

Mothers' Perceptions of Factors Related to Child Obesity, The Case of Low Socioeconomic Arab and Jewish Mothers

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Abstract

Background: Child obesity even in young ages poses a serious public health challenge. Mothers have an important role related to the family eating behaviors and lifestyle changes for preventing obesity. The purpose of this study is to explore the perceived factors related to children's healthy weight or obesity, exploring risk and protective factors. The research was held among Jewish and Arab mothers of children of low SES communities in Israel.

Methodology: Qualitative research sample was conducted in towns of low socioeconomic ranking in the Northern District of the Ministry of Health and included mothers of children aged five years registered in Mother and Child Health clinics (MCH).

Findings: During the focus group meetings, mothers of healthy weight children (MHWC) and mothers of overweight children (MOWC) have shared common factors that were found to be related to child obesity. They discussed topics of personal, family, and environmental factors. MHWC predominantly perceived healthy behavior as they mentioned protective factors, while MOWC talked about unhealthy behaviors involving risk factors.

Conclusion: Analyzing the data shows relationships between factors and that have been validated. Early intervention will lead to healthier weight thereby protecting children from obesity physical difficulties and by evading inappropriate emotional teasing.

Introduction

Child obesity even in young ages poses a serious public health challenge. The WHO [1] reported that 41 million children under the age of five were overweight or obese in the year 2016. The rates are now on the rise not only in high-income countries but also in low- and middle-income countries, particularly in urban settings. The prevalence rates of obesity constantly rising mainly among children 3-5 years [2,3]. The rising prevalence has severe health and psychosocial consequences. Childhood obesity is associated with a higher chance of obesity, premature death and disability in adulthood. In addition to increased future risks, obese children experience breathing difficulties, increased risk of fractures, hypertension, early markers of cardiovascular disease, insulin resistance and psychological effects [1].

Child obesity has several health and psycho complications, the most common issues are psychosocial, social and physical problems [1,4]. The evidence is now emerging that a majority of obese children already have indicators of organic disease [5]. Overweight and obesity in childhood and adolescence have adverse consequences on premature mortality and physical morbidity in adulthood [6]. Overweight children had five times the risk of becoming obese adults [7], when adults obesity is associated with reduced physical health-related quality of life [8]. Moreover, comorbid conditions and complications that are experienced because of obesity can occur both in the short term at childhood and in the long term [9].

Israel like other OECD countries suffer from child obesity. Data from OECD show that Israel ranks 18th out of 34 countries in child obesity [10]. A recent survey found a 21% rate of overweight and obesity in first graders [11].

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Investigating factors related to child obesity

Family life is one of the factors correlated with childhood and parent's obesity [12,13]. Shared genes and environmental factors lead to the fact that obesity of one parent raise the chance of his or her child to 50 percent to be also obese. However, when both parents are obese, their children have an 80 percent chance of being obese [4,14]. Scholars also pointed on factors related to family daily life. Frequent family meals [15,16], family eating behaviors [17], and the role of parents in promoting healthy behaviors among their children were also connected with child obesity [18,19]. Parental style, and parents attitudes can also affect children's eating behaviors [12,20,21].

Moreover, mothers in particular have an important role related to the family eating behaviors and lifestyle changes for preventing obesity [22,23]. Previous research found that mother's perceptions of the child weight is important because it can be related to her child weight, overweight or obesity [24-26]. More factors contribute to mothers' perceptions including parent's weight family history, child gender and socioeconomic factors [25-27].

Socioeconomic status (SES) factors considered also as one of the main risk factors for children obesity. Child obesity has higher incidence in low SES families [8,28], and these inequalities in child

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obesity appear as early as four years of age [29]. Low SES populations have more risk factors related to overweight and obesity [30].

Israeli children of low SES families (low income or lack parental education) were more obese than children who belonged to high SES families. Additionally, prior evidence showed inequalities in child obesity in the country. Obesity rate was higher in rural regions, and in Arab children [31].

Therefore, the present qualitative study was initiated in order to extend and deepen the understanding of child obesity factors. The aim of the study was to explore the perceived factors related to children's healthy weight or obesity, exploring risk and protective factors. The research was held among Jewish and Arab mothers of children of low SES communities in Israel.

