Food Insecurity of Children and Shame of Others Knowing They Are Without Food

Jennifer Bernal, Edward A. Frongillo, and Klaus Jaffe

ABSTRACT

We studied the association of shame when children experience food insecurity and management strategies. The cross-sectional study assessed food insecurity in 404 children using 2 instruments with 10 and 11 items for food insecurity and management strategies. Food insecurity in children was associated with shame of others knowing that they were out of food ($\gamma = 0.37, P < .01$). Nine out of 11 management strategies were associated ($P < 0.05$) with feeling of shame of being out of food. Older girls were most likely to report shame when they reported lack of food ($P < .01$). Understanding these relations may increase access to food in socially acceptable ways.

KEYWORDS

Food insecurity; management strategies; shame; stigma; children

Introduction

Worldwide, food insecurity is a problem that we have not solved, with stunting affecting at least 165 million children, wasting at least 52 million children, and hunger 66 million of primary school-age children. Hunger is one of several closely linked consequences of being food insecure. In the United States, 7.5 million (19.5%) households with children were food insecure in 2013. In Venezuela, 69% of households with children reported being insecure. These high prevalence values mean that children in both rich and poor countries are not reaching their maximum development potential because of food constraints. Food insecure children have cognitive, emotional, and physical awareness of their situation and participate in their parents’ food management strategies, initiate their own food management strategies, and generate resources to buy food.

Food insecurity is related to social and psychological alterations, with negative consequences. Adults experiencing food insecurity feel deprived, worried, and stressed; lack choice; face disruptions in eating patterns have greater depressive symptoms, and have lower cognitive performance. Food insecure children, especially girls, have impaired social skills and are at higher risk of
psychosocial dysfunction, behavioral, and attention problems; hyperactivity; inattention; depressive symptoms and suicide.

Strategies to manage food are conceptually different from food insecurity but are linked to it. Management strategies are used by people to prevent or respond to food insecurity episodes. Management strategies differ depending on the severity of food insecurity and among contexts and individuals. Adults use management strategies such as making short-term dietary changes, reducing or rationing consumption, obtaining additional food, stretching the available food, altering intrahousehold distribution of food, depleting stores, increasing credit for food consumption, increasing reliance on wild foods, migrating for short-term labor, making short-term alterations in crops, altering livestock production patterns, and migrating to alleviate distress. Severe management strategies include obtaining food in socially unacceptable ways, resorting to emergency food supplies, scavenging, stealing, or sending children to eat with others.

Children use management strategies similar to those of adults. Children are innovative in how they manage food insecurity. Children as young as 7 years old store food for times when they have nothing to eat, visit others to obtain food, watch television to forget hunger, or look for food outside the home in trees or in the garbage. When food insecurity and management strategies are present in the lives of the children, changes in their behavior occur.

Shame is part of the stressful experience of food insecurity but has been little studied. Shame is a prominent element in societies that can appear spontaneously in unexpected or stressful circumstances, such as feeling of humiliation that arises through the consciousness of wrongdoing or foolish behavior. Shame is an emotion belonging to the social and psychological domain, and the word derives from the linguistic roots of an older word meaning “to cover.” Shame is regarded as a panhuman defensive emotion, which includes the recognition of one’s own inferior social status, associated aversive feelings, and the painful recognition of the self’s failure to conform to social norms and expectations. Shame arises from global devaluation of the self; it evokes the desire to hide, escape, and even strike back. People who are prone to shame tend to act defensively; experience rage, contempt, transfer of blame, and denial, and engage in dysfunctional behavior, such as withdrawal, avoidance, and attacking the self and others. Shame has physiological consequences that are visible to others, such as blushing, sinking the head, and hiding the face.

When food is obtained through disrupted patterns in socially unacceptable ways, human behavior suffers adaptations that are still poorly understood. In particular, there is a dearth of knowledge about what
happens with children who experience shame in situations of lack of food and how this feeling is managed according to different contexts. Understanding the experiences of shame reported by children with different levels of food insecurity and using different management strategies could contribute to understanding and solving child food insecurity in ways that are beneficial and not harmful to them.

In this study, we aimed to understand the relationships among children’s experience of food insecurity, engagement in management strategies, and feeling shame of others knowing that they are without food, by gender and age group. Specifically, we compared associations of shame of others knowing that they are without food with specific items indicative of food insecurity and management strategies in children, according to their gender and age.

