

Negotiating Healthy Self-Government
A Grounded Theory Study of Interactions in Arizona's WIC Program

by

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A Dissertation Presented in Partial Fulfillment
of the Requirements for the Degree
Doctor of Philosophy

Approved April 2014
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ARIZONA STATE UNIVERSITY

May 2014

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ABSTRACT

Individual behavior change is a goal of many public policies directed at people of low socioeconomic status. Without evidence of behavioral change, these policies cannot be considered a success: a process of co-production where some level of cooperation between the client and program administrators is required to successfully meet program objectives. The Special Supplemental Nutrition Program for Women, Infants and Children (WIC), is one example of a co-production design. WIC encourages women to engage in healthy behaviors by providing healthy food along with nutrition education to improve the health status of low-income families. However, while WIC is one of the most studied nutrition programs, little attention has been paid to the nutrition education portion or to interactions between staff members and participants. This research draws on the public policy and administration literature about street-level bureaucrats and co-production, which provides a framework for understanding the purposeful, inter-dependent relationships between front-line service providers and clients. However, neither literature explicates the process of interactions that is expected to lead to client behavior change and co-production.

The primary contribution of this research is the creation of a grounded theory that identifies and explains the WIC interaction process as one of “negotiating healthy self-government”. Based on analysis of three months of observations of WIC encounters in two clinics, this research finds that participants and staff members enter into tacit and explicit negotiations concerning the degree to which participants should govern their family’s nutrition-related behavior. Clients actively shape the interactions by demonstrating their discipline and efforts to feed their families, while staff members

refine and reinforce self-governing behaviors through assessing action, and providing advice to ensure behaviors meet recommendations. Finally, participants and staff members distinctly link self-governing behavior to identity: “good mothers” feed their children healthy food and govern their behaviors to meet nutritional recommendations. This research has implications for the study of behavior change promotion in public programs by introducing the concept of identity as a mechanism for governance and explicating the interaction process between front-line service providers and clients.

For my husband, Matthew McFadden who didn't know what he was getting into when I started this journey but has been with me every step of the way, and my parents Jed and Patricia Hand, who have always been unwavering in their support and love for me and provided the tools I needed to succeed at whatever I put my mind to.

ACKNOWLEDGMENTS

First, I want to thank the people who made this dissertation project possible: the WIC managers and staff members who allowed me complete access to their clinics, answered all of my questions, and made field research fun and interesting. You ladies do a wonderful job and I am in awe of your dedication. Thank you to the WIC clients who allowed me to observe appointments and agreed to be interviewed. This research could not have happened without your cooperation.

My committee members all provided invaluable advice and guidance. Punam Ohri-Vachaspati agreed to meet with me out of the blue and was instrumental in connecting me to my dissertation research. Thank you for taking a chance on me and lending your WIC expertise to this project. Joanna Lucio and I have had many marathon meetings over the years to discuss projects, comp questions, Lost, and cake. Especially cake. You can't have a bad day when Joanna is around and I've learned so much from her about being a dedicated scholar who is also a real person. Thank you for being a mentor and a friend. Tom Catlaw, how do I even start? You opened my eyes to ideas that have shaped not only my career, but the way I understand the world. You demonstrate what it means to be an outstanding scholar and mentor every day and you are the one person I know who can make sense of seemingly random words that come out of my mouth and shape them into a coherent idea. Thank you for your guidance, encouragement, feedback, mentoring, generosity, and friendship.

Writing a dissertation and completing the requirements for a Ph.D. is a solitary endeavor, but cannot be accomplished without a fellowship of comrades who make the process bearable. Robbie Robichau, Evgenia Gorina, and Ljubinka Andonoska were

always generous with their time and advice. Billie Sandberg introduced me to Cornish pasties and has become a dear friend. Joe West was always ready for a lunch meeting at a moment's notice and never let me pay for a drink. Kandyce Fernandez had the brilliant idea to write together during our last semester and made the time productive, fun, and something I looked forward to each week. I cannot begin to express my appreciation and devotion to my fellow cohort members who went through the process with me step-by-step, provided support, but more importantly, hijinks and hilarity along the way: Mohsin Bashir, See-Un Ryu, and Jen Auer. Brandon Ching co-authored my first peer-reviewed paper and our collaboration was truly greater than the sum of its parts. Jeff Callen became one of my favorite people and a trusted confidant after a rocky first impression. Marga Warnicke, Andrea Mayo, and I traveled in a pack for years. We helped each other move, cried over lost pets and silly boys, studied, vented, imbibed, cheered, and laughed together more times than I can count, but will never forget.

Finally, while there are too many to mention, my family and friends all supported me all along the way. Stacy, Emily, Denise and the Runango ladies kept me sane and never told me to stop whining, even when it might have been appropriate. Thank you to my parents Jed and Patricia, in-laws Joan and Bill, brothers Greg and Michael, sister-in-laws Linda, Kathryn and Martha, brother-in-law Ted, nieces Gillian and Brianna, and nephews Ryan, Will, Thomas, and Emmett, who helped keep me grounded. And finally, to my husband and best friend, Matt, thank you for agreeing to come on this journey and accompanying me to the next.

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CHAPTER 1

INTRODUCTION

The Special Supplemental Nutrition Program for Women, Infants and Children (WIC) was implemented nation-wide in 1975 providing access to healthy food for low-income pregnant and postpartum women and children from birth to age five. Since then it has become the most researched public nutrition program in the United States (Fox, 2004). What more can be discovered about WIC that has not already been revealed during its almost 40-year tenure as a public program? Surprisingly, there is much to be learned about WIC, especially from a policy implementation point of view. While the majority of current WIC research is concerned with whether WIC “works,” this dissertation is a unique investigation of *how* WIC works by investigating ways in which the day-to-day implementation of WIC attempts to directly affect the health of its clients.

Policy implementation studies are often concerned with whether the one-time implementation of a policy matches the goals and objectives of the policy design. Policy implementation in this case is an ongoing, situated process, where daily interactions between administrators and clients set the stage for how the policy is experienced by clients. This research investigates WIC interactions as an essential process of implementation where one-on-one interactions are routine yet individualized, and clients are encouraged to change their nutrition-related behavior, but are not compelled through traditional policy tools of incentives or sanctions. The interaction is a space where benefit delivery is secondary to message delivery regarding ideas and beliefs concerning health, nutrition, expertise, experience, and motherhood. Accordingly, this research utilizes participant observation of WIC interactions to generate a fine-grained analysis of the

communication strategies used by clients and administrators in the ongoing process of implementation. Analysis is taken one step further through the use of grounded theory data analysis techniques to produce a theory of the process of WIC interactions. It is a study of *how* the policy is implemented through the particular mechanism of interaction and is concerned with process rather than outcomes.

Research Focus

The goal of this research is to fill a gap in three relevant literatures: the WIC literature, street-level bureaucracy literature, and the co-production literature. The gap in the WIC literature is straight-forward; WIC research has been concerned almost exclusively with health outcomes attributable to participation in the program with very little investigation into the interpersonal interactions between staff members and clients. This project specifically focuses on the interactions and uses participant observation to provide first-hand data in order to investigate this phenomenon. The street-level bureaucracy literature is concerned with the actions and motivations of public administrators who work directly with clients of public programs to deliver benefits and services. This literature focuses mainly on issues of administrator discretion and autonomy in the delivery of public services, but barring a few notable exceptions, considers service delivery as a one-way process involving an active front-line service provider working with a passive client. This research investigates the idea of an active client who, through interactions with the street-level bureaucrat, influences the service delivery process.

The concept of co-production was intended to help bridge the gap in the street-level bureaucracy literature and identifies a type of policy design containing a unique

relationship between the state and clients of public programs. Co-production refers to the idea that for programs like WIC to fulfill their objectives of improving the health of their clients, the clients must modify their behavior to meet the stated objectives. This is a particular method of delivering services: the street-level bureaucrat enables, facilitates, and encourages the client to perform the desired behavior, but the client must initiate the action in the desired manner, which takes place outside of the public sphere and away from the direct influence of the state. This research addresses a major gap in the co-production literature: how co-production happens and the strategies that are used by street-level bureaucrats and clients during the co-production process. Investigating co-production in WIC provides a distinct opportunity to understand the process in a situation where clients receive their benefits regardless of whether they demonstrate a change in behavior: there is no carrot or stick.

Identifying and understanding strategies used by WIC staff members to encourage or facilitate nutrition-related behavior change and subsequent responses to those strategies or the introduction of their own by clients is one of the main priorities of this research. Second, communication strategies used by WIC staff members and clients are productive: they produce specific definitions of health, identity, and action.

To address the two areas of interest, the research was guided by the following general question: What is happening during interactions between WIC staff members and WIC participants? Is a shared definition of health being created? If so, how and to what effect? There are several specific sub-questions related to the main question:

- What strategies are used within the interaction by WIC staff and WIC participants?

- Is there evidence within the interaction that co-production is taking place, or has the potential to take place?
- What is being produced by the process of the interaction?

To investigate these questions, I use grounded theory methods steeped in a constructivist-interpretive methodology to create a theory of the process of WIC interactions.

Participant observations of 34 WIC interactions allowed for in-depth analysis of the communication strategies used in the interactions and insight into the relationship between the staff member and client. Grounded theory methods offer a systematic, rigorous process of analysis that moves beyond theme identification and description in favor of explanation: specifically of causal mechanisms evident in the social processes contained in the interactions.

This study of interactions contributes to the three literatures mentioned above by exploring the social process of co-production: what is produced through the WIC interaction and how it is produced. The idea of something being produced in the WIC interaction beyond the delivery of benefits is a unique perspective in both the WIC and street-level bureaucracy literatures. The investigation of *how* something is produced through the interactions contributes to a co-production literature that has been consumed with defining and delimiting the concept of co-production rather than exploring how co-production is manifested in practice.

Chapter Summary

The current chapter serves as an introduction and description of the research project. The second chapter, *Literature Review*, provides an in-depth review of the WIC, street-level bureaucracy and co-production literatures. This chapter provides the reader

with a robust overview of each relevant literature, an explanation of why each separate literature is important to this research project, and how the gaps in each are inter-related. The third chapter, *Methodology*, explores the constructivist-interpretive grounded theory methodology that serves as the foundation for the dissertation. This chapter provides an overview of the fundamental ontological and epistemological commitments of the methodology, how those commitments informed the research design and research question, and provides information for judging the research's findings and contributions. The fourth chapter, *Grounded Theory as Method*, explores the specific data generation and data analysis methods used during the research process. While the data generation methods of participant observation and individual interviews are probably well-understood by most readers, the data analysis methods are specific to grounded theory and may be less familiar than other common methods of data analysis. Information about participants, the research site, and recruiting efforts is also detailed in this chapter. The fifth chapter, *Concept Analysis* explains the results of the analysis in a very specific way that is unique to grounded theory. This chapter identifies the three main concepts related to the social processes underlying the WIC interactions. Each concept is defined, attributes are explained, and corresponding evidence is presented. These concepts are the foundation of the grounded theory that is presented in the sixth chapter, *Grounded Theory Presentation and Discussion*. This chapter presents the model of the grounded theory created by exploring the relationships between the three core concepts and their related causal mechanisms. Social processes and phenomena that were identified in the *Concept Analysis* chapter are also explored in more detail by following and explaining the process of their production and their purpose in the interaction. In addition, contributions to the

literature, implications for policy, and future research are detailed. Finally, the last chapter, *Conclusion* closes the dissertation with a summary of relevant findings and the contributions stemming from the unique perspective of viewing WIC through a public policy and administrative lens, as well as the utilization of an constructivist-interpretive approach.

CHAPTER 2

LITERATURE REVIEW

This chapter serves as a review of the underlying relevant literature informing this research project. There are three major strands of literature that form the foundation of the research. First, the WIC literature, which explains the design and purpose of the WIC program, individual health outcomes related to participation in WIC, impacts of nutrition education, and interactions with WIC staff. The review of this literature shows that while WIC has been subject to an enormous amount of research, especially concerning infant health outcomes, little is known about the regular interactions between WIC staff and WIC participants in the day-to-day delivery of the program. Meetings between WIC staff and WIC participants happens on a regular basis and in fact, is required for provision of the food benefits and nutrition education sessions. Exploring this interaction is the major focus of this research but the WIC literature provides little guidance.

In an effort to understand interactions between front-line service providers (also referred to as street-level bureaucrats) and program participants led to an investigation of the street-level bureaucracy literature in the field of public administration. This literature looks at strategies and attitudes of front-line service providers as they interact with program participants in the delivery of public services on an on-going basis. This literature shows that there are specific strategies in play during encounters between providers and participants that are not only related to rules and regulations, but strategies to cope with large caseloads and judgments about the deservedness of participants. However, this research does not take into account the participant side of the interaction or efforts on the part of the front-line service provider to influence participant behavior, both

of which are crucial to WIC. This gap led to the final strand of literature on the concept of co-production.

The co-production literature acknowledges that participant behavior change is often a stated goal of public programs, but that goal cannot be achieved without the cooperation of the program participants, and is often implemented through meetings with street-level bureaucrats. This literature studies participant contributions to program implementation, including interactions with front-line service providers, and investigates strategies to change participant behavior to match program objectives. The co-production literature is quite fragmented and multiple definitions of co-production abound, leaving room for new insights into how interactions between program staff and program participants may contribute to individual behavior change within public programs to meet program objectives. These three distinct literatures all help to understand the complex nature of WIC interactions and the associated factors and characteristics that may be present. Finally, the literature review also serves to show the gaps in each strand of literature related to WIC interactions and an argument as to how this research addresses that gap.

WIC Literature

WIC Program Description

WIC is a targeted food and nutrition assistance program for low-income pregnant and postpartum women, and children from birth to age five with risk factors such as food insecurity and nutritional deficiencies. WIC was created as a pilot program in 1972 as a response to research findings of poor nutrition and negative health outcomes in low-income pregnant women, infants, and children; the program became permanent in 1975

(Oliveira & Frazão, 2009; United States General Accounting Office, 2001a). WIC is administered by state, county, and local agencies whose mission is to protect the health of low-income women and children “by providing nutritious foods to supplement diets, information on healthy eating, and referrals to health care” (United States Department of Agriculture Food and Nutrition Service, 2012). The program is intended to “serve as an adjunct to good health care during critical times of growth and development, in order to prevent the occurrence of health problems...and to improve the health status of these persons” (Agriculture, 2013). Although WIC is not an entitlement program (which means that it is not funded to such a level that would allow all who are eligible to participate), its Federal funding levels have been adequate to provide services to all eligible participants who apply (Bitler & Currie, 2005b; Colman, Nichols-Barrer, Redline, Devaney, Ansell et al., 2012).

