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Food Insecurity Screening in Pediatric Clinical Settings: A Caregivers' Perspective

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Abstract

Objectives Food insecurity (FI) has serious academic, social, and physical health consequences for children. A recent clinical recommendation suggests FI screening during child well visits. While FI screening research has considered clinician feedback, little is known about caregivers' experience of disclosing FI to health care providers. Our paper explores caregivers' barriers and facilitators to FI disclosure.

Methods A survey on factors influencing FI disclosure was completed in a pediatric clinic waiting room in St. Louis, MO. Among households with FI, 15 caregivers participated in a qualitative interview. Caregivers were asked about experiences discussing FI with health care providers. We calculated frequencies for survey responses and analyzed interview data using thematic content analysis.

Results Caregivers highlighted stigma, fear of child being taken away, and shame as barriers to FI disclosure. Caregivers identified strong interpersonal skills, open body language, and empathy as facilitators to disclosure at the interpersonal level. Provider initiated conversations, consideration of FI disclosure in the presence of a child, and normalization of FI discussions within the clinic were described as ways to encourage FI disclosure at the organizational level. In response to FI disclosure, caregivers would like providers to offer resources including referrals to community-based resources extending beyond food.

Conclusions for Practice Our study identifies considerations for FI screening in health care settings, spanning the social-ecological model, from the perspective of caregivers. To successfully screen and address FI, multifaceted health care interventions should address barriers and promote facilitators across multiple levels and in consideration of multiple social needs.

Keywords Food insecurity · Well child screening · Social needs · Family preferences · Qualitative

Significance Statement

This study gains perspective on caregivers' experiences with disclosing food insecurity to providers during well child visits. Insights as to what promotes and discourages caregiver disclosure and practice recommendations for screening enhancement across social-ecological levels are offered.

Introduction

Nearly 1 in 6 households with children experienced some level of food insecurity (FI) in the last 12 months (Coleman-Jensen et al. 2016). A food insecure household is "uncertain of having, or unable to acquire, enough food to meet the needs of all their family members because they have insufficient money or other resources for food (Coleman-Jensen et al. 2016)." Children living in food insecure

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households are vulnerable to serious physical, emotional, and cognitive health consequences (Nord 2009; Kleinman et al. 1998; Alaimo et al. 2001; Jyoti et al. 2005; Council on Community Pediatrics and Committee on Nutrition 2015; Laraia 2013). Further, children from food insecure households eat fewer fruits and vegetable, increasing the risk of chronic disease and obesity (Hamm and Bellows 2003; Eisenmann et al. 2011).

The American Academy of Pediatrics (AAP) recommends screening for FI during pediatric well-visits to minimize the health impact of FI among children (Council on Community Pediatrics & Committee on Nutrition 2015). Hunger Vital Signs™ is a two-item household FI screener, adapted from the USDA Household Food Security Survey, with clinical settings in mind (Hager et al. 2010). The screen asks how often in the last 12 months (1) the household worried about food running out and (2) the food bought did not last and there was not enough money to buy more (Hager et al. 2010). While this tool demonstrates good sensitivity, specificity, and validity, it cannot successfully identify households struggling to meet their food needs if caregivers choose not to disclose.

Methods for FI screening focus primarily on providing survey tools for screenings, enhancing clinician knowledge about FI, and motivating clinicians to incorporate screenings into their regular practice. Although no published literature exists examining the caregiver's perspective on FI disclosure, research about disclosure of other sensitive topics, such as intimate partner violence (IPV), has examined caregivers' perceptions. This literature identifies barriers and facilitators to disclosure spanning levels of the social-ecological model and emphasizes that disclosure is not due to individual-level factors alone; disclosure is influenced heavily by interpersonal relationships and sociocultural contexts (Qiao et al. 2015; Moses and Tomlinson 2013; Adeoye-Agboola et al. 2016).

We examined pediatric caregivers' perceptions of FI disclosure to a healthcare provider (HCP). Our study is an extension of previous work where we found that 57% of pediatric caregivers surveyed in our clinic anonymously reported household FI over the last 12 months (double the rate of our municipality where one quarter of households with children are food insecure) (Barnidge et al. 2016; Feeding America 2016). However, when our clinic health care providers screened for FI as part of their routine clinical care in the fall of 2015, less than 5% of caregivers reported FI when asked verbally by their provider. Data from our initial survey also revealed that nearly 20% of caregivers were uncomfortable talking to a physician or a nurse about food needs and caregivers who reported household FI were more likely to feel discomfort than food secure caregivers (Barnidge et al. 2016).