**Methods**

**Study setting**

The study was cross-sectional with a nonprobabilistic sample of 404 children from 7 to 17 years, who lived in poor neighborhoods in Caracas, Venezuela. This middle-income country is race multiethnic, with oil as the main product of exportation that gives large earnings. The weather is tropical, so food production is varied. The socialist government is facing political and socioeconomic crises, which affect the food access of the entire population. In 2011, about 65 000 children (1%) between 7 to 12 years were not attending school nationally, and 10% of households lived without basic services such as water and in small spaces. In 2012, 32% of the total population was poor.

**Sampling and recruitment**

Children in one peri-urban and one urban community with a total of 663 children (7 to 17 years old) were invited to participate in the study. Recruitment was done using personal letters and public invitations signed by the researchers in one church and 2 schools. Parishioners’ children and students were invited to participate. Of the total invited, 404 (60.9%) children responded to our questionnaires. The rest of the children did not attend the day of their interview or did not get permission from their parents or guardians.

All parents or caretakers of the children interviewed provided written consent allowing the researchers to interview the children. In addition, children had to agree voluntarily to participate and could decide at any moment to discontinue.
**Measuring food insecurity and management strategies**

Two sets of questionnaire items were developed and refined for assessing food insecurity and management strategies in children. Details of construction are elsewhere. The possible responses in the 2 instruments for children were never (assigned 0 points), sometimes (1 point), and always (2 points). Responses across the 10 items for food insecurity and 9 items for strategies were summed to form scales. Higher values on the scales meant more frequent indications of food insecurity or engaging in strategies. Reliability values (ie, internal consistency from Cronbach’s α) were 0.76 and 0.74 for the food insecurity and management strategies instruments.

We constructed 4 ordinal categories (ie, food secure or mild, moderate, and severe food insecurity) that considered the specific meaning of items for the assessment of food insecurity in children. The food secure category corresponded to children with no affirmative responses to any of the 10 items. The mild food insecure category corresponded to children with 1 to 3 points; most of these children affirmed one or more of the first 3 items that refers to variety and preferences. The moderate category corresponded to children with 4 to 7 points; most of these children affirmed 2 or more of the fourth, fifth, and sixth items that refer to psychological and physical access to food. The severe category corresponded to children with ≥8 points; most of these children affirmed 2 or more of the seventh, eighth, ninth, and 10th items that are linked with instability, long periods of lack of food, and hunger episodes.

The instrument that measured management strategies to alleviate food insecurity in children was based on 11 items originated from our previous qualitative work. We summed the number of affirmative responses (that corresponds to sometimes and always) to obtain the total of management strategies used for a period of 30 days.

**Measuring shame**

Shame measurement has been complex, so there are extensive field studies with sophisticated instruments not appropriate for children. We used one simple item, based on preliminary interviews with a group of 10 children that captured self-reported shame in children in the context of food insecurity that are known to induce shame in adults: Did you feel shame if somebody, including friends, knew that you are without food? The response set was never, sometimes, or always.
Data analysis

Statistical analysis was performed using SPSS 21. Descriptive statistics (ie, frequencies, percentages, means, and standard deviations) were used. Comparisons were made using chi-square test for contingency tables and t tests. Associations between ordinal categories of child food insecurity, management strategies, and shame were examined using gamma, which quantifies the similarity of ordering of the data by each of 2 variables; gamma ranges from −1 to 1. We disaggregated the relationships between shame and food insecurity and the management strategies by gender and age.

Results

Children’s mean age (±SD) was 12 ± 2 years (range: 7–17), with 49.5% of the sample being girls. Most (86.6%) of them showed some food insecurity, and 39.4% had moderate or severe food insecurity; 81% of children applied management strategies to alleviate food insecurity (Table 1). Two of 10 children (22.3%) reported sometimes or always feeling shame when access to food was limited. No statistical difference between genders was observed with feeling shame.

