
Educators' Reports of Food Acquisition Practices Used by Limited-Resource Individuals to Maintain Food Sufficiency

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Some food acquisition practices of limited-resource individuals were elucidated through interviews with nutrition educators who work regularly with this audience. Practices were characterized as either viable or questionable in terms of their potential risks. Practices used to acquire food, or money for food, included providing foster care, selling surplus food, switching price tags on food, purchasing food from private individuals, and seeking out and using road-kill. The foundation of a grounded theory regarding practices used by limited-resource individuals to maintain food sufficiency was originated. Additional research should verify these practices and determine their prevalence among limited-resource audiences, as well as the relative risk associated with using questionable practices. Food security indicators, nutrition education messages, and policies concerning limited-resource individuals may need to be addressed in light of these findings.

Food security has been defined as “access by all people at all times to enough food for an active, healthy life [and] includes, at a minimum, the ready availability of nutritionally adequate and safe foods, and an assured ability to acquire acceptable foods in socially acceptable ways (e.g., without resorting to emergency food supplies, scavenging, stealing, or other coping strategies)” (Anderson, 1990).

Food security, hunger, and food insufficiency have been broadly studied (Ahluwalia, Dodds, & Baligh, 1998; Alaimo, Briefel, Frongillo, & Olson, 1998; U.S. House Select Committee on Hunger, 1990). Research protocols on food acquisition, however, usually restrict questioning to shopping practices used in traditional shopping venues (USDA, 1997; U.S. House Select Committee on Hunger, 1990), particular populations such as the elderly, or specific practices such as

food budgeting (Dinkins, 1997; Kendall, Olson, & Frongillo, 1998; Wolfe, Olson, Kendall, & Frongillo, 1996). Few studies have explicitly researched the practices that limited-resource individuals use to obtain food and have considered that food acquisition may occur in nontraditional venues (Ahluwalia et al., 1998; Hamelin, Habicht, & Beaudry, 1999; Olson, Rauschenbach, Frongillo, & Kendall, 1997; Petchers, Chow, & Kordisch, 1989). Reporting accurate data—including the difficulties some Americans experience in getting enough food to eat—is critical for nutrition programs and policies (Carlson, Andrews, & Bickel, 1999).

Nutrition educators who work regularly with limited-resource individuals may have strong relationships with their program participants and therefore be keenly aware of the practices their clients use to maintain food sufficiency.

These educators—who may be accessed with greater ease, less time, and with lower cost—may be a reliable source for information pertaining to the limited-resource individuals they serve. Our research used this alternative source for information about food acquisition practices of limited-resource individuals.

Therefore, a study was designed to interview all EFNEP and FSNEP nutrition educators in New Jersey to identify the practices that their program participants reported using to maintain food sufficiency. In addition to identifying these practices, our other goal was to distinguish which practices posed risks such as those related to food safety.

Methods

Subject Selection and Data Collection

Semi-structured, in-depth interviews, approved by the Rutgers Institutional Review Board, were conducted with all 51 EFNEP and FSNEP educators throughout the State. This convenience, nonrandomized sample, representing a single State, consisted of 18 professionals and 33 paraprofessionals who had worked for either of the programs for at least 6 months. The interviews were conducted between September 1999 and January 2000 by a research team of two faculty members and two research assistants. Most interviews were completed in person and during work hours; three interviews were conducted via telephone because of inclement weather.

During the interviews, educators were asked to share stories about practices their program participants had discussed regarding the means they used to maintain food sufficiency. To focus the stories, the interviewers asked

these questions in the order in which they are listed:

- Think back to the classes that you have taught for EFNEP or FSNEP. What are common things that people have said that they do in order to get through the month with enough food?
- What things have people said they did to get through the month with enough food that surprised you?
- What things did people do to avoid running out of food, that when they obtained the food, it was unsafe or risky?
- What things have people done to avoid running out of food that seemed to be, or actually were, illegal?

The interviewer used other open-ended questions to gather additional details, and the interviewer who was not questioning the educator took extensive notes. Interviews were audiotaped. However, one educator preferred not to be audiotaped, so interviewer notes substituted for the transcript. At the end of each interview, educators were asked about their EFNEP/FSNEP work history and personal demographics.

