Parental Management of Child Hunger among Homeless and Precariously Housed Families with Adult Food Insecurity*

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September 2018

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Introduction

Food insecurity is a household condition marked by economic or social limits on access to adequate food (Nord 2012). This may include actual limits on the amount of food consumed by adults and children within a household, a condition referred to as *very low food security* (VLFS). In 2017, approximately 15.6 million US households (12.3%) met criteria for food insecurity (Coleman-Jensen, Rabbit, Gregory and Singh 2018). Among households with children present, roughly 7.7% were affected by child food insecurity, or CFI (Coleman-Jensen et al. 2018). This is cause for concern as CFI is associated with numerous adverse outcomes for youth, including poor physical and mental health, impaired development, and psychosocial problems (Gundersen and Ziliak 2015; Jyoti, Frongillo and Jones 2005; Rose-Jacobs et al. 2008).

National estimates of food insecurity are based on data from the Current Population Survey (CPS), which captures only households with permanent addresses. Therefore, these assessments exclude those most vulnerable to food insecurity – families who are homeless. Nationally-representative estimates from older but unexplored data indicate much higher rates of both parental and child food insecurity among those who are homeless. Analyses of the 1996 National Survey of Homeless Assistance Providers and Clients show that 61.1 % and 12.7% of currently homeless and precariously housed families met at least one criterion for adult and child food insecurity, respectively (Lee and Lippert, in progress). Recent estimates from data sources local in scope corroborate these estimates (Gubits et al. 2016). Most important for our purposes, these patterns indicate a degree of discordance between the occurrence of adult and child food insecurity within homeless families, indicating that many food insecure parents who are homeless still manage to shield their children from hunger.

The literature on food insecurity among families makes clear that this is a "managed process" (Radimer 1990). When faced with food shortages, parents often prioritize their

children's needs over their own (Elliott and Bowen 2018). Among domiciled families, research shows that this may include improvisational measures to ensure that enough food is available for children, including adult meal skipping or cutting portion sizes (Badun, Evers, & Hooper, 1995; DeVault, 1991; McIntyre, Connor, & Warren, 2000; McIntyre et al., 2003). It is unclear how families who are homeless manage food scarcity and what measures they deploy to ensure their kids are fed. These managerial behaviors may include measures that are atypical for families with steady housing, such as visiting food pantries, obtaining food from shelters or soup kitchens, and soliciting handouts on the street.

It is also unclear how the management strategies used by homeless families to protect their children from hunger affect the health of caregivers. Research shows that food insecurity is associated with numerous adverse health outcomes for adults, including measured hypertension and diabetes (Seligman, Laraia and Kushel 2010). The risk for adverse health outcomes may be more pronounced among low-income persons who are also managing the dietary needs of children in their care (Martin and Lippert 2012). The health consequences posed to homeless parents managing limited food resources to shield their children from hunger are not known.

Given these research gaps, our current study has three main aims: to (1) document the degree of discordance or concordance between parental and child food insecurity among homeless and precariously housed families and their low-income but domiciled counterparts; (2) identify factors that assist or impede food insecure homeless and precariously housed parents in the shielding of their children from hunger; and (3) assess differences in the food sources and health profiles of homeless and precariously housed parents with no household food insecurity, adult food insecurity only, and CFI. We address these aims using data from the 1996 National Survey of Homeless Assistance Providers and Clients (NSHAPC). The client portion of the

NSHAPC contains selected adult and child VLFS measures from the CPS food security module for a national probability sample of low-income family households that were *currently homeless*, *formerly homeless*, or *never homeless* at the time of their interview. The latter two groups, which we collectively refer to as the *precariously housed* subsample, widen the scope of our investigation to include over 700 parent respondents and 1,500 children under the age of 18 in their care. We ground our investigation in family resilience theory (McCubbin, Boss, Wilson, & Lester, 1980; McCubbin & Patterson, 1982) and develop a new parental management model of food insecurity to better understand how parental vulnerabilities and family-level processes are implied in the concordance between adult and child food insecurity among families at the very margins of society.