Participation in WIC has grown substantially since the program’s introduction in the 1970s and is currently the third-largest nutrition program administered by the USDA after the Supplemental Nutrition Assistance Program (SNAP, commonly referred to as food stamps) and the National School Lunch Program (Geller, Harrington, Huang, & et al., 2012). In 2006, WIC provided benefits to almost half of all infants and a quarter of all children aged one to four in the United States (Colman, Nichols-Barrer, Redline, et al., 2012). The majority of WIC participants are children, about 76% in 2012, with pregnant and postpartum women making up the remainder (Geller, Harrington, Huang, et al., 2012). According to the U.S. Centers for Disease Control and Prevention (CDC), WIC is “the single largest point of access to health-related services for low-income preschool children” (United States General Accounting Office, 2001b). All 50 states participate in

the WIC program, along with the District of Columbia, Puerto Rico, Guam, the Virgin Islands, America Samoa, and over 30 Indian Tribal Organizations (Oliveira & Frazão, 2009; Oliveira, Racine, Olmsted, & Ghelfi, 2002).

WIC participants must meet residency requirements and income eligibility guidelines, set at 185% of the Federal Poverty Level (FPL). If a child or pregnant/postpartum woman participates in a state's Medicaid program, they are automatically eligible (Colman, Nichols-Barrer, Redline, et al., 2012). In addition, eligible-aged children in the state's foster care program are automatically eligible for WIC services. Participants are certified for six months at a time, except for infants who are certified until their first birthday, and pregnant women who are certified throughout their entire pregnancy until six weeks postpartum. Each time the certification period expires, the participant must demonstrate their eligibility to continue with the program.

While WIC tends to be known primarily for providing milk and infant formula, the program provides access to a wide variety of food (Bryant, Lindenberger, Brown, Kent, Mogg Schreiber et al., 2001). The primary WIC benefit is a food package, which is a combination of vouchers (referred to as "checks") to be used in exchange for WIC approved foods for which the participant is eligible. WIC food packages are not based on household income but instead by category (such as pregnant woman or infant) and individual preferences or requirements (Fox, 2004). For example, in Arizona, eligible women who do not consume dairy can request soymilk and tofu in their checks rather than cow's milk and other dairy-based protein sources (Arizona Department of Health Services, 2013). WIC food packages are regulated by the USDA, which identifies the minimum nutritional requirements for all WIC-provided foods (Fox, 2004). The content

of the original food packages was partially determined by research showing that low-income women and children had deficiencies in protein, calcium, and vitamins A and C (Fox, 2004; Herman, Harrison, Afifi, & Jenks, 2008). Within the USDA guidelines, states have some flexibility in what foods are offered, but as a general rule, WIC food packages contain some combination of milk and other dairy products, whole grains, vegetarian protein sources, juice, fruits and vegetables, and if applicable, infant foods, and infant formula. WIC foods are intended to supplement participants' diets and do not provide 100% of daily nutrition needs (Fox, 2004).

Responding to concerns about rising childhood obesity rates, WIC food packages were modified at the Federal level in 2009 to reduce the amount of sugar and saturated fat and to allow states flexibility in providing foods that matched cultural preferences (Colman, Nichols-Barrer, Redline, et al., 2012). The changes to the WIC food packages also put them in alignment with the 2005 Dietary Guidelines for Americans (Colman, Nichols-Barrer, Redline, et al., 2012; Whaley, Ritchie, Spector, & Gomez, 2012). Milk was restricted by fat content, providing only one percent or skim milk for children age two and older. The monthly quantity of fruit juice and eggs was reduced, and fruits and vegetables were added (Ver Ploeg, 2009). In addition, changes to food packages for infants and postpartum women were modified to encourage breastfeeding by providing less infant formula to infants who were partially breastfed and more food to mothers who breastfed exclusively (Geller, Harrington, Huang, et al., 2012).

Because WIC is state-administered, each state has some flexibility for the way the program is implemented in the types of food that are provided. In Arizona, participants can receive checks for milk, cheese, whole grains (bread, rice, tortillas), fruits and

vegetables (fresh, frozen or canned), eggs, peanut butter, beans, cereal, juice, infant formula, baby food, and fish (only for women who exclusively breastfeed) (Arizona Department of Health Services, 2013). WIC checks can only be used at participating retailers and participants can use as much or as little of the check as they prefer. Except for cash value vouchers (CVV) for fruits and vegetables that have a specific monetary value, the checks specify the foods eligible to be bought with the check, not a dollar amount.

Nutrition education has been a core element of the program since 1978 and is codified in the Code of Federal Regulations (7 C.F.R. § 246.11) as a no-cost benefit to WIC participants (Oliveira, Racine, Olmsted, et al., 2002). Nutrition education is provided to adult participants, parents and guardians of child participants, and when practical, to child participants (United States General Accounting Office, 2001b). It is intended to be “easily understood by participants, and...bear a practical relationship to participant nutritional needs, household situations, and cultural preferences including information on how to select food for themselves and their families” (Agriculture, 2013; United States General Accounting Office, 2001b). In addition, the goals of the nutrition education are to:

- (1) Emphasize the relationship between nutrition, physical activity and health with special emphasis on the nutritional needs of pregnant, postpartum, and breastfeeding women, infants and children under five years of age, and raise awareness about the dangers of using drugs and other harmful substances during pregnancy and while breastfeeding.
- (2) Assist the individual who is at nutritional risk in improving health status and achieving a positive change in dietary and physical activity habits, and in the prevention of nutrition-related problems through optimal use of the supplemental foods and other nutritious foods. This is to be taught in the context of the ethnic, cultural and geographic preferences of the participants and with consideration for

educational and environmental limitations experienced by the participants.
(Agriculture, 2013)

This section of the code makes clear that the provision of supplemental food for low-income families is not the only goal. Rather, there is an additional public health goal to use the WIC program to promote changes in participant behavior as a strategy to prevent chronic disease (Deehy, Hoger, Kallio, Klumpyan, Samoa et al., 2010). As one of the largest nutrition programs serving low-income families, there have been calls for WIC to “play a more active role in helping to treat and prevent nutrition-related health problems” such as obesity, and to adjust “nutrition services to the evolving needs of program participants” (United States General Accounting Office, 2001b, p. 10).

The delivery of nutrition education is left up to the states’ discretion, as long as it is available to participants twice within their six-month certification period (Ritchie, Whaley, Spector, Gomez, & Crawford, 2010). In Arizona, nutrition education is provided as a seamless part of the benefit transfer process every time participants pick up their checks. Currently, participants receive physical checks that can only be obtained at a WIC clinic. Participants can go to any WIC clinic in Arizona to receive their benefits and can receive up to three months of checks at a time for each participating family member. Nutrition education can include information such as healthy meal plans, suggestions to deal with picky eaters, portion sizes, and breastfeeding support. Nutrition education is presented in a one-on-one interaction with a Community Nutrition Educator (CNE) and is individualized for each participant based on anthropometric assessments, discussions from past appointments, and concerns or questions from the participant.

WIC Literature Is Primarily Focused on Infant Outcomes

The foundational rationale underlying WIC is based in the health disparities research showing that people of low-socioeconomic status tend to have worse health outcomes than those of higher socioeconomic status (Lantz, Lynch, House, Lepkowski, Mero et al., 2001; Link & Phelan, 1995; Oliveira & Frazão, 2009; Oliveira, Racine, Olmsted, et al., 2002). Because WIC is expected to help alleviate nutritional disparities and health outcome disparities related to nutritional intake and habits, the vast majority of WIC research is concerned with outcomes that can be attributed to participation in the program. According to Fox (2004), WIC is the most studied Federal nutrition assistance program “with regard to impacts on nutrition- and health-related outcomes” (p. 94). While the WIC literature can be boiled down to the question, “Does WIC work?” the research provides inconsistent answers (Oliveira & Frazão, 2009).

The majority of WIC outcomes research has been concerned with birth outcomes of infants born to women who participated in WIC during their pregnancy, and whether those outcomes are significantly different from infants born to women who did not participate (Bitler & Currie, 2005b). Low-income pregnant women have higher rates of malnutrition than those of higher income, which is also associated with negative birth outcomes such as being underweight, short, or premature (Oliveira & Frazão, 2009). The provision of supplemental nutrition to pregnant women in order to improve infant birth outcomes has been a goal of the program from the beginning and as such has been a primary focus of the research. In addition, availability of data (birth records) allowed for within- and cross-state comparisons as well as quasi-experimental research designs

comparing women who had participated in WIC with women who had not (Colman, Nichols-Barrer, Redline, et al., 2012; Oliveira & Frazão, 2009).

Research on infant outcomes generally shows positive associations between WIC participation and measures such as gestational age, weight and length at birth, and reported perception of health (Bitler & Currie, 2005b; Black, Cutts, Frank, Geppert, Skalicky et al., 2004; Colman, Nichols-Barrer, Redline, et al., 2012; Oliveira & Frazão, 2009). The most consistent and prevalent result is a positive association between birth weight and WIC participation, with fewer underweight babies born to mothers who participated in WIC during pregnancy (Colman, Nichols-Barrer, Redline, et al., 2012). Research into infant feeding practices has also been a frequent topic in the literature. The majority of studies of this type look at whether participation in WIC by pregnant women increases their likelihood of breastfeeding their infant: a stated goal of the program. The majority of studies looking at breastfeeding find that WIC participants exclusively breastfeed (do not supplement with formula) at lower rates than non-participants (Colman, Nichols-Barrer, Redline, et al., 2012; Jacknowitz, Novillo, & Tiehen, 2007; Jensen, 2012). Although some research using propensity scores and fixed effects instead of ordinary least squares found no difference in breastfeeding behaviors between WIC participants and non-participants (see Jiang, Foster, & Gibson-Davis, 2010), the overwhelming sentiment in the literature is that WIC mothers breastfeed at lower rates and participation in WIC might actually reduce the chances of breastfeeding because of the provision of infant formula. Besides infant birth outcomes and infant feeding practices, other areas of WIC such as effects on pregnant/postpartum women or children have received very little attention in the literature (Oliveira & Frazão, 2009).

Conflicting outcomes research and the inability to determine whether participation in the program is causally related to participant outcomes is a major concern in the literature. The most commonly cited issue, especially concerning infant birth outcomes and infant feeding practices is selection bias (Bitler & Currie, 2005a; Colman, Nichols-Barrer, Redline, et al., 2012). Selection bias refers to the issue that the magnitude of estimated effects may be based on unobserved/unobservable characteristics of women who participate in WIC during pregnancy and that those characteristics might be associated with infant outcomes. For example, if women who would have formula-fed their infant regardless of participation in WIC were more likely to participate in the program than women who had decided to exclusively breastfeed or were undecided, then infant feeding practice outcomes should be attributed to that characteristic of the women, not to WIC participation. If this were the case, then the commonly found negative relationship between breastfeeding and WIC participation would be considered spurious because breastfeeding results would be the same regardless of WIC participation.

Separating out whether women are positively selected into WIC (determining whether women who would have had better infant birth outcomes regardless of WIC participation tend to enroll in WIC more often than women who would have had more negative outcomes) is difficult because a) not all women who are eligible for WIC enroll, enroll at the beginning of their pregnancy, or stay on the program for their entire pregnancy; and b) because of the nature of the program where all who apply and are eligible can participate, randomly selecting women to either participate in WIC or not participate is limited if not impossible. Bitler and Currie (2005b) found that participating mothers are actually negatively selected into WIC based on measures of educational

attainment, marital status, obesity, etc., which suggests that positive infant outcomes could be attributable to WIC. Studies that attempt to account for selection bias through research design and statistical methods often have found little or no significant effect of WIC participation on infant birth outcomes, but the research has been mixed (see Foster, Miao, & Gibson-Davis, 2010; Joyce, Gibson, & Colman, 2005).

WIC Nutrition Education Research

WIC outcomes are often explicitly or implicitly attributed to the food package benefit, but nutrition education is a required WIC benefit as well; as a separate component of the program its effects are not well understood (Colman, Nichols-Barrer, Redline, et al., 2012; Oliveira & Frazão, 2009). Because the food package is intended to supplement participants' diets and does not provide for all nutritional needs, nutrition education is viewed as an essential part of the program (Fox, 2004). WIC regulations require states to provide opportunities for nutrition education to participants at least two times in each six-month certification period (Agriculture, 2013). The main goals of nutrition education are to "stress the relationship between proper nutrition and good health" and "to assist individuals at nutritional risk in achieving a positive change in food habits, resulting in improved nutritional status and the prevention of nutrition-related problems" (Fox, 2004, p. 94). Thus, nutrition goals focus on creating and increasing participants' knowledge in order to facilitate desired behavior change (Fox, Burstein, Golay, & Price, 1998; Oliveira & Frazão, 2009). States have flexibility in how they implement nutrition education and many states offer the nutrition education as part of the benefits transfer process when participants pick up their checks while others offer separate individual and group classes (United States General Accounting Office, 2001b).

Because of differences and inconsistencies in delivery, research into the effectiveness of nutrition education has been limited (Foster, Miao, & Gibson-Davis, 2010; Oliveira & Frazão, 2009; Ritchie, Whaley, Spector, et al., 2010; United States General Accounting Office, 2001b).

There are several rationales for providing nutrition education to WIC participants: health outcome disparities, prevention of nutrition-related chronic disease, and future cost containment. WIC is considered an appropriate venue for early intervention related to healthy eating behaviors because of its low-income population and the large number of families it serves. Creating new nutrition habits and changing negative habits within families served by WIC has the potential for considerable impact on rates of obesity and chronic disease (Deehy, Hoger, Kallio, et al., 2010). When WIC was implemented in the 1970s, the main concern was malnutrition and hunger, something that could be alleviated through the provision of food. However, the more recent concern has “shifted from under consumption to overconsumption of calories, leading to an increasing prevalence of obesity and overweight in children” (Oliveira & Frazão, 2009, p. 64). With this being the case, provision of food alone is not sufficient to promote optimal health, but requires targeted nutrition education in order to change participant behaviors to prevent diseases related to obesity, and in turn, improve the health of low income families and reduce potential future costs related to chronic disease (United States General Accounting Office, 2001b). In addition, changing adult behaviors related to food consumption is thought to have a potentially large impact on the development of their children’s preferences and habits, leading to healthier adults in the future (Chadwick, Crawford, & Ly, 2013).

