

Influence of Family and Social Attributes on Caregivers Feeding Practices in the Northern Region of Ghana

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ABSTRACT— *This qualitative study of the influence of family and social attributes on caregivers' feeding practices explores how socioeconomic and cultural factors affect caregivers' feeding practices in the Northern Region of Ghana. The study further assessed how mealtime structure, feeding styles, and food availability and accessibility affected caregivers' feeding practices. Seventy-nine caregivers of children under five years in the Savelugu/Nanton Municipality and Bunkpurugu/Yunyoo District in the Northern Region of Ghana participated in eight focus group discussions. The results showed that caregivers fed foods that were available and accessible at the family level. The results further revealed that caregivers adopted the authoritative feeding style and caregivers' employment, income status and family mealtime structure seem to affect caregivers feeding practices. These findings have important implications for developing strategies to curb the high malnutrition prevalence in the study areas. Providing educational programmes by the Ghana Health Service and their partners would go a long way to improve good feeding practices and improve the health status of children in the study areas and Ghana as a country.*

Keywords— Caregivers, Child Feeding, Qualitative Study, Family and Social Attributes, Northern Region.

1. INTRODUCTION

Inappropriate feeding practices during the first five years of life are a major cause of malnutrition in young children. Thus, growth faltering and nutritional deficiencies continue to be highly prevalent in infants and young children living in low and middle income countries (UNICEF, 2014). Children under 5 years of age are often at risk for malnutrition because this is a period of rapid growth and development characterised by changes in body size and composition and increased physical activity. The consequences of malnutrition are severe and long lasting when it occurs at the early stage (Spinks & Hamilton, 2015).

According to GSS (2014), the Northern Region recorded the highest stunting rate in Ghana for both moderate and severe stunting at 43.8% with underweight and wasting levels as high as 29.6% and 9.2% respectively.

Feeding practices include a complex set of behaviours such as breast feeding, introduction of first foods, preparation and choice of foods and style of feeding. These practices are in turn influenced by a vast number of determinants (Valmórbida & Vitolo, 2014), such as caregivers' education and knowledge, perceptions and cultural beliefs about food and feeding, as well as their time constraints, employment, and social support (Taddele, Abebe & Fentahun, 2014).

Furthermore, the local context, such as culture, economy, agriculture and healthcare, affect behaviours and feeding decisions (Semahegn, Tesfaye & Bogale, 2014). There is now a shared understanding in the field of nutrition and public health that feeding practice is not about what is fed, but also how, when, where and why (Taddele et. al., 2014).

Family and social attributes are both the physical and social environments of the household. Physical environments are food security or insecurity factors and are mainly the availability and accessibility of foods at the family or household level. The availability or accessibility to foods determines what caregivers will feed to their children.

Additionally, characteristics of the social environment, including various socioeconomic and sociocultural factors such as parents' education, time constraints, and culture influence the types of foods caregivers feed.

Mealtime structure is also an important factor related to caregivers feeding practices. Mealtime structure includes social and physical characteristics of mealtimes including whether families eat together, TV-viewing during meals, and the source of foods (e.g., restaurants, schools).

Parents also play a direct role in children's eating patterns through their behaviours, attitudes, and feeding styles. Interventions aimed at improving children's nutrition need to address the variety of social and physical factors that influence caregivers feeding practices.

With the problem of childhood malnutrition, research has begun to focus on family and social influences on caregivers feeding practices (O'Donovan, Murray, Hourihane, Kenny, Irvine & Kiely, 2015; Osendarp, Broersen, Van Liere, De-Regil, Bahirathan, Klassen & Neufeld, 2016). They have shown that caregivers feeding practices are strongly influenced by food availability and accessibility at the family level. Additionally, social environments of caregivers such as socioeconomic and cultural factors of caregivers affect the types of food caregivers feed.

However, the context under which these studies were conducted reflects different physical and social environments which needs further research (Ogden, Carroll, Kit & Flegal, 2014).

