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A question of balance: Explaining differences between parental and grandparental perspectives on preschoolers' feeding and physical activity

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Abstract

Rationale—Although one quarter of US and UK families rely on grandparents as the main providers of informal childcare, grandparental perspectives on the feeding and physical activity of young children remain understudied.

Objective—The study's aim was to elucidate parents' and grandparents' perspectives on young children's feeding and physical activity, and identify how they negotiate potential differences between these perspectives.

Methods—We interviewed 22 parents and 27 grandparents from 16 families of children aged 3–5 years in the Pacific Northwest, US. Using familial homeostasis as a novel theoretical framework, the interviews were analyzed to assess differences between parental and grandparental perspectives on feeding and physical activity.

Results—The analysis yielded six thematic categories: (1) disagreements about feeding stem from parents' and grandparents' differing definitions of healthy feeding; (2) differences between parents' and grandparents' feeding practices reflect differences in perceived caretaking roles; (3) parents and grandparents negotiate differences in feeding practices through grandparental compliance and parental compromise; (4) differences in preschoolers' physical activity are influenced by parents' and grandparents' own access to and engagement in physical activity; (5) parents and grandparents express few disagreements about preschoolers' screen-time; (6) parents and grandparents rarely discuss preschoolers' physical activity. The findings suggest that parental and grandparental decision-making about feeding and exercise is informed by ideas of what

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constitutes familial balance and a balanced lifestyle for a preschool aged child, rather than by the child's weight status.

Conclusions—Parents and grandparents appear to engage in practices designed to preserve familial homeostasis, which may provide a compelling explanation for the persistent difficulties in implementing family-based childhood obesity interventions.

Keywords

Children; Feeding; Grandparents; Parents; Physical activity; Obesity; Screen-time

1. Introduction

While extensive evidence shows that family involvement is crucial to the prevention and treatment of childhood obesity (Oude Luttikhuis et al., 2009; Waters et al., 2011), grandparental practices related to the feeding and physical activity of young children remain understudied. This is of concern since, in many families, grandparents are the main providers of informal childcare: 24% of US families (US Census Bureau, 2011) and 27% of UK families rely primarily on grandparents for childcare (Rutter and Stocker, 2014). Whereas formal childcare has been associated with reduced risk of being overweight among older children (6–12 years old) (Lumeng et al., 2005), informal childcare has been linked to increased risk of being overweight in infants, toddlers and preschoolers in epidemiological studies from the US (Benjamin et al., 2009; Kim and Peterson, 2008; Maher et al., 2008) and the UK (Pearce et al., 2010). This suggests that grandparents' attitudes and practices may influence young children's eating behaviors, physical activity and ultimately, their weight status. Thus, better insight into grandparents' perspectives might offer valuable information for childhood obesity prevention and intervention.

Preliminary research has suggested there may be important differences between parental and grandparental feeding practices. To date, however, the results have been complex, and at times contradictory (Farrow, 2014; Pulgarón et al., 2013; Speirs et al., 2009). For example, a UK-based study found that grandmothers provided a generally healthy selection of foods to their young grandchildren; however, they were more likely than the children's parents to use feeding practices considered maladaptive, such as regulating the children's emotions through the provision of food (Farrow, 2014), a practice that has been linked to eating without feeling hunger (Baughcum et al., 1998; Blissett et al., 2010). In contrast, a study among US families found that although mothers and grandmothers similarly endorsed feeding fruits and vegetables to young children, compared to the grandmothers, the mothers consumed fewer vegetable servings per day, and were less likely to serve fruits for dinner (Speirs et al., 2009). Adding to the complexity of this landscape, other studies found that those grandparents who spend more time caring for their grandchildren endorse parental feeding practices (Farrow, 2014). This is particularly pronounced when grandparents fill the role of primary caregivers (Higgins and Murray, 2010).

Previous studies have shown that parents demonstrate little concern about preschool aged children's lack of physical activity and screen-time habits (De Decker et al., 2012; He et al., 2005). Such parental attitudes are at odds with extensive evidence that demonstrates that

excessive screen-time impacts children negatively (American Academy of Pediatrics 2001; Gable et al., 2007; Mistry et al., 2007). Other studies have shown that parental practices concerning children's physical activity reflect the extent to which time, income, social networks, housing and neighbourhood environment, alongside other resources, are available to them (Brockman et al., 2009; Irwin et al., 2005). Moreover, studies concerning preschoolers' physical activity found that parents perceive children as naturally active at the preschool age (Hesketh et al., 2012; Hinkley et al., 2012b). Such perceptions persist despite the fact that most preschoolers do not meet physical activity recommendations and engage in excessive screen-time (Hinkley et al., 2012a). Only one study has examined associations between grandparental care and preschoolers' physical activity (Pulgarón et al., 2013); the study found that a higher level of disagreement between parents and grandparents was associated with a greater amount of time spent by preschoolers on sedentary activity.

The aim of this study is to elucidate parental and grandparental perspectives on young children's feeding and physical activity, and identify how families negotiate potential differences between these perspectives. We employ a qualitative analysis of interviews with sets of parents and grandparents in a nonclinical sample of preschoolers of normal weight, overweight, and obesity. Throughout the manuscript, we use the phrase “feeding practices” to include the multiple aspects of feeding addressed in the interviews, including the contextual provision of different foods and snacks, the framing of meals and mealtimes, and the use of food in developing relationships and meaning. In studying parental and grandparental discourses on feeding practices alongside discourses on physical activity practices, we aim to move toward a new analytic framework, and beyond culturally accepted concepts of grandparental feeding practices as merely “spoiling” of children.