WIC nutrition education has been influenced by health promotion research and has traditionally used a strategy of knowledge transfer with the assumption that increasing nutrition knowledge will change participant behavior (especially behaviors relating to food choice) and reduce unhealthy habits (Travers, 1997). In other words, the traditional view of nutrition promotion had an underlying assumption that a major cause of unhealthy habits was a lack of information about nutrition, and providing needed information will positively influence behaviors (United States General Accounting Office, 2001b). For example, there is evidence that low-income families were less knowledgeable about how to read nutrition labels, or the connection between nutrition habits and chronic disease, something that could be addressed through nutrition education (Klohe-Lehman, Freeland-Graves, Anderson, McDowell, Clarke et al., 2006).

Nutrition education research focuses mainly on the extent to which nutritional knowledge has increased, and investigating the magnitude and type of behavior change attributable to nutrition education. The limited research on the effects of WIC nutrition education has produced mixed results. Traditional didactic models of nutrition education that focus on information provision have been shown to increase knowledge of participants, but have little influence on behaviors (Bell & Gleason, 2007; Birkett, Johnson, Thompson, & Oberg, 2004; Deehy, Hoyer, Kallio, et al., 2010; Fox, Burstein, Golay, et al., 1998; Klohe-Lehman, Freeland-Graves, Anderson, et al., 2006; Ritchie, Whaley, Spector, et al., 2010; Watson & Wyness, 2013). There are also conflicting studies that show no increase in nutrition knowledge after nutrition education, however often the result is attributed to the relatively high level of nutrition knowledge

participants possess prior to nutritional education interventions (Fox, Burstein, Golay, et al., 1998; Randall, Sprague, Connell, & Golay, 2001; Travers, 1997).

Nutrition knowledge and attitudes of WIC participants has come under increasing scrutiny in an attempt to establish more effective nutrition education (Geller, Harrington, Huang, et al., 2012; United States General Accounting Office, 2001b). In a study of Massachusetts' WIC nutrition education, participants "reported that nutrition information offered by WIC was often known and repetitive and the delivery of nutrition services did not connect with WIC parents in a motivating way" (Colchamiro, Ghiringhelli, & Hause, 2010, p. S59). There is acknowledgement that the didactic approach, where the WIC staff member provides information to a WIC participant in a teacher-student relationship does not meet the needs of participants and is not viewed by participants as particularly effective or helpful (Colchamiro, Ghiringhelli, & Hause, 2010; Deehy, Hoger, Kallio, et al., 2010). Research has also shown that people do not tend to want to be given advice on how to eat, but would rather be given "positive suggestive statements such as 'could' or 'how about'" when discussing nutrition habits (Watson & Wyness, 2013, p. 25).

More recently, health promotion research has recognized that knowledge transfer is not always sufficient and different strategies such as patient-centered education and motivational interviewing have made inroads into the WIC program (Deehy, Hoger, Kallio, et al., 2010; Martins & McNeil, 2009; North Dakota Department of Health Nutrition and Physical Activity, n.d.; Ogu, Janakiram, Hoffman, McDonough, Valencia et al., 2014). These strategies focus on creating partnerships between providers and patients to close the gaps between desired and actual behaviors related to health. Motivational interviewing is used in Arizona's WIC program and research outside of

WIC indicates promising effects in inducing behavior change (Martins & McNeil, 2009). However current studies of these techniques in WIC tend to be implementation evaluations or focus on the staff member side of the interaction.

As mentioned earlier, there has been little evidence showing that WIC nutrition education changes nutrition-related behaviors related to food consumption, however there are also several factors that make finding a statistically significant association between the two much more difficult. One major factor is related to self-reporting of behavior. Many studies rely on participants to recall food intake and self-report nutrition related behaviors, a method that is well-recognized as unreliable and inaccurate, especially concerning food intake and calorie estimation (Bell & Gleason, 2007; Ritchie, Whaley, Spector, et al., 2010; Small, Sidora-Arcoleo, Vaughan, Creed-Capsel, Chung et al., 2009). Authors often speculate that participants over-estimate the amount of healthy food and under-estimate the amount of unhealthy food that is consumed, especially in studies where WIC or other low-income participants report much higher intakes of healthy food such as fruits and vegetables than the average estimated intake of the entire population (Ritchie, Whaley, Spector, et al., 2010).

Another issue is whether the effects of nutrition education can be separated from the food benefit as well as from other related variables that influence behavior (United States General Accounting Office, 2001a). Health related behaviors are complex and have multiple, simultaneous influences, making the isolation of the effect of one particular factor a difficult task (Link & Phelan, 1995; Oliveira & Frazão, 2009). In addition, nutrition education is not consistent like the food packages. Rather, “the content of the nutrition education, how it is implemented, and the characteristics of the

participants (e.g., literacy level, primary language, nutritional needs) varies both among and within states” (Oliveira & Frazão, 2009, p. 62). Finally, the idea of nutrition education implies that unhealthy behaviors are at least partially a result of participants’ lack of knowledge. Thus, the provision of knowledge will have a positive effect on behavior. However, research has shown that WIC participants have generally high levels of nutrition knowledge, and because knowledge assessments of new participants is not a common practice, it is problematic to know what information was already known by the participant and what was provided by participating in nutrition education.

Finally, the range of differing types of nutrition education offerings as well as differences in attendance at nutrition education sessions contribute to a lack of understanding of the effects as well. For example, a study by the United States General Accounting Office (GAO) (2001b) found that nutritional education sessions that were performed in one-on-one sessions were short in duration, averaging only four to 17 minutes among the six agencies studied. It would be difficult at best to attribute behavior change as fundamental as eating behaviors to an intervention of that type (Travers, 1997). In addition, in a study of agencies that provided nutrition classes instead of including nutrition education as part of the voucher issuing process, attendance by WIC participants was not mandatory and non-attendance was common (Fox, Burstein, Golay, et al., 1998).

WIC Interactions Research

There has been little research on the interactions between WIC staff and participants, whether in the form of nutrition education or other aspects of the WIC encounter. The studies concerning WIC interactions informing this research focus on three topics: evaluating messages about the importance of breastfeeding, investigating the

use of authoritative advice, and analyzing the need for and implementation of training programs aimed at improving the interactions between staff and participants. Interaction studies find that while staff members tend to have a good grasp on nutrition information and attempt to communicate it in a way that was easy to understand, interactions are often routinized, precluding the participants from voicing their own concerns or explaining their personal situations and experiences (Fox, Burstein, Golay, et al., 1998; Kingfisher & Millard, 1998; Newes-Adeyi, Helitzer, Caulfield, & Bronner, 2000). This has led to training initiatives to change the routinized and didactic style of WIC interactions, and accompanying research evaluating the methods and results (Colchamiro, Ghiringhelli, & Hause, 2010; Deehy, Hoyer, Kallio, et al., 2010; Newes-Adeyi, Helitzer, Roter, & Caulfield, 2004). These studies find that changing to a more client-centered interaction style is well-received by WIC participants and WIC staff alike, however, there continues to be a paucity of research concerning the day-to-day use of these newer strategies and analysis of the interactions themselves within the clinics.

A unique feature of the WIC interactions research is the use of interpretive qualitative methods. Interviews, focus groups, and participant observation are the norm in these studies, a drastic shift from the outcomes research. For example, in studies about WIC's influence on breastfeeding decisions of Black women, Cricco-Lizza (2004, 2005) conducted ethnographic research that included participant observation and multiple interviews with WIC clients over an extended time period. This allowed her to understand the women's attitudes towards breastfeeding during their pregnancies and how they chose to feed their infants once they were born. In addition, the interviews provided evidence that WIC messages about the importance of breastfeeding were part of

the decision-making calculus for the women she observed, even if they chose not to breastfeed. This study shows the importance of understanding the process of the WIC encounter: the attitudes, environment, routines, and emotions found within the interactions as important factors for outcomes.

The WIC research has generally focused on the question, “Does WIC work?” and related questions related to research design and selection bias. However, one question that has received scant attention is, “How does WIC work?” While studies about WIC tend to attribute positive or negative effects to the content of the food packages, there is more to WIC than the checks. The ways in which staff members interact with participants, whether in benefit transfer meetings or nutrition education sessions is a relatively opaque process, but it is a major part of how WIC participants experience the program. This section of the literature review also makes the argument that a major goal of WIC is to change participants’ nutrition habits and attempts to accomplish that goal through the food packages and nutrition education. Again, research concerning nutrition habits has concentrated on the effects of food package content and redemption and has generally ignored the nutrition education or staff interaction portions. Interpretive, qualitative research into interactions exists, but consists of a very small fraction of the overall literature about WIC. But perhaps more importantly, what has been missing from the literature is a discussion about the role of WIC staff as representatives of the state, engaged in a process intended to modify individual behavior.

Street-Level Bureaucracy Literature

This section reviews the street-level bureaucracy literature to investigate the role of the WIC staff member in their encounters with clients, a discussion that is generally

missing from the WIC literature. The street-level bureaucracy literature helps to shed light on the administrator side of the interaction, which informs and supports two assumptions: 1) that WIC staff have some level of autonomy, discretion, and strategic control over their interactions with WIC clients, and 2) that individual interactions in WIC are, in essence, the daily implementation of the program (Lipsky, 1980/2010). As a proxy for the state, WIC staff are a conduit through which participants experience the program, and where policy is interpreted and applied to individuals and situations. The street-level bureaucracy literature lends insight into the interactions and how frontline service providers' strategies shape participants' experiences, knowledge, expectations, and behavior.

A street-level bureaucrat, often referred to as a frontline service provider (these terms will be used interchangeably), is someone who interacts with the public in relation to public services or a public program and has some discretion in the application, dispensing, and withholding of benefits or sanctions (Lipsky, 1980/2010). Street-level bureaucrats are the connection, the manifestation of the state to its citizens (Brodkin, 2012). "Street-level bureaucrats implicitly mediate aspects of the constitutional relationship of citizens to the state" (Lipsky, 1980/2010, p. 4). Maynard-Moody and Musheno (2003) famously summed up street-level bureaucrats as cops, teachers, and counselors, but the term refers to any public service personnel working directly with the public (Kelly, 1994). The actions and motivations of street-level bureaucrats have long been of interest in public administration since the codification of the field and the establishment of the idea of a separation between politics and administration. Concerns with the implications of administrative discretion on policy implementation cast street-

level bureaucrats as breaking the barrier between administration and politics with little or no consequence to themselves because they are not subject to democratic elections (Maynard-Moody & Musheno, 2003). Even with the relative demise of attention to the politics-administration dichotomy in the literature, there continues to be concern related to discretion, autonomy, and the democratic implications thereof in street-level bureaucrats' day-to-day work.

In his seminal book, *Street-Level Bureaucracy*, Michael Lipsky (1980/2010) made two major arguments. First, that frontline service providers have some level of discretion over how they deal with the public in terms of dispensing public services. But, because of the nature of their work where they face constraints of large caseloads, limited time, a lack of information and other resources, they cannot adhere to “the highest standards of decision-making” to determine the best course of action for each client (p. xi). Instead, street-level bureaucrats create procedures, routines, and heuristics to simplify the decision-making process, cope with organizational pressures, and make their job easier. This argument is directly related to his second assertion: the actions of the street-level bureaucrat, the decisions they make, and the strategies they use to process their clients, “effectively become the public policies they carry out” (p. xiii). In other words, discretion and autonomy, coupled with constraints inherent to the job of the street-level bureaucrat, leads to the implementation of public policy in a way that may or may not adhere to the rules, regulations, and intention of the policy as designed. This “bottom-up” perspective challenged the idea that policy was only made at the legislative level (top) and implemented as intended by street-level bureaucrats (bottom). It also recognized the

role street-level bureaucrats play in the ongoing implementation of public policies and programs (Linder & Peters, 1987).

Lipsky's book serves as the foundation for the street-level bureaucracy literature, especially for the assumptions concerning frontline service providers and their clients. The major topics in the street-level bureaucracy literature follow Lipsky's main revelations in the book concerning administrative discretion, the street-level bureaucrat as policy maker and the implications therein. The section that follows goes into more detail about administrative discretion and street-level bureaucrats as policy makers as described by Lipsky and expanded by other researchers.

Administrative Discretion and Policy Making

Administrative discretion is recognized as a fact of life for street-level bureaucrats; police officers can choose to give someone a warning rather than a ticket, inspectors can be more or less lenient, social service providers can offer more or fewer services to clients, all within the law (Lipsky, 1980/2010; Maynard-Moody & Musheno, 2003; Nielsen, 2006). "Frontline workers are responsible for many of the most central activities of public agencies, from determining program eligibility to allocating benefits, judging compliance, imposing sanctions and exempting individuals and businesses from penalties" (Meyers & Vorsanger, 2003, p. 246). Often, street-level bureaucrats are performing their duties with a good deal of autonomy, without direct supervision from those higher in the bureaucratic hierarchy and their work "is mostly hidden from public view" (Lipsky, 1980/2010, p. xviii). Indeed, Lipsky asserts that street-level bureaucrats actively resist managerial control over their discretionary abilities, and research suggests

that street-level bureaucrats tend to find ways around managerial control (Wastell, White, Broadhurst, Peckover, & Pithouse, 2010).

Discretion therefore requires street-level bureaucrats to make decisions that were not necessarily “approved” by their superiors, and thus could result in undesirable outcomes (Loyens & Maesschalck, 2010). Lipsky’s assertion that frontline service providers often routinized discretion and decision-making indicated that there could be systemic inequalities, inefficiencies, or inherent rule breaking in the service delivery process (Meyers & Vorsanger, 2003). There are three major issues concerning administrative discretion: applying public service benefits, rights, or sanctions inequitably, applying the policy in a way not intended by policy makers, and the lack of “electoral accountability” for wrongdoing (p. 249). While these concerns were not new when Lipsky’s (1980/2010) book was published, his assertions, based on observations, brought new focus to how these concerns might affect democratic governance and the administration of public policy.

There is no question in the literature that administrators have discretionary authority because of their level of autonomy and the often complex, vague, or general rules under which they operate, and administrative discretion is not necessarily problematic on its face (Scott, 1997). The literature acknowledges that discretion is important in a world where rules do not cover every circumstance and individualized “customer service” is considered desirable (Brodkin, 2012; Dubois, 1999/2010; Lipsky, 1980/2010). Thus, whether administrators use discretion is not the focus of the literature. Rather, it is the way in which they use their discretion, the motivation behind it, the environment in which it occurs and the consequences therein which concerns researchers

(see Ellis, 2011). Discretion becomes an issue when there is evidence of systematic, patterned actions that may result in inequitable delivery of public services, undermining of the intention of policy makers, or wholesale rule-breaking (Brodkin, 2012; Maynard-Moody & Musheno, 2003; Smith, 2003). This combination of autonomy, discretion, and lack of hierarchical or public accountability is assumed to lead to inequitable and undesirable patterns of service delivery by street-level bureaucrats.