Data Analysis

Verbatim transcripts of the audiotaped interviews were reviewed for accuracy and compared with the interview notes. Individual food acquisition practices were identified and physically cut from transcript copies. The four members of the research team independently used the constant comparative method (Glaser & Strauss, 1967) to organize into groups those practices that shared similar strategies of acquiring food. The researchers met to compare, contrast, and resolve differences, and then used the same approach to organize practices into even broader categories that

seemed to depict adequately the common themes of food acquisition. In the same manner, practices were examined to determine which ones were viable or questionable.

The researchers defined questionable practices as those that may have posed a food safety, nutritional, physical, financial, legal, or regulatory risk to the individuals who used them. To ensure the validity of these definitions, a fifth researcher, who was familiar with the literature in this area, carefully reviewed all findings and reported any inconsistencies between the literature and researchers' classifications. Data classification was performed with the vision that this work would form a portion of the basis of a grounded theory concerning practices that limited-resource individuals use to maintain food sufficiency (Glaser & Strauss, 1967). In turn, this information could be used by nutrition educators to tailor messages and by policymakers to examine practices that put individuals at risk for food insecurity.

Results

The educators were females whose average age was 44.5 and who had worked in their occupational fields for an average of 7.1 years. Forty-five percent were Caucasian; 25 percent, African American; and 19 percent, Hispanic. Nine percent did not specify their race/ethnic group.

Two main themes emerged from the interviews with the educators: (1) practices employed by limited-resource people with the intent of obtaining food and (2) food management practices (discussed in another paper [Kempson, Keenan, Sadani, Ridlen, & Rosato, 2002]). Four categories of food acquisition practices were identified from the stories shared by the educators: (1) Rely on Resources

Offered in the Community, (2) Interact with Informal Support Systems, (3) Supplement Financial Resources, and (4) Lower Food Costs by Using Shopping Strategies.

Rely on Resources Offered in the Community

EFNEP/FSNEP educators reported that their clients—limited-resource individuals—used three major strategies within community systems to maintain food sufficiency: Clients were reported to (1) participate in federally funded food programs, (2) attend events to obtain food, and (3) participate in locally sponsored food programs (table 1).

Participate in federally funded food programs. Federal food programs served as common venues through which food and money for food were obtained. Educators reported that limited-resource individuals participated in programs such as the Food Stamp Program; Head Start; school lunch and breakfast programs; and the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) to maintain food sufficiency.

Attend events primarily to obtain food. Special events at various locations were attended primarily to take advantage of the food that was provided. In these cases, a church, business, or organization had offered food as an incentive to increase the turnout at an event, to market products, or to cater to attendees or customers. One educator stated:

“We have a coffee hour between each service . . . , and there are a number of folks that come in for our coffee hour [and] do not stay . . . through the church service.”

Another commented that although the food is generally a lot of sweet items

Table 1. Food acquisition practices reported to be used by limited-resource audiences to maintain food sufficiency: Rely on resources offered in the community

Practices	Possible risk
<p>Participate in Federal Food Programs Food Stamps Head Start School Lunch/Breakfast Programs The Special Supplemental Nutrition Program for Women, Infants, and Children</p>	
<p>Attend events primarily to obtain food Church fellowship Nutrition education class Happy hour at bars Stores offering samples</p>	
<p>Participate in locally sponsored food programs Food pantries Local programs Private businesses Nutrition sites for seniors and soup kitchens Shelters Private individuals</p>	Food safety

that were baked and bagels, “it’s something to keep [their] stomach from growling.”

Educators observed clients attending an event primarily to obtain food. They noticed a rise in attendance at educational classes where food/commodities were available. This practice was particularly noticeable at the end of the month—presumably when funds began to run out. In some cases, class members asked the educator for food. Happy hours at bars and grocery stores offering samples were also visited by limited-resource individuals in an attempt to obtain food.

Participate in locally sponsored food programs. Food was also obtained through locally subsidized programs—such as church-sponsored food pantries, soup kitchens and shelters, venison recovery programs (e.g., Hunters for

the Hungry), Meals on Wheels, and nutrition sites for seniors. Turkeys and other foods were distributed by charities during the holidays. Private businesses, restaurants, diners, and fast-food establishments sometimes offered meals throughout the year, hosted holiday dinners, or provided food in other ways. For example, one restaurant owner, instead of throwing away food at the end of the day, prepared plates of food to give to the hungry. In addition, nutrition sites for seniors provided lunches to the elderly on a regular basis, soup kitchens provided hot meals, and shelters provided both a place to live and a source of food. Private individuals opened community assistance programs or organized neighborhood volunteer facilities that offered food. These programs could potentially be food safety hazards, because the individuals operating them were unlikely to have