Understanding the perspective of pediatric caregivers is crucial for developing optimal screening administration methods in clinical settings. Informed by IPV and sexually transmitted disease (STD) disclosure literature, our study identifies caregivers perceived barriers and facilitators to FI disclosure.

Methods

Surveys

We conducted a mixed method sequential exploratory study. We quantitatively assessed factors influencing FI disclosure and conducted in-depth interviews with a subset of caregivers attending an academic pediatric center associated with a medical school. Figure 1 illustrates our sampling strategy. Research members approached a convenience sample of adults in the clinic waiting room from May to July of 2016. We reviewed informed consent documents with participants. Consenting participants self-completed an electronic eligibility survey designed to assess FI status using the Hunger Vital Signs™ two-item screener (Hager et al. 2010) and factors influencing disclosure of household FI. We provided caregivers with a series of statements adapted from IPV disclosure research (Hegarty and Taft 2001) and were asked to indicate the item's level of influence on FI disclosure. A five-item Likert scale included the following response options: no influence (1), a little influence (2), some influence (3), moderate influence (4), and great influence (5). An example statement included, "I think my doctor would help if they knew about our food needs." We dichotomized the Likert scale responses during analysis to indicate either "little to no influence" (1–2) or "some to great influence" (3–5). We calculated frequencies for FI status and factors influencing FI disclosure.

Interviews

Caregivers were eligible to participate in an interview if they screened positive for FI on the eligibility survey, identified as a clinic patient caregiver, resided in the St. Louis area, and were ≥ 18 years of age. Those that did not meet the inclusion criteria or had a child less than 1 year of age were excluded from the study. We excluded caregivers of infants due to concurrent clinic studies about families with infants. We asked eligible caregivers to provide contact information if they wanted to participate in an interview (n = 28). We randomly selected 15 caregivers to interview from our convenience sample of caregivers providing contact information.

One public health trained female research team member conducted 15 face-to-face, semi-structured interviews to assess caregiver perceptions about disclosing FI to HCPs,