Lipsky (1980/2010) provided evidence that street-level bureaucrats use routinized strategies for dealing with clients, especially in environments where individualized attention is not possible, often leading to rationing of services. Creaming and bias towards or against certain types of clients, are two “patterns of practice” that Lipsky contends are common methods that ration and create inequitable delivery of services. Creaming is the practice of providing services to those who are judged “most likely to succeed in terms of bureaucratic success criteria” (Lipsky, 1980/2010, p. 107). Bias refers to the idea that street-level bureaucrats differentiate clients based on preferences, worthiness, sympathy, hostility, and morality. While Lipsky acknowledges bias may take the form of racial bigotry, he also cautions that it is not the only source of bias, and there is evidence that suggests racial or class biases affect the decision-making process (Clark-Daniels & Daniels, 1995). Creaming and bias may be evidence of discretion in disparate delivery of public services, but also inform important processes such as category assignment. In programs with differentiated services based on categorization, discretion based on creaming or bias may not be self-evident if the correct services are being delivered to the correct group (Eskelinen, Olesen, & Caswell, 2010; Wastell, White, Broadhurst, et al., 2010).

Maynard-Moody and Musheno (2003) extend Lipsky's (and others') discussion about street-level bureaucrats and argue that rather than acting consistently based on routines, regulations, and managerial constraints, street-level bureaucrats rely on judgments about the worthiness of the participant. The level of discretion used by the street-level bureaucrat is then directly related to the judgment about the participant's character and the assessed deservedness of the participant in the eyes of the street-level bureaucrat. Maynard-Moody and Musheno's findings differ from Lipsky's in an important way: Lipsky asserted that street-level bureaucrats used their discretion as a coping mechanism in order to deal with large caseloads, ineffective or confusing rules, and organizational pressures. Their decisions were motivated by a desire to make their work easier and more pleasant. Maynard-Moody and Musheno (2000; 2003) found that administrative discretion often had the opposite effect; street-level bureaucrats routinely acted in a manner that made their work more difficult, more frustrating, or simply more work.

Efforts to curtail administrative discretion and increase accountability became popular with the introduction of New Public Management and its associated managerial approaches (Hupe & Hill, 2007). However, efforts to standardize street-level bureaucrats' behavior often led to unintended consequences. For example, in a study concerning the use of information technology systems to standardize client intakes, street-level bureaucrats continued to adhere to rules required by the system, but circumvented other rules. The authors contend that this led to practices that compromised professional judgment and were counter to organizational and policy goals (Wastell, White, Broadhurst, et al., 2010).

The issue of discretion is directly related to Lipsky's (1980/2010) assertion that street-level bureaucrats are, in essence, policy makers through their day-to-day interactions with the public. If street-level bureaucrats have relative autonomy and discretion over how policies and programs are delivered, then the way in which citizens experience the policy is at least partly based on administrative discretionary decision-making (Durose, 2011; Rowe, 2012). "Then, when taken in concert, their individual actions add up to agency behavior" (Lipsky, 1980/2010, p. 13). Since, according to Lipsky, individual actions tend to be routinized based on discretion and autonomy, the patterns of behavior become policy as it is carried out on the ground. If that discretion results in inequitable or inconsistent application of policy rules, regulations, and benefits, then policy objectives and outcomes are at best modified and at worst, undermined by the street-level bureaucrat (Brodkin, 2012; Schacter & Kosar, 2011; Scott, 1997).

According to much of the literature, street-level bureaucrats "operate as *de facto* interpreters of public policy," in effect, producing the policy through service delivery (Brodkin, 2012, p. 942, emphasis in original; Lipsky, 1980/2010; Meyers & Vorsanger, 2003). There are exceptions in the literature to the idea of street-level bureaucrats as policy makers, most notably, Maynard-Moody and Musheno (2003) who argue that the lack of consistency between and among street-level bureaucrats in service delivery is reason to doubt that their actions can be considered policy. However, the majority of the literature that broaches this facet of Lipsky's argument agrees that street-level bureaucrats, through their autonomy and discretion, affect how program participants experience policy, and as such, should be considered a type of policy maker in practice (Smith, 2003).

The interactions between frontline service providers and program participants are important for this argument. Traditional policy process theories view implementation as a finite step when a policy is put into practice. If that is the case, then street-level bureaucrats are not policy makers because they have not been involved in the design, formation, or legislation of the policy. However, Lipsky (1980/2010) brought the importance of interactions to the forefront, claiming that “public policies result from the aggregation of the separate actions of many individuals” and these actions determine how clients experience policy (pp. xii-xiii). Empirical research in this area agrees with Lipsky and demonstrates that discretion in interactions may have consequences besides inequitable delivery of services (Meyers, Glaser, & Donald, 1998).

Gaps in the Street-Level Bureaucracy Literature

The street-level bureaucracy literature is very concerned with whether Lipsky’s (1980/2010) version of the street-level bureaucrat continues to be relevant and whether theorized implications are likely. Investigating types and levels of administrative discretion in light of managerial changes based on New Public Management are also common (Hupe & Hill, 2007; Rowe, 2012; Smith, 2003). Administrative discretion is often framed as the way in which policy design is altered during implementation and the degree of failure when compared to original intentions and design (Schacter & Kosar, 2011). The focus of these types of studies is whether and how managerial tools could be used to circumvent that phenomenon (Brodkin, 2012). The literature is also focused on specific types of administrative discretion, whether and how street-level bureaucrats serve as policy makers, and how to manage those two issues, which are often framed as problematic. However, the literature does not focus on the social process of the

relationship between the street-level bureaucrat and the client and the implications therein.

Maynard-Moody and Musheno (2012) claim that in social programs, street-level bureaucrats mainly deal with people whose actions do not conform to “prescribed practice.” For example, in WIC, participants qualify for the program because of nutritional and economic deficiencies, a conflict with the prescribed practice of eating a nutritionally complete and balanced diet. Participants may also have habits that are in conflict with prescribed practice such as allowing children to eat food that is a choking hazard or lacking in nutrition. Lipsky (1980/2010) contends that the relationship between administrators and participants is personal, where decisions are made “on the spot” (p. 8) that affect participants’ daily lives. In addition, the relationship is ruled by actual and perceived consequences of decisions and actions on both the part of the administrators and participants, rather than policy rules and regulations (Wagenaar, 2004). As such, there is a social process that happens during interactions between participants and street-level bureaucrats that Lipsky argues affects participants’ life chances and identities. What is missing from the bulk of the literature is an acknowledgement that this social process involves action and reaction from both the participant and the administrator who negotiate, explicitly or implicitly about different facets of the encounter (Nielsen, 2006; Smith, 2011). Additionally, while much of the literature paints street-level bureaucrats in a position of power in this interaction, compared to a passive and weak client, the idea of negotiation and interaction implies it is not always the case.

One major assumption of the street-level bureaucracy literature is the idea that the street-level bureaucrat is applying their discretion and authority onto a passive client:

they make decisions about their clients and apply their discretion (whether routinized or not) accordingly. Clients have no say in this discretion beyond how they are assessed and interpreted by the frontline service provider. “Street-level bureaucrats are responsible for translating clients into bureaucratically defined categories in order to provide services, treatment and other forms of assistance” (Scott, 1997, p. 37). Clients are especially considered passive when they are recipients of social welfare as opposed to a business that is being regulated (Nielsen, 2006). However, this concept of client passivity does not take into account negotiations or other strategies by the clients to perform in such a way that influences the judgments of the frontline service provider. For example, clients may represent themselves in certain ways to be assigned a specific bureaucratic category (Eskelinen, Olesen, & Caswell, 2010). Nielsen (2006) argues that assuming a passive or weak client ignores the possibility that clients and street-level bureaucrats have “converging interests” and are actively working toward a common solution or objective (p. 865). This dissertation attempts to understand interactions without the assumption of a powerful street-level bureaucrat, and a passive client.

The view of the street-level bureaucrat as a policy maker is also ripe for expansion and refinement. This gap in the literature is best summed up by Rice’s (2013) assertion that patterns of practice can be considered as institutions.

Hence, institutions are ideas about the world that arguably come into being through the aggregated and increasingly standardized interaction of people...just as individual human action is embedded in institutional contexts, institutions are in turn constituent parts of wider economic, political, and/or cultural landscapes or ‘systems.’ (Rice, 2013, p. 1041)

While the idea of the street-level bureaucrat as a policy-maker recognizes that, in the aggregate, individual patterns of behavior “effectively become the public policies they

carry out” (Lipsky, 1980/2010, p. 221), it does not consider the idea that social norms and expectations are also embedded in the interaction. Street-level bureaucrats are usually described as delivering services to clients, but they also deliver messages concerning social norms underlying the program. As mentioned above, street-level bureaucrats often deal with clients who do not meet some expectation of behavior and their interaction is intended to mitigate that situation in some way. The literature recognizes that interactions are a way to socialize participants to the preferred way of behaving, not only in the personal interaction, but also in day-to-day life (Dubois, 1999/2010; Lipsky, 1980/2010; Maynard-Moody & Musheno, 2003, 2012). What Rice’s attention to institutions does is to expand that idea to acknowledge that social systems are embedded within the interactions, which are then constantly produced/reproduced. Rice uses the welfare state as an example:

...the welfare state is the primary but not the only societal institution that is evoked and (re-)negotiated in the caseworker-client interaction. For instance, the institution of work stands central in the interaction process, with discursive struggles revolving around the questions of what counts as work and how much work is minimally acceptable, such as paid labor, being an artist, raising children, or doing community work. (Rice, 2013, p. 1047)

Looking at WIC in terms of Rice’s welfare state example illuminates a question that has not been asked in the literature, which is, “what social institutions are produced and reproduced in WIC interactions?” This research argues that the institutions of nutrition, health, and family (especially motherhood) are central in the interaction process and requires investigation of how those institutions are produced and reproduced in the day-to-day implementation of WIC.

Co-production Literature

“All the discussion of power and powerlessness - who originates, vetoes, or modifies policies - has avoided the subject of interactions within policies themselves. In everyday life, aren't postal patrons, doctors and patients, prisoners and parole boards, students, parents and teachers involved in policies? Yet direct modes of activity have not been considered as part and parcel of public policy but as what happens after the exciting parts are over.” (Wildavsky, 1987, p. 253)

The WIC literature has primarily been concerned with identifying and quantifying whether and to what degree participation in WIC affects outcomes such as infant birth weight, rates of breastfeeding, and consumption of healthy foods. Outcomes of interest are most often attributed to the influence of the food package portion of the program rather than the nutrition education portion (Joyce, Gibson, & Colman, 2005; Oliveira & Frazão, 2009). What the literature does not address is the delivery of WIC through nutrition education and personal interaction with WIC staff members, presumably because of measurement issues and availability of data. But focusing solely on food packages is not a good proxy for participation in the WIC program as a whole and ignores the variety of ways WIC is delivered. If access to healthy food was the only issue, WIC could simply provide checks for food and skip the nutrition education. However, there is a growing body of evidence that availability and affordability of health promoting items are not the only factors involved in a person's diet decisions and habits (Walker, Keane, & Burke, 2010). The WIC literature does not address other influences on nutrition-related behavior and ways in which the delivery of the WIC program through nutrition education and individualized encounters help to set the stage for desired behavior change.

In a similar vein, the street-level bureaucracy literature concerns itself with administrative discretion and the ways in which policy design differs from policy

implementation on the ground. While both the founding and subsequent literature identifies interactions between frontline service providers and program participants as a space where policies are interpreted and implemented, it does not delve into these interactions with the goal of discovering how policies are delivered in practice and the social norms that are reproduced within (Brodkin, 2012; Lipsky, 1980/2010; Rice, 2013). The street-level bureaucracy literature focuses on the frontline service provider as the ultimate arbiter, with discretion based on judgments of clients' worthiness, or other heuristics. With few exceptions such as Maynard-Moody and Musheno (2003), the street-level bureaucracy literature does not take into account the role the client may play in interactions between the two that could influence program delivery (Needham, 2007; Nielsen, 2006). However, even Maynard-Moody and Musheno (2003) analyze the client's role in terms of how they affect the street-level bureaucrat's actions in delivering a public service, not as part of a two-way interaction of service delivery.

This is where the concept of co-production comes into play. Co-production refers to the idea that for many social services (WIC included) to be fully implemented, participants must contribute resources, assets, or time, often requiring a change in behavior. The crucial point here is that the programs are specifically *designed* to elicit behavior change, to "change people directly rather than to change the physical environment," where the "transformation of the consumer" is the outcome of interest (Whitaker, 1980, p. 240). The behavior change is facilitated by interactions with front line service providers through the provision of information or other policy instruments. For example, a major goal of WIC is to increase breastfeeding rates and duration among its participants. However, that objective is not achievable by the program itself; no

amount of efficiency, knowledge, or will on the part of WIC staff members can bring about that change without the cooperation of WIC participants to change their behavior in the desired way. The program is designed to create interactions between WIC staff and WIC participants where the staff member provides tools such as enhanced food packages for breastfeeding mothers and breastfeeding education and support in order to supply the participants with tools to “produce” the desired behavior (Cricco-Lizza, 2004, 2005). This is an example of co-production: a mutual cooperation between the state and the individual to produce the objectives of the policy, in this example, encouraging mothers to breastfeed their infants. The service provider and the participant are each co-producing the policy through their actions, and the policy cannot be successful without both agents acting in the prescribed way.

This section reviews the co-production literature and explains how it applies to the study of WIC interactions. The concept of co-production has seen renewed interest in the past five years or so after remaining relatively dormant since the late 1980s. Two types of co-production will be discussed: co-production as a service delivery technique and co-production as a technique of governance, specifically, self-governance. While this research is concerned mainly with co-production as a technique of governance, the prevailing definition of co-production in the recent literature refers to service delivery and will be reviewed here for clarity. Co-production as a service delivery technique has seen far more attention in the literature than co-production as a technique of governance, even though the second type is quite prevalent in large social programs such as WIC.

The co-production literature fills the gap between the WIC literature that focuses on client outcomes, and the street-level bureaucracy literature that focuses on the

administrative side of program delivery. Co-production gives insight into the interaction between representatives of the state (frontline service providers) and clients/citizens that is relevant to this research. This section reviews the literature of both types of co-production and identifies relevant gaps, concluding with ways in which the co-production literature might inform the research of WIC interactions. One note on terminology: the term “citizen” is being used here because it is the dominant term used in the literature to designate someone who is not a representative of the state. It is not intended to refer specifically to people who are citizens in the legal sense.

