acknowledged the importance of the home and specifically, family influences on childhood obesity⁷. However, even though numerous studies have taken place aimed at childhood obesity prevention, it seems there is very little that targets the home setting and even less that looks at intergenerational influences on children's eating behaviours. This article attempts to redress the balance by focusing on the home setting and investigating intergenerational eating patterns and their impact on children's current eating behaviours. Two main research objectives were addressed in this study. The first explored food eating patterns within different generational groups. The second explored family food and eating, focusing specifically on eating patterns in different generations within families and their possible impact on childhood obesity.

Methods

A qualitative methodology employing a grounded theory approach was used to investigate the link between intergenerational eating patterns and childhood obesity. This meant that rather than starting off with a hypothesis or theory to test, the research generated its own theory based on the participants' data.

The study was divided into two parts, phase 1 and phase 2. Phase 1 explored family food and eating practices in different generations and examined how these had changed. Focus groups were conducted separately with three generational groups: children aged eleven and twelve, parents of any age and grandparents of any age. The decision to use focus groups was made on the basis that they are inductive and naturalistic, facilitating the generation of information through group interaction⁸. Various strategies were used to recruit participants for the focus groups, including approaching elderly day centres, schools, community groups and faith groups. Each focus group comprised, on average, eight people and lasted approximately 1 hour. The focus groups took place in various locations, including people's homes, schools and community halls. A total of one hundred and eighteen participants were recruited.

Phase 2 involved an in-depth investigation into the food culture of families with an obese child and families with a normal weight child, focusing on the food and eating habits within three generations. Individual semi-structured interviews were used since they facilitated in-depth exploration and a greater understanding of the food and eating processes at work in families. In addition, Rubin and Rubin argue, "interviews are especially good at describing social processes, that is, how and why things change"⁹, which was particularly relevant for

this study in exploring how eating habits had changed between generations and the impact on children's eating behaviours. Purposive sampling methods were used in order to recruit families, the criteria being families with and without an obese child and with three generations within the one family. Families were recruited through the focus group discussions conducted in phase 1 and through Watch It, a programme for overweight children and teenagers in Leeds¹⁰. Recruitment aimed to have a balance of three-generational families, those with an obese child and separate families with a normal weight child, in order that comparative data could be sought. The semi-structured interviews were conducted with individual members of the family separately and in a place where they each felt comfortable. In all cases this was in the family or extended family home. Each family member was interviewed once and the interview lasted between thirty minutes and one hour. A total of twenty-seven interviews were conducted.

A written and verbal explanation to the study was given and clarification concerning issues of confidentiality and the disclosure of sensitive information provided. In all cases informed consent was obtained and permission sought from grandparents, parents and children to record the focus groups and semi-structured interviews. Full ethical approval and local research governance approval was obtained, as well as Criminal Records Bureau (CRB) clearance for all the researchers involved.

Analysis

Written notes were made following the focus group discussions and semi-structured interviews; each focus group and interview was fully transcribed. As far as possible, data collection, transcription and analysis were done concurrently. Data was analysed using the qualitative computer analysis software, QSR NVivo 2. Participants' quotes are used to illustrate key points.

Results

Findings from the focus groups

The key issue to emerge was that eating patterns have changed. Compared with the grandparents' generation and, to a certain extent, the parents' generation, the eating habits of today's children were found to be different. Eating amongst the children lacked routine and bore little resemblance to the highly structured and regulated eating patterns of the grandparents' generation.

Grandparents

Daily life for the grandparents' generation was typified by a high degree of structure, with most activities following a particular routine, including eating. There was one way of eating, which was the same for the majority, as though there was an inherent formula dictating how everyone ate.

"All the different modes and possibilities compared, there just used to be one way of eating"

Mealtimes tended to be at the same time every day with the same meals served on the same days of the week. Work, school and social activities were constructed around these family mealtimes. Family members ate together and they ate in the same room and at a table, without external influences such as television. There was an inherent value attached to these occasions where eating and time together as a family were the main focus.

"We all ate at set times...We had a big table that we all sat round and yeah, everybody knew what time my dad was getting in so we'd eat at whatever time it was, probably 6 o'clock"

Food was rarely eaten outside of mealtimes and treats were given only on odd occasions. Adults had a high degree of control over what children ate.

Parents

For the parents' generation as children, an established structure to mealtimes, and eating in general, continued to be a priority. There was a routine in terms of the order in which meals were eaten in a week, as well as an order in which family members were served their meals.

"We had a set menu every week and so I know now what we had on a Monday, Tuesday, Wednesday, etc"

However, the gradual introduction of a greater variety of foods, as well as an increase in the number of food outlets, had an important impact on eating patterns. Parents spoke of greater choice leading to greater freedom, in terms of when to eat and where to eat, which threatened eating structures that were in place within the home. Having a choice no longer restricted people to a set way of doing things and consequently, expectations changed. With changing expectations came a change in attitudes towards eating. Significantly, people wanted to eat differently.