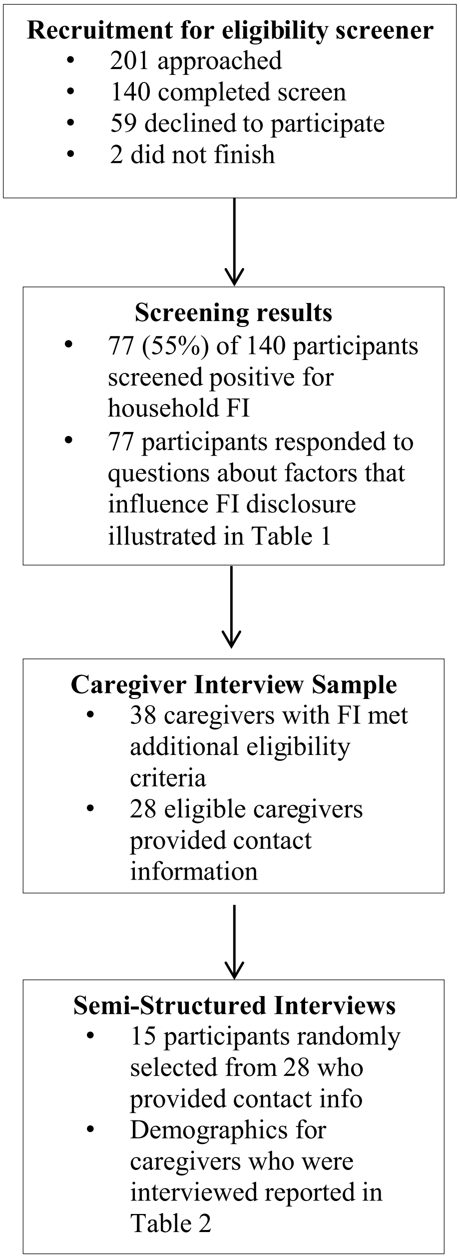

Fig. 1 Study recruitment model

challenges to meeting household food needs, and suggestions for screening improvements. The team member was not a HCP and had no prior relationship to the participants. Interview questions were informed by the IPV and STI disclosure literature (Feder et al. 2006; Hegarty and Taft 2001; Lutenbacher et al. 2003). Examples of questions include, “what makes (would make) it difficult to talk to your HCP about your household food needs?”, and “what would you like your HCP to know about FI that would improve your visits and the visits of other families with young children?” All interviews were audio recorded and transcribed verbatim. The average interview lasted 29 min. Two research members conducted thematic content analysis to analyze qualitative data. While the team used an a priori coding technique (Saldaña 2009), we initially conducted first round open coding to assess patterns in the data and identify codes missing from our a priori coding structure (Saldaña 2009). We developed a codebook with code definitions guided by the social-ecological model (Miles et al. 2014). Initially, the team members assigned excerpts to individual, interpersonal, or organizational/policy levels. Within each level, we coded excerpts as facilitators or barriers to disclosure, then identified overarching themes which describe a caregiver’s perspective on disclosing FI. One team member conducted chunk checking, a technique to determine if a quotation fits within an assigned code, to strengthen code consistency (Miles and Huberman 1994). Changes throughout the coding process were documented. The team members used Dedoose for data management (Dedoose, Version 8.1.8).

Following the interview, caregivers completed a survey to assess demographics, perception of FI as a serious problem, comfort discussing FI with their child present, and the preferred medium for disclosing FI. Caregivers who took part in the interviews received a $5 gas card to reimburse travel costs and a $25 gift card for participation. We ran descriptive statistics to analyze data from the interviewees’ demographic surveys.

This study was approved by the Institutional Review Board and participants gave consent to participate. We used the COREQ criteria for reporting qualitative research (Tong et al. 2007).

Results

Surveys

We approached 201 adults to take the eligibility survey in the clinic waiting room. One-hundred and forty caregivers completed the survey, a 70% response rate. Fifty-five percent of caregivers ($n = 77$) reported FI. The survey captured factors at the individual, interpersonal, and organizational level that influence whether they would disclose FI to a HCP (Table 1). At the individual level, the majority of caregivers indicated disclosure was greatly influenced by believing they could deal with FI on their own (67.1%), feeling ashamed or embarrassed about struggling to provide food for their family (56.3%), and not viewing FI as not a serious enough problem to tell a physician (52.1%). Feeling as though their child’s HCP listens to them when they speak about household food challenges (56.3%) and thinking their child’s doctor is only available to help with physical problems (45.1%) were emphasized as interpersonal factors influencing FI disclosure. Finally, 41.4% of caregivers reported that their

Table 1 Eligibility screen: factors influencing disclosure of FI

How much influence would the following statement have on whether you would tell your child's doctor about you food concerns?	Little to no influence	Some to great influence
N = 77	N (%)	N (%)
Individual level factors		
I feel I can deal with our food needs on my own	23 (32.9)	47 (67.1)
I feel ashamed or embarrassed telling my child's doctor about our food needs	31 (43.7)	40 (56.3)
I do not think food needs are a serious enough issue to tell my child's doctor about	34 (47.9)	37 (52.1)
Interpersonal level factors		
My child's doctor listens when I speak about our food challenges	31 (43.7)	40 (56.3)
I think my child's doctor is only there to help with physical problems	39 (54.9)	32 (45.1)
Organizational level factors		
I do not want to talk about our family's food challenges with my child present	41 (58.6)	29 (41.4)

child's presence while being questioned about household FI would influence their decision to disclose.

Interviews

Of the 77 caregivers who reported FI, 38 met additional eligibility criteria to participate in an interview and 28 provided contact information to participate in an interview. Of those who provided contact information, 15 were randomly selected to be interviewed. Interviewed caregivers identified primarily as female (87%), Black/African American (73%) and being employed for wages (60%). Caregivers' median age was 35 and the median number of children in each household was two. Half of interviewed caregivers identified FI as a serious problem for their family (47%), preferred face-to-face disclosure with a doctor or nurse practitioner (53%), and indicated comfort with disclosing when their child is present (67%) (Table 2).

Quotations that support the qualitative themes presented in Table 3.

Individual Level Barriers and Facilitators

Caregivers noted that their "pride" or "ego" prevented them from opening up to HCPs about their food needs. One caregiver explained "My pride… People might look down on you, like you're poor, you're needy… no it's not that, I just have bills." Other caregivers expressed feelings of embarrassment and shame expressing that as a mother it is "my responsibility." Meanwhile, another caregiver echoed responsibility, and added that struggling to feed your kids "makes you feel incompetent."

Half of caregivers expressed concern over uncertainty of how others might react if they knew the caregiver was struggling to provide food for their household. One caregiver described stigma related to needing help while another caregiver did not want others to think they could not feed their family. Caregivers voiced concern that disclosing FI would result in a caregiver being reported to social services or their child(ren) being taken away.