We approach parental and grandparental perspectives on preschoolers' feeding and physical activity as part of a familial, inter-subjective negotiation of caretaking, with particular attention to sociocultural constructions of grandparenthood. In families where parents are the primary caretakers, grandparents occupy a liminal position, negotiating the sometimes-conflicting values of not interfering with their children's parenting practices, while “being there” for their grandchildren (Breheny et al., 2013; Hebblethwaite, 2015; May et al., 2012). We suggest that these concepts (and enactments) of “good grandparenting” may influence intra-familial dynamics concerning the feeding and physical activity of young children. Specifically, given the simultaneous centrality and circumscription of caretaking in the grandparental role, our analysis employs the novel approach of applying the concept of familial homeostasis to feeding and physical activity practices endorsed by parents and grandparents. Familial homeostasis, as we define it, is a continuous regulatory process, wherein parents and grandparents, deploying the flexibility and liminality of the grandparental role, direct their respective practices toward an intra-familial balance point of caretaking. Since the 1980s, family therapists have described families as homeostatic systems that resist change (Cecchin, 1987; Hoffman, 1985). Through the lens of familial homeostasis, we investigate the dynamics of the extended family as a self-regulating system. As such, this study is the first to examine whether, and how, intra-familial concepts of balance points in young children's feeding and physical activity inform parents' and grandparents' perceptions and negotiations thereof.

2. Methods

Families of children aged 3–5 years from the Pacific Northwest (Eugene and Springfield metropolitan area, Oregon) were recruited in February–May 2011 through advertisements about the study, published in the job seekers' and volunteers' sections of Craigslist and in a local newspaper. These advertisement venues were selected because the study aimed to recruit participants from lower income families, where children are at higher risk for obesity (Pan et al., 2013). The advertisements stated that the study would focus on “lifestyle choices” in the family (for additional details about the recruitment process and advertisements, see (Eli et al., 2014). The main research aim was to evaluate the role of grandparents in the development of preschoolers' eating and physical activity practices, such that the active involvement of grandparents in family life (defined as spending time with the grandchild at least twice a month) was the primary inclusion criterion. Thus, only families in which at least one parent and one grandparent were willing to be interviewed were included. The other inclusion criteria were that the child's age must be between 3 and 5 years, and that the child should have no underlying medical condition or disability affecting his/her weight.

The study was approved by the Institutional Review Board of the Oregon Social Learning Center (OSLC). Participants provided informed consent. Parents and grandparents were interviewed separately at the OSLC. Free child care was provided on site, and the children were not present during the interviews. Each interviewed participant received $50 as compensation for participating in the study. All the interviewed parents and grandparents as well as the preschoolers in focus were measured for height and weight. A Detecto 439 scale was used to measure weight, and a Seca 222 stadiometer was used to measure height. Children, parents, and grandparents were weighed wearing light clothing. Each participant was weighed and measured three times. Parents and grandparents also completed a sociodemographic questionnaire. The interviews, which were conducted by either the second or the last author, lasted 1.5–2.5 h and explored the different roles of family members in shaping a child's lifestyle. While the interviews were semi-structured, and included similar core questions, they were designed to permit flexible follow-up questioning to allow exploration of participants' individual experiences and expressions.

This paper focuses on differences between parents' and grandparents' perspectives on the feeding and physical activity of their preschoolers. The data analyzed in this paper were collected in response to the following prompts: (1) Do you discuss what your grandchild/child eats and drinks with the child's parents/grandparents? If yes, how? If not, why? (2) What do you do if you and the child's parents/grandparents don't have the same opinion about how much and what your grandchild/child should eat? (3) Do you discuss your grandchild's/child's activities (playing inside/outside, spending time in front of the tv/computer, meeting friends) with the child's parents/grandparents? If yes, how? If no, why? (4) What do you do if you and your grandchild's/child's parents/grandparents disagree about how your grandchild/child spends his/her time?

The interviews were videotaped and transcribed. For this paper, transcript sections that related to the main questions were extracted and collated. The transcripts were then coded independently by the first author, a medical anthropologist, and the last author, a researcher

in psychology, using a thematic analysis approach (Braun and Clarke, 2006). Following their initial open coding, the two coders compared and discussed their codes to resolve potential disagreements and cluster codes into candidate themes. In the second phase of coding, the authors analyzed the transcripts again, using a spreadsheet to create a case-based tabulation of each of the emerging themes, and thereby identify the most salient themes, and the patterns thereof, across the sample. Following this phase, the authors discussed the themes again, and reached consensus on the clustering of themes into thematic categories. The first author then reviewed the transcripts and created quote-based tables for each of the thematic categories, developing a comprehensive record of all participant quotes that supported the thematic categories, to establish the evidence base for each category. The two coders were aware of their own disciplinary perspectives, and their influence on the interpretation of codes; they discussed and negotiated these differences throughout the analytic process.

3. Results

In total, 49 family members (22 parents and 27 grandparents, 70% female) from sixteen families were interviewed. More than half of parents and two thirds of grandparents were classified as overweight or obese, according to WHO criteria (Report of a WHO consultation, 2000). Of the children, 25% were classified as overweight and 31% obese, according to CDC criteria (overweight: 85th percentile ≤ BMI < 95th percentile; obesity: BMI ≥ 95th percentile) (Krebs et al., 2007; Kuczmarski et al., 2000, 2002). The majority of children, parents, and grandparents were Caucasian, reflecting the ethnicity profile of this region of the Pacific Northwest. All grandparents saw their grandchildren at least once or twice a month; most grandparents saw their grandchildren at least once a week, and 64% of grandparents reported seeing their grandchildren every day or every other day. In four cases, one of the parents lived together with one of the grandparents. The sample characteristics are provided in Table 1.