Co-production as a Service Delivery Technique

The classic co-production literature was introduced in the early 1980s by Whitaker (1980), Parks, Baker, Kiser, Oakerson, Ostrom et al. (1981), Brudney and England (1983), and Sharp (1980). While each had slightly different definitions of co-production, they all recognized and acknowledged that citizens are not simply passive recipients of government services, but provide a vital service by assisting in the production of policies, especially at the implementation or delivery stage. The term “co-production” comes from the idea “that public services are the joint product of the activities of both citizens and government officials” (Sharp, 1980, p. 110). Through the use of the term “co-production,” Sharp and her contemporaries demonstrated that the traditional delineation between the government as a producer of goods and services and the citizen as a consumer of those goods and services ignored a crucial contribution of the citizen to the production of public services, especially during implementation (Brudney & England, 1983; Parks, Baker, Kiser, et al., 1981; Whitaker, 1980; Wildavsky, 1987). This early definition of co-production has been extended and refined, but remains the

foundation of co-production, outlining the contribution of citizens to production as well as consumption (Alford, 1998).

Co-production challenged the traditional model of service delivery by recognizing the role of citizen participation as an integral part of the production of public services that goes beyond contributions during the policy design stage (Brudney & England, 1983; Parks, Baker, Kiser, et al., 1981). Co-production especially contradicts the exchange model of service delivery, recognizing that “provision of the services is not simply done by the organisation in a one-way transfer, but rather is partly done by the client” (Alford, 1998, p. 132). A common example of this type of co-production is a neighborhood block watch, where public safety is jointly produced between neighborhood residents and public safety officials (Parks, Baker, Kiser, et al., 1981). Residents supply their time and effort in specified ways to contribute to the block watch and notify police of criminal activity. A public good is created through this joint production that benefits residents of the neighborhood regardless of whether they participate in the neighborhood watch. This type of co-production is mainly concerned with citizen inputs into the delivery process that combine with resources from the state to deliver services (Brudney & England, 1983; Jakobsen & Andersen, 2013). This example reveals the limitations of the exchange model of service delivery of a good exchanged between a producer and a consumer. In the co-production model of service delivery, “a broad and variable set of values is exchanged,” which encourages specific actions (Alford, 2002, p. 51). Co-production is a technique of service delivery, where values, resources, and assets are supplied and combined between both the state and citizens in order to deliver public safety.

Co-production as a service delivery technique has an economic point of view and is concerned with citizen participation in the production and consumption of public services. “Coproduction consists of citizen involvement or participation (rather than bureaucratic responsiveness) in the delivery of urban services” (Brudney & England, 1983, p. 63). Traditionally, public management research viewed the state as a “regular producer” that produced public services to citizens, or “consumers”. The separation between producer and consumer was distinct: the state produces, citizens consume. As such, the traditional role of the citizen consumer expands to create “consumer producers,” whose productive endeavors combine with those of regular producers to provide the service. The combination or overlap of production between regular producers and consumer producers is co-production (Brudney & England, 1983; Parks, Baker, Kiser, et al., 1981).

This economic view of co-production is concerned with joint contributions between clients and service providers to service delivery, especially as a strategy to reduce costs and improve efficiency (Bovaird & Loeffler, 2012; Brudney & England, 1983; Sharp, 1980). Efficiency and effectiveness are the main drivers for this type of co-production, capitalizing on the resources available from the public sector and citizens (Bovaird & Loeffler, 2012). In addition, some responsibility and accountability for service provision shifts from the regular producer to the consumer producer. “This coproduction model expands the citizen role from one of consuming and passing judgment upon public services to one that also involves responsibility for creation of public services” (Sharp, 1980, p. 105).

An example of this type of co-production is a volunteer fire department (Brudney & England, 1983). In this case, citizens are voluntarily assisting in the provision of fire services, benefitting the community, not just the citizens who are actively participating. In addition, there is formal coordination between the citizens and the state, where both provide resources in order to produce the service. While this example is similar to the neighborhood watch example, there is one important difference: in the neighborhood watch example, citizens were supplementing services provided by the state, whereas in this example, they are replacing service provision by the state. The conception of co-production as reliant on citizen volunteers to deliver services was a sticking point in the early literature and led to questions about motivations of both the state and citizens. The late 1980s saw a shift towards privatization of public services, which by its definition excludes the provision of services by volunteers (Alford, 1998). In addition, there were concerns about relying on citizens' altruism as a basis for public service provision, something that was considered "far too unreliable a motivation on which to base important public functions," especially compared to market incentives (Alford, 1998, p. 129). Alford (1998) attributes the rapid decline of the co-production literature in the 1990s to conflicting ideas of service delivery between co-production and marketization priorities inherent in New Public Management.

The reliance on voluntary service provision by citizens has seen much less attention in the resurgence of the literature during the late 2000s in favor of recognizing multiple ways in which clients may co-produce public services. Instead of focusing on volunteerism producing public services, the more recent literature focuses on other types of citizen efforts. For example, citizens who move their parked cars off of streets after a

heavy snowfall help to produce the environment in which the snow removal services can proceed unimpeded. The literature asserts that this type of co-production is part of the production of the snow removal service; even if citizens are not involved with the provision of the service, they are setting the stage to allow the service to run efficiently and effectively. In this example, there is little direct interaction between the state and the residents beyond understanding the rules or importance of a specific behavior. The characteristics of voluntary contributions, some type of coordination with service providers, and benefits to groups or communities are three hallmarks of this type of co-production as a technique of service delivery (Brudney & England, 1983).

The co-production literature seemed to run its course in the 1980s, producing very little research through the 1990s or early 2000s. Alford (1998) contends that one reason for the declining interest in co-production through the 1990s is related to the idea of clients acting as volunteers to produce public services, which was in contrast to the marketization and privatization emphasis of the era. However, the concept has had a significant resurgence in the past six years or so, as a way to improve quality and reduce costs of public services. This resurgence is often attributed to the Great Recession that started in 2008 and is especially prevalent in Great Britain (Bovaird & Loeffler, 2012; Cooper, 2011; Jakobsen & Andersen, 2013). The main rationale for using co-production is as a cost-saving measure, asking groups to provide assets and services previously produced solely by the state. “To the extent that they co-produce effectively, they can enhance the performance and reduce the costs of public agencies” (Alford, 2009, p. 9). This more recent version of co-production as a service delivery technique does not rely just on volunteers, but on “opening up the provision of specific public services to

volunteers, social entrepreneurs, and private enterprise, often leading to dramatically altered delivery models at the local level” (Cooper, 2011, p. 119).

One of the rationales for this type of co-production is the assumption that traditional consumers of public services not only already contribute to service delivery, but have resources and capabilities that are not known by frontline service providers, directly affecting quality (Bovaird & Loeffler, 2012). Citizen participation in service delivery is also viewed as a way to empower citizens “by increasing local autonomy over budgets, decision making, and the provision of public services” (Cooper, 2011, p. 118). While traditional citizen participation literature tends to relegate citizen participation to the planning and design stages of policy, this type of co-production considers citizen contributions to the implementation stage as a form of citizen participation that must be carefully cultivated (Alford, 2009).

Co-Production as a Technique of Governance

Co-production is also defined in a different, but related way that is less concerned about the delivery of public services in favor of focusing on the joint capacity of frontline service providers and citizens to induce behavior change in ways that will meet the objectives of a policy or program. According to Whitaker (1980), some public services have an express purpose to change or transform policy participants in some way, usually by changing behaviors through policy instruments such as incentives, sanctions, and information provision. Whitaker (1980) asserts that the economic conception of co-production as a service delivery technique ignores a crucial manifestation of co-production, which he refers to as citizen/agent mutual adjustment:

In some public service delivery situations, agents and citizens interact to establish a common understanding of the citizen's problem and what each of them can do to help deal with it. This reciprocal modification of expectations and actions involves more communication than a simple request for assistance. It also involves more than the citizen's acquiescence in or rejection of the action proposed by the service agent. Sometimes no agreement is reached on what needs to be done or how to do it. Mutual adjustment occurs when the actions taken by both the service agent and the citizen are based on their joint consideration of a problem. (Whitaker, 1980, p. 244)

WIC is an example of this type of program where one of the objectives is to “assist the individual who is at nutritional risk in improving health status and *achieving a positive change in dietary and physical activity habits*” (Agriculture, 2013, emphasis added). In this example, as with other programs concerned with individual behavior change, a goal of the program is governance, specifically through self-governance. Individuals, through their participation in the program, co-produce the primary objectives of the program by governing themselves in the desired manner (Whitaker, 1980).

Co-production as a technique of governance acknowledges that some degree of citizen participation is part of many public services, but in a different way than the economic view. In this type, “the transformation of clients is the service objective” (Brudney & England, 1983, p. 60). So, rather than directly assisting in the delivery of a public service, clients co-produce the service by changing their own behavior in a way that is specified or desired by the service providers. The change in the client's behavior is the focus, not the delivery of a public service. This idea was in contrast to prevailing efforts to encourage citizen participation in the design of public services, but which did not acknowledge the contribution citizens already made to the implementation process through cooperation with policies (Brudney & England, 1983; Sharp, 1980).

More importantly for this research is the type of co-production that is concerned with producing program outcomes, like the behavior change outcome specified in WIC. In this type, the frontline service provider role changes from producing public services to one of “recognizing and developing citizen competencies” (Sharp, 1980, p. 106). The service provider is often playing “an enabling role so the client actually performs the service task” (Bovaird & Loeffler, 2012, p. 1122). The service provider is viewed as participating in an interdependent relationship with the program participant to fulfill the objectives of the policy rather than an adversarial relationship (Needham, 2007). Street-level bureaucrats are facilitators, who use their expertise and knowledge of relevant policies and procedures “in a process of joint action in which their clients are active agents, trusted to make the right choice for themselves” (Ryan, 2012, p. 317). In this way, the role of the service provider as an expert has not changed, but the application and delivery of expertise is modified to recognize the participant as active participants in the production of the policy (Ryan, 2012).

Many of the more recent articles discussing co-production concerned with precisely defining the term “co-production” look to the historical literature for definitions. Much of the work in this area dismisses Whitaker’s (1980) focus on the individual as a co-producer; favoring Brudney and England’s (1983) assertion that individual co-production is of low importance because the benefits are personal and unique to that individual.

While the interest and cooperation of clients may have an impact, and service effectiveness is defined by the interaction between citizens and public officials...For the most part, service agents...provide services to a consuming populace following prescribed policy, rules, and regulations subject to their discretion. (Brudney & England, 1983, p. 63)

But while Brudney and England's typology of co-production may be useful as a detailed definition of co-production, the assumptions supporting the claim that individual co-production is the least important type may no longer apply.

One of the factors that requires a reassessment of Brudney and England's typology is the increased emphasis on personal responsibility and self-government in many social programs. Arizona's WIC program has designed the nutrition education portion of the WIC appointment to "engage participants in a dialog to identify needs, set goals, increase self-efficacy, and address barriers to change" (Deehy, Hoger, Kallio, et al., 2010, p. S40). Behavior change is the goal and cannot be achieved without "work" by WIC participants outside of the program environment to meet expectations (Alford, 2009). Rather than using a carrot and stick approach often seen in policy design, the WIC program uses knowledge tools and a collaborative approach to influence change. This approach is consistent with Alford's (2002) assertion that sanctions and material rewards are not as likely to be effective when complex behavior change is involved. Instead, building the knowledge and abilities of the client is more conducive to the co-production process.

In WIC for example, co-production is not limited to what happens during the interaction between the staff member and participant, but extends to the participant's behavior outside and away from the program's physical space. The food package and nutrition education are expressly designed to influence individual behavior change, not only to produce the success of the policy, but to improve the health of the family for the future, influence children's habits into adulthood, lower rates of chronic disease, and in turn, lower health care costs. This is a tall order for about \$50 worth of food a month and

nutrition education four times a year. Dismissing client co-production as unimportant, of little interest, or low in the co-production hierarchy ignores the change in government services from simply producing a service for participants to consume at a certain point of time in their life, to producing temporary services that once removed, are expected to continue to affect participants because they have *become a way of life*.

This research attempts to fill the gap of knowledge about individual co-production through investigating how it manifests in the interaction. But also it looks at what is being co-produced differently than most of the literature. The literature uses an economics approach looking at service providers as producers and program participants as consumers. It is a goods-oriented approach that views the public service as a good that is produced and consumed. But what is important here is the idea that co-production is not always concerned with goods, but rather, concerned with behaviors. Of course, those behaviors may provide a public good, but the behavior is integral to the process and the creation and sustenance of co-productive behaviors by and through the state has received short shrift.

Conclusion

Each of the three literatures discussed in this chapter builds on the other, filling in gaps and addressing different parts of the process of interactions between frontline service providers and participants. The WIC literature views the interactions as part of the larger program, bundled with food benefits. Emphasis on outcomes ignores a significant piece of how the policy is implemented on the ground. As evident by this chapter, WIC research has mainly focused on the question, “Does WIC work?”. This has been investigated primarily through research related to the influence of participation in WIC

on birth outcomes, concerns with selection bias, and to a lesser extent, influence on nutritional behavior and levels of nutrition knowledge. What is missing from the WIC research is an understanding of how the different components of the WIC program work on and with its participants. Estimated effects of WIC participation generally are attributed to the food package benefit, even though nutrition education and interactions with WIC staff members is a large part of the way participants experience the program. The act of having to appear at a WIC office or clinic on a regular basis to be assessed nutritionally and physically by WIC staff in order to receive benefits may have an effect on outcomes but is poorly understood and there is scant research on this portion of the WIC experience. The gap in the WIC literature this research is addressing is looking at *how* WIC works rather than *whether* WIC works (Bitler & Currie, 2005a). Understanding what happens between participants and staff members, how nutrition information is presented and responded to, and the general interaction between program participants and WIC staff contributes to knowledge about the program that is integral to the experience, but goes beyond the tangible benefits of the food package.

The decision to consider interactions important in the delivery of WIC led to the investigation of the street-level bureaucracy literature to understand service delivery with this organizational form. The street-level bureaucracy literature gives insights into how frontline service providers deal with their caseloads on an ongoing basis, using routines and other strategies to handle their tasks. In addition, this line of literature acknowledges that programs reliant on street-level bureaucrats are in a state of constant implementation and the way in which participants experience the policy or program is inherently tied to their interactions with frontline service providers. So, this literature helps to close the gap

found in the WIC literature that virtually ignores interactions between WIC staff and WIC participants. However, the street-level bureaucracy literature makes assumptions about the interaction and the client that may not hold under empirical scrutiny: client passivity, divergence of goals between frontline service providers and clients, and differential power relations. This gap led to the final literature, the co-production literature.