Six of the food insecurity items were associated with shame (Table 2). The strongest associations were with the items “to have an empty refrigerator” (item 5, $\gamma = 0.45, P < .01$), “feel worried” (item 4, $\gamma = 0.42, P = .01$), and “gone to school without eat” (item 9, $\gamma = 0.29, P < .01$). A mild association was found between “want to eat more, but there is nothing else in the house” (item 2, $\gamma = 0.28, P < .01$) and “have to eat the same food” (item 3, $\gamma = 0.21, P < .05$) and a smaller association with “settle for the food, because there is nothing more” (item 1, $\gamma = 0.17, P = .06$). The total food insecurity scale was associated with children reports of shame ($\gamma = 0.37, P < .01$).

Nine out of the 11 management strategies interviewed were significantly associated with shame (Table 3). The strongest associations were with the strategies “run errands for other to obtain money to eat” (item 9, $\gamma = 0.47, P < .01$), “ask for food on loan or credit” (item 6, $\gamma = 0.41, P < .01$), “search for food, such as mangoes outside the home” (item 8, $\gamma = 0.40, P < .01$), “visit anyone” (item 7, $\gamma = 0.33, P = .01$), “do not eat so that another child can eat” (item 2, $\gamma = 0.31, P < .01$), and “[mom or dad] eat less so the child can eat more” (item 3, $\gamma = 0.27, P < .01$). Three management strategies were mildly related with shame: watch TV play or do things to forget hunger (item 10, $\gamma = 0.24, P < .05$), store food for times when there is nothing to eat (item 4, $\gamma = 0.23, P = .03$), and use own money to buy food (item 1, $\gamma = 0.22, P = .04$).

Younger girls (7–12 years) did not have any food insecurity item associated with shame (Table 4). Older girls (13–17 years) reported shame more often when they were worried due lack of food (item 4, $\gamma = 0.83, P = .01$), had the refrigerator
Table 1. Food insecurity, management strategies, and shame to be out of food in children.

<table>
<thead>
<tr>
<th>Food insecurity</th>
<th>Girls (n=200) Frequency (%)</th>
<th>Boys (n=204) Frequency (%)</th>
<th>All (n=404) Frequency (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Secure</td>
<td>23 11.5</td>
<td>31 15.2</td>
<td>54 13.3</td>
</tr>
<tr>
<td>Mild</td>
<td>98 49.0</td>
<td>93 45.6</td>
<td>191 47.3</td>
</tr>
<tr>
<td>Moderate</td>
<td>65 32.5</td>
<td>73 35.8</td>
<td>138 34.2</td>
</tr>
<tr>
<td>Severe</td>
<td>14 7.0</td>
<td>7 3.4</td>
<td>21 5.2</td>
</tr>
<tr>
<td>Strategies reported</td>
<td>165 82.5</td>
<td>164 80.4</td>
<td>329 81.4</td>
</tr>
<tr>
<td>Shame related to food</td>
<td>46 23.0</td>
<td>44 21.6</td>
<td>90 22.3</td>
</tr>
</tbody>
</table>
empty (item 5, $\gamma = 0.75, P = .01$), wanted to eat more but there is nothing else (item 2, $\gamma = 0.70, P = .01$), and had to eat the same food (item 3, $\gamma = 0.58, P = .01$). Smaller but significant associations were seen with the items “gone to school without eating” (item 9, $\gamma = 0.76, P = .03$), “skipped any meal, such as breakfast, lunch or dinner, for lack of food” (item 8, $\gamma = 0.67, P = .03$), and “when groceries finished at home and settle for the food, because there is nothing more to eat” (item 7, $\gamma = 0.67, P = .05$). For the younger boys (7–12 years), the items “having the refrigerator empty” (item 5, $\gamma = 0.52, P = 0.01$) and “being worried” (item 4, $\gamma = 0.41, P = .04$) were associated with shame; young boys without shame “skipped
Table 4. Association between food insecurity and shame to be out of food in children, by gender and age groups (n = 404).