The analysis yielded six thematic categories in total. Three categories were related to feeding: (1) disagreements about feeding practices stem from parents' and grandparents' differing definitions of healthy feeding; (2) differences between parents' and grandparents' feeding practices reflect differences in perceived care-taking roles; (3) parents and grandparents negotiate differences in feeding practices through dynamics of grandparental compliance and parental compromise. The other three categories were related to physical activity: (4) differences in preschoolers' physical activity are influenced by parents' and grandparents' own access to and engagement in physical activity; (5) parents and grandparents express few disagreements about preschoolers' screen-time; (6) parents and grandparents rarely discuss preschoolers' physical activity. Tables 2–7, which are included as supplementary material, provide quotes from parents and grandparents that exemplify each of the thematic categories. Participants are denoted as follows: Gp# – family number; P – parent; G – grandparent, F – female; M – male; * = parent/grandparent of child with normal weight; ** = parent/grandparent of child with overweight; *** = parent/ grandparent of child with obesity.

3.1. Disagreements about feeding practices stem from parents' and grandparents' differing definitions of healthy feeding

Both parents and grandparents consistently identified certain foods, beverages, and ingredients as potentially problematic or unhealthy, most frequently citing sugar, candy, soda, and fast food. However, while parents and grandparents generally agreed on which foods were potentially problematic for a preschooler's diet, they did not express similar agreement about the provision of these foods. In particular, although grandparents correctly identified certain foods, such as processed meat (specifically chicken nuggets and fast food hamburgers) and candy, as less nutritious or not nutritious at all, they also spoke of "indulging" their grandchildren with such foods. Indeed, most parents said they had to set "rules" to curb preschoolers' consumption of snack foods while spending time with their grandparents. Grandparents' excessive feeding of candy and sugary drinks to preschoolers was the most common parental complaint about grandparental feeding practices.

Some grandparents, however, expressed counter-complaints about parental feeding practices. Those grandparents who disagreed with parental feeding practices expressed criticisms of the parents' (perceived) deficiencies in the areas of cooking, dietary balance, mealtimes, provision of "child-friendly" foods, and appropriate child behavior at the table. For example, a participant who criticized her mother for giving the child "sugar and candy and junk" (Gp13P1F***), was criticized by her mother for not cooking, with the implication that she was endangering the child's health (Gp13G1F***). Likewise, a grandmother who said that her son – a single father who occasionally resided with her – was "liberal" with her grandchildren's snacking, said that she made sure to provide the children with set meals, occasionally asking her son not to provide snacks before mealtime (Gp16GP1F**). In another example, a grandmother (Gp02G1F*) who was criticized by her son (Gp02P1M*) for feeding the children candy and fast food, stated that, compared to her son, she was providing her grandchildren with a more balanced eating environment, and suggested that it was important for their emotional wellbeing. A similar framing of balanced eating was presented by another grandmother, who said that she provided her granddaughter with occasional snacks to counteract her daughter's "strictness", and prevent the child from becoming fascinated with such foods, explaining: "I also have this really good friend, whose dad was [at] the start of the Macrobiotic diet. (…) Now she's forty years old and she just can't quit putting junk food in her mouth" (Gp07G1F*).

3.2. Differences between parents' and grandparents' feeding practices reflect differences in perceived caretaking roles

Nearly all participants – parents and grandparents – described grandparents as more likely than parents to provide preschoolers with candy, soda, and fast food on a regular basis; notably, both parents and grandparents characterized these products as "treats", not replacements for meals. However, while most parents spoke of setting "rules" to curb preschoolers' consumption of sugary and fast food products while spending time with their grandparents, they also described "indulgent" feeding as part of the grandparental role (with several participants using the terms "indulgent", "indulge", or "overindulging"). Similarly, grandparents spoke of holding certain "privileges" and having the right to "spoil" grandchildren with "treats" as part of grandparenting. While many grandparents spoke of

preparing nutritious meals for their grandchildren, they framed instances of indulging as introducing a sense of fun and creating a closer bond with the child.

Participants linked the extent to which grandparents shared time and space with their grandchildren to their feeding practices. Whereas the four grandparents residing in multigenerational households endorsed feeding attitudes similar to those expressed by parents, those who lived apart from their grandchildren and spent limited amounts of time with them expressed more indulgent attitudes. For example, one participant, who moved to her own residence after a period of living with her mother, said that: “when we lived [with my mother], my mom has always been really respectful of, ‘If your mom said no then your mom said no.’ But now that [my daughter] just goes [to visit] on the weekend … I try to just let them do whatever since it's grandma time” (Gp11P1F***). Likewise, her mother said: “with grandma, you're allowed to get away with stuff. (…) Since I do only have her for a night, once a week, it's fun to spoil her” (Gp11G1F***).

3.3. Parents and grandparents negotiate differences in feeding practices through dynamics of grandparental compliance and parental compromise

Grandparents identified parents as having the ultimate authority over the child's diet. Grandparents, including those who expressed reservations about parental feeding practices, consistently said that they deferred to parental authority in feeding-related matters. Indeed, many participants – both parents and grandparents – cast this adherence to parental authority as a sign of respect. At the same time, while grandparents described complying with parents' feeding instructions, and even reporting on what the children ate when they spent time with them, participants acknowledged that grandparents continued to engage in minor subversions of feeding “rules”. Parents described their reactions to such minor subversions as ranging from mild criticism to silence, with some parents saying that they “choose their battles”.

In most cases, parents expressed an acceptance of grandparents' subversion of parental feeding rules, as long as grandparents demonstrated overt respect for these feeding rules. For example, the mother of a child with obesity explained that she knew the grandparents secretly provided the child with snacks, but that she trusted they intended “to do the best for [their grandchild]” (Gp01P1F***). The child's grandmother, in turn, expressed overt respect for parental feeding rules, and said she reported back to her daughter about the child's feeding, stating, “I'm not going to do anything against [my daughter's] wishes” (Gp01G1F***). Notably, while parents' compromise with grandparents' “indulgent” feeding practices reflected understandings of grandparental caretaking roles as different from parental roles, it was also related to the practicalities of childcare. Like several other participants, the mother quoted above (Gp01P1F***) mentioned that she relied on her parents for babysitting, and as such had limited ability to control their feeding practices.

While most parents described similar dynamics of compromise, it is important to mention that, in three families, parents said they limited the amount of time their children spent with grandparents, because the grandparents crossed the parents' boundaries of acceptable indulgent feeding.