Table 2. Food acquisition practices reported to be used by limited-resource audiences to maintain food sufficiency: Interact with informal support systems

Practices	Risks or possible risks
Exchange resources	
Sell surplus food	Food safety
Trade forms of public assistance	Nutritional; Illegal/regulatory
Manage personal resources	
Budget	
Establish store credit	Financial
Systematize payment of bills	Financial
Members of support system	
Ask for or borrow food or money	
Eat at others' homes	
Share information	
Borrow food stamps	Illegal/regulatory
Identify someone to live with	Nutritional; Physical

Budgeting, using credit, and cycling bill payments were practiced to conserve money for food.

expertise in safe food handling and were not required to follow government food safety regulations. This potentially placed the people they served at risk for foodborne illnesses.

Interact With Informal Support Systems

Personal support systems provided a network within which limited-resource individuals operated to maintain food sufficiency (table 2). EFNEP/FSNEP educators identified three major strategies their clients used.

Exchange resources. Excess supplies of specific foods, including rice, cereal, canned and packaged goods, and holiday turkeys, were mentioned by the educators as being sold for money with which other foods could be purchased. Also, public assistance monies, in the form of WIC vouchers for infant formula, were traded for food stamps. These practices not only may have threatened the infants' nutritional status, but they also violated program regulations.

Manage personal resources. Budgeting, using credit, and cycling

bill payments were practiced to conserve money for food. Hispanic communities reported that owners of nearby stores (i.e., a "bodega") often established an informal credit system with familiar customers. Those who purchased groceries on credit repaid the storeowner once they received their food stamps and/or paychecks, but these limited-resource customers continued to depend on credit for the next month's food. In other cases, bill payment was cycled so that the most urgent bills were paid first; other bills were paid later. As with buying groceries on credit, bill cycling provided only a short-term solution for obtaining food and could be financially risky if it is used long term.

Use members of support system. Interviews with EFNEP/FSNEP educators indicated that limited-resource individuals frequently collaborated and cooperated with members of their support system. They visited friends, neighbors, and family members to obtain food or money or to be invited to partake in a meal. Information learned from friends, relatives, neighbors, health

care and education professionals, paraprofessionals, and even in an opportunistic fashion, such as over-hearing a conversation, was used to find resources for food, to increase financial resources, to learn shopping strategies, and to manage household and personal food supplies better.

Often, food stamps were borrowed from others, and those who needed a place to live used neighborhood connections to learn of available residences and roommates. Many of these support systems included casual acquaintances and people involved in illegal activities, and thus these affiliations presented obvious physical risks. Theft presented nutritional risks.

Supplement Financial Resources

EFNEP/FSNEP educators identified six major food acquisition practices that their limited-resource clients used to supplement financial resources and maintain food sufficiency. The limited-resource clients used strategies to increase income and decrease expenses to improve their ability to acquire food (table 3).

Increase income through activities.

People provided foster care to make extra money or sold or pawned non-food items to acquire money for food. These non-food items included clothes, donated items, personal possessions, aluminum cans, and electronic equipment.

“People go to pawn shops to sell items that they already have, like jewelry, watches, . . . appliances, car titles . . . I’ve seen cases where people actually lost their cars because they didn’t pay back the loan that they got for the title . . . They had food, but they lost their vehicle.”

Table 3. Food acquisition practices reported to be used by limited-resource audiences to maintain food sufficiency: Supplement financial resources

Practices	Risks or possible risks
Increase income through activities	
Provide foster care	
Pawn or sell items	
Begging/panhandling	Illegal/regulatory
Earn unreported income	Illegal/regulatory
Engage in illegal activities	Physical; Illegal/regulatory
Gamble	Financial
Decrease expenses through activities	
Garden	
Acquire discarded food	Food safety
Seek road-kill	Food safety
Hunt and fish	Food safety; Illegal/regulatory
Access multiple pantries	Illegal/regulatory
Relocate to increase income	
Closer to public assistance programs	
Better employment opportunities	
Relocate to decrease expenses	
Inexpensive housing	
Housing with shared or unsecured food storage facilities	Nutritional
Abandoned building	Physical; Illegal/regulatory
Use programs to increase income	
Obtain Temporary Assistance for Needy Families	
Obtain general assistance	
Obtain Social Security Income	
Use programs to decrease expenses	
Get subsidized housing	
Participate in Self-Help and Resource Exchange (SHARE)	

Panhandling was commonly mentioned as a way to increase income for food acquisition. Babysitting, day work, sharing households with borders who were not mentioned on applications for public assistance, and preparing and selling homemade food were other means used to obtain money for food. One limited-resource client bought several cake mixes at the beginning of the month, made homemade cupcakes,

and then sold them for profit when her food allotment for the month was depleted. Although an industrious practice, earning unreported income and selling without a license are illegal.