Background

Many families in the US struggle with varying degrees of food insecurity. The spectrum of this struggle is classified into four levels of family food security: secure, insufficient, low security, and very low security (Bickel, Nord, Price, Hamilton, & Cook, 2000; Wunderlich & Norwood, 2006). Food insufficiency, indicated by otherwise food secure families' anxieties over being able to provide enough food to household members, is itself a deeply concerning phenomenon in economically-advanced societies such as the US. However, many families struggle with more than such anxieties. Very low food security occurs when families lack resources to purchase, store, and prepare adequate food for household members, risking adaptive strategies that stretch each food purchase but are nevertheless known correlates of poor health including portion restrictions, meal skipping, and involuntary fasting (Wunderlich & Norwood, 2006).

Very low household food security may not impact all family members equally, especially when adults adopt measures to spare children from hunger (DeVault 1991). Economically-vulnerable parents, most often mothers, employ a variety of strategies to feed their families (Stevens 2010) even if this comes at the cost of their own health (Martin and Lippert 2012; Tarasuk and Beaton 1999). The measures that parents take to protect their children helps make sense of the behavioral responses often made in the face of food scarcity. While meal skipping or cutting portion sizes may expose parents to adverse health outcomes (Martin and Lippert 2012; Seligman et al. 2010), these improvisational responses also allow parents to ration food options for their children. Of course, not all parents beset by food insecurity are successful at "shielding" their children, a fact reflected by the 2.9 million US households with child food insecurity in 2017 (Coleman-Jensen et al. 2018). What factors dictate whether food insecure parents successfully shield their children from food insecurity?

Family resilience theory (McCubbin, Boss, Wilson, & Lester, 1980; McCubbin & Patterson, 1982) offers some clues about how parental vulnerabilities and family-level processes allow or prevent families from protecting their children from hunger. According to this theory, families successfully overcome risks without disruptions to optimal family functioning when they are equipped with a beneficial mix of parental attributes, shared senses of family meaning and cohesion, and family-level processes that are aligned with the needs of individual family members. Under this theory, "risk" refers to exposures, sudden and lingering, that are both stressful and atypical to the daily challenges all families endure. For instance, McCubbin and his colleagues (McCubbin and McCubbin 1988) studied how military families responded to wartime stressors and the characteristics of families that successfully adapted to the crises of war. Other

examples of exceptional risks to families include incarceration of a partner (Turney 2015) and extreme poverty (Seccombe 2002).

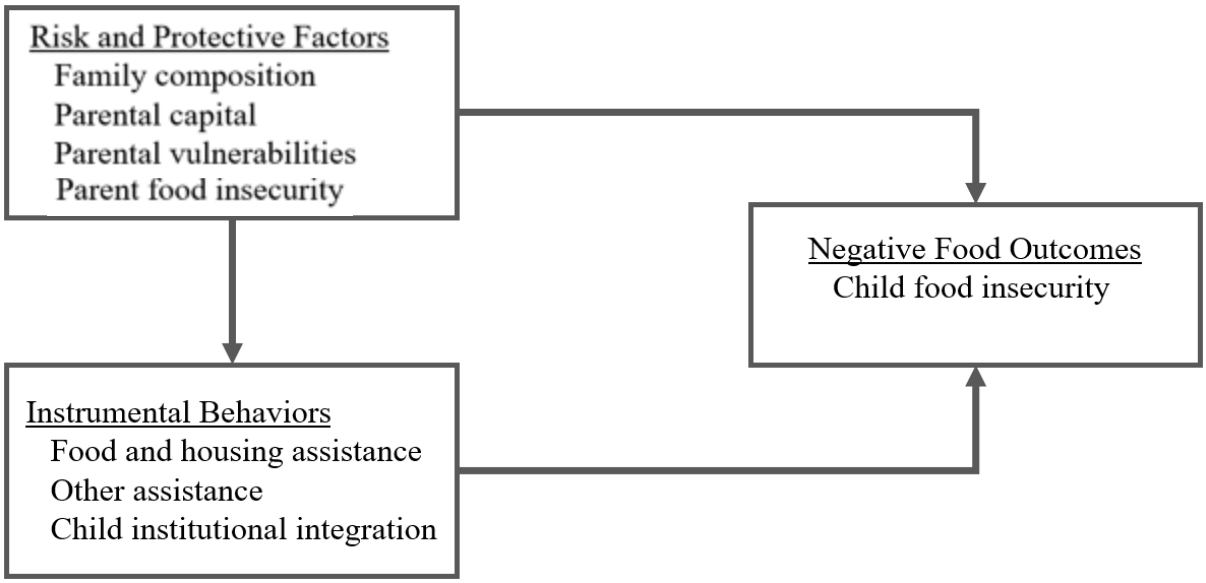
A family-level risk exposure is a necessary precondition for assessing resilience, as is a family-level outcome indicative of optimal family functioning (i.e., complete food security) and resilience, or suboptimal functioning in the form of an unmet family need, like food insecurity. Bridging risk exposures to family-level outcomes are parental traits and family processes that operate to help or hinder families to manage such risks. Key parental traits might include the absence of psychosocial vulnerabilities, higher education, and steady employment. Family-level processes relate to functions within the family (e.g., parent-child bonding rituals) and *between* the family and the broader community that enhance a family's capabilities to meet family demands in the face of adversity. Processes connecting vulnerable families to the broader community might include successful engagement with governmental support programs providing housing or food assistance, access to social support systems, regular interactions with health care providers, and enrollment of one's children in school, daycare, or pre-school programs. In the case of families who are homeless it is tempting to assume that all such families face massive and invariable challenges in the form of parental vulnerabilities and family processes that undermine their food security, yet evidence suggests meaningful variation in the functioning and capabilities of homeless and precariously-housed families.