3.4. Differences in preschoolers' physical activity are influenced by parents' and grandparents' own access to and engagement in physical activity

Across the sample, parents and grandparents spoke of physical activity as an integral part of preschoolers' daily activities. Although the participants did not explicitly link preschoolers' physical activity with maintaining a healthy weight, they consistently framed physical activity as fostering children's emotional and physical wellbeing. The types of physical activity in which preschoolers engaged ranged from unstructured outdoors play to team sports, with most participants citing unstructured play as the children's primary form of physical activity.

Notably, nearly all participants said that their preschoolers engaged in physical activity as part of spending time with both parents and grandparents. While several participants said that preschoolers engaged in more sedentary behaviors while with their grandparents, this was not a consistent pattern. Moreover, in most cases, such differences did not reflect grandparents' "indulgent" attitudes toward physical activity. Rather, the extent and range of the preschoolers' physical activity reflected their adult caretakers' own engagement in physical activity and their access to spaces in which physical activity could take place. Preschoolers joined their parents and grandparents for activities which the adults were already pursuing. For example, one mother (Gp13P1F***) said: "Mom likes to walk, so her and [my son] go on a lot of walks through the parks and stuff. And my dad's always on bike rides, hiking, every time they're together they're doing something active." The children, however, joined the adults not only for structured exercises, but also for less defined, everyday physical activities, as explained by another participant (Gp11P1F***): "Like at my house [my daughter] will run around the back yard or she'll help me pick weeds or something when we're outside."

In cases where participants engaged in limited or no physical activity (for health, time, or other reasons), they spoke of facilitating unstructured play as their preschoolers' main form of physical activity. Thus, for example, one mother (Gp03P1F***) explained that: "My dad and his wife are not in very good shape, so when they do things with them, it's like they take them to the park and then the kids run around or something." Along similar lines, one grandmother (Gp01G1F***) said: "I have fibromyalgia plus arthritis so it's really hard for me to do a lot of things with [my granddaughter] but I do my best, and a lot of the things I say, 'Okay Grandpa, you take them for a walk.'" With unstructured play as a main form of exercise, access to areas where such play could take place emerged as crucial, with participants citing spatial constraints, such as small living quarters or the lack of a yard, as curbing preschoolers' play. Parks and indoor play areas (including fast food restaurants such as Chuck E. Cheese's) were frequently mentioned in the participants' accounts as a central part of facilitating preschoolers' physical activity.

3.5. Parents and grandparents express few disagreements about preschoolers' screen-time

The participants framed screen-time as an acceptable part of their preschoolers' activities. Parents and grandparents spoke of preschoolers' television viewing as unproblematic, as long as it was within the participants' own subjectively defined limits. Participants deemed

their preschoolers' television viewing excessive only if the children spent a major part of their day in front of a screen. For example, one father (Gp05P2M*) voiced the concern that, when his daughter stayed with her grandmother, she spent the majority of her time watching internet-based video on demand (Netflix). A similar complaint was voiced by a grandmother (Gp04G1F*), who argued that her son was too lax with his children's television viewing: “I say, ‘Come on! They've had several hours of screen-time and let's get around here and do some stuff.’” In another example, a mother (Gp07P1F*) said that, when her daughter was ill for two days, she allowed her to watch television unrestricted, “and then she started feeling better, and all she wanted to do was watch movies and television, so I restricted her entirely from it.”

While parents and grandparents generally portrayed grandparents as more lax about television viewing, they rarely said they disagreed with each other's screen-time rules. Most participants framed their preschoolers' screen-time activity as harmless or neutral, because it occurred among other activities. As one grandmother (Gp15G1F*) explained it, the television in her grandson's room did not pose a problem because “he'll say to me he wants to watch his show and it'll be in the background but he's just coloring or playing batman or something like that.” Another explanation of television viewing as counterbalanced by other activities was offered by a mother (Gp11P1F***) who said: “my mom will let her watch TV all day, but she's good too. My mom smokes too so she goes outside … and [my daughter] will go out… she'll go play with chalk or she'll chase my mom's dog around.” Highlighting the counterbalance even more directly, one grandmother (Gp02G1F*) said: “we tend to make the kids go outside more often than having them watch TV.” Notably, a few participants said their own screen-time practices influenced their preschoolers, who joined them when they watched television; this too, however, was framed as occurring within a balance of activities: “If I want to sit down and watch a movie or not, I have to admit that. But if the sun's shining outside, and [my granddaughter] wants to watch a movie, I will encourage her to do something else, go for a walk or something” (Gp07G1F*).

3.6. Parents and grandparents rarely discuss preschoolers' physical activity

Most participants said they did not discuss their preschoolers' physical activity, except as part of broader conversations about the children's activities. For example, when asked if she discussed her granddaughter's physical activity with the girl's parents, one grandmother (Gp14G2F**) said: “No. We have discussions about her learning how to play the violin, or her going to the library or her doing Ukrainian dances or ballet.” Similar responses were also provided by parents, such as this mother (Gp08P1F*), who said: “I just tell [my mother] the things that [my daughter] participates in, like gymnastics, or sign up for a dance class, or yeah, but no we don't talk about her level of activity.” Notably, like several other participants, this mother (Gp08P1F*) suggested that physical activity was not a discussion topic because her child was “pretty fit, so maybe we don't feel like we need to?”. In a similar vein, a grandmother (Gp10P1F**) who said she felt concerned about her grandson's limited outdoors play explained that she did not discuss his physical activity because “it just doesn't really come up and because [my grandson] seems pretty normal, active, healthy when I see him or when he comes to our house or we pick him up.” Other participants framed discussions about their preschoolers' physical activity as occasioned only by logistic or

financial planning for enrolling the children in sports lessons and teams, or engaging in family activities, as exemplified by this grandfather's (Gp13G2M***) response: “I've offered to pay for swimming lessons for [my grandson] this summer. They're in the middle of the day, when [my daughter is] working (…). So we're kind of discussing that.”