Other illegal activities were also pursued to increase income. For example, meat or non-food items were stolen from stores or individuals and then sold or pawned. EPNEP/FSNEP

educators reported that their clients stole food from family members during mealtime visits, from establishments where individuals worked, or in the case of migrant farm workers, from crops.

Adults, whole families, and children were involved in manufacturing, distributing, and selling drugs illegally.

“. . . this started when he was about 5 years old and some of the older kids in the neighborhood would . . . send him around the corner with one paper bag. And then he would have to come back with another paper bag. And they would . . . give him a couple of quarters, or whatever, for every time he came around the corner. That was how money was coming, and that was how he got food for himself.”

In addition to the legal ramifications, these practices placed individuals at risk of physical harm.

Legal and illegal gambling, such as buying lottery tickets or participating in sports' pools, was another way people attempted to acquire money for food.

“They thought [that if] they'd spend a dollar here, maybe they could win a couple million. You [wouldn't] have to ever worry about food again.”

If overused, gambling can lead to financial problems that negatively affect people's ability to maintain food sufficiency.

Decrease expenses through activities. Multiple practices to decrease expenses were used to reduce food costs, and therefore improve limited-resource individuals' ability to acquire food.

Gardening was mentioned as a viable method; going through dumpsters and picking up discarded food were questionable methods that placed participants at risk for foodborne illnesses.

Hunting and fishing, although often done legitimately, were questionable practices in many cases (e.g., hunting deer after dark or fishing in contaminated waters).

“There are quite a few people in our area who fish. And they just really don't even try to find out whether [the water] is contaminated or safe.”

Sometimes road-kill was sought. EFNEP/FSNEP educators told of some limited-resource clients who sought road-kill and then took it home as a source of meat. When road-kill could not be found, it was created.

“. . . just run the animals over with the car and pick them up and put them on the hood of the car and take them home.”

Hunting, fishing, and seeking road-kill, as described, all posed potential food safety risks.

Finally, the educators shared stories of people traveling to multiple pantries and soup kitchens to obtain the food they needed. In many cases, this violated the regulations of the food pantries.

Relocate to increase income and decrease expenses. Relocation was used to increase income with which to purchase food. According to the EFNEP/FSNEP educators, some of their limited-resource clients moved to suburbs or into cities to be closer to public assistance programs and public transportation. In other cases, individuals or families transferred to less

populated areas, where employment was more readily available.

Finding inexpensive housing was a practical way to decrease expenses, which also left more money for food. Living in facilities with common food storage areas helped to defray living expenses.

“You had a lot of rooming houses, and there would be three or four people in one room. And that would be a way of getting food, too. Because if you did have three or four people in one room . . . everybody was sharing [his or her] food from the food banks, so it would last a little longer.”

Residents of facilities (e.g., some shelters, transitional housing, YMCA's, and rooming houses) with shared food storage areas frequently stole from each other, putting individuals at risk nutritionally from a lack of sufficient food. One educator spoke about a personal experience: “. . . leave a can of food in your room and the next thing you know, it [would] be gone [because of theft].” Residence in abandoned buildings, although illegal and physically unsafe, was also reported.

Use programs to increase income and decrease expenses. Temporary Assistance for Needy Families, General Assistance, and Social Security Income (SSI), according to EFNEP/FSNEP educators, were used by their limited-resource clients to increase financial resources and reduce potential food insufficiency. Also, obtaining subsidized housing and participating in the Self-Help and Resource Exchange (SHARE) Program were means used to decrease expenses. Volunteer work is a required aspect of this program, but the educators reported that this did not often happen. Whether increasing income or decreasing expenses, these

Regularly attending events primarily to obtain food—such as church fellowships, nutrition education classes, happy hours, and stores offering samples—did result in obtaining food but is generally considered to be a socially unacceptable practice to acquire food.