The co-production literature that applies to this work is the concept of co-production as a technique of governance. This literature builds on Whitaker's (1980) concept that social programs often have as a program objective the transformation of client behavior. Co-production helps to fill in gaps in the street-level bureaucracy literature by recognizing that clients often are not passive, and in fact program design expects them to be active co-producers of policy outcomes. Co-production also views the street-level bureaucrat as someone who works in tandem with the client to co-produce the policy, recognizing converging interests between clients and frontline service providers and assuming that while power may not be equal, there is a more level playing field than assumed by the street-level bureaucracy literature. However there is a dearth of empirical evidence concerning co-production as a technique of governance and the process of co-production is unknown. Similar to the questions concerning WIC, this research asks how co-production as a technique of governance works, not whether it works.

This review of the literature illuminates the purpose of this research: to understand the process of co-production in the WIC environment by studying the interactions between staff and participants. This research looks specifically at the social institution of WIC and the embedded social structures concerning health, nutrition, and

feeding a family and the strategies, messages, and meanings exchanged within. In the aggregate, interactions between WIC staff and WIC participants make up the policy and as such, that idea supports the focus of this research on interactions and how they produce and reproduce, enforce and reinforce specific social institutions.

CHAPTER 3

METHODOLOGY

A constructivist-interpretive methodology serves as the philosophical foundation for this research; it informed the creation of the research questions, research design, corresponding methods, and data analysis. Within the constructivist-interpretive philosophy, there are two specific methodological logics used in this research. First, Aristotle's logic of *phronesis* as described by Flyvbjerg (2001) which focuses the research gaze specifically on practices and actions of individuals and how they influence or demonstrate meaning. The second analytical logic used is abductive reasoning, which requires the researcher to constantly move between inductive and deductive reasoning in an attempt to explain and understand a surprise or puzzle in the data that does not fit existing theory. These two logics are put into practice through the use of grounded theory: a set of analytic methods based on a constructivist-interpretivist methodology.

In this chapter, I will explain the constructivist-interpretivist methodology and its ties to grounded theory. The specific data generation and analytic methods are detailed in the next chapter. The explanation of methodology is intended to demonstrate three things: 1) the underlying assumptions and philosophical commitments that are the foundation of the research; 2) that the set of methods described in the next chapter is appropriate for the research question; and 3) to allow for appropriate judgment of the research based on criteria unique to the underlying methodology.

Constructivist-Interpretive Methodology

The term "methodology" is used here in a specific way to define the "presuppositions concerning ontology - the reality status of the 'thing' being studied -

and epistemology - its 'know-ability' - which informs a set of methods" (Schwartz-Shea & Yanow, 2012, p. 4). The methodology is referred to as constructivist-interpretivist to elucidate two important facets: the ontological assumption that individuals construct social reality using internal processes involving perceptions, ideals, and experiences, and the epistemological commitment to studying those constructed realities through direct interactions between the researcher and the individuals involved in the phenomenon of interest (Schwartz-Shea & Yanow, 2012). This is in contrast to a realist ontology that assumes an external social reality to which individuals react, something that exists separately from the individuals, and a positivist epistemology that assumes an objective, neutral researcher and data that accurately reflects the external reality under question (Burrell & Morgan, 2006/1979; Crotty, 1998; Suddaby, 2006). The combination of constructivist and interpretivist philosophies reflects the central premise of this research: that definitions and understandings of health, along with descriptions and assessments of corresponding individual behaviors are actively constructed through a process of engagement with and interpretation of the context in which the individuals are located, and as such, must be researched and understood through those interactions.

Constructivism is the ontological view that knowledge "is contingent upon human practices, being constructed in and out of interaction between human beings and their world, and developed and transmitted within an essentially social context" (Crotty, 1998, p. 42). Research in a constructivist vein expects that individuals will perceive phenomena differently depending on their experiences and previously constructed meanings.

Constructivism is concerned with context and how individuals interact within their environment in a social, political, cultural, and historical context (Rynes & Gephart,

2004). As such, constructivism is located at the point where the social structure at the macro-level interacts with and influences individual behavior and meaning-making at the micro-level and vice versa. Meaning is actively created or generated rather than ascertained. In addition, meaning-making is expected to be an iterative process, both for the researcher and the research participants, where continued experience in a contextual situation supports and builds upon previous experiences (Schwartz-Shea & Yanow, 2012).

While there is recognition on the part of the researcher that multiple, subjective meanings exist, the researcher also acknowledges that meaning is not directly observable, but rather must be inferred through analysis of artifacts (actions, words, documents). Researchers are considered co-constructors or co-generators of data through their interactions with participants, the research setting, and the subsequent data. Constructivist-interpretive researchers also recognize that constructed data is only a portion of a complex whole. Data will not allow the researcher to construct *the* story, but *a* story. In addition, incongruent data is expected in constructivist-interpretive research, for example when words and actions of a participant are inconsistent or in conflict. This is not considered problematic, but instead, as an opportunity to analyze and interpret those differences. Finally, research findings are considered an interpretation providing understanding of part of a “complex, situated whole” rather than an exact representation or reflection of reality (Adcock, 2006, p. 60; Schwartz-Shea & Yanow, 2012). Another characteristic of constructivist-interpretive research is the primacy of context. Rather than controlling for context, constructivist-interpretive research considers context of utmost importance, assuming that action, meanings, and sense-making are sensitive to the local

context, as well as the larger historical, cultural, political, and social context (Adcock, 2006). Interpretive research investigates actions and meanings as they are experienced, focusing on “concepts-in-use” of the individuals who are part of the phenomenon under consideration (Rynes & Gephart, 2004, p. 455).

Returning to the research questions demonstrates the rationale for selecting a constructivist-interpretive methodology. The general research question can be summed up as: *what is happening during interactions between WIC staff members and participants?* This research question is concerned with action in an organizational setting, in a specific time and place. The specific research question: *is a shared definition of health is being created and if so, how and to what effect?* is also amenable to a constructivist-interpretive methodology. These research questions rest on two assumptions: first, that there are multiple, subjectively constructed “truths” and meanings concerning health and nutrition that may not be shared between staff members and participants, and second, that the best way to understand those multiple meanings is through interactions between the researcher and the actors involved in making sense of nutrition and health in the setting in which it occurs (Guba & Lincoln, 1989; Schwartz-Shea & Yanow, 2012). These presuppositions create the foundation for the research questions, research design, program selection, research location, and choice of methods.

Phronesis as the Unit of Analysis

The idea that there is something important and interesting happening at the point where WIC staff members meet participants in a locally situated context is a direct result of my methodological commitments. Constructivist-interpretivist research is particularly pertinent to policy implementation of social programs, especially those that are

considered an intervention or attempt to influence program participants' behavior. While the literature often acknowledges the importance of context in implementation, there is limited knowledge about the actual contextual factors that are important and the degree to which they affect implementation (Sandelowski & Leeman, 2012). Research into context and meaning creation using a constructivist-interpretive methodology can help to fill that gap. WIC is a good location for research on context and meaning in implementation because of the high level of personal interaction between staff and participants meant to assist participants in modifying nutrition-related behaviors. Understanding the process of communication, interaction, and negotiation that occur during WIC encounters shed light on the meanings created and sustained in the ongoing implementation of WIC.

A primary characteristic of constructivist-interpretive methodology is the idea that the perspective of situated actors engaged in the phenomenon of interest is of utmost importance. Rather than the researcher imposing an objective and outsider understanding onto the situation, the researcher engages with situated actors in order to generate understanding of their lived experiences (Schwartz-Shea & Yanow, 2012). Flyvbjerg (2001) uses Aristotle's idea of *phronesis* to denote research that prioritizes investigation into practices, practical knowledge, and action in a particular field of study. The purpose of the research is not intended to measure or assess the characteristics of an external reality, but rather, to understand "the sense-making and belief structures" used by individuals by observing and interpreting action in a specific context (Guba & Lincoln, 1989, p. 137). It is concerned with the interplay between the structural and the particular and is especially focused on "practical activity and practical knowledge in everyday situations" (Flyvbjerg, 2001, p. 134). The logic of *phronesis* is the foundation of the

assumption that investigating actions within a localized context will illuminate “how different meanings held by different persons or groups produce and sustain a sense of truth, particularly in the face of competing definitions of reality” in WIC (Rynes & Gephart, 2004, p. 457). Because there is an acknowledgement and assumption of differently understood meanings, there is an express interest in understanding how those meanings interact and become shared or contested. In addition, this logic of inquiry assumes that human behavior is not reducible to a set of rules independent of context, practice, and experience (Flyvbjerg, 2001).

There is a basic assumption underlying this research that the WIC participants have some level of practical knowledge about health and nutrition and related practices and attitudes reflecting that knowledge. In addition, there is an assumption that both staff members and participants bring their own ideas, education, training, habits, practices, and beliefs into the interaction and each meeting reveals and incorporates some of those characteristics in order to build a definition of health and nutrition. The idea that a definition of health is being created within the process of the interaction within the WIC clinic is a critical distinction between this research and work of a more positivistic bent. A logic of *phronesis* is especially appropriate in this case to privilege local knowledge and context-specific meanings, and attempt to understand how individuals are situated within the context (Flyvbjerg, 2001; Schwartz-Shea & Yanow, 2012). In addition, concentrating on the actions within a local context highlights the continual, on-going, repetitive nature of program implementation where the practices of front line service providers is a primary mechanism through which participants experience the program.

Analytical Logic of Abduction

Grounded theory within a constructivist-interpretive methodology offers an additional type of logic, abductive. Abductive reasoning personifies the idea of a theory grounded in the data through an “iterative-recursive relationship” between theory and data (Charmaz, 2006; Reichertz, 2007; Schwartz-Shea & Yanow, 2012, p. 33). Abductive reasoning is used when there is a puzzle or a surprise in the data that cannot be explained by existing theory that leads to a process of logical inference and innovative insight to produce new knowledge (Reichertz, 2007; Schwartz-Shea & Yanow, 2012). The characterization of a “surprise” is important for abduction. The surprise indicates that new knowledge is necessary to explain or understand the characteristics, relationships, or actions found in the data. The surprise serves as a catalyst for the researcher to develop a suitable explanation (Reichertz, 2007). Abductive logic requires an attitude of allowing for surprise and seeking an explanation rather than ignoring the surprise finding as an anomaly because it does not match existing theory or knowledge. Abduction privileges the researcher’s interpretation of the data, requires a questioning of existing knowledge, and provides a place for creativity and innovation in solving the problem of the surprise (Reichertz, 2007).

Abductive reasoning compliments the purpose of constructivist-interpretive research: that of understanding context-specific meanings and processes. Constructivist-interpretive research does not look to generalize from particular context-specific incidents, but rather, to create knowledge that helps to understand meaning within the specific context (Adcock, 2006; Schwartz-Shea & Yanow, 2012). Abductive reasoning follows from the same premise. Abduction “is not immediately after general principles or

propositions induced from specific events (or general laws deduced from testing hypotheses against data): the explanation(s) it generates is (are) as situated as the puzzle with which it begins” (Schwartz-Shea & Yanow, 2012, p. 28).

In the case of abductive reasoning, the process of figuring out the puzzle requires an idea, insight, or tentative theory (which will be referred to as a hypothesis going forward) that is tested against the data, but does not use the traditional, statistical idea of falsification. Instead, hypotheses in abductive reasoning are “meaning-creating rules, for a possibly valid or fitting explanation that eliminates what is surprising about the facts” (Reichert, 2007, pp. 221-222). This is an important distinction because in abductive reasoning, a hypothesis can simply be a thought or an idea generated from working with the data. It can happen at any point of the process, not just at the beginning and is part of the process of analyzing the data, not a precursor to it. Once a tentative hypothesis has been produced, it is then “tested” against other data to see if it fits. In other words, is there systematic evidence for the hypothesis in the data? If not, the hypothesis is modified or discarded and the process continues in an iterative fashion between investigating whether the hypothesis fits the data, and if not, modifying the hypothesis and continuing the testing process: constructing data from many sources, checking it with emerging theories and understandings, moving back and forth between the two (Charmaz, 2006).

This section describing methodological commitments stemming from the constructivist-interpretive methodology was intended to provide the reader a formal justification for the research design and a foundation for judging the research appropriately. Constructivist-interpretive research is concerned with context-specific

situations and phenomena, situates the researcher as a subjective generator and interpreter of data, and generates findings that are acknowledged as partial and not representative of the whole. *Phronesis* and abductive reasoning are components of constructive-interpretive research, where *phronesis* influences the choice of research questions and the research site, while abductive reasoning influences the data analysis methods. Finally, these methodological commitments were key in selecting the formal method used in this research, grounded theory, which is described in the next section.

Grounded Theory

Grounded Theory As Methodology

Grounded theory was “discovered” by Barney Glaser and Anselm Strauss (1967) during their research on experiences of death and dying. They wrote their seminal work, *The Discovery of Grounded Theory*, as a response to a trend in sociology towards theory testing and verification at the expense of theory building. In addition, Glaser and Strauss were writing at a time of fervent debate over the quantitative/qualitative divide in the social sciences and explicitly made an attempt to circumvent that divide in order to offer a method that was rigorous, systematic, and meant to “strengthen the mandate for generating theory, to help provide a defense against doctrinaire approaches to verification” (Glaser & Strauss, 1967, p. 7). Glaser and Strauss argue that theory generation and verification should co-exist and as a result, introduced a systematic process of theory production.

The hallmark of their grounded theory method was the creation of theory that was “grounded” in the data. To Glaser and Strauss, that meant the resultant theory was not created by reading literature or building off another theory, but emerged directly from

intense analysis of collected data. Theories grounded in data have some measure of “fit” and would “work” if the theory was empirically tested. Fit referred to the idea that the concepts contained in the theory were directly and obviously created from the data rather than forcing the data into preconceived, a priori categories. Work referred to the notion that the theory needed to have, for lack of a better term, face validity, where people involved in the phenomenon under study would recognize the theory and underlying concepts as accurate to their situation (Glaser & Strauss, 1967). Data collection and analysis procedures were geared toward generating a theory that “explicates a phenomenon from the perspective and in the context of those who experience it” (Birks & Mills, 2011, p. 16).