Another reason participants cited for not discussing their preschoolers' physical activity was the lack of substantial disagreement between parents and grandparents over children's activities. Several participants also said they trusted the parents or grandparents cared for the child appropriately, and thus did not need to discuss physical activity with them. In those cases where the parents said they disagreed with the grandparents, or vice versa, the participants described discussions confined to brief recommendations for action, rather than a full conversation. For example, one mother (Gp01P1F***) of a child with obesity said she had “asked [the grandparents] if when it's nice out, please let [the children] go outside”; however, on occasions when she discovered that her mother did not go outside with the child, her response was “just to the extent where it's like, you know, hey, she didn't get outside today.” Similarly, a mother (Gp03P1F***) whose child was at the highest weight percentile for his age, said “I remind [my parents], they need to make [the children] run around.” Of note, the child's father (Gp03P2M***) suggested that it was best to avoid all discussions on the topic, so as not to hurt his partner's parents' feelings; his alternative strategy was to manage the child's time with the grandparents more effectively. Such avoidance of discussion with non-consanguineous relatives was likewise described by a grandmother (Gp10G1F**) who expressed concern over her grandson's limited outdoors play, but chose to broach the topic through her son, rather than through direct discussion with the child's mother, to whom, she said, she “might just make a comment like, ‘he seems really happy to be outside’ or something like that.”

4. Discussion

While previous research indicates that grandparental feeding practices might constitute a risk factor for obesity among preschoolers (Pocock et al., 2009), our findings reveal that familial influence on children's feeding and physical activity is more complex. The analysis showed that parental and grandparental decision-making about feeding and exercise was informed by ideas of what constitutes a balanced lifestyle for a preschool aged child, rather than by the child's weight status. Over a series of qualitative studies, Backett-Milburn and colleagues (Backett et al., 1994; Backett-Milburn et al., 2006, 2010) have elucidated how individuals interpret “healthy” practices as counterbalancing “unhealthy” practices, arguing that lay ideas of balance lead to the enduring coexistence of protective and risk-related behaviors. Like the family members in our study, the participants in these studies spoke of offsetting unhealthy food consumption through healthy eating (Backett et al., 1994; Petrunoff et al., 2014), as well as counterbalancing unhealthy eating with physical activities (Backett-Milburn et al., 2010). The participants in our study also spoke of offsetting young children's sedentary activities with physical activity, suggesting that screen-based activity is acceptable as long as the child also engages in sports or active play.

Notions of balance, however, were not limited to the offsetting of preschoolers' unhealthy practices with healthy practices. The participants framed balance as achieved through the

intra-familial regulation of adult caretakers' healthy and indulgent practices — or familial homeostasis — especially with regard to feeding. In their interviews, parents and grandparents constructed their feeding practices in relational reference to other adult caretakers in the family. Irrespective of child weight, no family engaged only in healthy or only in indulgent practices; on the contrary, family members adjusted their practices in accordance with one another. Although many parents and grandparents identified grandparents as engaging in indulgent feeding, their discourses revealed an underlying logic that transcends cliches of grandparental “spoiling” of children. The links the participants drew between grandparenting and the provision of treats reflected their perceptions of grandparents' position in the familial system of caretaking. Most parents spoke of the importance of regulating their children's food consumption, and even setting feeding rules by which grandparents had to abide; grandparents spoke of following parental rules, while being available for childcare. As such, participants engaged in cultural constructions of “good grandparenting” as ambivalent, meeting the dual criteria of presence and “non-interference” (Breheny et al., 2013; May et al., 2012). In constructing grand-parenting as an ambivalent caretaking position, they framed the provision of snacks and soda as part of the grandparental role. Indulgent feeding was constructed as an affective practice, allowing grandparents to introduce a sense of fun into their interactions with their grandchildren (Farrow, 2014; Jiang et al., 2007). As such, participants recognized feeding not merely as nutrition-focused, but as a means of developing inter-generational familial relationships and care (Kaplan, 2000; Kaufman and Karpati, 2007; Knight et al., 2014). However, while grandparents provided snacks, in most families, they also provided meals and spoke about the importance of home cooking and mealtimes. We suggest, then, that although parents spoke of setting feeding rules, grandparents' indulgent feeding was built into the familial system, as an enactment that differentiated primary caretaking from grandparental (ambivalent) caretaking. As Knight et al. (2014) suggest, indulgent feeding provides a framework through which grandparents express and reproduce their lack of parenting authority. Tellingly, grandparents' discourses of indulgent feeding were often aligned with familial caretaking dynamics. Those grandparents who lived in multigenerational households and had childcare involvement discursively endorsed feeding practices similar to those endorsed by parents (Farrow, 2014). Along similar lines, grandparents who perceived parents as providing healthy meals did not engage in indulgent feeding discourses. This suggests that indulgent feeding, as an enactment of grandparental caretaking, becomes less relevant in families where grandparents shift into more central caretaking roles.

While food is invested with considerable sociocultural and affective meaning in relation to care (Abbots et al., 2015), physical activities do not carry similarly caretaking meanings. Thus, while participants said they enjoyed sharing certain activities, such as gardening or television viewing with their preschoolers, they did not speak of a particular activity or set of activities as defining parental or grandparental roles. Indeed, both generations of caretakers said that preschool aged children are inclined toward physically active play (Hesketh et al., 2012; Hinkley et al., 2012b), suggesting that parents and grandparents perceive exercise as a dimension that, in comparison to feeding, does not implicate defined familial roles and requires less caretaking.