<table>
<thead>
<tr>
<th>Items of food insecurity</th>
<th>Girls</th>
<th></th>
<th>Boys</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>7-12 Years (n = 129) 13-17 Years (n = 71)</td>
<td></td>
<td>7-12 Years (n = 128) 13-17 Years (n = 76)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Gamma</td>
<td>P</td>
<td>Gamma</td>
<td>P</td>
</tr>
<tr>
<td>1. Do you settle for the food you have because there is nothing more?</td>
<td>0.13</td>
<td>0.45</td>
<td>0.37</td>
<td>0.08</td>
</tr>
<tr>
<td>2. Would you like to eat more food but there is nothing else in your house?</td>
<td>0.08</td>
<td>0.67</td>
<td>0.70</td>
<td>0.01</td>
</tr>
<tr>
<td>3. Do you have to eat the same food because there is no other?</td>
<td>0.03</td>
<td>0.87</td>
<td>0.58</td>
<td>0.01</td>
</tr>
<tr>
<td>4. Have you worried because you have nothing to eat?</td>
<td>0.23</td>
<td>0.21</td>
<td>0.83</td>
<td>0.01</td>
</tr>
<tr>
<td>5. Has it occurred that the refrigerator is empty and you have nothing to eat?</td>
<td>0.23</td>
<td>0.27</td>
<td>0.75</td>
<td>0.01</td>
</tr>
<tr>
<td>6. Have you gone to sleep hungry for lack of food?</td>
<td>0.21</td>
<td>0.36</td>
<td>-0.13</td>
<td>0.65</td>
</tr>
<tr>
<td>7. When the groceries finish in your house, do you spend a several days without food?</td>
<td>0.17</td>
<td>0.51</td>
<td>0.67</td>
<td>0.05</td>
</tr>
<tr>
<td>8. Have you skipped any meal (breakfast, lunch, or dinner) for lack of food?</td>
<td>-0.16</td>
<td>0.50</td>
<td>0.67</td>
<td>0.03</td>
</tr>
<tr>
<td>9. Have you gone to school without eating for lack of food in your house?</td>
<td>-0.11</td>
<td>0.68</td>
<td>0.76</td>
<td>0.03</td>
</tr>
<tr>
<td>10. Have you spent a day without eating for lack of food?</td>
<td>-0.10</td>
<td>0.68</td>
<td>0.51</td>
<td>0.18</td>
</tr>
<tr>
<td>Total food insecurity scale</td>
<td>0.09</td>
<td>0.55</td>
<td>0.79</td>
<td>0.01</td>
</tr>
</tbody>
</table>

Note: Bold values mean statistical difference among each food insecurity item and shame to be out of food by gender and age.
meals” (item 8, $\gamma = -0.60, P = .05$). For older boys (13–17 years), the items associated with shame were “want to eat more, but there is nothing to eat” (item 2, $\gamma = 0.78, P = .01$), “gone to school without eating” (item 9, $\gamma = 0.65, P = .04$), and “settle for the food you have, because there is nothing” (item 1, $\gamma = 0.36, P = .07$). The overall food insecurity scale was strongly associated with shame in older children for both genders ($\gamma \geq 0.61$), but not for the younger children ($\gamma \leq 0.23$).

Regarding management strategies (Table 5), for younger girls (7–12 years), shame was associated with “run errands for others and searching for food outside home” (item 9, $\gamma = 0.62, P = .07$), “asking for food on loan or credit” (item 6, $\gamma = 0.56, P = .01$), “search for food, such as mangoes outside the home” (item 8, $\gamma = 0.49, P < .07$), and “watching TV, play or does things to forget to be hungry” (item 10, $\gamma = 0.44, P = .03$). For older girls (13–17 years), shame was associated with “having not eaten so that another child can eat” (item 2, $\gamma = 0.55, P = .01$), “eating less so the child can eat more” (item 3, $\gamma = 0.50, P = .04$), and “use their own money to buy food” (item 1, $\gamma = 0.46, P = .03$). Younger boys (7–12 years) had 3 strategies associated with shame: “searching for food outside home” (item 8, $\gamma = 0.43, P = .05$), “run errands” (item 9, $\gamma = 0.40, P = .08$), and “visit anyone to receive food” (item 7, $\gamma = 0.39, P = .06$). The older boys (13–17 years) had 3 strategies associated with shame: “have not eaten so that another child can eat” (item 2, $\gamma = 0.65, P = .01$), “store food for times of scarcity” (item 4, $\gamma = 0.53, P = .05$), and “anyone eat less so the child can eat more” (item 3, $\gamma = 0.48, P = .08$).