Table 4. Food acquisition practices reported to be used by limited-resource audiences to maintain food sufficiency: Lower food costs by using shopping strategies

Practices	Risks or possible risks
Purchase food from low-cost sources	
Discount stores	
Private individuals and vendors	Food safety
Shop for low-cost and value foods	
Bulk foods	
Inexpensive foods	
Coupons	
Nearly expired food	
Sale items	
Dented and damaged packages	Food safety
Expired food	Food safety
Engage in illegal shopping practices	
Shoplift food	Illegal/regulatory
Switch price tags on food	Illegal/regulatory

practices served as means through which food sufficiency could be maintained.

Lower Food Costs by Using Shopping Strategies

According to the EFNEP/FSNEP educators, their limited-resource clients used three major food acquisition practices to maintain food sufficiency. Most of these practices were legal, but a few posed food safety or regulatory risks (table 4).

Purchase food from low-cost sources.

Discount stores such as wholesale bread outlets, meat and poultry stores, and produce outlets offered low-cost food.

“It’s like six cans of peas for a buck. So they buy more staple foods like canned vegetables, stuff like that so they can have it on the shelf . . . It might not be a piece of meat, but they have vegetables.”

Inexpensive food was purchased from farmers and neighborhood gardeners and from individuals (unofficial and unregulated “street vendors”) who sold food from unknown sources. Meat was purchased from butchers who slaughtered animals in their homes. The safety of the food could not be guaranteed in these unregulated situations; therefore, individuals may have been at risk of contracting foodborne illnesses.

“We know someone that is a butcher, and he sells the meat cheap. But he keeps it there [unrefrigerated] for a long time.”

Similarly unsafe conditions were described in situations where meat was purchased from vendors who sold meat from their trucks.

“Some guy [comes] around with meat . . . He is selling it right off his truck . . . And they go there because they know it’s very cheap. You can

get a big chunk of steak for \$3. That would cost you about \$15 or \$20 in the store. There's no real refrigeration to keep the meat frozen It's just a little portable refrigerator that looks like it could burn out at any time. On a hot summer day, that's not good. He's driving around all day selling meat through the city."

Shop for limited-cost and value foods.

Limited-resource clients, according to EFNEP/FSNEP educators, use some cost-cutting strategies to save money while shopping. Food items were purchased in large quantities to receive bulk discounts; in some cases, this food was shared with friends or families. Expensive foods, such as fresh fruits, were avoided in favor of their lower priced canned or frozen counterparts. Inexpensive foods also were used to lower the overall food bill. Examples of these foods included Ramen-style noodles, stews, hamburger, macaroni and cheese, canned foods, bones to make soup, generic or store brands, flour, dry foods, rice, tuna, peanut butter, and pasta. Using coupons was occasionally mentioned as a way of saving money on food purchases. "Almost" expired foods were also purchased. Examples of such purchases were day-old bread, cheese, meat, and produce.

Practices that put individuals at risk in terms of food safety were also used in the quest to obtain low-cost food. Multiple educators reported stories of people purchasing dented cans because the prices were reduced or shopping in stores that specialized in the distribution of such items.

"Actually, all of the supermarkets also have [dented cans] . . . usually in the back of the store Some cans don't even have labels on them."

Stores were also reported as having sold damaged, expired, or improperly refrigerated foods. Additionally, expired foods with reduced prices were sought and purchased by the limited-resource individuals.

Engage in illegal shopping practices.

Foods, such as grapes, were eaten while shopping in grocery stores, and a variety of practices were used to take food from the grocery stores and/or supermarkets. EFNEP/FSNEP educators reported that some of their limited-resource clients engaged in the following practices:

"They would shoplift. If they were pregnant, they felt that it was easier to hide the food . . . in their pants."

"They take the bag into the store, whatever store bag that belongs to the store, and they will take it in the store and actually go shopping."

Price tags were also switched on foods; thus, expensive food could be purchased for less money. Leaving restaurants without paying for the meal was mentioned as well.

Discussion

Our findings showed that food acquisition methods of limited-resource individuals had not been fully documented when staff from the New Jersey Expanded Food and Nutrition Education Program (EFNEP) and Food Stamp Nutrition Education Program (FSNEP) anecdotally described novel practices. These stories included purchasing meat that was butchered by a neighbor in a basement and fish that was caught from contaminated waters, bagging perishable leftovers from dinners at community centers and then not

refrigerating them for many hours, and claiming paternity for unrelated children to qualify for public assistance and food stamps. These anecdotes characterized facets of food insecurity that have been minimally addressed within the food security community.

