CE 1.0 Contact Hour

Food Insecurity

Assessment and Intervention

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Abstract: Food insecurity is a threat to the physical and mental health of children and their families. In this article, food insecurity prevalence, definitions, and related concepts will be reviewed. Using a theoretical framework, food insecurity will be related to assessment and interventions appropriate to food-insecure situations. Assessment tools appropriate for the clinical setting will be discussed. Interventions both at the clinical and community levels will be proposed.

Food insecurity is a dynamic, complex issue associated with health, educational, and economic factors. Food insecurity of any severity impacts families and communities in multiple ways. For health care providers, assessing for food insecurity reveals more about a family's struggles than about the availability of food in their home; it is a window into a broader view of the family's strengths and challenges.

KEY WORDS: children, food insecurity, food quality, Maslow, pediatrics, poverty

Food insecurity (FI) is defined as limited or uncertain availability of nutritionally adequate and safe foods or a limited and uncertain ability to acquire food (Gundersen & Ziliak, 2015). The U.S. Department of Agriculture (USDA) designates households as (a) high food secure (all household members have adequate access to safe, nutritious food), (b) low food secure (some household members have reduced quality and/or variety of available foods but not reduced food intake), and (c) very low food secure (one or more household members are hungry at least some time during the year because they could not afford enough food; Gundersen, 2013). In a recent report, Coleman-Jensen, Rabbit, Gregory, and Singh (2016) further define and examine FI by household composition, ethnicity, area of residence (urban/rural), region, and state.

FI is not new in the United States; during the early 2000s, FI rates remained steady at about 18% for households with children. During the recent recession (2007–2009), this rate increased to 22.5% of households with children. Despite improvements in the U.S. economy since 2009, levels in households with children (and other at-risk households) remain elevated (Gundersen & Ziliak, 2014).

Poverty is generally thought to be a cause of FI, and certainly, it is a high risk factor. FI rates drop as income increases (Gundersen & Ziliak, 2014). However, FI remains high in households two to three times over the poverty level. Paradoxically, over 60% of children living close to the poverty line are in food-secure homes, suggesting that there are many complex factors leading to FI in homes, particularly those with children (Gundersen & Ziliak, 2014). FI is seen in all regions, communities, and ethnic households.

Income-related FI risks include recent loss of a job or a significant change in income. Among other factors that may influence FI are adult caregivers' mental and physical health, presence of substance abuse, and disability of adults or children in the home. According to Gundersen and Ziliak (2014), the risk of FI rises to 50%–80% in households where the mother is moderately to severely depressed. Substance abuse (particularly heroin), households with complex structures (cohabitating adults, grandparents), children living with nonbiological parents, inconsistent support (cash or childcare) by fathers, immigrant parents, and summer/nonschool time all increase the risk of FI in households with children (Gundersen & Ziliak, 2014).

The inability to consistently provide food into a household creates constant, pervasive stress. Multiple health outcomes are correlated with FI: poor overall health, increased hospitalizations, iron deficiency anemia, cognitive disabilities (poor school performance), emotional distress, and developmental issues (Cook et al., 2006; Eicher-Miller, Mason, Weaver, McCabe, & Boushey, 2009; Gundersen & Kreider, 2009; Howard, 2011; Kirkpatrick, McIntyre, & Potestio, 2010). Literature also links early childhood malnutrition with cardiovascular disease, diabetes, and hyperlipidemia in adulthood (Cook et al., 2013). The complexity of environmental and

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social factors increasing FI risk affects children's overall physical, mental, and emotional health and that of their families.

In a review of literature examining the association between FI and obesity, the authors concluded that, although causality between these two conditions does not exist, the two conditions coexist, and the prevalence of being overweight remains high in food-insecure children (Eisenmann, Gundersen, Lohman, Garasky, & Stewart, 2011). Some theories about the coexistence of FI and obesity, especially in low-income households, include limited access to high-quality food; decreased presence of full-service grocery stores; increased availability of lower-cost, energy-dense, nutrient-poor foods; altered eating patterns; and increased household stress related to intermittent and uncertain availability of food (Laraia, 2013).