Materials and method

Setting and Sample

This research is part of multicomponent mixed method (quantitative [32] and qualitative) project. The project aimed to identify protective and risk factors for obesity through studying overweight and healthy weight children in low SES communities; and to compare Jewish and Arab children. The qualitative research sample was conducted in towns of low socioeconomic ranking in the Northern District of the Ministry of Health and included two stages: 1) Mothers of children aged five years registered in Mother and Child Health clinics (MCH) were invited to participate in a special project involving growth and developmental testing in preparation for 1st grade. 2) Attended mothers were chosen randomly to fill a pilot questionnaire for the quantitative research and asked to participate in the focus groups. The focus group's purpose was to explore trends of thoughts among the mothers, which help identify behaviors that can shed light on detailed reasons for certain parenting style. The nurses classified the mothers into two groups according to the weight of the children tested earlier in the project, mothers of healthy weight children and mothers of overweight children. Children with overweight were defined in this research as children with a BMI percentile adjusted for age and sex between 85-95% and healthy weight children who have BMI <85% [33].

This paper presents the results of the qualitative component of the study that involved exploratory focus groups discussions. It aimed to gain an in-depth understanding of the perceived risk and protective factors associated with children's healthy weight or obesity among Jewish and Arab mothers of children in low SES communities in Israel.

Ethical approval

The research received approval from the Israel Ministry of Health Ethics Committee.

Data collection

Thirteen focus groups were held between September and November 2014. Thirty-four mothers (23 Arab and 11 Jewish) participated in the focus groups. Eleven mothers of overweight children and 23 of healthy weight. Six Jewish mothers interviewed personally (due to low response rate for the focus groups among Jewish mothers). Compliance rate was 18% (34 out of 188). All the focus groups and the interviews were held in the MHCs by trained interviewers.

The semi-structured interview guide included a combination of closed and open-ended questions. Questions asked about: 1) The mother's perception of protective and risk factors associated with child healthy weight or obesity. 2) The mother's parenting style and its relation to the child eating habits behaviors. 3) The mother's perceptions about child healthy weight or obesity and healthy lifestyle practices. 4) The mother's own healthy and unhealthy eating behaviors and the relation to their child weight. 5) The perceived factors related to social and physical environment and child healthy weight or obesity. 6) The perceived factors related to sociodemographic status and child healthy weight or obesity. Interviewers asked to explore additional topics raised throughout the discussions.

Data analysis

Data recorded and transcribed verbatim. Content analysis performed according to the grounded theory [34] to identify major themes without the intention of constructing a theory. In the second stage, themes and categories combined. In interpreting the findings, a comparison between mothers of children with overweight and children with healthy weight as well as a comparison between Jewish and Arab sectors were conducted.

Results

Data analysis identified almost the same major factors related to child obesity between mothers of healthy weight children (MHWC) and mothers of overweight children (MOWC). The factors included three main themes: personal factors (maternal behaviors and genetics), family related factors (parenting style) and environment related factors (social and physical environment).

Mothers' personal factors –maternal behaviors

Exploring factors related to child weight:

Mothers' behaviors seem to be a major factor. The mothers talked about the relationship between food type, meals portion, physical activity and body weight. MHWC demonstrated healthy behaviors when MOWC mainly Arab mothers, talked about unhealthy behaviors.

MHWC - a Jewish mother:

"What is important is the variety of food types in the dish, for example, yesterday I prepared a dish of meat with a dish of vegetables and carbohydrates and they ate everything."

MOWC – an Arab mother:

"I found out that the reason for overweight is not the main meals; it is what we eat between the meals."

Another Jewish mother said:

"I know that eating chocolate can help lose weight."

On the other hand, mothers also perceived behaviors related with children eating and exercising as factors associated with children weight. When MOWC perceived unhealthy eating behaviors and less exercising as factors related to child obesity, and MHWC believed quite the opposite.

All Arab and Jewish mothers from MHWC group mentioned healthy behaviors of their children related to eating and exercising. Behaviors like restricting snacks and sweet beverages, instead of eating fruits, breakfast, restricting screen time, exercising and more.

MHWC – a Jewish mother:

"I do not give them chocolates every day instead I give fruits."