One study limitation that should be recognized is that the data were obtained from a second-hand convenience, nonrandomized sample. Accuracy of responses supplied by the educators has yet to be validated with responses received first hand from limited-resource individuals. However, the nutrition educators had strong relationships with their program participants and were acutely aware of the practices their clients used to maintain food sufficiency. It is uncertain whether limited-resource individuals would feel comfortable sharing their stories with unfamiliar researchers. In fact, because of the fear of possible punitive outcomes, it is possible that individuals would not report questionable practices to researchers. Therefore, we propose that the data gleaned from interviewing nutrition educators are likely more complete than data gathered directly from limited-resource individuals. Nevertheless, the results of this study must be verified with limited-resource individuals.

Extrapolation of the prevalence of each practice into a larger population is not valid. We collected qualitative data. If our results are quantified, serious interpretation errors could result. For example, it is possible that a number of nutrition educators were aware of the same limited-resource individual's unique food acquisition practice. In that case, the quantification of responses could greatly overestimate the prevalence of that particular practice. The determination of the prevalence of these practices is an area for future research to be conducted, in

the form of a survey, directly with limited-resource individuals. Both viable and questionable practices identified in this research confirmed and expanded upon previous findings. The significant findings regarding use of nontraditional sources to acquire food and the sharing of information were documented, and a portion of the basis of a grounded theory concerning the food acquisition practices of limited-resource individuals was formed (Glaser & Strauss, 1967):

- Previously identified coping strategies related to food acquisition were more clearly defined and elaborated.
- New coping strategies related to food acquisition were revealed.
- Emergent findings, conceptualization, and categorization have transpired, yet relationships among emergent findings need to be defined.

This study and others show that people will resort to many, and sometimes drastic and often illegal, means to ensure that they and their families can eat. Begging, earning unreported income, gambling, selling personal possessions, obtaining discarded food, and trying to get sent to jail for ensured access to food were verified previously in the literature (Ahluwalia, 1998; Austin, 1996; Curtis, 1995; Eisinger, 1996; Hamelin, 1999; Herth, 1996; Kendall, 1996; Morton, 1997; Olson, 1997; Petchers, 1989; Pflugh, 1999; Quandt, 2000; U.S. House Select Committee on Hunger, 1990). Engaging in illegal activities has also been determined as a means of earning food money (Petchers, Chow, & Kordisch, 1989). Hamelin, Habicht, and Beaudry (1999) provided a possible rationale for these kinds of activities: "Eventually, the search for food takes precedence over previously held values."

Many practices described in this study were not identified in the scientific literature. The finding that people provide foster care primarily for the purpose of earning extra money for food requires further study to ensure the well-being of children in these cases. Regularly attending events primarily to obtain food—such as church fellowships, nutrition education classes, happy hours, and stores offering samples—did result in obtaining food but is generally considered to be a socially unacceptable practice to acquire food. Private individuals sponsoring food programs, selling surplus food, trading WIC checks for food stamps, establishing store credit, switching price tags on food, and purchasing food from private individuals were also novel findings. Although the practice of searching for or using road-kill for food has not been elucidated in the scientific literature, multiple newspaper stories have reported anecdotal evidence of this practice (Firestone, 1999; Stuever, 1999).

Even under harsh conditions, some people were reportedly able to maintain food sufficiency, while others were not. The ways in which people interacted with their support networks enhanced their abilities to improve food sufficiency in a variety of ways. In fact, many of the practices reported in our study require learning through informal interactions. The sharing of information, an overriding theme in this study, occurred in every category of food acquisition practice identified. People learned from others about the location of assistance programs, ideas for increasing income and saving money, as well as ways to obtain food. Dependence on members in support systems—by asking for or borrowing money, using food stamps, eating with other people, identifying more economical or convenient places to live, and sharing information—has been documented previously in the literature

(Ahluwalia et al., 1998; Curtis & McClellan, 1995; Hamelin et al., 1999; Kendall et al., 1996; Olson et al., 1997; Petchers et al., 1989). One educator stated,

Well, I think I've seen the spectrum of very talented, very skillful individuals . . . who have learned how to navigate the system and use the system to their advantage. And then I've seen those who are ill-informed . . . in terms of how to stretch their dollar . . . or navigate the system. And when I talk about 'navigate the system' we have all kinds of support systems across this country so that no one will go hungry . . . so if you know how to manage, navigate, you can provide for your family.