The Quality of Life Theory by Abraham Maslow is based on a hierarchy of human needs ranging from basic requirements to self-actualization in personal growth (Figure 1; Maslow, 1962). In the face of FI, it is clear that basic needs as outlined by Maslow are not being met; certainly, many of the risk factors for FI preclude meeting these basic needs as well. Assisting our patients to become food secure, in addition to meeting basic needs, allows these children (guided by caretakers, including providers) the nurturing they need to move beyond basic needs and develop their potential (Ventegodt, Merrick, & Andersen, 2003).

THE PROVIDER LEVEL: HOW TO HELP

As with other patient interactions, care of food-insecure children begins with assessment. Screening for FI at the research level is done using an 18-item measure developed by the USDA (Coleman-Jensen et al., 2016). Hager et al. designed a validated, easy-to-use subset of the USDA measure for clinical use, which is endorsed by the American Academy of Pediatrics (2015); Hager et al., (2010). The two questions asked in the subset for clinical use are as follows: (a) "Within the past 12 months, we worried whether our food would run out before we got money to buy more," and (b) "within the past 12 months, the food we bought just didn't last and we didn't have money to get more" (Hager et al., 2010, p. e29).

An affirmative answer to either of these two questions indicates FI in the household (sensitivity of 97%). A positive response to the FI screen warrants further assessment for associated physical and psychosocial risk factors as identified above. System resources such as social workers and/or mental health professionals are consulted as indicated.

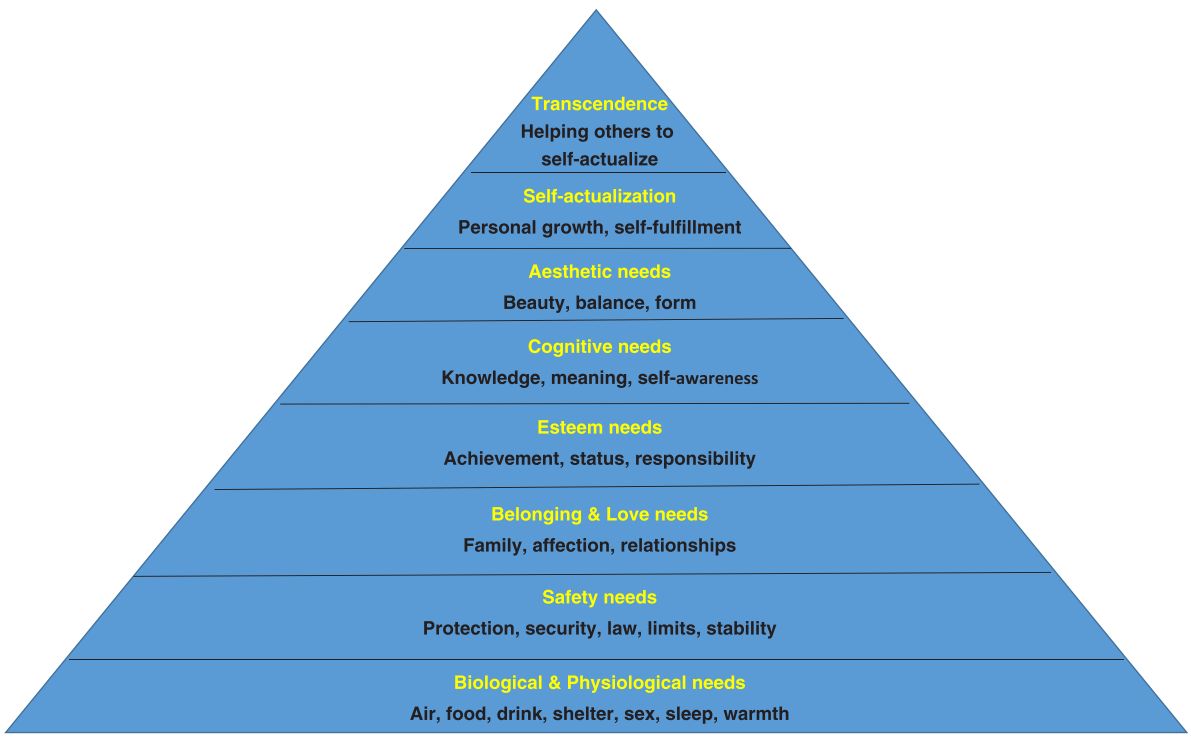

FIGURE 1. Maslow hierarchy of needs theory.