Since the 1980s, homeless service infrastructure has dramatically expanded (Burt, Aron, and Lee 2001; Burt and Cohen, 1989), and with it access to food assistance at shelters, food pantries, and soup kitchens. The widening net of food assistance options to families without steady housing could lower the incidence of food insecurity – including child food insecurity – among families with the resources to capitalize on such programs. Other obstacles to food

security may involve a range of vulnerabilities common to those without steady housing. Even when compared to those who are very poor but domiciled, people who are homeless suffer disproportionately from mental and physical health problems (Bassuk et al. 1998; Culhane et al. 2001; Fischer and Breakey 1991; Greenberg and Rosenheck 2010; Haddad et al. 2005; Lehman and Cordray 1993; North et al. 2004; O'Connell 2005) and alcohol or other drug use (Burt, Aron, and Valente 2001; Dennis et al. 1999; Eyrich-Garg et al. 2008; North et al. 2010). Additional challenges to family functioning may come in the form of parental vulnerabilities common to homeless adults such as histories of abuse or neglect in childhood (Koegel, Melamid, and Burnam 1995; Tyler 2006), adult victimization (Burt, Aron, and Valente 2001; Huey 2012; Jasinski et al. 2010; Lee and Schreck 2005), and social isolation from non-homeless ties (Dordick 1997; Pippert 2007; Wasserman and Clair 2010). However, many homeless people maintain a few connections to non-homeless friends and family who sometimes provide financial and other support (Letiecq, Anderson, and Koblinsky 1996; Solarz and Bogat 1990).

In sum, the presumed link between housing precarity and food insecurity is intuitively obvious. However, the homeless population is diverse, and we expect that some families without steady housing will command more resources in the forms of family-level processes and both human and social capital that improve their capabilities to provide sustenance for their children. We summarize these expectations in what we term the Parental Management Model of Food Insecurity. In Figure 1, we outline a vector of parental vulnerabilities and family processes we argue assist (or obstruct) CFI.

Figure 1. Parental Management Model of Food Insecurity



Following family risk and resilience theory, we conceptualize our model of parental management of CFI as a system of risk and protective factors including family composition, parental capital, and parental vulnerabilities including food insecurity. Among the risk and protectives factors we deem relevant to CFI are the number and age mix of children in a parent's care and the presence of a partner or spouse. Forms of parental capital, including employment history and current circumstances, support received from friends and family, and their education are conceptualized to reduce incidence of CFI, whereas parental vulnerabilities including mental health or substance abuse problems, experiences with abuse or neglect in childhood, and victimization while homeless are thought to exacerbate CFI. We also consider instrumental behaviors such as whether families receive food and housing assistance, assistance from other governmental programs, and successful integration of children into protective institutions such as school and the health care system - products of family processes that bridge families to the social and service environments within the broader community. We test this model using data from a nationally-representative survey of homeless and precariously-housed families.