After the publication of *The Discovery of Grounded Theory*, Glaser and Strauss reportedly went their separate ways and several forms of grounded theory began to emerge. While many books and articles point to foundational differences between the ontological and epistemological positions between Glaser and Strauss as the reason for the formation of differing schools of thought regarding grounded theory, a close reading of their book indicates that this was a primary intention. “Our principal aim is to stimulate other theorists to codify and publish their *own* methods for generating theory (Glaser & Strauss, 1967, p. 8, emphasis in original). Strauss and Glaser separately followed their admonition: Strauss through a partnership with Juliet Corbin in their multiple editions of *Basics of Qualitative Research* (see Corbin & Strauss, 2008; Strauss & Corbin, 1990, 1998) and Glaser through his own writings (see Glaser, 1978, 1992). Strauss and Corbin focused on grounded theory data analysis and created a systematic method of analyzing data that expanded and explained specific techniques that were

missing from or under-explained in *The Discovery of Grounded Theory*. Glaser was critical of their codification of the method and concentrated his writings on the techniques and mindset for the creation of grounded theory, especially concerning the use of previously created theories and the academic literature (Kelle, 2005).

The third school of thought concerning grounded theory comes from Kathy Charmaz, whose point of departure is at an ontological and epistemological level. Charmaz's (2006) criticism of the original form of grounded theory, as well as the refined versions advocated by Glaser, Strauss, and Corbin, was that though their methods focused on using qualitative data, the underlying epistemology had a decidedly positivist bent. Glaser and Strauss assert that the theory is contained in the data, waiting to be discovered by the researcher, and would emerge through their systematic method of analysis. In contrast, Charmaz (2006) argues that this "emergence" of a theory is not a case of the researcher discovering a theoretical truth about reality contained in the data, but is constructed based on the researcher's experience, training, and the research question. All possible theories are not considered and all portions of the data are not analyzed. There is a selection process that starts with the research question and research design, is informed by the researcher's knowledge, and translates into a theory that is constructed or generated rather than emergent. Charmaz eschews many of the specific techniques advocated by Strauss and Corbin (1990, 1998), especially some of their coding techniques as well as Glaser's adherence to theory emergence, and created a form of grounded theory that is decidedly constructivist and emphasizes the role of the researcher in generating data and constructing a theory.

Grounded Theory as an Outcome

Even though the three schools of thought described above differ in method and philosophy, there is a fundamental agreement between the three concerning the use of grounded theory methods to illuminate social processes and associated behavior, understand lived experiences, and investigate local context and knowledge (Birks & Mills, 2011; Reichertz, 2007; Wuest, Merritt-Gray, Berman, & Ford-Gilboe, 2002). In addition, while there are differences in process and analysis between the three schools, the desired result or outcome of the grounded theory analytical process is the same: *to discover or create a theory explaining the social process under question*. Grounded theory is not grand theory; instead, Glaser and Strauss (1967) describe a grounded theory as either substantive or formal. Substantive theory is developed for a specific, localized area of inquiry that is context specific, while formal theory is broader in scope and is applicable in multiple substantive areas. Glaser and Strauss (1967) compare formal and substantive theories with grand theory, which is “generated from logical assumptions and speculations about the ‘oughts’ of social life” rather than based on analysis and comparison of data related to a specific social phenomenon (pp. 34-35).

Grounded theories rest on a foundation of concepts, attributes, and relationships between and among each. As a note of clarification, some authors use the term “categories” and others, “concepts.” While there are many general definitions of each and some authors make a distinction between the two, this work uses the term “concepts” to indicate ideas generated from data analysis that form the foundation of the grounded theory. Concepts are categorical, abstract elements identified in the data that are made up of descriptive attributes. Identification, description, and explanation of relationships

between and among attributes and concepts provide the framework for the theory that emerges (Glaser & Strauss, 1967; Strauss & Corbin, 1998). The goal is not to describe phenomena, but to discover the underlying social processes and the relationships between those processes and behavior (Wuest, Merritt-Gray, Berman, et al., 2002). Because of the focus on context and process, resultant grounded theories:

can portray conclusions as dynamic and interactive, rather than as a single common outcome. That is, a fully developed grounded theory does not simply posit that A always leads to B, but rather that the degree to which A leads to B and what that relationship looks like depends on a range of factors that influence A, B, and the relationship between them. (Kearney, 2007, p. 128)

Grounded theory viewed in this manner fits within a constructivist-interpretive philosophy because it recognizes context-specific relationships within the process of interest that are non-linear and related to the larger social, political, and historical context (Charmaz, 2006).

Constructivist Grounded Theory

The type of grounded theory practiced for this research relies heavily on Charmaz's (2006) constructivist version of grounded theory. While a constructivist-interpretive methodology was discussed earlier, this section will outline how the methodology is manifested in this specific application of grounded theory. Charmaz's school of grounded theory is rigorous, yet flexible, and specifically recognizes that grounded theory does not emerge, but is created by the researcher, and influenced by experience, education, and the specific situation under study.

Charmaz's distinction from Glaser and Strauss is summarized well by her own explanation of her approach:

In the classic grounded theory works, Glaser and Strauss talk about discovering theory as emerging from data separate from the scientific observer. Unlike their position, I assume that neither data nor theories are discovered. Rather, we are part of the world we study and the data we collect. We construct our grounded theories through our past and present involvements and interactions with people, perspectives, and research practices. My approach *explicitly assumes that any theoretical rendering offers an interpretive portrayal of the studied world, not an exact picture of it.* (Charmaz, 2006, p. 10, emphasis added)

Charmaz and other constructivist grounded theory researchers walk a fine line between the subjective aspects of an interpretive methodology and the realist position of traditional grounded theory. Fundamentally, constructivist grounded theory explores and identifies a multiplicity of meanings of the phenomenon under investigation, and how those meanings and meaning-making practices are manifested in social processes using traditional grounded theory methods of data creation and analysis (Bryant & Charmaz, 2007a). There is an element of a realist ontology where the researcher attempts to capture and report a faithful account of the situation under study, where the realities of the research participants are accurately represented. But constructivist grounded theorists adhere to the idea that any portrayal, no matter how systematic the data collection, reporting, and analysis, is at best a “representation of experience, not a replication of it” (Bryant & Charmaz, 2007a, p. 51).

A constructivist version of grounded theory does not necessarily mandate a new set of methods, but instead, requires a constructivist-interpretive mindset about the position of the researcher and what the results of the methods can reveal, which differs from traditional grounded theory. The constructivist grounded theorist is not a collector of data, but instead is a data generator. What is considered as data is subjective, dependent on the researcher’s experience and assessment of the situation, as well as the

researcher's impact on the situation itself. The researcher is not a disconnected, invisible gatherer of data, but one whose presence cultivates and creates data through interaction (Bryant & Charmaz, 2007a; Charmaz, 1990, 2006).

This view of the researcher's relationship to the data and role in data creation is fundamental to constructivist grounded theory. There are several ways researchers are seen as creating and affecting the data that is presented, especially through interactions with research participants. On its face, discussing the researcher's effect on the data mirrors positivist concerns about the researcher's presence consciously or unconsciously affecting the data being collected (including researcher bias and the observer effect), especially in naturalistic situations like observations and interviews. The fundamental difference is that constructivist grounded theory researchers assume and accept that the researcher's presence will alter the local context in some way and research participants will respond to that change in context by using their individual sense-making heuristics to assess the situation and respond accordingly. This is not seen as problematic, but rather as a natural outcome of the existence of multiple subjective meanings that are sensitive to context and experiences (Charmaz, 2006; Schwartz-Shea & Yanow, 2012).

Charmaz (2006) encourages grounded theory researchers to be flexible with their methods and to "view grounded theories as products of emergent processes that occur through interaction" (p. 178). This is not to say that Charmaz promotes a version of grounded theory that is unsystematic; rather, her version encourages researchers to adhere to several fundamental grounded theory methods: memo writing, constant comparison, and abstraction, but in ways that reflect the researcher's knowledge and experience, as well as the research question. The nature of engaging and interacting with the data should

inform the use of specific methods and analytical techniques, rather than the methods informing how to interact with the data. The methods presented in the next chapter reflect Charmaz's fundamental view of grounded theory as constructivist, interpretive, creative, flexible, grounded in the data, with a substantive grounded theory that can be built upon with additional data and analysis in the future as the end result.

Rigor, Generalizability, and Reliability

There is a well-established tradition of using a constructivist-interpretive methodology, particularly grounded theory, in medical practice research; the nursing literature is especially replete with examples (Dey, 1999). However, grounded theory specifically and constructivist-interpretive methods in general do not have an established, widely accepted tradition in public policy and public administration research. Concerns with prediction, control, and generalization support the dominance of positivist, econometric research, especially in public policy analysis. Additionally, the notion of "evidence-based practice" has made its way from the field of health care to public policy, requiring "valid, reliable, and relevant evidence" that avoids "the bias that comes from the fact that single studies are specific to a time, sample, and context" (Davies & Boruch, 2001, p. 294). But the traditional, positivist research cannot speak to the relationships between practices and meaning making, something especially important when attempting to understand the "how" and "why" of policy outcomes and related hypothesized causal relationships (Yanow, 2007).

Because context and meaning are of primary concern in constructivist-interpretive research, the determination of generalizability of results falls on the shoulders of the reader rather than to the researcher (Sandelowski & Leeman, 2012). In other words, in

constructivist-interpretive research there is not a representative sample of data that is expected to produce results on a population level while controlling for bias, but rather an investigation of context and meaning. The role of the researcher is to present the data and analysis in a clear and systematic manner that allows the reader to determine whether the findings are transferable to other situations or places. External validity is not solely reliant on research design to remove threats to validity, but instead is based in the researcher's presentation of results and the reader's assessment (Sandelowski & Leeman, 2012).

Besides recognizing a different form or concept of generalizability, it is important to acknowledge that generalizability of results is not a goal of either constructivist-interpretive research or grounded theory. Grounded theory, because it is created from the data, has an underlying assumption of non-generalizability to other data. This does not mean generalizability is not possible; in fact, theories are expected to be generalizable in the way they predict relationships between concepts. But one grounded theory is expected to only have predictive ability in the situated context from whence it came: it is considered a substantive theory as it is generated from one substantive area. To become a formal or even grand theory requires continued building on and refinement of the substantive theory from other research sites, other collections of data and other types of situations before it can be considered widely generalizable (Charmaz, 2006; Glaser & Strauss, 1967).

CHAPTER 4

GROUNDED THEORY AS METHOD

This chapter documents the procedures and methods used in the data generation and analysis process for this research. As explained in the previous chapter, there is not an agreed-upon method of performing grounded theory research or steps to follow that once completed, will result in a grounded theory; different schools of thought give credence to some methods over others. While Birks and Mills (2011) assert that there is a set of methods fundamental to grounded theory, no matter which grounded theory philosophy is being followed, this research follows the admonition that methods should ‘earn’ their way into your research based on your data and point of view (Bryant & Charmaz, 2007b). The data generation and data analysis methods described here follow closely with Charmaz’s (2006) constructivist grounded theory.

It is difficult to describe many of the methodological steps of grounded theory because of its iterative and simultaneous nature. There is a great deal of overlap between data generation methods and data analysis methods, with each informing the other (Sandelowski, 1995). Grounded theory data analysis methods are cognitive in nature and as such, often difficult to explain. Grounded theory also emphasizes constant comparison between incidents (where incidents can refer to observations, themes, codes, etc.,) which leads to a process that is not only analytical, but decidedly creative and non-linear (Heath & Cowley, 2004). For example, tasks listed as second or third stages of the analytical process often occur during the so-called first phase as analytical insights are explored. With that being said, for reasons of clarity, this section presents the methods in linear form and attempts to identify methods more or less in the order they occurred as well as

in proximity to the methodological steps carried out simultaneously. It is impossible to capture the cognitive process in written form. But detailing the exact cognitive steps and each piece of the iterative process is less important than laying out the methodological and analytical tasks that were undertaken, how they were accomplished in general, and why they were important for the analytical and theoretical process.

Data Generation Methods

This section details the methods of data generation used for the research. Participant observation was the primary form of data generation with some supporting data from formal and informal interviews. The research site, recruitment, research participants, observations, and interviews are described and explained.

Research Site

Field work was conducted at two WIC clinics in the Phoenix-metro area, that are administered by a local non-profit group who contracts with Arizona's Department of Health Services (ADHS) to provide WIC services and benefits. The non-profit organization is a community health care provider offering services through Arizona's Health Care Cost Containment System (AHCCCS - Arizona's Medicaid system), as well as providing low cost services for the uninsured throughout the Phoenix-metro area. These two clinics were selected primarily because of proximity and volume of clients. The non-profit group's clinics were initially contacted at the advice of ADHS's clinic coordinator who felt they would be the most amenable to student research. I initially recruited the non-profit group through communications with their WIC coordinator and ADHS staff in January 2013. Fieldwork took place from March 23rd to June 14th, 2013.

One WIC clinic is in a traditionally low-income area that was economically

depressed even before the onset of the Great Recession because of the closing of several manufacturing plants in the area. From the outside, it looks like a typical office and there is little indication that it houses a WIC clinic except for a small wooden sign at the main entrance. The building was relatively new during field work (it opened in October 2012) and is very modern, clean, and seemingly upscale. There are skylights providing natural light, art on the walls, toys for children to play with, and a distinct medical office atmosphere with workers in scrubs, including the WIC staff. The WIC clinic is at the end of a long hallway that passes most of those other offices and is usually the busiest and loudest area in the building.

The second WIC clinic is not part of a larger office, but is housed in a strip mall surrounded by other medical offices, a charter school, and restaurants. The office is not visible from the street or even from the parking lot. The surrounding area benefited from Arizona's massive economic growth in the early to mid-2000s, which was fueled by housing construction and then fell victim to the Great Recession. It is a traditionally rural area with roots in farming and ranching; roots that are still visible among the newer housing and shopping developments. This office is significantly smaller than the first and was often very crowded. It too has toys for children to play with and is brightly colored, but without the same amount artwork and posters on the walls as the first clinic. WIC staff at this site also wore scrubs. The two clinics share several staff members who "float" between the two sites on a regular and as-needed basis.

The WIC offices are generally a very pleasant place with the exception of sometimes being quite loud with children yelling or crying. The staff members are very friendly, greeting participants with smiles and compliments towards the participant's

children or congratulations for their pregnancy. Exclamations of “She’s so cute!” or “What a good baby!” are common, and there is a distinct, for lack of a better term, sense of mothering at the clinics. The staff members provide praise and validation throughout the visit, telling participants they are good moms or that they’re doing a good job. There is colorful artwork on the walls of different foods and each staff member’s office is decorated colorfully and personally with posters of food and pictures of family members.