In response to this need, this study used a qualitative approach to explore and assess the influence of the family and social attributes on caregivers' feeding practices in the Northern Region of Ghana.

2. METHODS AND MATERIALS

In this study, qualitative methods are adopted to explore the influences of family and social attributes on caregivers feeding practices. The qualitative approach adapted by this study was the focus group discussions with caregivers who were all females and mothers of children under five years in two districts in Northern Region of Ghana namely the Savelugu/Nanton Municipality and the Bunkpurugu/Yunyoo District. The study used the focus group discussions to explore how family and social attributes affected caregivers' feeding practices.

Criteria for focus group participation included being a primary caregiver of a child under five years and attending the Child Welfare Clinic in any of the ten sub district and district hospitals in Savelugu/Nanton Municipality and Bunkpurugu/Yunyoo District. Participants were informed about the focus group discussion at an attendance day of a Child Welfare Clinic usually on Tuesdays and Thursdays by the researcher of this study. In addition, interested participants were provided with an informed consent form with instructions to read, sign and bring the consent form to the focus group session. Two health professional of Dagomba and Bimoba descents working with the research team were available to interpret information on the consent form in Dagbani and Bimoba and answer any questions that caregivers had about the study and extent of their participation.

The study protocol was reviewed and approved by the Navrongo Health Research Centre in Navrongo in the Upper East Region of Ghana.

Focus groups were conducted during May and July 2018 at the ten health centres in the sub district and district hospitals in the two districts. Child care was provided to caregivers who need them. Before the start of the discussion, the facilitator obtained signed informed consents from all participants. Each focus group lasted between 90 minutes and 120 minutes and was led by the researcher of this study. All focus group discussions were conducted in English and covered four main topic areas: 1) food availability and accessibility and caregivers feeding behaviours; 2) caregivers education, work schedules and ethnicity; 3) family mealtime structure and feeding behaviours; and 4) caregivers behaviours, attitudes and feeding styles.

2.1 Analysis

This study applied standard methods in qualitative research (Maxwell, 2005). Verbatim English transcripts with identifiers removed were developed by the researcher. The developed transcripts were used to produce codebooks. The codebooks and transcripts were read and manually analysed using content analysis to identify similar phrases and common themes. Inconsistencies in coding were observed and resolved. Using methods from participatory qualitative research designed to inform behavioural interventions (Eyler, Matson-Koffman, Young, Wilcox, Wilbur, Thompson, Sanderson & Evenson, 2003), forty-five emergent sub themes were organised by four main categories of themes included in the focus group guide. Data are documented textually with representative quotes to illustrate findings.

3. RESULTS

3.1 Participants

Seventy-nine caregivers participated in eight focus groups, Savelugu/Nanton Municipality (Savelugu, 9; Nanton, 10; Tampion, 10, Pong Tamale, 9 and Diare, 11 caregivers per group), Bunkpurugu/Yunyoo (Nakpanduri, 9, Nasuan, 10, and Binde 11caregivers per group). The majority (62%) were native Dagombas and residing in the Savelugu/Nanton Municipality and (38%) were native Bimobas from the Bunkpurugu/Yunyoo District. The majority (92%) of caregivers from both districts were married and only 18% of the total number of caregivers had received some form of education. Among this number that had some form of education, only 0.5% had obtained high school diploma whilst the remaining obtained education at Primary (34%), Junior High School (35%) and Senior High School (30.5%). The average age of caregivers was 27 years of age (16–35 years), and participants had an average of 4 children. Approximately 19% of caregivers worked outside the home. Those who did work outside the home worked for an average of 25 hours per week. When asked about their socio-economic status, approximately 62% of caregivers reported a household income of less than US\$1.00/day, while 2% of caregivers did not report their household income.