Methodology

Data Sources

Data are drawn from the National Survey of Homeless Assistance Providers and Clients (NSHAPC), sponsored by the Interagency Council on Homelessness and fielded by Census Bureau personnel in late 1996 (Burt et al. 1999, 2001). The client survey entailed face-to-face interviews with a multistage probability sample of adult respondents contacted at a number of homeless service sites including meal programs, shelters, health clinics, and the like—in metropolitan and nonmetropolitan areas throughout the US. Because of the careful design and omnibus character of the survey, researchers have employed it to address many aspects of homelessness (see, e.g., Allgood & Warren 2003; Deitz 2007; Lee & Farrell 2003). To date, however, the items on CFI have not received thorough analysis, even in the NSHAPC summary volume (Burt et al. 2001).

Of 4,084 eligible NSHAPC adult respondents, 2,898 qualified as *homeless* at the time of the interview, lacking a permanent and adequate nighttime residence of their own. The client sample also includes 676 domiciled persons who had been homeless in the past and 510 domiciled who had never been homeless. Together, these two groups make up what we call the *precariously housed,* an apt term given their low incomes and tenuous residential situations. (Two-fifths of precariously housed respondents spent at least one night during the week before the interview at a location other than their house, apartment, or room.) We extracted the subset of currently homeless and precariously housed parents with one or more of their own children under age 18 in their care when interviewed. Missing data for these family households was not extensive but still required imputation. Stata's ICE program was used to multiply imputed missing values for all variables (Royston 2004). The resulting 50 sets of complete data were

combined to adjust for variance within and between imputed samples to calculate standard errors and coefficients (Acock 2005). This yielded an analytic sample of 704 families (containing 1,500 children) with complete information on the variables of interest.

NSHAPC remains more geographically extensive in scope than subsequent studies that have addressed our topic. It also captures outdoor sleepers, the vast majority of whom come in contact with some type of program or service encompassed by its sample design. Thus, when appropriately weighted, it is intended to represent the national population of clients who consumed any homeless services in an average week during the 1996 mid-October through mid-November survey period (Burt et al. 2001).

The survey year may call into question the relevance of the NSHAPC to the contemporary CFI picture among families who are homeless or precariously housed, but evidence is equivocal. NSHAPC data for 1996 and HUD data for 2014 (based on our calculations from published reports) yield similar shares of adults at both time points who are female (32% in 1996 vs. 38% in 2014), young (36% 18-34 years vs. 28% 18-30 years), non-white (59% vs. 60%), accompanied by one or more children (16% vs. 18%), and staying in emergency or transitional shelters (63% vs. 58%). These similarities do not rule out compositional changes during the 18-year interval or differences on characteristics unavailable in the HUD data. However, they do suggest that even 'seasoned' data from the NSHAPC can prove valuable for theoretical purposes if there is little reason to expect that the correlates of CFI have changed dramatically over time.

Food Insecurity Measures

As in the CPS food insecurity module, a designated respondent within NSHAPC families reported on the food situations of their children in the aggregate rather than on each child separately. The plethora of topics addressed in the interview limited how many questions about CFI could be included. Three of those questions are nearly identical to items that fall at the severe end of the CPS child scale, denoting VLFS (Nord & Bickel 2002; Nord & Hopwood 2007). Parent respondents were asked if, in the past 30 days, any of their children (1) *felt hungry* but the parent couldn't get food, (2) *skipped a meal* because the parent couldn't get them enough to eat, or (3) went a whole *day without eating* anything. The three items, all dichotomies, are used to create a binary composite measure indicating if any child in the family had suffered from one or more of the three component conditions. To measure parental food insecurity, we rely on adult versions of the felt-hungry and day-without-eating items. A third item, which asked parents how many times they usually ate in a day, provides an indicator of food insecurity when recoded to *under three meals*. Following the procedure for children, we combine these adult items into a binary measure.