"Conventions were breaking down...you were only too grateful for opportunities to do things your own way. And I think meals were one of those things that went very quickly"

Children

As far as the children were concerned there appeared to be no universal structured eating pattern. In general a family food routine did not exist. Rarely were meals eaten at the same time each day and mealtimes were not necessarily family occasions. In fact, it was increasingly acceptable for family members to eat separately and in different places.

"When we eat together we'll be watching the tv, but when we don't mum will be on the computer or watching tv and I'll be upstairs watching tv"

Even if families regarded eating and its associated behaviours as important there were factors that meant it was not always a priority. These factors included greater choice, increased independence amongst children, dominance of leisure activities and parents' increasing workloads. As a result, the research found that differences in eating amongst contemporary families was the norm and structured eating, typified by the grandparents' generation, was becoming increasingly unachievable. The grandparents' generation referred to a different culture that had emerged, one that had,

"produced a generation of children who (had) lost sight of how to eat"

Findings from the semi-structured interviews

The data from the interviews clearly demonstrated that there were differences in eating patterns between families (inter-family variation) and also within families (intra-family variation).

Inter-family variation

The research found there were differences between the families with an obese child and families with a normal weight child. The eating patterns of the obese children were less structured compared with the eating patterns of the normal weight children. Within the families of obese children eating was more haphazard, characterised by eating in different places, hardly ever at a table, with different family members and at different times.

"She'll (sister) probably sit in there (in the dining room)...my mum'll probably sit there (at the computer)...my grandma sit there (on the sofa), Gemma'll lie there (on the living room floor) and I'll sit here (in the chair) all in front of the television...dad in the loft working on the computer"

In contrast, eating patterns for the families with normal weight children were more structured, being part of a lifestyle that was generally more organised. Even in the busiest of households, a framework of sorts existed, which meant there was a routine for shopping, cooking and eating. Eating patterns were more often characterised by three meals a day, eating at a table and eating with other family members, although parents and children did not always manage to eat together.

Various aspects of family eating behaviours were shown to reflect this apparent difference in eating patterns. However, such differences were mostly confined to the current generation of children and their parents within the two sets of families and were less discernable between the grandparents' generation. As far as the grandparents were concerned there was little that could be identified in either sets of families that distinguished their eating patterns. Regardless of whether the family was one with an obese child or a normal weight child, the grandparents' eating patterns were all characterised by 'structured eating'. This aspect of inter-family eating, where 'structured eating' was typical of the grandparents' generation in both sets of families, contrasted with intra-family eating.

Intra-family variation

From an intra-family perspective there were several differences in eating patterns between the three generations. Firstly, the grandparents' eating patterns were different to those of subsequent generations. There was a greater level of 'structured eating' evident in the grandparents' generation throughout their life course, in both sets of families, compared with the level of 'structured eating' identified in the current generation of parents and children. Accordingly, the grandparents' generation historically had, and continued to have, a more balanced diet. Secondly, there were less discernable differences in the eating patterns of all three generations in the families with a normal weight child. Thirdly, for the families with an obese child there were clear differences in eating patterns amongst the three generations. The parents' eating patterns were significantly less structured than the grandparents' eating patterns, both historically and currently, and the children's eating patterns were even less structured than their parents. This meant the eating patterns of the third generation were completely at odds with those of the first generation.

"Perhaps it's a regular structure that's missing...there's no structure so kids don't get used to a structure either. They eat when they want not because it's lunchtime, they'll eat all day and it's junk"

Discussion

The research findings indicate that families who were once characterised by their similarities in eating rather than their differences, both within families and between families, nowadays exhibit more differences. These differences are reflected in ways of eating or more specifically, the level of 'structured eating' within families. The research has demonstrated that there have been more changes and consequently less structure, in relation to eating patterns within those families with an obese child than those families with a normal weight child. Therefore, it is reasonable to hypothesise that these changes in eating patterns, through the course of three generations, may have contributed to the increase in prevalence of childhood obesity.

These findings are unique in the sense that there is very little other work that concentrates on the family environment as a setting for studying eating patterns. Furthermore, there is even less research that focuses on intergenerational influences and specifically how these may have affected children's current eating behaviours. This is surprising given that the home environment, and how family members interact with one another, is considered to be the most important for learning positive health behaviours¹¹, more so than other settings such as schools and workplaces. Traditionally, research in these settings has been favoured over the home environment. Certain works recognise the impact of the family and the effects

of different family practices on eating behaviours^{12,13,14}. In addition, other research hints at family structure as being a necessary prerequisite for a healthy and balanced relationship with food and eating^{15,16}. This is as far as it goes.