Forty-five sub-themes under four main topics emerged from the content analysis of focus group transcripts including: 1) food availability and accessibility and caregivers feeding behaviours; 2) caregivers education, work schedules and ethnicity; 3) family mealtime structure and feeding behaviours; and 4) caregivers behaviours, attitudes and feeding styles. Although focus group discussions were held with caregivers with children under-fives years, caregivers discussed the feeding behaviours to include all older children and other members of the family and entire household members.

3.2 Food Availability and Accessibility and Caregivers' Feeding Practices

In describing food availability and accessibility at the family and caregivers' feeding practices, caregivers expressed a range of views. Most caregivers believed that what is available is what is liked and fed by caregivers to their children. On accessibility, caregivers gave wide range of views in terms of what parents are able to provide. Many caregivers added that in cases where their husbands could not provide certain foods, they the mothers (caregivers) tried providing those foods at all cost.

Foods that I like are what I provide for my children. These foods must also be good for growth of the child. In my household we eat Tuo Zaafi with leafy vegetables almost every day and my children like it very much. There are instances that they get fed up with the Tuo Zaafi, but a short stay away from such foods would bring them back.

Other caregivers saw accessibility to foods to be far above the consumption patterns of children.

For instance, I will like my children to eat fruits daily as the nurses tell us, but we cannot afford to provide them to our children and our children have not also learnt how to eat them. What our children are used to are wild fruits from wild trees which are seasonal. So providing children fruits on regular basis could actually encourage children to eat them.

When probed further on how availability and accessibility affect the amount of foods fed and eaten by children.

Availability and accessibility affect the amount of foods fed and eaten. For instance, when I prefer my child to eat a particular food, the child eats more of that food with some kind of motivation.

Other caregivers shared different perceptions about the effects of availability and accessibility on feeding and eating habits.

Food could be available and accessible, yet the child would not eat much of it.. Mostly, eating much is related to the general wellbeing of the child. The amount of food that children would eat also depends on the season. That is, when the season for a particular food comes, children consume little of that food and caregivers also feed less of that food, but when the food becomes scarce and children do not often see that food, they tend to consume more of that particular food when introduced to.

Related to food availability and accessibility is caregivers' preferences, beliefs and attitudes towards a particular food. This was what caregivers had to say.

Our food preferences are strongly related with the feeding behaviours for that food and are strongly related to our children's food knowledge, preferences and consumption. E.g when children observe their mother especially eating some kinds of food, they also tend to like that food especially when it comes to their choices for that food.

When further probed about what type(s) of caregivers' preferred foods would children also prefer, some caregivers held the following view.

Mostly, we feed and consume foods made from cereals, tubers and vegetables. Tuo Zaafi, rice balls, rice with stew and jollof rice are the type of foods that we feed to our children.

Caregivers had different views especially in cases of food refusal. These are the various views of caregivers.

In cases where children refused consistently to eat foods provided to them, we introduced some other new foods that are common in the area but nutritionally good. Other caregivers were of the view that they introduced most indigenous foods that are prepared at special occasions such as tubani, koshie and pumpkin soup to encourage children to eat.

From the discussions, it is clear that food availability and accessibility affects caregivers feeding behaviours and children's food knowledge and eating patterns. Foods that are available in the local community are those that are widely accessible and fed to children. It could also be said that knowledge about a particular food or groups of foods were strongly dependent on the availability of those foods in the family or household.

3.3 Caregivers Education, Work Schedules and Culture

Caregivers' socio-demographic, socio-cultural and environmental influences were cited as influences on child feeding practices. That is caregivers' workload, financial concerns, family pressures were all cited as limitations in providing healthy foods to their children.

....the problem is that I work as a cook in a school and all day of the week I am not at home and cannot closely monitor what my children are eating.....

Other caregivers reported not working and therefore had no work whilst others reported that their partners were out of work. For example:

My husband did not go to school and therefore cannot read and write. He is a subsistence farmer and sometimes helps at the market square to load vehicles plying from Savelugu to Kumasi. Because of this situation he has limited income to provide as with food adequately and on demand.