Arab mother:

"When we go out, I do not take snacks with me and instead I take the tablet or a toy."

Most MOWC (Jews and Arabs) reported that their children do not eat breakfast and eat many sweets etc.

MOWC - Jewish mother:

"My daughters do not eat breakfast and instead they drink Chocolate milk every day."

MOWC - an Arab mother:

"Although I know that eating healthy food is important, but if he sits all the day watching TV, this brings him to be overweight."

Another factor related to the mothers' personal factors is the issue of the **genetic trait** and its relation to healthy or unhealthy behaviors. Mothers perceived genetic factors as risk and protective factors for child obesity.

MOWC Jewish mothers thought that children's overweight is a matter of genetics. While mothers of MHWC, both Arab and Jewish thought that genetic factors are related to healthy eating behaviors, growth and healthy weight.

MHWC – Jewish mother:

"My husband and I are usually skinny all our lives. The kids are not fat and neither of us are eaters in our nature."

Social and physical environment factors found to be an enabling and disabling factors for healthy lifestyle and child weight.

MOWC and MHWC from the two communities perceived social environment as a risk factor for child obesity. Factors included visiting grandparents, family and friends that can bring children to eat more and to eat unhealthy food.

MHWC – a Jewish mother:

"It is not easy to convince children not to drink sweetened drinks when meetings with friends or family while everyone around drinks."

However, they also said that sometimes it could reinforce healthy eating and exercising behavior norms. Arab mothers emphasized more the role of active family networks. Mothers mentioned also schools as supportive factor for healthy lifestyle.

MHWC- an Arab mother:

"Schools today have many educational programs to encourage children for healthy lifestyle and it can help keeping their weight healthy."

MOWC – a Jewish mother:

"When she goes to visit her friends, there is no way to be in control."

Arab mother:

"In Arab villages, the grandparents are the decision makers and mothers cannot decide what the child should or should not eat or drink."

Moreover, physical environment also was perceived as risky and protective factor for child obesity.

MOWC from Arab and Jewish communities reported that their villages and towns lack of open areas for physical activities (sport parks, clubs and instruments). On the contrary, MHWC stated that Arab children could play around the houses in the neighborhood. Additionally, Jewish religious children can be more physically active for the fact that they are not allowed to use electronic devices (TV, computer etc.) according to the religious rules.

MHWC – a Jewish mother:

"Among the ultra-Orthodox community, because there is no television, the children are more active."

MOWC – an Arab mother:

"The problem is that there are no sport classes for children in the village. Even on the road where I live, it is a little far away we have a yard but they do not have anyone to play with."

Factors related to parenting style related to children weight was mentioned by both MOWC and MHWC (Arabs and Jews) mothers. This theme is divided to subthemes including:

Weak parenteral authority most of the MOWC presented difficulties in dealing with their child's unhealthy choices.

MOWC - a Jewish mother

"I can tell my daughter that she cannot have the snacks but I cannot force her."

In contrast, MHWC (Arabs and Jews) reported parental control leading to healthy behaviors that prevent obesity.

MHWC – an Arab mother:

"If he does not eat the meal, I will not let him eat anything else. It is not as a punishment but I want to teach him that there are times for meals."

Working mothers Arabs and Jewish mothers of the two groups perceived the work of the mother as a risk factor, a barrier to controlling the quality and quantity of the food of their children.

MOWC - an Arab mother:

"I tell them the amount of food they are allowed to eat, because they are already big boys, they are left alone at home, and when I return from work, I see that they must have eaten everything apparently because they were bored."

Higher number of children in the family, mothers reported that having a higher number of children could make it difficult for the mother to be in control.

MOWC - a Jewish mother:

"I think that a mother who has more children is busier than a mother who has one child. When she goes to work all day and has someone else taking care of the children, so it is hard to control the quality of the food they eat."

Only one Orthodox religious mother thought otherwise; she said:

"I do not think it (number of children) affects children's nutrition. I think that a mother who has children is busy in raising them. She is more concerned with it than a mother who has one child, goes to work all day, and has someone else taking care of children."