Risk and Protective Factors

The parental management model described previously is comprised of three sets of risk and protective factors that we theorize are associated with parent-child food insecurity concordance. *Family composition* includes the total number of children under the age of 18 accompanying the responding caregiver, dummy indicators for their distribution across age categories, and the presence of a spouse or partner accompanying the parent respondent. *Parental capital* is assessed via three socioeconomic characteristics: the parent's educational

attainment, employment status at the time of the interview, and share of their lifetime spent working. Two additional measures gauge access to social capital via socially-supportive relationships. These include whether the family had received any financial assistance from relatives or friends in the past month or had stayed with relatives or friends during the current or most recent spell of homelessness. *Parental vulnerabilities* span both adult and childhood adverse experiences. The former includes a mental health problems index, a binary indicator of whether the respondent suffered from alcohol/drug use problems, and dichotomous measures of whether the respondent had been victimized when homeless or had ever been incarcerated. For the latter, we draw upon indicators of abuse or neglect, school difficulties, and foster care placement, all while younger than 18 years old.

Instrumental Behaviors

We consider a range of instrumental behaviors that reflect adaptive family processes that help mitigate the risks caused by housing precarity including CFI. A family's current allocation of food stamps (in $25 increments) and receipt of past or present housing assistance (e.g., vouchers, Section 8, public housing) approximate parents' efficacy in meeting their children's basic needs. So do successful efforts to obtain other forms of government assistance (SSI, Social Security and veterans benefits, Medicaid, etc.) and to seek various types of non-cash aid in the previous month (e.g., help with clothing, transportation, legal matters, employment and the like). We also measure the share of children in a family enrolled in daycare, preschool, or conventional school (K-12) and whether children were receiving adequate medical and dental care. These last two measures reflect the ability of parents to integrate their children into institutions that often provide meals or monitor child health including nutritional status.

Fully-adjusted models also control for the parent respondent's gender, age, and race and the family's homeless status, living situation (private residence, shelter, other), and location in an urban, suburban, or rural community. Assessing descriptive statistics for these controls and the central independent variables reveals that most of the NSHAPC families in our sample contained approximately two children, were homeless when interviewed, and resided in emergency or transitional shelters in an urban community. These families were headed by single female parents in their early 30s, equally likely to be white or black, who possessed limited education and were unemployed. Although a disproportionate number of the parents reported personal vulnerabilities, many had nevertheless been able to access resources through relatives or friends, government programs, or institutional settings.

In addition to investigating how family risk and protective factors and instrumental behaviors are associated with CFI in a multivariable framework, we also examine differences in *food sources, health and wellness of parental caregivers,* and *priority of food assistance* among a range of other needs faced by families with food security, adult food insecurity only, and both child and adult food insecurity. Indicators of food sources utilized in the past week include shelter-based meals; visits to soup kitchens, pantries, and mobile food programs; food obtained in one's own home or that of a friend; grocery- or restaurant-purchased meals; and a summary measure of the cumulative number of food sources utilized in the week prior to being interviewed. Health and wellness of caregivers is measured via self-reports of ailments associated with food insecurity including diabetes, hypertension, and hip, bone, or joint problems including arthritis. Finally, respondents were asked to identify the most urgent need for which they require help. Using this item, we derive a measure equal to '1' for respondents who

identified assistance obtaining food as their top need, and equal to '0' for respondents identifying other needs.

