Original article:

Maternal Dissatisfaction About Toddler’s Body Size And Its Relationship To Children’s Eating Behaviours

Wulandari E1, Wiboworini B1, Widyaningsih V1

Abstract

The fulfilment of toddlers’ nutritional needs is very dependent on their parents. Parental dissatisfaction can affect feeding practices and food choices for her children that are related to eating behaviour. This study aimed to analyzed the relationship between maternal satisfaction of children’s body size and their children’s eating behaviour. This cross-sectional study involved 126 pairs of mother-toddler ages 24-59 months. Mother’s satisfaction was assessed using Toddler Silhouette Questionnaire, while their children’s eating behaviour was assessed using the Children’s Eating Behaviour Questionnaire (CEBQ). The result shows that 77.6% of mothers who have well-nourished children desire a heavier child. There is a positive relationship between maternal satisfaction with Food Avoidance behaviour (p<0.01) at subscale Slowness in Eating (p<0.01), Food Fussiness (p<0.05) and Emotional Eating (p<0.05). Mother who wants their children to be heavier tends to have children who are food avoidance, slow to eat, picky eaters and emotional eating.

Keywords: maternal dissatisfaction, children’s eating behaviour, toddler

Introduction

Body satisfaction was psychological sign that compare self-image with desire body size or body size considered ideal, in negatif or possitive ways1. Body satisfaction can occur in all age groups, but toddler and preschooler had difficulty to perceiving their bodies correctly2. The role of dissatisfaction of body size in eating behaviour was mainly focused on tendency to diet3. The fulfillment of nutritional needs at this age also still depends on what is given by their parents, so that the opinion of parents regarding toddler nutritional status or body size is very important. Parental satisfaction determines parent’s decisions of food choices for their children and how parents fed them.

There are no studies in Indonesia that look at maternal satisfaction about their toddler body size, but other studies have seen that mothers think a fat toddler is a good thing4,5. Maternal concern about their children weight linked to maternal pressuring of restricting of food6. Mothers who want their children to be heavier tend to give more food and tent to push their children to eat that can affects to child’s eating behavior7.

Children’s eating behaviour is tendency of eating behaviour in children which is extracted from the information of the mother as a caregiver. It devided into food approach type and food avoidance type. Food approach type consist of indicator food responsiveness, emotional over-eating, enjoyment

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of food, and desire to drink; while food avoidance type consist of indicator satiety responsiveness, slowness in eating, emotional under-eating, and food fussiness. Food responsiveness describe desire to consume food. Enjoyment of food and desire to drink describe children’s interest in food and drink. Food fussiness describe picky eating in children. Slowness in eating assesses child’s speed to finish their meal. Satiety responsiveness assess child sensitivity of satiety or respon full. Emotional eating which includes over-eating and under-eating examines the influence of emotions on children’s food consumtion.

Eating behaviour in children can continue become an eating disorder when the child reaches adolescence. It is normal for toddlers to have eating problems because there are certain phases, but there are eating disorders that must be anticipated because it can affect the current growth process and children’s future health. Study shows that infantile anorexia, which usually occurs in children aged 6-36 months, is associated with impaired cognitive development and abnormal sleep patterns. This study aimed to analyzed the relationship between maternal satisfaction with children’s body size and their children’s eating behaviour.

Materials and methods

This cross-sectional study was conduct in Kramat Jati, East Jakarta from July to August 2022 involved 126 pairs of mother-toddler ages 24-59 months were selected by using multistage cluster random sampling. Subject’s weight and height measured and nutritional status viewed by W/H (Weight per Height) indicators and classified as “underweight” (Zscore <-2SD), “healthy weight” (Zscore >-2SD – 2SD), and “overweight” (Zscore >2SD).

Mother as a respondent interviewed about their toddler eating behaviour with Children’s Eating Behaviour Questionnaire (CEBQ) includes 30 questions using Likert scale. Each item of the question will be given a score of 5 (always), 4 (often), 3 (sometimes), 2 (rarely), 1 (never). Mean score from each indicator were measured. Mother’s satisfaction was assessed using Toddler Silhouette Questionnaire, which consists of 2 sets of 7 children’s picture with number 1 (thinnest) to 7 (fattest). Mother asked to choose picture’s number that describe (1) the body size that most closely resembled their child, and (2) the body size that she want their child to be, and score is obtained from the difference set (1) minus set (2). Score result categorized into “want to be thinner” (negative score), “satisfied” (score= 0), and “want to be heavier” (positif score). Toddler’s nutritional status and maternal satisfaction’ category analyzed using chi-square test, while CEBQ score and maternal satisfaction score analyzed using the Rank Spearman test.

Results

General characteristics of the data

Table 1. shows distribution of age, gender, and nutritional status of the subject. In this study most subject has a healthy weight (84.9%).