There can be no doubt that childhood obesity is a complex issue and very little is known about how to deal with rising levels¹⁷. There is no universally accepted approach for preventing childhood obesity, just as there is no established evidence base for what works in treating childhood obesity. What is clear is that the family has yet to be realised as an effective setting for managing childhood obesity¹⁸. Only recently have recommendations been made advocating the need for population-based measures that address childhood obesity to be implemented in a variety of local settings (6). This is despite the fact that a call was made some time ago advocating an approach that focused on the family and the influence of generational eating habits^{11,19,20,21}.

Conclusion

The focus of this research was on eating within the family, specifically changes in familial eating patterns that might increase the risk of childhood obesity in susceptible individuals, for example, children eating different foods, in different locations and at different times to their parents. It is apparent from the findings that intergenerational eating patterns have changed so that eating patterns are now less structured. Future research needs to formally test the relationship between the concept 'structured eating' and the 'what' of eating, in order to determine whether there is a link between intergenerational practices, eating patterns and the foods that are eaten. If proposed recommendations are serious about a settings-based approach to tackling childhood obesity, research also needs to be directed towards how professionals can best support families in the home to change their eating practices.

References

1. WHO. Obesity and overweight, Factsheet No 311, WHO, 2006.
2. WHO. Childhood overweight and obesity. [<http://www.who.int/dietphysicalactivity/childhood/en/index.html>] 2010.
3. Arabinda K, Choudhary F, Donnelly M, Strife R, Strife J. Diseases associated with childhood obesity. *American Journal of Roentgenology*, 2007: **188**: 1118–1130.
4. Swinburn B, Gill T, Kumanyika S. Obesity prevention: a proposed framework for translating evidence into action. *Obesity Reviews*, 2005: **6**: 23-33.
5. Purvis A. Sausage, Mash and Sustainability. *Green Futures*, 2005: Special Supplement, November/December: 1-24.
6. WHO. *Population-based prevention strategies for childhood obesity: a report of a WHO forum and technical meeting, Geneva, 15 –17 December, 2009*, Geneva: WHO, 2010.
7. Kime N. Children's eating behaviours: the importance of the family setting. *AREA*, 2008: **40**: 315-322.
8. Kitzinger J. The methodology of focus groups: the importance of interaction between research participants. *Sociology of Health and Illness*, 1994: **16**: 103-121.
9. Rubin J, Rubin S. *Qualitative interviewing: the art of hearing data*, London: Sage, 2005.
10. Rudolf M, Christie D, McElhone S et al. WATCH IT: a community based programme for obese children and adolescents. *Archives of Disease in Childhood*, 2006: **91**: 736-739.
11. Swinburn B, Egger G. Preventive strategies against weight gain and obesity. *Obesity Review*, 2002: **3**: 289-301.
12. Coveney J. The Government of the Table: Nutrition Expertise and the Social Organisation of Family Food Habits. In: Germov J, Williams A. (Eds) *Sociology of Food and Nutrition: The Social Appetite*. Oxford: Oxford University Press, 1999: 259-277.
13. Giff H, Washbon M, Harrison G. *Nutrition, behavior and change*. New Jersey, USA: Prentice Hall, 1972.
14. Pratt L. The social support functions of the family. In: Badura B, Kickbusch I. (Eds) *Health promotion research: towards a new epidemiology*. Copenhagen: WHO: 1991: 229-251.
15. Sobal J. Sociability and meals: facilitation, commensality and interaction. In: Meiselman L. (Ed) *Dimensions of the meal: the science, culture, business and art of eating*. Aspen, USA: Aspen Publishers Inc., 2000: 119-133.
16. Warde A, Hetherington K. English households and routine food practices: a research note. *Sociological Review*, 1994: **42**: 758-778.
17. Edwards A, Engstrom K, Hartwell J. Overweight, obesity and the food industry. *Food Service Technology*, 2005: **5**: 85-94.
18. Novilla L, Barnes D, De La Cruz G, Williams N, Rogers J. Public Health Perspectives on the Family: An ecological approach to promoting health in the family and community. *Family Community Health*, 2006: **29**: 28-42.
19. Campbell K, Crawford D. Family food environments as determinants of preschool-aged children's eating behaviours: implications for obesity prevention policy. *Australian Journal of Nutrition and Dietetics*, 2001: **58**: 19-25.
20. Edmunds L, Waters E, Elliott J. Evidence based management of childhood obesity. *British Medical Journal*, 2001: **323**: 916-919.
21. Jackson D, Mannix J, Faga P, McDonald G. Overweight and obese children: mother's strategies. *Journal of Advanced Nursing*, 2005: **52**: 6-13.