A few caregivers' who were single parents also stated that any extra money they had was spent on other necessities, such as rent and children's school supplies.

I have two kids and I have to pay our rent, buy what they need, because I'm by myself. No support is coming from anywhere not even from members of the extended family. Everybody nowadays care for his/her children and no other person's children.

Several caregivers also talked about high prices of healthy foods such as fruits and vegetables.

Fruit and vegetables are expensive.... everything is going up in prices. Sometimes the children want fruits, so if I have any money left I bring some fruits home.

In addition, work schedules and other demands were reported as obstacles that prevented caregivers from being more involved in their children's daily eating habits.

I needed to quit my job because I could not take good care of my children: control what the kids were eating, follow up on their schooling.

A few caregivers discussed family and social pressures as difficulties in feeding their children and providing healthy foods, such as when a family member constantly brings unhealthy foods when he/she visits.

I have a problem with my husband's relatives and my own relatives whenever they come visiting they bring candies to my kids and I don't always like that and I always insist that they shouldn't be giving them such foods. But they continue to give them the candies anyway.

Although several caregivers reported having a supportive social network of family, friends, and neighbours that help them out, most caregivers described being unhappy with the lack of adequate community/government support.

When times are difficult especially in the lean season (March to July) you need to count on your extended family members and other community members for some food stuff to feed your children. Not always is that kind of support readily available or even if available, such supports are not enough.....the food ration by Catholic Relief Services for our children at the Child Welfare Clinics was very supportive but have seized...

3.4 Family Mealtime Structure and Feeding Behaviours

3.4.1 The Family: The Social Context of Meals

Almost all the caregivers revealed that children eat more when they eat with other family members.

Before my child turn 2 years, I used to feed him first before we eat..... But after he turned more than two years, I decided to let him eat when we were all eating and I have noticed increases in the quantity of foods that he eats.

3.4.2 TV-Viewing

Most of the caregivers could not establish the link between TV viewing and eating behaviours. Some caregivers had no TVs in their homes even though in all the ten Sub Districts there was electricity supply through the National Grid.

TV viewing will rather distract children eating attention in cases where advertisements are on foods that are not readily available in the home. Children will worry you to buy some of the advertised foods which are not readily available in the community since most of us are unemployed.

Some caregivers were of the view that foods that were even advertised on TV were not known to them and children may not even also know how to consume such foods. Therefore, the link between TV viewing and caregivers feeding practices with children's eating behaviours was very weak among almost all caregivers.

3.4.3 Eating Out (Restuarants)

In all the 10 Sub Districts, the proportion of families who ate outside was high. Thus, many households had eaten their breakfast and lunch outside home. It was only supper that was mostly eaten at home when parents had returned from farms/work and children had returned from school. Regarding the intake of fatty foods and energy foods, caregivers were of the view that children consumed more fatty foods and energy giving foods from outside.

For my child, she likes to eat waakye every morning before she goes to school because most of the food vendors sell rice and other fatty foods.....In some cases, my child will prefer that you buy her fried groundnut cakes "kulukuli" in addition to the breakfast before she will go to school.

"Fruits like pineapple, oranges, and bananas are not common and are not commonly sold.

My child will eat fruits if he gets it but if he does not get too, he does not mind.

From the discussions, eating out has no effect on the quantity and frequency of eating fruits but is related to eating fatty and energy giving foods because of easy availability of these foods

3.5 Parenting Behaviours, Attitudes and Feeding Styles

Feeding styles have been associated with both dietary intake and weight status. Discussion with caregivers revealed that caregivers combined all the three feeding styles. Furthermore, the discussions revealed that even though they applied all the feeding styles, the authoritarian feeding style was mostly used.

I use force to make sure that my children eat whatever is provided. When you do not do that they will tend to be playing with the foods which you have struggled to afford. Another group of caregivers said that initially we allowed the children to choose the foods they wanted.....but as they grew older we then decided to regulate what foods and how they eat to enable them eat the desired quantity.