<table>
<thead>
<tr>
<th>Variables</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>23-35 months</td>
<td>53</td>
<td>42.1</td>
</tr>
<tr>
<td>36-47 months</td>
<td>34</td>
<td>27.0</td>
</tr>
<tr>
<td>48-59 months</td>
<td>39</td>
<td>31.0</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>56</td>
<td>44.4</td>
</tr>
<tr>
<td>Female</td>
<td>70</td>
<td>55.6</td>
</tr>
<tr>
<td>Nutritional Status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Underweight</td>
<td>7</td>
<td>5.6</td>
</tr>
<tr>
<td>Healthy weight</td>
<td>107</td>
<td>84.9</td>
</tr>
<tr>
<td>Overweight</td>
<td>12</td>
<td>9.5</td>
</tr>
</tbody>
</table>

The significant chi-square analysis suggested that there were differences in maternal satisfaction with their children’s body size by the weight status of the children. Table 2. shows that 77.6% of mothers who have children with healthy weight want their children to be heavier, and only 18.7% of them are satisfied with their child’s body. As for mothers with overweight children, 16.7% of them still want their children heavier even though they are already overweight.
Table 2. Relationship between Maternal Satisfaction and Nutritional Status

<table>
<thead>
<tr>
<th>Nutritional Status</th>
<th>Underweight</th>
<th>Healthy Weight</th>
<th>Overweight</th>
<th>χ²</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maternal Satisfaction</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wants thinner</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>3.7</td>
<td>5</td>
</tr>
<tr>
<td>Satisfied</td>
<td>0</td>
<td>0</td>
<td>20</td>
<td>18.7</td>
<td>5</td>
</tr>
<tr>
<td>Wants heavier</td>
<td>7</td>
<td>100</td>
<td>83</td>
<td>77.6</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>7</td>
<td>100</td>
<td>107</td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>

Table 3. Relationships between Maternal Satisfaction and Children Eating Behaviour

<table>
<thead>
<tr>
<th>Food Responsiveness</th>
<th>Food Enjoyment of Food</th>
<th>Food Desire to Drink</th>
<th>Food Satiety Responsiveness</th>
<th>Food Slowness in Eating</th>
<th>Food Emotional Undereating</th>
<th>Food Emotional Overeating</th>
<th>Food Food Fussiness</th>
<th>Food Food Fussiness Avoidance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maternal Satisfaction</td>
<td>ρ</td>
<td>0.093</td>
<td>0.178*</td>
<td>-0.174</td>
<td>0.064</td>
<td>0.059</td>
<td>0.027</td>
<td>0.331**</td>
</tr>
<tr>
<td></td>
<td>p</td>
<td>0.298</td>
<td>0.046</td>
<td>0.051</td>
<td>0.457</td>
<td>0.512</td>
<td>0.766</td>
<td>0.000</td>
</tr>
</tbody>
</table>

*significant at the 0.05 level (Spearman rank)

**significant at the 0.01 level

FR (Food Responsiveness), EO (Emotional Overeating), EF (Enjoyment of Food), DD (Desire to Drink), SR (Satiety Responsiveness), SE (Slowness in Eating), EU (Emotional Undereating), FF (Food Fussiness)

Statistical results show a positive relationship (ρ) between mother’s satisfaction with children’s body size and children’s eating behaviour on the food avoidance type behavior especially in indicator slowness in eating, food fussiness, emotional undereating, and the food approach type behavior in indicator emotional overeating.

Discussion

Toddlers are one of the nutritionally vulnerable groups whose nutritional needs still depend on what their parents give them. This study found that most mothers were dissatisfied with their child’s current body size and wanted to gain weight. Most of the mothers who have children with healthy weight want their children heavier, and there are still mothers who have overweight children want that too. This is line with similar research and proves that mother’s perception of obese children is a good thing in society was true. Maternal dissatisfaction of children’s body size can make mother tend to give more food to their children, choose high-calorie foods or increase their children’s portion and snack in effort to increase weight. This can increase the potential for children obesity.

Maternal dissatisfaction is related to children’s eating behaviour with food avoidance type, one of which indicator is food fussiness or called picky eating in several studies. Mothers who want to increase their child’s weight but their children are picky eaters, will be more permissive so that they give whatever food their children want, as long as they willing to eat.

Food fussiness and slowness in eating indicator in eating behaviour has negative relationship with children’s weight, which makes it more difficult for mothers who want to gain weight. Research shows that mothers who have value conflict about giving healthy-unhealthy snacks and tend to give their children what they like, even though they know it’s unhealthy. Children naturally like sweet food. In Indonesia, this age group rank first for consuming most sugary foods and drinks in a day. Excessive sugary foods and drinks increase the risk of healthy problems both now and in the future.

Eating behaviour is formed in toddler and tends to carry over into their adolescence and adult. Emotional eating may not have an significant effect to current nutritional status because the mother will try to meet the nutritional needs of her child. But, emotional eating in early life can lead to eating disorder if not treated early. The age at which they can determine their own diet, eating disorders can cause various nutritional problems.
Children’s overeating is also associated with the incidence of hyperlipidemia, hypercholesterolemia and hyperlipoprotein whereas undereating is lack of micronutrients in adolescence. It is necessary to provide knowledge to mothers about healthy child’s body size, good feeding practice and healthy food choices.

**Conclusion**

Mother who dissatisfied and wants their children to be heavier tends to have children who are food avoidance, slow to eat, picky eaters and emotional eating both undereating and overeating. Health providers should give education about healthy body size and healthy food for children with difficulty eating so as not to increase the risk of obesity.

**Conflict of interest**

None declared

**Ethical clearance**

This study has been approved by research ethics committee Faculty of Medicine Universitas Sebelas Maret No. 93/UN27.06.11/KEP/EC/2022

**Authors’ contribution**

Eka Wulandari conceptualized and designed the study, conducted the study, data analysis, interpretation and drafting manuscript. Budiyanti Wiboworini assisted in conceptualized and designed the study, and review the manuscript. Vitri Widyaningsih assisted in designed the study, analysis data and review the manuscript.
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