Caregivers explained that they were unaware HCPs could help with FI and expressed concern about how to talk to HCPs about food needs. Caregivers expressed not knowing how to raise the concern of FI with their HCPs or whether informing HCPs of their food needs is "ok". One caregiver stated that they "don't know the right words to use" to talk about FI. Only one caregiver described a previous discussion about food needs with her HCP. She explained that courage is what facilitated the discussion and that she "would rather ask than not say anything" because her family needed food.

Interpersonal Barriers and Facilitators

The caregivers emphasized that the interpersonal interactions with HCPs influenced FI disclosure. Caregivers revealed sensitivity to nonverbal communication, including facial expressions, posture, speed of conversation, and eye contact may inhibit a caregiver's decision to disclose household food needs to a HCP. One caregiver said a doctor's face suggests when the HCP does not want to ask about something.

In addition to nonverbal communication, interviewed caregivers identified question framing as a barrier to FI disclosure. A caregiver expressed concern that caregivers would not disclose if a HCP frames FI as a "problem." This caregiver shared, "some doctors are not very nice about it. It's are you low income, do you starve, do you and your family not eat? I mean, who's [going to] answer yes?"

Caregivers identified HCP empathy, concern, and empowerment as approaches that make household FI discussions easier. Nearly half of interviewed caregivers indicated that discussions revolving around FI would greatly benefit from

Table 2 Demographics of interviewed caregivers (n = 15)

Characteristic	N (%)
Sex	
Male	2 (13)
Female	13 (87)
Race	
White	4 (27)
Black/African American	11 (73)
Employment	
Employed for wages	9 (60)
Self-employed	1 (6.7)
Out of work < 1 year	2 (13.3)
Stay at home caregiver	1 (6.7)
Unable to work	2 (13.3)
Food assistance program participation	
WIC	7 (46.7)
SNAP	11 (73.3)
Free or reduced breakfast	6 (40)
Free or reduced lunch	6 (40)
Summer meal program	2 (13.3)
Food pantry/food ministry	2 (20)
None	2 (13.3)
Received help from friends/family in past year	
Yes	9 (60)
Annual household income	
0–9999	5 (33.3)
15,000–19,999	3 (20)
20,000–24,999	2 (13.3)
25,000–34,999	3 (20)
35,000–49,999	1 (6.7)
50,000–74,999	1 (6.7)
Savings account available	
No	14 (93.3)
FI is a serious problem for family	
Yes	7 (46.6)
Communication preference	
Face-to-face with doctor or NP	8 (53.3)
Face-to-face with nurse	1 (6.7)
Face-to-face with case manager or social worker	2 (13.3)
Completing pen and paper survey in waiting room	2 (13.3)
Completing an electronic survey in waiting room	2 (13.3)
Comfortable with child present	
Yes	10 (66.7)

positive interpersonal skills (e.g. empathy, sympathy, sensitivity, rapport building). One caregiver suggested HCPs let caregivers know they understand and have dealt with FI before. Another provided an example of how to frame questions. The HCP would say, “we understand in this day and age that sometimes it’s hard to feed your family. We understand that not everyone’s financial situation is okay.” One caregiver suggested prefacing FI disclosure questions by reminding the caregiver they would not be judged and sharing up front that the HCP is, “trustworthy enough [for a caregiver to] open up without social services and child protective services getting called.” Others noted how important it is when their child’s physician talks *with* them and makes the caregiver feel empowered.

Organizational Barriers and Facilitators

The majority of caregivers indicated no routine discussion regarding FI occurred during child well-visits. The caregivers explained they never thought to discuss it with the HCP while other caregivers said FI questions never came up.

During the interviews, multiple caregivers touched on perceptions of organizational policies regarding the involvement of child protective services. When asked to describe why they thought FI was never discussed during well-visits, one caregiver shared *“you tend to think, well if I ask for help they’ll take my kid away.”* Another said they worried about someone “reporting” or “turning [them] in.”

Caregivers highlighted privacy as a concern when disclosing FI. Two interview caregivers described feeling uncomfortable discussing FI with their child present. For example, one caregiver said she does not want to talk about it with her son in the room “because he doesn’t need to know, because he’s only 13 and he’s been through so much.” Another caregiver noted that their younger child would repeat the information to others while an older child might begin to worry about food resources. Lastly, a caregiver reiterated the need for privacy when discussing FI and stated that disclosing where others could overhear would be a barrier.

