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ORIGINAL ARTICLE

Disordered eating behaviours and food insecurity: A qualitative study about children with obesity in low-income households

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Summary
Background: While there is information in the literature describing the poor nutritional intake of food-insecure youth, eating behaviours among food-insecure children — particularly, obese children are less well-described. We conducted focus groups with family members of low-income children who were initiating care in a paediatric obesity clinic. Food hiding emerged as a theme, and generated the motivation for this analysis.
Methods: Between April 2012 and December 2013, a total of 7 focus groups were conducted (4 food-insecure groups and 3 food-secure). Based on recruitment from 37 index patients, the focus groups were attended by a total of 47 participants. Participant responses about eating behaviours were evaluated using a combination of inductive codes derived from the data and deductive codes informed by criteria for diagnosis of disordered eating.
Results: While participants from food-secure and food-insecure households all had anecdotes about their children overeating, respondents in two of the food-insecure groups described episodes that resemble binge eating. The topic of hiding food emerged in the food-insecure groups, though was not endorsed in the food-secure groups despite probing. Night-time eating arose spontaneously in two of the food-insecure groups, but not in the food-secure groups.

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Conclusion: This study highlights the presence of food hiding, binge eating, and night-time eating in food-insecure children with obesity. These factors would further compound their health burden, and the relationship between disordered eating and food insecurity in children with obesity warrants further study.

Introduction

Food insecurity has traditionally been considered to be a condition of inadequate food, with or without hunger, and historically characterised by underweight. However, in the fifteen years since an initial provocative case report suggested a link between food insecurity and obesity [1], it has become increasingly apparent that food-insecurity and obesity coexist in American children [2]. This seeming paradox is not a surprise when one considers the economics of food pricing, where energy-dense foods that are high in fats and refined carbohydrates are cheaper than foods with higher nutritional value [3]. With inadequate resources, food insecure families disproportionately rely on feeding their children these low-cost foods [4].

Compounding the economics of food pricing is the observation that the experience of food-insecurity is typically associated with a cycle of fluctuating availability, where individuals eat decreasing amounts of food as resources dwindle, and then compensate by overeating palatable and energy-dense foods when food is more available [5]. The reliance on highly palatable, inexpensive, processed foods when resources are more available followed by a restriction of caloric intake mimics dietary restraint, which is associated with binge eating and weight gain. Research has shown that food-insecure adults report having higher levels of binge eating episodes [4,6], and it has been shown that as many as a third of children and adolescents with obesity have binge eating episodes [7].

There is information in the literature describing the disproportionate consumption of fats, fast foods, and added sugars among food-insecure youth [8—10]. However, eating behaviours among food-insecure children with obesity (compared to their food-secure peers) are less well described. In this study, focus groups were conducted with caregivers in order to explore potential challenges to clinical intervention/management unique to children with obesity who have the dual burden of living in a food-insecure household. To more fully frame the inquiry process, groups were conducted with family members from food-insecure households as well as from low-income, food-secure households as a comparison.

Subjects, materials and methods

Participants

Source population (index children)

Participants were recruited for the focus groups if they were caregivers of a child (''index child'') who was being seen in the paediatric weight management clinical programme called Healthy Hearts, at Children's Hospital & Research Center Oakland. In this ongoing clinical programme, patients between the ages of 2 and 18 years old are referred by their primary care paediatrician when they have overweight (body mass index, or BMI >85th percentile) or obesity (BMI >95th percentile) and prior efforts made by the primary care doctor have not led to improvement in weight status. At the time of the intake visit in the Healthy Hearts programme, caregivers are asked to complete a series of survey questions that are completed either on a computer or on a paper form.

This intake process includes questions about self-reported household income, whether the household currently (or in the past) has used federal benefits such as the Supplemental Nutrition Assistance Program (SNAP, also known as ''food stamps''), and questions regarding household food security. The gold-standard measurement of food security status is the US Core Food Security Module (CFSM), which is an 18-item questionnaire in English [11] and in Spanish [12] developed by the USDA to measure household food security over the past 12 months. A subset of 6 items from the full questionnaire (Short

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