Almost all caregivers expressed clear awareness of the importance of early diet on children's future eating habits. As part of this, the role of parenting was identified as crucial to the development of children's healthy eating habits which according to caregivers included the exposition of children to healthy foods, explaining to them the importance of eating certain types of foods, being positive role models and teaching by example, as many caregivers reported.

I think you have to explain to them what type of food is good for them and what kind is not good for them by providing them with a good start.

In cases where children were too young to understand what explanations their parents will give, caregivers reported that children's food preferences and parental choices were influential factors in the type of foods that parents fed their children. Some caregivers discussed that parents should select foods that are nutritious for their children even if the children do not like them.

On handling food refusal, some caregivers discussed on the need to have variety in diets but allowing their children to choose once in a while the type of food they need. Others also discussed that in times where variety is a problem, you need to coax the children to eat a little.

If you give the child vegetable broth to eat, they tend to eat non-vegetable broth which are not nutritious for them.

Some caregivers also discussed using food to entice their children to do something they wanted.

I just tell her if you eat I take you to the park, or the amusement park. This I have tried on all my children and it worked for me perfectly. Anytime I promised to do something or give something to my child if he/she ate a particular food, I achieved my aim and it worked well for me.

When asked about issues related to monitoring and/or controlling the types of foods and amounts their children eat, caregivers talked about several issues. Some believed monitoring should begin at a young age, such as birth or when they start eating, whereas others stated that monitoring should begin only when a problem becomes evident, such as under-eating or over-eating.

I have to stop my daughter from eating too much, she finishes eating her regular meal and she wants more food. If I find out that what she has eaten is enough, I prevent her by telling her the food is finished or by using my authority.

Most caregivers perceived that their children are able to successfully regulate their own food intake according to cues of satiation.

Anytime my child doesn't like anymore food, she turns her face away from the food; looks to another direction when she does not want to eat anymore.

Caregivers reported many reasons for monitoring their children's eating, including the importance of ensuring that they were eating a variety of healthy foods, that children who are picky eaters or who "don't eat enough" were eating "enough" and that children did not consume too much unhealthy foods.

You have to sit at the table with them and see how and what they eat to make sure they are eating enough and the right kinds of food.

A couple of caregivers reported family history of diet-related problems as a reason for having to closely monitor what their children ate.

In my case there is a history of diabetes and high cholesterol in my family.

When asked if and how child gender may influence their feeding practices, most caregivers believed that gender does not make a difference in how they feed their children, although a few reported that boys tend to eat more.

I think that boys eat more because they are most a times more active than the girls. So the boys always need more...they always need more.....

Most caregivers agreed however that the main differences in child feeding are children differences in age and their abilities to eat different kinds of foods in the family.

I have an older girl, a young boy and a baby... at one point I was cooking three different kinds of foods.... they each just needed different foods....

Caregivers' discussions about feeding practices indicated that the family played a central role in household decisions regarding feeding. Several caregivers commented that other family members, such as an aunt or a grandmother, would give advice on how to feed their children, while a few reported nurses giving advice on what their children should eat.

It used to be my mother who would tell me different things about feeding the children...In another time when I visit the Child Welfare Clinic, it is the nurses who give such information.

Most caregivers reported that they were responsible for food cooking and purchasing, while a few talked about making joint decisions with other family members, such as their spouses or grandmothers.

In my house, we think about what we are going to eat, and then I do all the shopping and cooking...

Family meal practices varied among the participants: some reported that meals were eaten together as a family at specific times; others reported never eating out at restaurants, some families fed the kids first; and some watched TV during mealtimes whereas others did not.

I feed the children first and then we the older members of the sit together as a family and have dinner after the children have eaten.....

Most caregivers provided similar responses regarding the influences of parents and children's peers on the eating habits of children. For instance, on parents' influences on children's early experiences, caregivers said the following.