Caregivers identified organizational factors that would facilitate disclosure. Most caregivers expressed desire to disclose FI in a survey format in the waiting room. Nearly half of caregivers interviewed said they would like healthcare providers to initiate FI discussion once surveyed. Others noted that “advertisements on the wall” encouraging caregivers to talk with a HCP about FI would help.

Actions

Interviewed caregivers also provided insight about how HCPs can respond once FI is disclosed. Most caregivers desired referrals or information about food resources. One caregiver specifically suggested the use of texting to improve resource connection. In addition to information about resources, caregivers noted wanting resources such as “vouchers” or “coupons” from HCPs to offset food cost. Others expressed an interest in improving relationships between HCPs and the Special Supplemental Nutrition Program (SNAP) or Women, Infants and Children (WIC). One caregiver suggested HCP provide a

Table 3 Interview themes at each social-ecological level and recommendations for action

Ecological level	Theme	Example supporting quote
Individual	Barrier	
	Pride	"My pride… People might look down on you, like you're poor, you're needy… no it's not that, I just have bills and other things to pay for."
	Embarrassment/shame	"A little shame in a way, because I'm a mother and I feel it's my responsibility and I'm independent in that area. So, maybe that's why I think it's a little embarrassing."
	Stigma	"There's a stigma out there about people needing help."
		"You don't want people to think, well why can't you feed your family?"
	Concern child will be taken away	"You might be struggling just at that moment, but they might take it wrong and social services will be in… I think that's serious, not feeding a child…"
	Doctors are not interested in FI	"I mean they're doctors, they're not really concerned about that… they're just worried about the illnesses of the kids, not going are you hungry, [and] did you eat today."
	Skills to talk about FI	"Don't know the right words to use"
	Facilitator	
	Courage	"I wasn't really comfortable. It was more, I'd rather ask than not say anything because I'm like how can we [get] food and all that stuff… usually me with asking questions I have to build the courage up to ask."
Interpersonal	Barrier	
	HCP's nonverbal communication	"The [doctor] leave like [their] faces like I don't want to do this, I don't want to be here, but I've got to do it because it's my job."
	HCP question framing	"Some doctors are not very nice about it. It's are you low income, do you starve, do you and your family not eat? I mean, who's [going to] answer yes? Are they going to take my kid away?"
	Facilitator	
	HCP's empathy	"Put themselves in the patient's place."
		"A doctor comes in and says we understand in this day and age that sometimes it's hard, you know, to feed your family… we understand that not everyone's financial situation is okay…"
	HCP question framing	"At one point they started off saying it's going to be a bit of a personal question but there's no judgment here, and stuff like that, and basically that could be a way, just be like there's no judgment here, or your answer won't leave this room, and stuff like that."
		"I think if he was like I understand, we've dealt with this situation a lot, here are some ways to help."
	Caregiver empowerment	"She doesn't talk to you like you're dumb or ignorant. She doesn't talk down. She tries to empower you…"
Organizational	Barrier	
	No current FI screening	"I never said anything about worrying about [FI] and thought to [talk] to the pediatrician about [the] topic…".
	Consequences of disclosing FI	"You tend to think, well if I ask for help they'll take my kid away…".
	Screening with child present	"Probably with my son being in the room, because some things we don't like talking about in front of him, because he doesn't need to know, because he's only 13 and he's been through so much…"
		"Discussing that you don't have enough food to feed them in front of them. That's why I'm saying, if you come into it with a paper form or that little tablet, then when you go in there too with the nurse she would have the information, she can see what you checked, so you are asking for help. Then when they ask about their appetite they can say would you like to talk about a food program? And basically yeah, you can go in the other room or something like that. Him, no problem, but with the 7 year old she gonna repeat everything, or the 13 year old. So the older kids, all they gonna do, daddy we gonna eat tonight and I say yeah, okay"
	Screening in front of others	"In front of a group of people…another family…at some check out at the counter where people could hear…"
	Facilitators	
	HCP initiating FI discussion	"I wouldn't just come out and tell them. If a person asks then that's fine."