Our analysis is part of an emerging, cross-disciplinary body of work that offers new sociocultural theories on adult caretakers' attitudes to young children's feeding and physical activity. To understand differences in engagement with food at the family level, Visser et al. (2016) have suggested a theoretical framework based on Sen's “capabilities approach”. Their framework accounts for the socioeconomic constraints that families face, alongside the sociocultural meanings, values, and opportunities that resources and constraints shape – and which, in turn, shape families' capacity for agency in food-related decision-making (Visser et al., 2016). In another recent study, Lovell (2016) has theorized parents' interpretations of information on child feeding as intersubjective, negotiated within the social networks in which parents operate. These networked contexts for parental action, argues Lovell (2016), are further embedded in sociocultural values, which influence individuals, families, and communities differently, based on resource availability, social and community engagement, and cultural background. Networks and resources also feature centrally in our analysis, but with a focus on intra-familial dynamics, as they implicate both macro-scale contexts and micro-scale roles and identities.

Placed in a public health context, the participants' framings of balance — and of maintaining a balance of feeding roles, or familial homeostasis — have several implications. While the participants' discourses on balance echoed health education discourses on energy balance and balanced lifestyles, they evinced a framing of balance that extends beyond energy intake and output, implicating the offsetting of “unhealthy practices” through “healthy practices”, and encompassing emotional and relational dimensions. This suggests that the notion of balance is meaningful in this sociocultural context, and that public health and clinical engagements with balance should take its definitional plurality and multi-dimensional valence into account.

When focusing on the balance of caretaking within the family, familial homeostasis may provide a compelling explanation for the persistent difficulties in implementing family-based childhood obesity interventions, particularly with regard to feeding, when directed at parents alone (Foster et al., 2015). In childhood obesity interventions, clinicians should evaluate to what extent grandparents provide childcare, and ask to include them in treatment-related discussions. Providers should also acknowledge the health promoting practices which grandparents tend to endorse, such as cooking and attending to child hunger cues. Thus, interventions should avoid blaming grandparents and instead suggest other ways through which grandparents can bond with and care for their grandchildren, especially if the child has already developed overweight or obesity. Additionally, the findings suggest that ineffective obesity prevention among preschool aged children (Peirson et al., 2015) might benefit from involving grandparents alongside parents. In discussions about the occurrence and frequency of grand-parental indulgent feeding practices, it is important to note that such feeding practices are motivated by a desire to engage positively with the child.

This study had some limitations. Previous research found associations between parental ethnicity and feeding practices (Cachelin and Thompson, 2013), but the ethnic homogeneity of the sample did not allow to examine whether these associations persist when grandparental feeding styles are concerned. Moreover, as most participants were of lower income, the findings may not capture middle-class determinants of health-related behaviors

(Backett-Milburn et al., 2006, 2010; Devine et al., 2006). Further research among ethnically and socioeconomically diverse groups should be conducted to assess whether this study's results can be generalized to other populations and socioeconomic groups. It should also be noted that while some family groups included only a single parent and one or two grandparents, others had a complete set of parents and grandparents or step-grandparents, such that the participants' family circumstances were not directly comparable. Additionally, while the sample was the largest in a qualitative study of this kind, quantitative research with larger samples is needed to establish the generalizability of the results. Finally, as an interview-based study, the data reflect shared discourses – specifically, constructions of "grandparental indulgence" – in the context of familial role definition, as performed vis-à-vis an interviewer. However, given the triangulation of interviews, conducted separately with individual family members, we suggest that participants' discourses also highlight actual intra-familial practices.

5. Conclusion

This is the first qualitative study that examines differences between parental and grandparental perspectives related to the feeding and physical activity of preschool aged children, and the negotiations in which parents and grandparents engage to manage these differences. The findings highlight that parental and grand-parental constructions of young children's feeding and exercise implicate notions of what constitutes a balanced lifestyle for a preschool aged child, with healthy practices framed as offsetting unhealthy practices. Importantly, the study shows that parents and grandparents are attuned to each other's attitudes and actions, and describe adjusting their own practices in relational interaction within the family unit, particularly in the context of feeding. Parents and grandparents link indulgent and healthy feeding practices to differences between caretaking roles, maintaining familial homeostasis through enactments of feeding attitudes and practices that reflect intra-familial dynamics of care. The findings provide a case for addressing both parents and grandparents in prevention efforts, regardless of children's weight status. Moreover, as childhood obesity interventions directed at parents alone tend to be ineffective, we propose that future research and interventions acknowledge that decisions about children's feeding and physical activity are made intersubjectively, and target decision-making processes within self-regulating family systems.

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

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References

Abbots, EJ.Lavis, A., Attala, ML., editors. Careful Eating: Bodies, Food and Care. Ashgate Publishing, Ltd; Farnham: 2015.

American Academy of Pediatrics. Children, adolescents, and television. Pediatrics. 2001; 107(2):423–426. [PubMed: 11158483]

Backett-Milburn KC, Wills WJ, Gregory S, Lawton J. Making sense of eating, weight and risk in the early teenage years: views and concerns of parents in poorer socio-economic circumstances. Soc Sci Med. 2006; 63(3):624–635. [PubMed: 16569470]

Backett-Milburn KC, Wills WJ, Roberts ML, Lawton J. Food, eating and taste: parents' perspectives on the making of the middle class teenager. Soc Sci Med. 2010; 71(7):1316–1323. [PubMed: 20692083]

Backett K, Davison C, Mullen K. Lay evaluation of health and healthy lifestyles: evidence from three studies. Br J General Pract. 1994; 44(383):277–280.

Baughcum AE, Burklow KA, Deeks CM, Powers SW, Whitaker RC. Maternal feeding practices and childhood obesity: a focus group study of low-income mothers. Arch Pediatr Adolesc Med. 1998; 152(10):1010–1014. [PubMed: 9790612]

Benjamin SE, Rifas-Shiman SL, Taveras EM, Haines J, Finkelstein J, Kleinman K, Gillman MW. Early child care and adiposity at ages 1 and 3 years. Pediatrics. 2009; 124(2):555–562. [PubMed: 19651579]

Blissett J, Haycraft E, Farrow C. Inducing preschool children's emotional eating: relations with parental feeding practices. Am J Clin Nutr. 2010; 92(2):359–365. [PubMed: 20534744]

Braun V, Clarke V. Using thematic analysis in psychology. Qual Res Psychol. 2006; 3(2):77–101.