Our children show similar patterns of food acceptance and food preferences... what we eat most are what our children also grow to like to eat.

On willingness of children to try new foods, some caregivers gave the following responses.

In many cases, children do not respond immediately to new foods and in some cases they will not respond at all... my children took some time to learn how to cope with new foods that I introduced...

With reference to caregivers and fathers to serve as strong models for children to eat, most caregivers had this to say.

My child is inclined to consume more and develop interest in the food I eat more than what the father likes and consumes. That is, we the mothers are always engaged in raising the children as compared to their fathers, so what we the mothers eat is what our children will also like and eat.

Caregivers however, discussed that the influence of the parents as models to consume some foods did not have any effect on spicy foods or some kinds of foods.

My child does not like spicy foods even though initially I thought spicy foods could encourage him to eat more.

Caregivers could not explain the effect of their children's peers on their eating habits. But a few were able to explain some linkages as follows. This is the view of those caregivers who were able to establish some linkages on the influences of children's peers on their children's eating habits.

During meal time, when you put the food for the children and their follow children to eat, it makes them have interest to eat and they do eat ... I call this "eating jealousy."

4. DISCUSSION

The present qualitative study explored the influence of family and social attributes on caregivers' feeding practices. The results showed that food availability and accessibility; caregivers' education, work schedules and culture; family mealtime structure and eating behaviours; and parenting behaviours, attitudes and feeding styles influenced caregivers feeding practices.

Focus group caregivers reported that feeding practices are often influenced by the availability and accessibility of foods in the households on one hand and their children's food preferences on the other. That of their parents especially they the caregivers' food preferences also influenced their feeding practices. Many caregivers discussed the difficulties in getting children to eat healthy food, particularly when it was not food the children preferred. The issue of monitoring and controlling food was a significant subject for participants. This is supported by literature which has it that, food preferences that are developed during infancy remains relatively stable and are reflected in food choices made later in life (Alemayehu et al. 2014)

While a few caregivers believed that regulating children's food is unnecessary or harmful when excessive, other caregivers thought monitoring and controlling food was important so that their children did not eat too much food or too many unhealthy foods. Many recognised the importance of their parenting practices in helping children develop healthy eating habits, such as exposing children to healthy foods, explaining the importance of eating certain foods, and serving as role models. These findings are in line with that of previous studies documenting the importance of early food habits and the role of parents in fostering healthy eating habits in their children (Behets, 2015; Woodruff & Kirby).

Focus group caregivers indicated that decision making about child feeding is often done jointly among family members under advice from an aunt, grandmother, or spouse. At times, family members were reported to place constraints on providing nutritious foods for children by bringing previously-established food regulations. These findings are in line with previous studies that show that familiar relationships play a central role regarding child feeding practices as families are important social environments within which food-related behaviours among infants and young children are developed (Bui et al. 2016; Cashdan, 1994).

For the few highly educated mothers who worked outside the home, the limited time spent with their children largely affected their ability to monitor and be involved in their children's eating. For parents who lacked or had limited work opportunities, financial constraints dictated the foods that could be purchased and often limited the healthiness of their choices. Many caregivers reported the difficulty in purchasing produce because of the high prices of fruits and vegetables. Regardless of work status, several caregivers expressed concerns about not having enough money to buy food for their families. Thus, having children who frequently go to bed hungry, or having family members sacrifice eating for significant portions of time.

Also, caregivers' beliefs about children's nutritional needs and their attitudes toward mealtimes can also make a difference for children's eating behaviours. Caregivers control of child eating shows positive associations with greater risk for children becoming overweight. As caregivers control increase during mealtimes, children's ability to regulate their energy intake (for example, calories) declines. Children whose caregivers were highly controlling about nutrition issues were less able to self-regulate their food intake.