Results

Table 1 shows descriptive statistics for the composite child and parental food security concordance measure. These estimates are shown for the full sample and separately for currently homeless and precariously housed families. According to these estimates, 39% of NSHAPC families reported household food security for both parental caregivers and their child(ren), whereas 48% met criteria for adult food insecurity only and 13% reported both child and adult food insecurity. This difference hints at the occurrence of *shielding*, when parents reduce their own food intake so that their children have enough to eat (Dammann & Smith 2009; McIntyre et al. 2003). Nearly half of the full NSHAPC sample met criteria for such shielding. Examining these estimates separately for currently homeless and precariously housed families reveals complexities in the pattern of parental shielding of child hunger. While 43% of currently homeless NSHAPC families experienced neither adult nor child food insecurity, only 34% of precariously housed families were food secure. This difference is reflected in the higher prevalence of both adult food insecurity without (52%) and with (14%) child food insecurity among precariously housed families compared to their currently homeless counterparts (45% and 11%, respectively). Importantly, we found no cases of adult food security in the presence of CFI. We suspect that this reflects the shielding behaviors described above which prioritize child sustenance over adults' needs. However, it could also reflect social desirability bias in the (under)reporting of CFI in households where adults are food secure.

Table 1. Adult-Child Food Insecurity Concordance by Housing Status

		By housing status	
	Full sample	Currently homeless	Precariously housed
Food secure	.39	.43	.34
Adult food insecurity only	.48	.45	.52
Child and adult food insecurity	.13	.11	.14

Estimates are adjusted for NSHAPC design effects and based on 50 waves of multiply-imputed data for 704 families in the NSHAPC.

We now turn to multivariable results from a series of logistic regression models predicting CFI among families with adult food insecurity. Results, shown in Table 2, are displayed over two models. Model 1 includes a vector of variables related to family composition, parental capital, and parental vulnerabilities. Model 2 adds a vector of variables approximating parental managerial efficacy. All models control for respondent demographic characteristics – age, race, gender, and the family's current homeless status, living situation, and geographic location. Only one of the controls – respondent caregiver gender = female (+) – is significantly associated with CFI in either model. The sign of this coefficient suggests that CFI was much more likely when the parental respondent was female.

Results from Model 1 in Table 2 indicate that CFI was more prevalent in families with more children and possibly families whose children were older, though this latter finding reached only marginal significance. Despite its borderline significance, the positive direction of the coefficient for having children older than age five only is consistent with prior studies indicating higher prevalence of food insecurity among older versus younger children.

Table 2. Logistic Regression Results of CFI among Families with Adult Food Insecurity

	Model 1			Model 2		
	b	SE		*b*	SE	
Variables						
Number of children	.56	.18	***	.84	.23	***
Ages of children (ref = all ≤ 5 years)						
All > 5 years	.65	.56		1.09	.60	†
Mix of ages	.03	.74		.00	.81	
Accompanied by spouse/partner	-.28	.54		-.44	.56	
Education (ref = less than high school)						
High school/equivalent	-.23	.54		-.14	.47	
Postsecondary	.46	.56		.41	.53	
Current employment (ref = not working)						
Working a temporary job	1.92	.59	***	2.02	.61	***
Working a steady job	.14	.51		.07	.56	
Worked > half of lifetime (ref ≤ half of lifetime)	-.16	.44		-.24	.42	
Received financial support from family or friends (past month)	-.33	.46		-.80	.56	
Stayed with family/friends (most recent/current homeless spell)	-.72	.43		-.95	.50	†
Mental health problem index	2.10	.99	*	2.72	1.05	*
Meets criteria for alcohol or drug use problem	-1.12	.60	†	-1.09	.60	†
Victimized while homeless	.81	.46	†	.80	.52	
Ever incarcerated	.27	.53		.66	.53	
Abused or neglected as a minor	.96	.46	*	1.19	.51	*
Experienced school problems as a minor	.25	.43		-.04	.40	
Placed in foster care as a minor	-.37	.61		-.72	.73	
Current receipt of food stamps (in $25 increments)	--			-.13	.04	**
Lifetime receipt of housing assistance	--			.50	.49	
Current receipt of other governmental assistance	--			.13	.55	
Sum of recent non-cash assistance sources	--			-.31	.15	*
Children's medical/dental needs met	--			-1.36	.51	**
Children in daycare/preschool/school (ref = 'none')						
Some	--			-1.49	.96	
All	--			-1.51	.65	†

Estimates are adjusted for NSHAPC design effects and based on 50 waves of multiply-imputed data for the 431 families with adult food insecurity in the NSHAPC.