Table 3 (continued)

Ecological level	Theme	Example supporting quote
	Caregiver cues to action	"Maybe an advertisement on the wall, how is your eating habits? Are you eating, or do you need help? Ask your doctor."
	Nonverbal screening method	"It would be easier for me to do a survey. We'd really have to be struggling to verbally ask, I do better on paper than I do speaking out."
Recommendations	Provide referrals	"It would be awesome if [HCPs] would say, okay well let me tell you about a program… the next thing they say is would you be interested in going to a food pantry, and maybe have a list or a phone number that you could call to get the local pantry, or a resource list".
	Collaborate with WIC	"Work closely with WIC… or here's a referral for you to give to the WIC people, that [indicates the child is] ready for this or she should be getting more of that."
	Use technology to share information	"Since everything is about technology today, I would say do it through the phones or send text messages or emails… it would probably be a lot quicker, or a lot cheaper, to do it through the phone."
	Address other social determinants	"… especially in the winter time, some [resources] that might have a coat or something…or even resources for if you're having problems paying your electric bill, you know?"
	Address stigma	"I think people need to stop shaming people about being hungry and start helping them. I think that's why people don't seek out [help], because it's like you're shamed more than it's like oh my gosh, let's all pull together and help you. And that has to end. That's why my daughter's embarrassed, she feels ashamed."

referral to WIC indicating the type of food the child is ready to eat. Caregivers also expressed desire for help with resources beyond food, such as coats, transportation, and medication.

As noted, caregivers emphasized shame or inadequacy associated with FI. One caregiver identified an action to address the social stigma perpetuating feelings of shame and inadequacy. She explained,

> "I think people need to stop shaming people about being hungry and start helping them. I think that's why people don't seek out [help], because it's like you're shamed more than it's like oh my gosh, let's all pull together and help you."

Discussion

Caregivers' FI disclosure concerns span the individual, interpersonal, and organizational levels of the social-ecological model. Similar to IPV disclosure (Feder et al. 2006; Hegarty and Taft 2001; Lutenbacher et al. 2003), 67% of survey respondents reported that feeling they could deal with FI on their own influenced whether they would tell their child's doctor about food needs. Only 46% of caregivers interviewed said that FI was a serious problem for their family, even after self-reporting FI. Caregivers' expression of FI-related stigma and fear of having a child taken away due to insufficient food in their household may explain these feelings. Research on poverty stigma describes strategies individuals use to cope with stigma which include ignoring instances of stigma, withdrawing from social situations where stigma might occur, or concealing poverty to avoid stigma (Reutter et al. 2009; Allen et al. 2014). In a study examining poverty stigma in health care, those who indicated experiences of poverty stigma, avoided health care or switched providers when stigmatizing experiences occurred (Allen et al. 2014).

Despite stigma-related concerns, our study found that caregivers want to feel empowered to discuss FI with HCPs. Empowerment may be facilitated by cues to action (e.g. posters in the waiting room about talking with your doctor about FI) and information about the resource referral process. The AAP and the Food Research and Action Center provide publicly available posters to serve as HCP cues to action (2017). Developing similar health communication strategies for patients and caregivers struggling with FI may have lasting impacts.

At the interpersonal level, our study reinforces a need for provider education and training. To date there are several continuing education programs focused on such training (Oregon State University 2019). This type of training informs clinicians about the scope of FI, the risk factors and consequences of FI, and how to screen. The AAP provides FI screening and referral algorithms (American Academy of Pediatrics & Food Research & Action Council 2017). Our study adds that a brief discussion of FI screening with caregivers has potential to destigmatize FI. Caregivers explained that by prefacing screening questions with a statement about the prevalence of FI and that HCPs are not there to judge can create safe spaces for FI disclosure. Caregiver concern about having a child removed from the home due to FI disclosure highlights an important distinction to be made about FI. FI is a lack of resources to acquire enough food to eat and should not be confused with intentionally withholding food from a child. HCPs may be able to alleviate caregiver concern if they are able to frame the screening as solely about FI and explain the referral process upfront. Beyond FI training, HCPs may benefit from training that raises poverty stigma awareness and examines poverty stereotypes that can influence care provision (Allen et al. 2014).

Consistent organizational practice may increase the likelihood of FI disclosure. Most of our study caregivers noted never talking to HCPs about FI and did not think a HCP could help if they disclosed FI. We anticipate that, like IPV disclosure, caregiver comfort will improve with repeated FI screening by responsive HCPs (Hegarty and Taft 2001). Likewise, routine FI screening by a HCP whom the caregiver knows well can normalize FI screening and may change caregivers' expectations of HCPs and systems. However, screening processes should be developed with consideration of children's awareness. While 67% of caregivers were comfortable disclosing with a child present, qualitative comments expressing concern about children hearing a caregiver disclose FI should be considered. Studies show that children as young as 10 years old begin using coping strategies to manage household FI, including reducing portion sizes or skipping meals, often without a caregiver's knowledge (Fram et al. 2011).