Several federal and state programs are associated with decreasing household FI, including the Special Supplemental Nutrition Program for Women, Infants, and Children; Supplemental Nutrition Assistance Program; National School Lunch and National School Breakfast Programs; Child and Adult Care Food Program; and Summer Food Service Program (Table 1). Local and regional food pantries have evolved, increasing their community goals and contributions toward providing programmatic safety nets. As our understanding of what constitutes nutritious components evolves, these entities are responding with types and quality of foods offered in addition to other services (e.g., cooking and budgeting classes).

Barriers to the utilization of these and other assistance programs designed to address FI exist at both the family and provider levels. Researchers report family barriers to be increasing maternal age, nonproficiency in English, and stigma associated with use of these services (Gilbert, Nanda, & Paige, 2014). At the provider level, Barnidge, LaBarge, Krupsky, and Arthur (2016) examined barriers to screening for FI at a large pediatric primary care clinic in the Midwest. Whereas 88% of physicians believed that FI is a challenge for some families in their practice and 80% reported being willing to screen for it, only 15% reported actually screening families. Not being sure what to do with a positive screen was the most frequent reason cited for not assessing for FI.

One strategy for addressing this concern is to use a system approach to develop a practice (or unit) response to positive FI assessments. This would involve a review of literature and community resources to formulate a standard response to positive screens. This plan would not only address the immediate concern of food and safety in the home but also address other individual, family, and community risks that the family potentially faces in light of FI in the home.

Table 1: Resources for Food-Insecure Families

WIC: www.fns.usda.gov/wic/women-infants-and-children-wic
SNAP: www.fns.usda.gov/snap/supplemental-nutrition-assistance-program-snap
National School Lunch Program: www.fns.usda.gov/nslp/national-school-lunch-program-nslp
National School Breakfast Program: http://www.fns.usda.gov/sbp/school-breakfast-program-sbp
Child & Adult Care Food Program: http://www.fns.usda.gov/cacfp/child-and-adult-care-food-program
Summer Food Service Program: http://www.fns.usda.gov/sfsp/summer-food-service-program

SNAP = Supplemental Nutrition Assistance Program; WIC = Special Supplemental Nutrition Program for Women, Infants, and Children.

COMMUNITY LEVEL

Going beyond the individual level, encouraging education of colleagues, organizations, and communities about FI with its risks and ramifications will expand involvement in finding community solutions. Involving legislators at all levels of government will increase the voice of families experiencing FI. In addition, research (at the practice and community levels) will increase awareness and stimulate thoughtful community solutions.

FUTURE RESEARCH

Although the two-question FI questionnaire is key to assessment, tools that assist clinicians in working with families on why these questions are being asked, what is done with this information, and research associated with the assessment need development. Protocols on when, where, and how often to assess should be created and validated across age, cultural, and regional spectrums. Ongoing research on barriers to use of the assessment tool will guide solutions and additional resources.

CONCLUSION

Individuals with FI are threatened at a most basic level. This is especially true in families with children. Living in a constant state of anxiety over an ability to meet the most basic needs of children poses the highest of risks for the health, security, and development of the family. FI is linked to poverty but can be found in any family who is being threatened with the right combination of scenarios. Our responsibility as health care providers is to ask, not to assume. Asking two basic questions about food security elicits significant information about the stresses of a family. Helping a family that confirms that FI is part of their life is not easy. However, as with responses to other challenging situations, having an established implementation plan is key to making a positive difference for families.

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