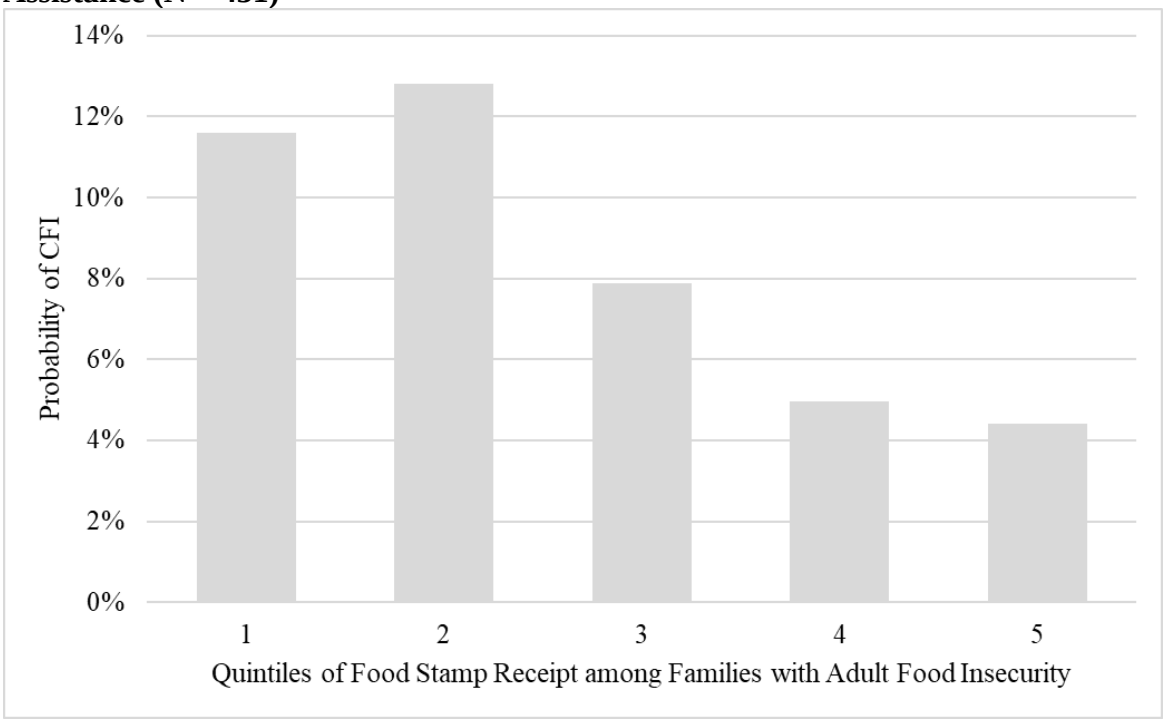
The likelihood of CFI is also associated with several forms of parental vulnerabilities. Families headed by a parent with mental health problems were more prone to experiencing CFI, as were those headed by parents with a history of childhood abuse or neglect. Several

marginally-significant contrasts are also revealed, including a higher prevalence of CFI among families with parents who met criteria for alcohol or drug abuse problems and those who had been victimized while homeless. While some amount of engagement with gainful employment was hypothesized as a protective factor guarding against CFI, our results indicate that those working temporary jobs versus not working at all were more likely to have food-insecure children.

In model 2 we add a vector of protective factors which approximate parental managerial efficacy in the form of instrumental behaviors associated with family and child well-being. Such behaviors show positive effects on the protection of children from food insecurity. Families receiving food stamp assistance were less likely to have food insecure children, as were those who received non-cash assistance and whose children had their dental and medical needs met.

To put the findings regarding food stamp assistance into sharper relief, we estimated the predicted marginal mean probabilities of CFI among families with adult food insecurity as a function of quintiles of food stamp assistance received. The results illustrated in Figure 2 clearly show a gradient in the relationship between food stamp assistance and declines in the probability of CFI. For instance, compared to those in families receiving little to no food stamp assistance, children in families within the fifth quintile of dollars of food stamp assistance had 7.2 lower percentage points in the probability of being food insecure. This translates to 84% lower odds of experiencing CFI for those in the fifth versus first quintiles of dollars of food assistance received.