We gathered caregiver insight on how best to address FI when households screen positive. The caregivers expressed interest in receiving referrals, vouchers, or coupons from HCPs to connect with community-based resources designed to alleviate acute and chronic FI. While the notion of establishing healthcare and community partnerships to address FI is not novel (Beck et al. 2014, 2015; Health Leads 2017; Stenmark et al. 2015; Lundeen et al. 2017), caregivers from our study highlight opportunities for HCPs to advocate for patient needs within well-established service programs, such as WIC or SNAP. Our findings emphasize that FI cannot be solved with a one-size-fits-all approach. Using HCPs as advocates to tailor services to patient needs may not only improve health outcomes, but result in more effective use of social safety net resources. Encouraging HCPs to engage in these partnerships and represent the specific needs of their patients may influence the ways in which federal food assistance programs or local organizations serve their clientele.

While our study identifies additional considerations for FI screening from the perspective of caregivers, our design is limited. The screening survey was designed as a rapid eligibility screen to suit the clinic setting. We did not include demographic questions; therefore, we were unable to assess differences between those who participated in interviews and those who declined participation. Data were collected from 15 caregivers given our resource parameters. Due to the small sample size of this study, we were unable to reach saturation and the findings are likely not representative of all caregivers reporting FI in pediatric settings. We did not conduct member checking, a strategy to increase validity; however, we triangulated interview findings with the factors influencing disclosure eligibility screener items to identify areas of convergence and divergence (Miles et al. 2014). Despite the limitations, these data provide deeper insight into factors to consider when designing interventions and give voice to caregivers.

These findings suggest that while clinical indication for FI screening exists, unless we respond to caregivers' needs, screening may not identify households most vulnerable to FI. As models to identify and address FI in pediatric clinical settings continue to emerge, we must balance an understanding of the social conditions that contribute to household FI with the desire of caregivers to individually seek assistance. We hope that listening to caregivers and advocating for their needs contributes to more responsive health care systems and cultivates less stigmatizing environments.

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Compliance with Ethical Standards

Conflict of interest The authors declare that they have no conflict of interest.

References

Adeoye-Agboola, D. I., Evans, H., Hewson, D., & Pappas, Y. (2016). Factors influencing HIV disclosure among people living with HIV/AIDS in Nigeria: A systematic review using narrative synthesis and meta-analysis. *Public Health, 136,* 13–28.

Alaimo, K., Olson, C. M., & Frongillo, E. A. (2001). Food insufficiency and American school-aged children's cognitive, academic, and psychosocial development. *Pediatrics, 108*(1), 44–53.

Allen, H., Wright, B., Harding, K., & Broffman, L. (2014). The role of stigma in access to health care for the poor. *Milbank Quarterly, 92*(2), 289–318.

American Academy of Pediatrics, & Food Research & Action Center. (2017). Addressing food insecurity: A toolkit for pediatricians. Retrieved August 13, 2019, from http://frac.org/aaptoolkit.

Barnidge, E., LaBarge, G., Krupsky, K., & Arthur, J. (2016). Screening for food insecurity in pediatric clinical settings: Opportunities and barriers. *Journal of Community Health, 42*(1), 51–57.

Beck A., Henize, A., Kahn, R., & Klein, M. (2015). Curtailing food insecurity with clinical-community collaboration. *Health Affairs Blog*. Retrieved August 13, 2019, from https://www.healthaffairs.org/do/10.1377/hblog20150709.049172/full/.

Beck, A. F., Henize, A. W., Kahn, R. S., Reiber, K. L., Young, J. J., & Klein, M. D. (2014). Forging a pediatric primary care–community partnership to support food-insecure families. *Pediatrics, 134*(2), e564–e571.

Oregon State University. (2019). Childhood Food Insecurity. Retrieved August 13, 2019, from https://pace.oregonstate.edu/catalog/childhood-food-insecurity.

Coleman-Jensen, A., Rabbitt, M., Gregory, C., & Singh, A. (2016). Household food security in the United States in 2015: USDA-ERS. Retrieved August 13, 2019, from https://www.ers.usda.gov/publications/pub-details/?pubid=79760.

Council on Community Pediatrics & Committee on Nutrition. (2015). Promoting food security for all children. *Pediatrics, 136*(5), e1431–e1438.

Eisenmann, J. C., Gundersen, C., Lohman, B. J., Garasky, S., & Stewart, S. D. (2011). Is food insecurity related to overweight and obesity in children and adolescents? A summary of studies, 1995–2009. *Obesity Reviews, 12*(5), e73–e83.