Single parent households and households in which both parents work full time have a tendency to favour the consumption of prepared food items, which tend to be high in fat and sodium. Household incomes also show associations with food availability and indirectly influence children's eating habits. For instance, measures of general parenting and

caregivers' attitudes toward child eating and nutrition were meaningfully related to the kinds of foods available in the home. Caregivers who endorsed greater agreement with authoritarian parenting beliefs also reported keeping more sweets in the home. This is in line with the body of research that authoritarian feeding has been associated with lower intake of fruits, juices and vegetables (Lieberman et al., 2001).

Probably the single best predictor of food preferences is knowledge of the cultural group to which people belong. Fewer meals are eaten in the home and fewer meals are eaten as a family group, decreasing the opportunity for the parents to offer a model of healthy eating. This finding is similar to the study done by Wiradnyani (2016).

A related problem is that meals eaten outside the home tend to have a higher energy density and are served on large scale. Our predispositions served an adaptive function, developed over thousands of years at a time in our history when food environments were very different and food was scarce. In today's obesigenic food environments, children's predispositions and adults' responses to them can promote patterns of food preferences and intake that foster the development of overweight and obese individuals.

This analysis also suggests that food preferences are learned, they are modifiable, although the data suggest that the best chance for fostering patterns of preference consistent with healthier diets may be to focus on the very young. Understanding children's eating attitudes and behaviour is important in terms of children's health. Evidence also indicates that dietary habits acquired in childhood persist through to adulthood (Alemayehu et al. 2014). Parents provide food environments for their children's early experiences with food and eating. The family eating environments include parents' own eating behaviours and child-feeding practices.

Feeding styles represent the caregivers' approach to maintain or modify children's behaviours with respect to eating. Most caregivers adapted the authoritarian eating style where their children were forced to eat whatever was available. However, characteristics of these environments include socio-demographic factors, parental activities, parental eating styles and parents' child-feeding styles. Parents shape the development of children's eating behaviours not only by the foods they make accessible to children, but also by their own eating styles, behaviour at mealtimes and child feeding practices. Caregivers' child-feeding practices are associated with children's eating behaviours, including specific eating styles, food selection and preferences, and the regulation of energy intake.

In this study, fear for introducing new foods was not encountered, but where children refused to eat a particular food for a number of times, those children were forced to eat that food until that fear or refusal was over. Other caregivers did not see neophobia as fear of new foods, but refusal by children to eat certain kinds of foods. Their influence is, however, especially with older children, strongly interdependent with the influence of the children's peers and the media, having a "bounce back" effect on food consumption in the household, even in those families that tend to eat healthy food. Due to the limited ability of a child to understand advertising, parents often express their concern with respect to advertising of food aimed at children on television and usually they can, depending on their communication patterns with their children and their attitude towards advertising intervene on the effect of advertising on children, e.g. by limiting viewing time or by watching television with their children and by discussing what is being broadcasted, thereby contributing to the children's media literacy and their adoption of other social norms.

Food aversions can be learnt in one trial if consumption is followed by discomfort. However, from birth, genetic predispositions are modified by experience. Mothers are of particular interest on children's eating behaviours, as they have been shown to spend significantly more time than fathers in direct interactions with their children across several familial situations, including mealtimes. Related to children's preferences and food availability are parents' preferences. Indeed, children's food related knowledge, preferences, and consumption are related to parent's preferences, beliefs and attitudes toward food (Wiradnyani, 2016).

Caregivers who exerted a greater degree of control over their children's food intake had children who demonstrated less ability to regulate energy intake. External parental control of the children's dietary intake may indirectly foster the development of excess adiposity in the children. Food choices, food preparation, eating patterns, and infant feeding practices all have very deep cultural roots.

In fact, beliefs, attitudes, and practices surrounding foods and eating are some of the most important components of cultural identity; therefore, it is not surprising that in multicultural societies, great variability exists in the cultural characteristics of the diet. Feeding is a process that involves interactions between parents and children. This present study speaks to the growing evidence supporting the notion that family and social environments play an important roles in the development of children's eating patterns and diet quality.