Breheny M, Stephens C, Spilsbury L. Involvement without interference: how grandparents negotiate intergenerational expectations in relationships with grandchildren. J Fam Stud. 2013; 19(2):174–184.

Brockman R, Jago R, Fox KR, Thompson JL, Cartwright K, Page AS. “Get off the sofa and go and play”: family and socioeconomic influences on the physical activity of 10-11 year old children. BMC Public Health. 2009; 9(253):1–7. [PubMed: 19121216]

Cachelin FM, Thompson D. Predictors of maternal child-feeding practices in an ethnically diverse sample and the relationship to child obesity. Obesity. 2013; 21(8):1676–1683. [PubMed: 23520197]

Cecchin G. Hypothesizing, circularity, and neutrality revisited: an invitation to curiosity. Fam Process. 1987; 26(4):405–413. [PubMed: 3319683]

De Decker E, De Craemer M, De Bourdeaudhuij I, Wijndaele K, Duvinage K, Koletzko B, et al. Influencing factors of screen-time in preschool children: an exploration of parents' perceptions through focus groups in six European countries. Obes Rev. 2012; 13(Suppl. 1):75–84. [PubMed: 22309066]

Devine CM, Jastran M, Jabs J, Wethington E, Farell TJ, Bisogni CA. “A lot of sacrifices:” work-family spillover and the food choice coping strategies of low-wage employed parents. Soc Sci Med. 2006; 63(10):2591–2603. [PubMed: 16889881]

Eli K, Howell K, Fisher PA, Nowicka P. “Those comments last forever”: parents and grandparents of preschoolers recount how they became aware of their own body weights as children. PLoS One. 2014; 9(11):e111974. [PubMed: 25393236]

Foster BA, Farragher J, Parker P, Sosa ET. Treatment interventions for early childhood obesity: a systematic review. Acad Pediatr. 2015; 15:353–361. [PubMed: 26142067]

Farrow C. A comparison between the feeding practices of parents and grandparents. Eat Behav. 2014; 15(3):339–342. [PubMed: 25064278]

Gable S, Chang Y, Krull JL. Television watching and frequency of family meals are predictive of overweight onset and persistence in a national sample of school-aged children. J Am Diet Assoc. 2007; 107(1):53–61. [PubMed: 17197271]

He M, Irwin JD, Sangster Bouck LM, Tucker P, Pollett GL. Screen-viewing behaviors among preschoolers parents' perceptions. Am J Prev Med. 2005; 29(2):120–125. [PubMed: 16005808]

Hebblethwaite S. Understanding ambivalence in family leisure among three-generation families:'It's all part of the package'. Ann Leis Res. 2015; 18(3):359–376.

Hesketh KD, Hinkley T, Campbell KJ. Children's physical activity and screen time: qualitative comparison of views of parents of infants and preschool children. Int J Behav Nutr Phys Act. 2012; 9:152. [PubMed: 23270548]

Higgins MM, Murray BJ. Nutrition-related practices and attitudes of Kansas skipped-generation(s) caregivers and their grandchildren. Nutrients. 2010; 2(12):1188–1211. [PubMed: 22254004]

Hinkley T, Salmon J, Okely AD, Crawford D, Hesketh K. Preschoolers' physical activity, screen time, and compliance with recommendations. Med Sci Sports Exerc. 2012a; 44(3):458–465. [PubMed: 21900847]

Hinkley T, Salmon J, Okely AD, Hesketh K, Crawford D. Correlates of preschool children's physical activity. Am J Prev Med. 2012b; 43(2):159–167. [PubMed: 22813680]

Hoffman L. Beyond power and control: towards a "second order" family systems therapy. Fam Syst Med. 1985; 3(4):381–396.

Irwin JD, He M, Bouck LMS, Tucker P, Pollett GL. Preschoolers' physical activity behaviours: parents' perspectives. Can J Public Health/Revue Can de Sante'e Publique. 2005; 96(4):299–303.

Jiang J, Rosenqvist U, Wang H, Greiner T, Lian G, Sarkadi A. Influence of grandparents on eating behaviors of young children in Chinese three-generation families. Appetite. 2007; 48(3):377–383. [PubMed: 17166624]

Kaplan EB. Using food as a metaphor for care: middle-school kids talk about family, school, and class relationships. J Contemp Ethnogr. 2000; 29:474–509.

Kaufman L, Karpati A. Understanding the sociocultural roots of childhood obesity: food practices among Latino families of Bushwick, Brooklyn. Soc Sci Med. 2007; 64(11):2177–2188. [PubMed: 17383060]

Kim J, Peterson KE. Association of infant child care with infant feeding practices and weight gain among US infants. Arch Pediatr Adolesc Med. 2008; 162(7):627–633. [PubMed: 18606933]

Knight A, O'Connell R, Brannen J. The temporality of food practices: intergenerational relations, childhood memories and mothers' food practices in working families with young children. Fam Relat Soc. 2014; 3(2):303–318.

Krebs NF, Himes JH, Jacobson D, Nicklas TA, Guilday P, Styne D. Assessment of child and adolescent overweight and obesity. Pediatrics. 2007; 120(Suppl. 4):S193–S228. [PubMed: 18055652]

Kuczmarski RJ, Ogden CL, Grummer-Strawn LM, Flegal KM, Guo SS, Wei R, et al. Johnson CL. CDC growth charts: United States. Adv Data. 2000; 314:1–27.

Kuczmarski RJ, Ogden CL, Guo SS, Grummer-Strawn LM, Flegal KM, Mei Z, et al. Johnson CL. 2000 CDC growth charts for the United States: methods and development. Vital Health Stat. 2002; 11(246):1–190.