**Discussion**

Food insecurity and engaging in management strategies to alleviate it were associated in children with shame of others knowing that they are without food. That is, children who experienced food insecurity were more likely to experience feeling shame of others knowing that they were without food. Regarding the generalizability of these findings, Darwin showed that shame has strong biological roots in humans and therefore we might expect shame to play a role everywhere.\(^{34}\) Shame is present in all cultures and all languages have a name for it, although the importance and the expressions of shame differ among cultures.\(^{47}\)

Shame has been mentioned directly or indirectly as a feeling present in food insecure families and adults in previous work. Qualitative research with adults and elders showed that shame and embarrassment were related to their inability to adequately provide the necessary food for their families or themselves.\(^{25,48}\) Food insecurity results in several closely linked consequences\(^4\) that include feelings of alienation (eg, shame) and deprivation (eg, guilt). Food insecurity altered household cohesion, leading to disputes and difficulties keeping children at home in Burkina Faso,\(^{20}\) arising especially when the household head has to beg or borrow for food.
<table>
<thead>
<tr>
<th>Management strategies</th>
<th>Girls 7–12 Years (n = 129)</th>
<th>Boys 7–12 Years (n = 128)</th>
<th>Girls 13–17 Years (n = 71)</th>
<th>Boys 13–17 Years (n = 76)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Have you used your own money to buy food?</td>
<td>Gamma = 0.11, P = 0.57</td>
<td>Gamma = 0.46, P = 0.03</td>
<td>Gamma = 0.25, P = 0.17</td>
<td>Gamma = 0.06, P = 0.81</td>
</tr>
<tr>
<td>2. Have you not eaten so that another child can eat?</td>
<td>Gamma = 0.04, P = 0.82</td>
<td>Gamma = 0.55, P = 0.01</td>
<td>Gamma = 0.22, P = 0.23</td>
<td>Gamma = 0.65, P = 0.01</td>
</tr>
<tr>
<td>3. Does anyone (mom or dad) eat less so you can eat more?</td>
<td>Gamma = 0.21, P = 0.25</td>
<td>Gamma = 0.50, P = 0.04</td>
<td>Gamma = 0.13, P = 0.48</td>
<td>Gamma = 0.48, P = 0.08</td>
</tr>
<tr>
<td>4. Do you store food for times when you have nothing to eat?</td>
<td>Gamma = 0.13, P = 0.53</td>
<td>Gamma = 0.27, P = 0.28</td>
<td>Gamma = 0.18, P = 0.31</td>
<td>Gamma = 0.53, P = 0.05</td>
</tr>
<tr>
<td>5. Have you not eaten so that and adult can eat?</td>
<td>Gamma = 0.07, P = 0.74</td>
<td>Gamma = 0.41, P = 0.13</td>
<td>Gamma = 0.05, P = 0.80</td>
<td>Gamma = 0.43, P = 0.14</td>
</tr>
<tr>
<td>6. Have you ever asked for food “on loan” or sold “on credit”?</td>
<td>Gamma = 0.56, P = 0.01</td>
<td>Gamma = 0.36, P = 0.32</td>
<td>Gamma = 0.24, P = 0.42</td>
<td>Gamma = 0.40, P = 0.22</td>
</tr>
<tr>
<td>7. Do you visit anyone (grandparents, uncles or aunts, neighbors) so he/she gives you food?</td>
<td>Gamma = 0.22, P = 0.33</td>
<td>Gamma = 0.37, P = 0.26</td>
<td>Gamma = 0.39, P = 0.06</td>
<td>Gamma = 0.36, P = 0.27</td>
</tr>
<tr>
<td>8. Have you searched for mangoes, plantains, or eggs outside the house, because there is nothing else to eat?</td>
<td>Gamma = 0.49, P = 0.07</td>
<td>Gamma = 0.27, P = 0.44</td>
<td>Gamma = 0.43, P = 0.05</td>
<td>Gamma = 0.30, P = 0.40</td>
</tr>
<tr>
<td>9. Do you run errands for others to obtain money to eat?</td>
<td>Gamma = 0.62, P = 0.07</td>
<td>Gamma = 0.76, P = 0.11</td>
<td>Gamma = 0.40, P = 0.08</td>
<td>Gamma = 0.36, P = 0.31</td>
</tr>
<tr>
<td>10. Do you watch TV, play, or do things to forget that you are hungry?</td>
<td>Gamma = 0.44, P = 0.03</td>
<td>Gamma = 0.13, P = 0.64</td>
<td>Gamma = 0.18, P = 0.36</td>
<td>Gamma = 0.05, P = 0.84</td>
</tr>
<tr>
<td>11. Do you search for food in the garbage to eat?</td>
<td>Gamma = 0.44, P = 0.40</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
</tbody>
</table>