A Mother as a role model mothers perceived that being a role model for your children is an important factor related to child obesity. MOWC talked mainly about their own unhealthy eating patterns and low physical activity, when MHWC talked about mother's healthy eating patterns and generational transmission of healthy behavior patterns.

MOWC – an Arab mother:

“My children do not like foods that I do not like, so I did not want my children to drink coca cola and only when I stopped drinking coca cola so they were persuaded to stop.”

Both Arab and Jewish mothers mentioned these factors.

MHWC – a Jewish mother:

“Certainly, if the child sees the parents drinking sweet drinks or the parents' eating vegetables and fruits, the children will do the same.”

Behaviors related to eating habits during pregnancy were also mentioned as a protective factor by MHWC only.

Discussion

Investigating early childhood obesity is important due to its short and long-term consequence on children and adults health in addition to socio-emotional effects [1,4]. Low-level SES communities have been found to have a higher prevalence of overweight children than the rest of the society [11]. Soskolne et al. [32] have quantitatively explored the risk and protective factors associated with children of low SES populations in Israel. Based on their recommendation addressing cultural aspects and physical activity, the present qualitative study deepened the understanding of their results and reports on mothers' perception of their children's weight, in regard to risk and protective factors.

The importance of the mothers' role in forming their children's lifestyle, as an authoritative parent, and establishing the family's habits was examined in ethnic minorities of Arabs and Ultraorthodox Jews. Although environmental factors could have some influence on children's eating and physical activity, the maternal “self-efficacy” decisions have stronger impact [32].

Healthy weight is perceived as a balanced equilibrium between food intake and energy expenditure. The notion that overweightness in children stems from either or both overeating and sedentary lifestyle is prevalent among low socioeconomic communities [35,36]. Mothers of healthy weight children and mothers of overweight children on the current research have shared common factors that were found to be related to child obesity. They discussed topics of personal, family, and environmental factors. MHWC predominantly perceived healthy behavior as they mentioned protective factors, while MOWC talked about unhealthy behaviors involving risk factors.

Approaching childhood overweight could start by exploring genetic factors or metabolism functions (endocrine normal thyroid involvement) and then put an emphasis on more time spent exercising daily. Educational programs through organized sports in schools is a good idea along with encouragement at home also of healthy eating introducing fruits and vegetables as snacks instead fatty fast food such as potato chips.

It remains to be elucidated the reasons for high rates of child obesity in low SES population, who have been found both in the Arab and Jewish communities (19% and 25% respectively) [32]. It is possible that eating related behaviors, such as consumptions of foods with a high content of carbohydrates, or being in a family without the resources to afford extracurricular activities may be contributing factors to child obesity. In addition to the fact that the parents are of working class and are thus unable to take care of their children who could be or already are left without supervision. Therefore, the child may adopt unhealthy eating behaviors and sedentary lifestyle. A latest literature review on factors related to SES and childhood obesity reported on the factors that can explain this relationship. Such as early introduction of solid food, parental behaviors and parental education [37].

Future follow-up of overweight children is warranted due to the fact that by 10-12 years of age, an increase in obesity rates has been found among Arab children [11]. This indicates that children who are of healthy weight at age 5 are at risk of becoming overweight individuals as they grow to adolescence.

This study has a few limitations, due to a low response from Jewish mothers, six individual interviews were conducted instead of the planned focus group, where mothers could have listened to others' and discuss more deeply the topics of the research. Additionally, it is necessary to improve the questionnaire about the parental behavior patterns and to adjust to the local community lifestyle (for example adding questions regarding working conditions, or environment resources). Moreover, clarifications are needed about eating habits at home. Further examining of social and environmental influences is needed among both the core and extended family members that could affect what is being consumed when the children are not at home and what their outdoor physical activity looks like. In this study, a specific question about the mother's weight was omitted due to concern of unresponsiveness. However, other studies [38,39] have shown a relationship between the weight of the mother and the weight the child. In future research, it is recommended to add a question asking mothers about their weight with a guarantee of privacy and protecting the data.

Conclusions

Analyzing the data reveals to the factors that have been validated and could be described in quantitative in-depth study. Early intervention will lead to healthier weight thereby protecting children from obesity physical difficulties and by evading inappropriate emotional teasing.

Competing Interests

The authors declare that they have no competing interests.

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