Lovell JL. How parents process child health and nutrition information: a grounded theory model. Appetite. 2016; 97:138–145. [PubMed: 26626822]

Lumeng JC, Gannon K, Appugliese D, Cabral HJ, Zuckerman B. Preschool child care and risk of overweight in 6- to 12-year-old children. Int J Obes. 2005; 29(1):60–66.

Maher EJ, Li G, Carter L, Johnson DB. Preschool child care participation and obesity at the start of kindergarten. Pediatrics. 2008; 122(2):322–330. [PubMed: 18676550]

May, V., Mason, J., Clarke, L. Being there yet not interfering: the paradoxes of grandparenting. In: Arber, S., Timonen, V., editors. Contemporary Grand-parenting: Changing Family Relationships in Global Contexts. The Policy Press; Bristol: 2012. p. 139-158.

Mistry KB, Minkovitz CS, Strobino DM, Borzekowski DL. Children's television exposure and behavioral and social outcomes at 5.5 years: does timing of exposure matter? Pediatrics. 2007; 120(4):762–769. [PubMed: 17908763]

Oude Luttikhuis H, Baur L, Jansen H, Shrewsbury VA, O'Malley C, Stolk RP, Summerbell CD. Interventions for treating obesity in children. Cochrane Database Syst Rev. 2009; 1:CD001872.

Pan L, May AL, Wethington H, Dalenius K, Grummer-Strawn LM. Incidence of obesity among young U.S. children living in low-income families, 2008-2011. Pediatrics. 2013; 132(6):1006–1013. [PubMed: 24276843]

Pearce A, Li L, Abbas J, Ferguson B, Graham H, Law C. Is childcare associated with the risk of overweight and obesity in the early years? Findings from the UK Millennium Cohort Study. Int J Obes. 2010; 34(7):1160–1168.

Peirson L, Fitzpatrick-Lewis D, Morrison K, Ciliska D, Kenny M, Usman M, Raina P. Prevention of overweight and obesity in children and youth: a systematic review and meta-analysis. Can Med Assoc J. 2015; 3(1):23–34.

Petrunoff NA, Wilkenfeld RL, King LA, Flood VM. 'Treats', 'sometimes foods', 'junk': a qualitative study exploring 'extra foods' with parents of young children. Public Health Nutr. 2014; 17(5):979–986. [PubMed: 23182377]

Pocock M, Trivedi D, Wills W, Bunn F, Magnusson J. Parental perceptions regarding healthy behaviours for preventing overweight and obesity in young children: a systematic review of qualitative studies. Obes Rev. 2009; 11:338–353. [PubMed: 19780989]

Pulgarón ER, Patino-Fernandez AM, Sanchez J, Carrillo A, Delamater AM. Hispanic children and the obesity epidemic: exploring the role of abuelas. Fam Syst Health. 2013; 31(3):274–279. [PubMed: 24059275]

Report of a WHO consultation. Obesity: preventing and managing the global epidemic. World Health Organ Tech Rep Ser. 2000; 894:1–253.

Rutter J, Stocker K. Childcare Costs Survey 2014: Family and Childcare Trust. 2014

Speirs KE, Brown B, Zoumenou V, Anderson EA, Finkbeiner N. Grandmothers' involvement in preschool-aged children's consumption of fruits and vegetables: an exploratory study. ICAN Infant Child Adolesc Nutr. 2009; 1:332–337.

US Census Bureau. Who's Minding the Kids?. 2011

Visser SS, Hutter I, Haisma H. Building a framework for theory-based ethnographies for studying intergenerational family food practices. Appetite. 2016; 97:49–57. [PubMed: 26593100]

Waters E, de Silva-Sanigorski A, Hall BJ, Brown T, Campbell KJ, Gao Y, Summerbell CD. Interventions for preventing obesity in children. Cochrane Database Syst Rev. 2011; 12:CD001871.

Table 1

Descriptive statistics of the sample.

	Child (n = 16)	Parent (n = 22)	Grandparent (n = 27)
Age (mean in years, range)	4.6 (3.1–5.7)	32. 2 (22.7–49.5)	56.9 (43.0–77.9)
Gender:			
Female	8 (50%)	14 (64%)	21 (78%)
Male	8 (50%)	8 (36%)	6 (22%)
Racial background:			
Euro-American/Caucasian	11 (68%)	21 (95.5%)	23 (84%)
Native American	0	1 (4.5%)	0
Asian	0	0	1 (4%)
African-American	0	0	1 (4%)
Mixed	5 (32%)	0	2 (8%)
BMI (mean, range)	17.7 (14.3–21.5)	26.8 (16.1–39.1)	29.1 (16.1–49.4)
BMI percentile (mean, range)	74.6 (22–99)	n/a	n/a
Weight status:			
Underweight	0	2 (9%)	1 (3%)
Normal weight	7 (44%)	8 (36%)	8 (30%)
Overweight	4 (25%)	6 (27%)	10 (37%)
Obese	5 (31%)	6 (27%)	8 (30%)
Highest school grade completed	n/a		
High school		8 (82%)	20 (74%)
College/University		4 (18%)	7 (26%)
Marital status	n/a		
Married		6 (27%)	10 (37%)
Separated		1 (4.5%)	1 (4%)
Divorced		7 (32%)	14 (51%)
Single (never married)		7 (32%)	1 (4%)
Engaged		1 (4.5%)	0
Widowed		0	1 (4%)
Working situation	n/a		
Full time		7 (32%)	8 (30%)
Part time		4 (18%)	4 (15%)
Not employed		11 (50%)	15 (55%)
Annual household income	n/a		
Less than 14,999 USD		8 (36%)	7 (26%)
15,000–24,999 USD		6 (27%)	6 (22%)
25,000–39,999 USD		4 (18%)	6 (22%)
More than 40,000 USD		4 (18%)	8 (30%)

NA, not applicable.