**Note:** Bold values mean a statistical difference among each management strategy and shame to be out of food by gender and age.
Management strategies were associated with shame felt by the child when others knew that they were out of food. Quantitative work done in Costa Rica with adult women showed that 11% of the households resorted to acquiring food in ways that made them feel shame.\textsuperscript{28}

Food insecurity among households or adults has been understood to be about uncertainty, insufficiency (in quantity and quality), and unacceptable availability, access, or utilization of food.\textsuperscript{4} Questionnaires developed and used for assessing food insecurity based on experiences indicative of food insecurity\textsuperscript{49,50} have focused on uncertainty and insufficiency about access to food and have not included items about unacceptability of food access. These questionnaires ask about feelings of worry or anxiety that are indicative of uncertainty but have not asked about other feelings such as deprivation, guilt, alienation, or shame. Gonzalez et al\textsuperscript{28} included one item about shame (ie, did you have to do things that make you feel ashamed?) based on the qualitative interviews previously done in that study, but a similar generic item was not included in the final version of the subsequently developed \textit{Household Food Insecurity Access Scale}.\textsuperscript{50}

The association of shame with food insecurity differed by gender and age. Younger girls reported less shame, followed by the younger boys and older boys. The older girls reported the most shame. This is congruent with findings that shame increases with puberty, especially among females.\textsuperscript{51} Feelings of shame resulted from both moral transgressions and social blunders.\textsuperscript{52} Younger children associated shame with embarrassment, blushing, ridicule, and escape. Older children additionally characterized shame as feeling stupid, being incapable of doing things right, and not being able to look at others.

Shame could reflect negative social and psychological consequences and backgrounds. Shame significantly mediates associations between childhood sexual abuse and interpersonal conflict.\textsuperscript{53} Women with sexual abuse histories reported more shame in their daily lives, which in turn was associated with higher levels of conflicts with intimate partners and family. Hostility has been associated with shame in children. Higher shame in children was predictive of increased hostility in successive years, whereas hostility was not predictive of increases in shame.\textsuperscript{54} Shame was also associated with prospective self-inflicted injury, including suicide attempts and nonsuicidal self-injury.\textsuperscript{55} Because food insecure children experience shame, they are potentially vulnerable to these negative consequences.

Our results have important implications for efforts to alleviate food insecurity. Understanding the link between child food insecurity, management strategies, and social consequences such as shame is important for targeting and delivering food assistance. Knowing that, in situations of food scarcity, children may feel shame is important in targeting assistance to them. Care
must be taken to provide their food in ways that respect their social, cultural, and moral norms, avoiding harming their emotions and feelings. Considering food insecurity, management strategies, and shame in the design and implementation of food policies and programs could have positive implications for children. School feeding programs are an assertive form of improving food access to children, but children’s feelings regarding the benefit and/or the delivery of food could make a difference in accepting or rejecting this benefit. Previous research shows that children do not want to be labeled as “poor.” Being ashamed was mentioned as a barrier to food access and was given as one of the reasons for nonusage of Australian welfare food services. Programs have justified their expansion to nontarget children as a means of reducing stigmatization, while reaching only an estimated one third of targeted children.

Conclusion

Food insecure children felt more shame of others knowing that they were out of food than their counterparts who are food secure. Children with shame applied more management strategies to address food insecurity. Recognition that shame is related with food insecurity and management strategies is important to improve understanding of what is happening with children who suffer food shortages. More research is needed to understand the consequences of feeling shame from food insecurity, especially considering gender and age. Improving access to food is a complex process that needs to consider many social and psychological aspects in addition to those directly involved in giving food.

References

6. Hernández RA, Herrera HA, Pérez-Guillén A, Bernal J. Estado nutricional y seguridad alimentaria del hogar en niños y jóvenes de zonas suburbanas de Caracas [Nutritional