Figure 2. Marginal Mean Predicted Probabilities of CFI as a Function of Food Stamp Assistance (N = 431)



Estimates are adjusted for all variables shown in Model 2 of Table 2

Our final aim is to investigate the diversity of food sources that families with and without adult and child food insecurity utilized, as well as the diet-related health problems that may accompany different levels of food insecurity and variations in assessments of high-priority family needs. Table 3 summarizes the descriptive picture of such differences. Compared to food secure families, families with adult food insecurity only and those with child food insecurity were less likely to have received food from soup kitchens in the week prior to their interview, but more likely to have received food from pantries. Food secure families were also more likely to have utilized shelters, stores, and restaurants for their food needs relative to families with either adult or child food insecurity. One distinguishing feature of the families with CFI was their greater tendency to obtain food from private residences – either their own homes or that of a

friend or family members. Private residences may offer less reliable food options than programs managed by shelters or pantries, and the risk of relying upon such food sources could be reflected in the higher incidence of CFI among families leaning on private residences for their food.

Table 3. Food Sources, Health, and Priority Needs of Homeless and Precariously-Housed Families (N = 704)

	Food Secure	AFI	CFI
Food sources (past week)			
Soup kitchen	.41	.25	.28
Food pantry	.24	.41	.42
Mobile food program	.03	.07	.07
Own home	.46	.41	.53
Friend's home	.28	.25	.32
Shelter	.34	.21	.19
Store	.45	.38	.32
Restaurant	.25	.14	.16
Sum of sources	2.46	2.12	2.30
Diet-related ailments			
Diabetes	.08	.05	.02
Hyperptensive	.08	.11	.32
Arthritis, bone, or joint problems	.09	.28	.28
Family's highest priority needs			
Housing	.38	.26	.26
Education, employment	.31	.19	.18
Food assistance	.06	.17	.16
Other	.25	.38	.40

Estimates shown as proportions (or means) of parent caregivers who Reported affirmatively to each item.
Abbreviations: AFI, adult food insecurity; CFI, child food insecurity.

With respect to physical comorbidities of food insecurity, our results show the anticipated higher prevalences of hypertension and arthritis, bone, and joint problems among caregivers within food insecure vs. secure families. We do not find that food-insecure parents who shielded

their children from hunger were at higher risk for physical morbidities than those with food insecure children.

As expected, we find that families with adult or child food insecurity were more likely to report food assistance as their greatest need, even though housing assistance constitutes the highest-ranked need for all families. This may reflect calculations among parents of the far-reaching benefits that housing assistance may have for their families, including enhancing their food security.

Next Steps

Prior to the conference in Austin we will complete several additional steps in our analysis of parental management of CFI and shielding among homeless and precariously housed families. First, we will further articulate our parental management model and deepen our review of its linkages to family risk and resilience theory. In the past, family scholars have called for the development of more models like ours to test family risk and resilience theory (for example, see Patterson 2002). Furthermore, the literature on food insecurity in general has lacked substantial theoretical development. Thus, our development of the parental management model addresses two needs in adjacent areas of research.

Second, we will continue to refine our analyses. For instance, the NSHAPC asks parental respondents about their utilization of food sources including those we describe here but also some which are less conventional (e.g., soliciting handouts on the street). Prior to the annual meeting we will assess a wider range of food sources as well as risk and protective factors not yet assessed but that may warrant a place in our model.

Lastly, we will incorporate analyses of adult and child food insecurity concordance and discordance from the 1996 Current Population Survey (CPS) to obtain a comparative benchmark for the NSHAPC sample. We will address this aim with the 1996 CPS food security supplement, a monthly module built into the CPS design and implemented by the US Census Bureau. In the September 1996 supplement, a knowledgeable adult in each household was asked about food consumption and concerns during the past 30 days and the past year. Our analysis will utilize indicators of adult and child food insecurity in the CPS that are comparable to those from the NSHAPC to assess the prevalence of adult-child food insecurity concordance and discordance in a sample of very low-income but domiciled US families.

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