Although not the focus of this study, pride and embarrassment were mentioned as barriers to obtaining assistance. These obstacles have been documented and elucidated by others (Kendall et al., 1998; Petchers et al., 1989).

Although discount shopping was reported, some educators indicated that many people still shop at nearby, more expensive convenience stores. Food purchased at convenience stores is remarkably more expensive than food from supermarkets and large grocery stores (Mantovani, Daft, Macaluso, & Hoffman, 1997). Despite the conventional wisdom that it is unwise for limited-resource individuals to shop at expensive venues, some people had no other choice because of a lack of transportation. That a lack of transportation translates to limited access to less expensive stores has been confirmed by many studies (Dinkins, 1997; Kendall et al., 1996; Quandt, McDonald, Arcury, Bell, & Vitolins, 2000; Travers, 1996; U.S. House Select Committee on Hunger, 1990).

Many of the food acquisition practices reported in our study involved risks to the individuals who resorted to using them. Food acquisition occurred outside the traditional shopping venues that are closely regulated for food safety (e.g., supermarkets and restaurants), thus placing individuals at risk of foodborne illnesses. Multiple other practices increased food safety risks, as well as risk for nutritional deficiencies, impaired physical well-being, the dangers of arrest, removal from beneficial programs, or the perpetuation of a cycle of financial dependence on credit. In cases where individuals were food insufficient, survival took clear precedence over these risks.

It is plausible that food security indicators currently in common use do not incorporate the issues of food safety and social acceptability, which are parts of the definition for food security. This study's findings lead the authors to suggest the possibility that some people who have learned to function well within their environments would report that they are food sufficient and would be classified as food secure by most indicators. However, these individuals would, in fact, be food insecure because of their use of unsafe or socially unacceptable food acquisition practices such as: seeking out road-kill, fishing from contaminated waters, and acquiring discarded food.

Part of the definition of food security by the Life Sciences Research Office is "to acquire acceptable foods in socially acceptable ways" (Anderson, 1990); this implies food acquisition "without resorting to emergency food supplies, scavenging, stealing and other coping strategies" (Hamelin et al., 1999). Individuals who are apparently food sufficient may be food insecure because the practices they use are unsustainable (cutting on quantity and/or quality of food, buying food on credit)" (Hamelin et al., 1999). Food sufficiency simply

implies an adequate amount of food and does not address whether acceptable food was obtained in a sustainable, socially acceptable manner.

Nonetheless, prior to including these constructs in indicators of food security, research needs to be conducted with the target population to verify these data, to determine the relative risks of engaging in each of the questionable food acquisition practices reported, and to assess the prevalent use of these practices. Use of certain food acquisition practices can indicate a greater degree of food insecurity. For example, shopping economically and using coupons are acceptable, risk-free practices; deliberately committing a crime to be sent to prison to secure a food supply and searching a dumpster for food are not. It would also be helpful to know which food acquisition practices are used regularly by the general population and which are unique to limited-resource individuals, and more specifically, those living in various areas, such as more urban areas.

Nutrition education messages may need to be reviewed in light of these findings. For example, as a result of learning that the purchase of dented cans is a very common practice, the New Jersey EFNEP and FSNEP programs changed the message to limited-resource audiences from "do not buy dented cans" to "buy premium dented cans." Premium dented cans are those that are not bulging, not punctured, and not dented along the primary and secondary seams. In the case of transportation difficulties, it may be more helpful to teach people how to shop economically at convenience stores. Other practical educational topics that may need to be addressed include the safety of nonperishable food and budgeting issues. Broadly accessed programs, such as EFNEP, FSNEP, and WIC are viable mechanisms for information dissemination about food acquisition practices.

. . . shopping economically and using coupons are acceptable, risk-free practices; deliberately committing a crime to be sent to prison to secure a food supply and searching a dumpster for food are not.

Finally, policy implications and measurement issues may need to be addressed in light of findings that some limited-resource individuals who successfully navigate their environments to maintain food sufficiency may have been assessed as food secure, when in fact they may be food insecure.

When planning educational programs, making policy decisions, and developing policy and program guidelines, educators and policymakers must understand the mindsets and situations of those who will be affected. In this research, it was clear that educators and policymakers whose work involves limited-resource audiences should always keep this in mind:

“[Some] need to eat to survive, so you know whatever foods that are available they’re going to eat . . . They’re trying just to survive.”

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