Feeding America. (2016). Map the Meal Gap 2016. Retrieved August 13, 2019, from https://www.feedingamerica.org/sites/default/files/research/map-the-meal-gap/2014/map-the-meal-gap-2014-exec-summ.pdf.

Feder, G. S., Hutson, M., Ramsay, J., & Taket, A. R. (2006). Women exposed to intimate partner violence: Expectations and experiences when they encounter health care professionals: A meta-analysis of qualitative studies. *Archives of Internal Medicine, 166*(1), 22–37.

Fram, M. S., Frongillo, E. A., Jones, S. J., Williams, R. C., Burke, M. P., DeLoach, K. P., et al. (2011). Children are aware of food insecurity and take responsibility for managing food resources. *Journal of Nutrition, 141*(6), 1114–1119.

Hager, E. R., Quigg, A. M., Black, M. M., Coleman, S. M., Heeren, T., Rose-Jacobs, R., et al. (2010). Development and validity of a 2-item screen to identify families at risk for food insecurity. *Pediatrics, 126*(1), e26–e32.

Hamm, M., & Bellows, A. C. (2003). Community food security: Background and future directions. *Journal of Nutrition Education and Behavior, 35*(1), 37–43.

Health Leads. (2017). Health Leads. Retrieved April 6, 2017, from https://healthleadsusa.org/.

Hegarty, K. L., & Taft, A. J. (2001). Overcoming the barriers to disclosure and inquiry of partner abuse for women attending general practice. *Australian and New Zealand Journal of Public Health, 25*(5), 433–437.

Jyoti, D. F., Frongillo, E. A., & Jones, S. J. (2005). Food inecurity affects school children's academic performance, weight gain, and social skills. *The Journal of Nutrition, 135*(12), 2831–2839.

Kleinman, R. E., Murphy, J. M., Little, M., Pagano, M., Wehler, C. A., Regal, K., et al. (1998). Hunger in children in the United States: Potential behavioral and emotional correlates. *Pediatrics, 101*(1), e3.

Laraia, B. A. (2013). Food insecurity and chronic disease. *Advances in Nutrition, 4*(2), 203–212.

Lundeen, E. A., Siegel, K., Calhoun, H., Kim, S., Garcia, S. P., Hoeting, N., et al. (2017). Clinic-community partnerships to identify patients with food insecurity and address food needs. *Preventing Chronic Disease, 14,* E113.

Lutenbacher, M., Cohen, A., & Mitzel, J. (2003). Do we really help? Perspectives of abused women. *Public Health Nursing, 20*(1), 56–64.

Miles, M., & Huberman, A. (1994). *Qualitative data analysis* (2nd ed.). Thousand Oaks, CA: Sage.

Miles, M., Huberman, A. M., & Saldaña, J. (2014). *Qualitative data analysis* (3rd ed.). Los Angeles, CA: Sage.

Moses, S., & Tomlinson, M. (2013). The fluidity of disclosure: A longitudinal exploration of women's experience and understanding of HIV disclosure in the context of pregnancy and early motherhood. *AIDS Care, 25*(6), 667–675.

Nord, M. (2009). Food Insecurity in households with children: Prevalence, severity, and household characteristics. *Economic Information Bulletin Number 56*. Retrieved August 13, 2019, from https://www.ers.usda.gov/publications/pub-details/?pubid=44421.

Qiao, S., Li, X., Zhou, Y., Shen, Z., Tang, Z., & Stanton, B. (2015). Factors influencing the decision-making of parental HIV disclosure: A socio-ecological approach. *AIDS, 29*(Suppl 1), S25–S34.

Reutter, L. I., Veenstra, G., Love, R., Raphael, D., & Makwarimba, E. (2009). "Who do they think we are, anyway?" Perceptions of and responses to poverty stigma. *Qualitative Health Research, 19*(3), 297–311.

Saldaña, J. (2009). *The coding manual for qualitative researchers*. Los Angeles, CA: Sage.

Stenmark, S., Solomon, L., Allen-Davis, J., & Brozena, C. (2015). Linking the clinical experience to community resources to address hunger in colorado. *Health Affairs Blog*. Retrieved August 13, 2019, from https://www.healthaffairs.org/do/10.1377/hblog20150713.049277/full/.

Tong, A., Sainsbury, P., & Craig, J. (2007). Consolidated criteria for reporting qualitative research (COREQ) a 32-item checklist for interviews and focus groups. *International Journal for Quality in Health Care, 19*(6), 349–357.