Good feeding supports a child's growth and development not only physically, but also socially and emotionally. The associated effects of poverty, inadequate household access to food, infectious disease, inadequate breastfeeding and complementary feeding practices often lead to illness, growth faltering, nutrient deficiencies, delayed development, and death, particularly during the first two years of life that are a major obstacle to sustainable socio-economic development and poverty reduction. Parents employ a variety of strategies to improve their children's eating habits, some of which have been found to be counter-productive.

Over-control, the offering of rewards, and the provision of nutrition information to children appear to have negative effects on food acceptance patterns. Parents own food preferences, availability and accessibility on the other hand, are enormously influential and eating together as a family provides a valuable opportunity for parents to model

good eating habits. Together with the evidence that repeated taste exposure can increase acceptance of healthy foods, these findings should inform the guidance given to parents during early childhood.

Children spend a substantial amount of time in the company of both friends and peers, predominantly in school. However, the distinction can be problematic when reviewing the literature in the area of child eating as ‘peer’ and ‘friend’ are sometimes used interchangeably by authors. It is possible that research using peers compared to friends may actually be considering two distinct groups who have differing relationships with children and who may impose different influences on them.

Family meals should be a priority for several reasons. Sitting down together and turning off the television for a family meal provides structure in feeding/eating patterns for children and allows an opportunity for family communication, providing closer family relationships. From infancy on, participating in family mealtimes creates an environment for children to develop feeding skills, learn table manners, and try new foods.

Taken together, in terms of eating, this suggests that the time children spend a significant amount of time interacting in an eating environment would be influential models of food consumption and liking. Since children spend time with their peers and friends during school lunch and snack times, and possibly in other eating situations outside of school, peers and friends are likely to be influential models of children’s food intake. It could further be investigated that children are more likely to model the eating behaviours of peers or friends who they perceive to be of a higher status and power, as suggested somewhere in this study using peers who are portrayed as heroes.

5. CONCLUSION AND RECOMMENDATIONS

Food availability and accessibility was found to have associations with caregivers feeding practices. For instance, from the study, children consumed what was readily available and accessible at the household levels.

Preference of parents’ foods which was associated with the availability and accessibility was also a main contributory factor to what children would eat. Thus, children would eat what they prefer and what their parents prefer especially the preference of their mothers had a greater influence on their eating behaviours.

All feeding styles were adapted by parents in this study, but most parents adapted the authoritative feeding style by way of dictating what children should eat.

Finally, the social context of meals and mealtime structure is fast becoming a factor that determines children’s eating behaviours. For instance, most households in the study areas ate their breakfast and lunch outside especially in schools or in restaurants.

This qualitative study provides valuable information on the challenges parents face in creating a healthy food environment for their children. Effective nutrition education programmes implemented through existing Ghana Government Nutrition Programmes such as the Community Management of Acute Malnutrition would be a better opportunity for empowering mothers to improve the health of their families. These measures could be critical for improving the health of children especially in Ghana and in sub-Saharan Africa where the epidemiological pictures are similar to that of Ghana.

The study’s findings indicate first the importance for public health interventions to address the health belief systems of low-income families. Nutrition programmes should provide detailed explanations of the health consequences of both under – and overweight in children and the importance of proper nutrition and a healthy or unhealthy lifestyle such as weight and nutrition intake, rather than solely by external observations of the children.

Nutrition interventions should address parenting techniques that help mothers balance health choices with their children’s food preferences. Understanding theories of moderation may be beneficial. Nutrition programmes should also be cost and time-effective to address the barriers many low-income families face in providing healthy foods for their families, including family pressures, work demands, and financial concerns.

In conclusion, parents and children’s food preferences, food availability and accessibility, caregivers’ belief systems of health and nutrition, family and social influences, mealtime structures, socioeconomic and cultural factors, modelling and food insecurity all play significant roles in child feeding practices among low-income families in Northern Region and Ghana as a whole.

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