Recruitment, Sample, Observations, and Interviews

The primary data generation method used in this research is participant observations of interactions between WIC staff members and participants, with some reliance on semi-structured and informal interviews, as well as general observations of clinic processes outside of the interactions. I use the term “data generation” purposefully to demonstrate the constructivist position that data is created by the relationship between the researcher and the research participants and is situated temporally and socially (Charmaz, 2006). Especially in the case of observations and interviews, there can be no invisible, objective researcher who simply gathers data waiting to be discovered. Rather, the addition of the researcher changes the local context in unknown ways and it is impossible to know the full effect of my presence in the nutrition education sessions on either the staff or participants. In addition, even if the interactions were unchanged by my presence, the researcher puts their own interpretation on the process by selecting data to analyze and excluding data that does not relate to the research question. In that way, the data is a representation of the interaction, does not contain all parts of the whole, and the part that is represented is based on the researcher’s subjective judgment of importance (Charmaz, 2006; Sandelowski, 1993).

Observations are crucial to the investigation of the main research questions: What is happening during interactions between WIC staff members and participants?, and, “Is a shared definition of health being created during WIC interactions, and if so, how and to what effect?” as well as the sub questions concerning strategies and responses by staff and participants. Observations are appropriate when the phenomenon has a specific physical location (Lofland, Snow, Anderson, & Lofland, 2006). In this case, the interactions have a specific physical location; they are not naturally occurring interactions but are situated within the clinics. Observations are necessary to investigate how staff and participants talk to each other, the skills and strategies employed, and the contextual functions of the actions taken within the interaction (Silverman, 2013). Participant observations produced written field notes and transcribed audio recordings.

All research participants (staff and participants) were provided an information sheet approved by Arizona State University’s Institutional Review Board, which was also verbally summarized for each participant. The information sheet outlined the purpose of the research and their rights as research participants. Staff members were recruited on-site and consisted of Community Nutrition Educators (CNE) and a Registered Dietitian (RD). The CNEs and RD are the staff members that interact directly with WIC participants and deliver benefits. Both WIC clinics saw clients on a walk-in basis, so no pre-arranged observations were scheduled and other common qualitative sampling techniques such as snowball sampling were not possible. Instead, participants were recruited either at the front desk when they checked in, or as they met their assigned WIC staff member to begin their appointment. Every staff member and client approached for the research agreed to be observed, and 36 out of 38 clients agreed to allow audio

recording of their encounter. While I was surprised at the high rate of participation by WIC clients, staff members noted that there are often observers in the WIC interactions, whether for research, new employee training, or evaluation of staff members, so they were not surprised at the high rate of participation.

In the initial recruitment phase, WIC clients (who from this point forward will be referred to as “participants”) were approached for participation based on two factors: whether they were 18 years of age or older, and whether they planned to speak English during their appointment. Staff members relayed age to me, either by looking at identification documents provided by the client or looking up current participants in the WIC database; I did not have access to either set of materials. The language criterion was determined either at the front desk by engaging the WIC participant in conversation or by looking at the WIC folder (something all WIC participants receive and are expected to bring each time they pick up their benefits) to determine if it was the English or Spanish version. The majority of the WIC participants were women. There were two instances where a mother came with a male companion and there was one instance of a man with his 3-year old child with no mother or other female adult.

While observing encounters, I was generally seated on the opposite side of the participant, slightly behind the staff member. My physical position was determined by the small size and layout of the offices, not by conscious choice. Because of this, I could see the facial expressions of the participant, but often not of the staff member. While I did not verbally participate in the appointments by offering information or joining in the conversation, participants often included me in the conversation through eye contact or directly addressing me, especially during lulls in the conversation when the staff member

was entering information into the computer. Staff members rarely included me in the conversation, presumably because of my physical position in the room (out of their line of sight) and because they knew I was there to observe interactions between the staff and participants with as little interference as possible. As mentioned earlier, almost all of the participants agreed to have their appointments audio recorded, however I did not audio record during physical measurements of height, weight, and hemoglobin in order to avoid health privacy concerns. Participants were notified when I was recording and when I was not. I transcribed the audio recordings used for the analysis. Transcriptions were close to verbatim, meaning that filler words such as “ok” or “yeah” were not transcribed and grammatical errors were corrected. For example, English was a second language for one staff member so syntax and grammar were corrected or clarified during the transcription process. Transcriptions, corresponding audio files, and observation field notes were imported into MAXQDA (v. 11) for coding and analysis.

Interviews with six participants occurred directly after their meeting with the staff member. This strategy was selected for several reasons. First, it was at the recommendation of the staff members who indicated that making appointments was very difficult with participants and I would expect very high no-show rates. This assessment was based on their experience of having scheduled appointments at the clinic for a period of time but then moving to a walk-in basis because of the number of missed appointments. Second, many of the participants had newborn infants, making it difficult to schedule a separate appointment for an interview. Finally, because I was not familiar with the areas where the clinics were located, finding a separate place for interviews that was familiar to both the participant and me was problematic.

Interviews with participants were solicited at the beginning of their meeting with the staff member and then confirmed at the end of the appointment. I did not begin to conduct interviews until I had observed close to 20 interactions and felt that I had some experience I could draw from in order to generate interview questions. I did not use any criteria for asking participants for interviews besides asking people whom I had observed. I did not keep track of the number of people who refused the interview, but would estimate it was around 20%. While I did not ask for a reason for refusing the interview, most participants indicated they had already spent a long period of time at the clinic. A ten-dollar gift certificate to Wal-Mart was offered as compensation and appreciation for interview participants' time. The monetary value of the gift card was chosen partly for budget reasons but partly because it was thought to be a non-coercive amount; in other words, a participant would not be compelled to participate in the interview because of the value of the gift card. While one interviewee verbalized that she agreed to the interview because she wanted the gift card, several mentioned that they would have participated in the interview regardless of the incentive. Interviews took place at one clinic in the café located in the building, and at the other clinic in several areas: either in the waiting room if it was empty, in an empty staff member's office, or in a café located across the parking lot from the clinic. Six participant interviews were conducted which lasted around 20 minutes each and were audio recorded.

Informal interviews were conducted with staff members during down times at the clinics or while sitting at the front desk. These interviews revolved mainly around procedures and processes in the clinic or discussing particular details of an observation. Informal interviews with staff were not recorded but field notes were taken directly after.

Interview data from participants and staff members played a very small role in the data analysis procedures, mainly because observational data was much more directly relevant to the research questions than interview data.

Data Analysis Methods

A unique feature of grounded theory is that data generation and data analysis occur simultaneously, so field work was still being completed even as coding and other analytical tasks were being completed on earlier observations. This allows the researcher to identify concepts and create hypotheses as described in the Methodology chapter and at the same time, generate additional data to pursue analysis and refinement of those initial hypotheses. This is an iterative process that is continued until saturation has been achieved, which is discussed later in this chapter.

Initial Coding and Focused Coding

In grounded theory, coding is the foundation for analysis. It is the codes, not the raw data that creates the properties and concepts that eventually contribute to and shape the grounded theory (Glaser & Strauss, 1967). One of the advantages of grounded theory is that it outlines a systematic method for coding raw data, something that was missing in the qualitative literature to that point (Bryant & Charmaz, 2007a). Charmaz (2006) presents an attitude toward coding that is much more flexible than other schools of thought, especially that of Strauss and Corbin (1990, 1998) who offer a detailed description of a three step coding process that has been cheered by some as offering systematic guidance to a nebulous analytical task, and critiqued by others as offering a cookie-cutter process that is not in keeping with the foundational tenants of grounded theory (Keddy, Sims, & Noerager Stern, 1996). Charmaz (2006) asserts that researchers

can and should “follow the leads” in their data and do so in a way that best helps them “make sense of the data” rather than follow a strict coding structure (p. 61). While there are many different descriptions and strategies of grounded theory coding, there is one hard and fast rule: initial codes are ascertained from the raw data being coded, not from the literature. There are no *a priori* codes during the initial coding process, something that is common across all versions of grounded theory (Birks & Mills, 2011; Charmaz, 2006; Corbin & Strauss, 2008).

For this project, initial coding followed two simultaneous strategies: descriptive coding, and action coding. Descriptive coding consisted of determining the main topic of each excerpt (Saldaña, 2009). For example, if the staff member and participant were discussing a child’s milk drinking habits, that part of the exchange would be coded as “Milk”. Descriptive codes were assigned to the entire portion of a transcript where milk was discussed, including multiple responses from both the staff and participant. Coding in this way keeps the context intact: from the prompt that initiated the discussion about milk, to the conclusion of that topic and the move on to another. Descriptive coding served primarily an organizational rather than analytical purpose, making it easier to locate parts of conversations dealing with the same topic across many observations for the purposes of comparison.

Action coding was performed simultaneously with descriptive coding. Actions related to health and nutrition are the primary focus of the WIC interaction and as such, are the primary focus of the coding method. Charmaz (2006) advocates for coding based on actions evident in the text, arguing that this method helps to keep the researcher grounded in the data rather than forcing preconceived categories on the data, or ascribing

motivations and intentions to participants' words. In addition, Charmaz argues that processes are expressed and observable through actions, so any investigation into processes must identify and account for the underlying actions. Action coding was especially important in this case because the one-on-one interaction is intended to inform participants' actions outside of the WIC clinic. So, there is a coding of the actions of the participants within the clinic setting, but the interaction often contains questioning and reporting of participants' actions outside of the clinic.

Another rationale for using action coding is the nature of interactions. Interactions have a reply and response format: related actions with some form of cause and effect or prompt and result. The responses and replies are connected, related to each other temporally (Goffman, 1981). Coding actions in relation to each other allows the process of the interaction to become evident through the identification of patterns and relationships of actions. The codes serve as identifiers of and links between different parts of the social process of the interaction (Saldaña, 2009). Like the descriptive coding process, action codes were assigned to excerpts of transcripts containing many prompts and responses, keeping the context intact.

To code for actions, I used Charmaz's (2006) suggestion to code with gerunds (verbs ending in "-ing"). Action coding was assigned by asking, "What is going on in this excerpt?" and describing the actions. For example, the action code "probing for information" was assigned to portions of a transcript where a staff member questions a participant about family eating habits. This code indicates information gathering on the part of the staff member and the corresponding response(s) by the participant (which usually had multiple descriptive and actions codes assigned to the same excerpt). In order

to keep context intact, action coding was assigned to multiple back and forth responses of the interaction, not just the line where the WIC staff member asked the question.

Descriptive and active coding are considered initial coding stages; they set the foundation for later rounds of analysis where initial codes are subsumed and refined into categories, relationships between actions can be identified, and inferences concerning purpose and intention can be theorized.

Focused coding is the second step of data analysis and like its name implies, is performed by interrogating codes from the initial coding step and refining them (Charmaz, 2006). The same general “rules” of initial coding apply to focused coding: no *a priori* codes, codes need to be close to the data, and code for actions, not intentions or motivations. Focused coding serves three primary functions: to refine the initial round of coding in order to remove or clarify codes, to focus the researcher’s attention on codes that are most related to the research question, and to serve as the next step toward building categorical concepts. Focused coding is where preliminary abstraction of the data takes place. Rather than describing the actions like in initial coding, focused coding is intended to push the researcher to take a stab at comparing codes to each other and theorizing relationships between codes at a basic level (Charmaz, 2006). For example, in the initial coding process, I created a code called *Giving advice or information* to indicate when staff members were providing specific advice to WIC participants. Through comparisons of the data labeled with *Giving advice or information* in the focused coding stage, that code was split into two: *Giving expert advice or information* and *Giving practical advice or information*. This example shows the early stages of analysis through comparisons of raw data labeled with the same code, and the analytical decision to split

the code because of a distinct difference in the type of information being given. Those codes were eventually subsumed in later rounds of focused coding into a concept called *Advising*, which is discussed in the next chapter. This example also demonstrates Charmaz's (1990) description of the position of the researcher within the analytical process: a decidedly constructivist-interpretive position that elucidates how the researcher interacts between their data and their ideas concerning the data: decision-making behavior that "actively shapes the research process" (p. 1169). The coding process sets the stage for further analytical steps and becomes the foundation for the resultant grounded theory, so decisions made at this stage have an indelible impact on the final product, and in keeping with the constructivist-interpretive methodology, are acknowledged as conscious decisions and creations, not as discoveries.

Memo Writing

Memo writing is an essential grounded theory method regardless of the version being followed. Memo writing is intended to capture lines of analytical thought at any point in the process, but especially during coding and analysis. Memo writing serves as an initial analysis method and as part of the foundation of the abstraction process, creating the core concepts from initial codes that will become the grounded theory (Birks & Mills, 2011). Memos are a way to track a line of thinking or analysis through to its conclusion and to see whether that conclusion contributes to the analysis and theory construction, modifies other ideas or relationships related to the emerging theory, or can be discarded for lack of fit.

Memo writing also serves a creative purpose, where the researcher can take a thought and write in any way they please to flesh out the idea or concept. Because memos

are not intended to appear in the final product but are used as an analysis tool, researchers are encouraged to write anything and everything, to record any thoughts even if they don't seem relatable at the time (Charmaz, 2006). In this way, memo writing contributes to the "art" of qualitative research as advocated by Sandelowski (1995). Researchers are encouraged to keep all memos, even when they seem irrelevant in order to follow the original line of thinking and to eliminate chances of second-guessing or duplicated work (Birks & Mills, 2011).

Glaser and Strauss (1967) advocate for memo writing from the beginning of the coding process. Memos are not field notes, but specific analytical thoughts or notions that arise during the coding process. Glaser and Strauss use memo writing as a rule of the constant comparison process; anytime the researcher is mulling over a puzzle or analytical idea that has come up, they must stop coding and record their ideas in the form of a memo. They give no rules for the memo itself, saying, "the analyst should take as much time as necessary to reflect and carry his (*sic*) thinking to its most logical (grounded in the data, not speculative) conclusions" (p. 107). Memos also help to guide future data generation by identifying important concepts or gaps between concept relationships (Charmaz, 2006; Glaser & Strauss, 1967).

Describing the use of memos in the research process is slightly more difficult than the literature suggests, mainly because they rely on a flash of inspiration or a puzzle to arise and often it is unknown what generated the idea or puzzle that prompted a memo. In addition, because memos can be flights of fancy, a way to record an idea in the moment, or an in-depth analytical document, the number of memos created within a research project does not necessarily indicate quality or rigor. The important factor is that memos

are systematically created when ideas strike and how they are used in the subsequent analysis and comparison of data.

In this research, memos were created anytime a puzzle or question arose at any point in the analysis process, from initial and focused coding to, concept creation, to theory generation. Memos were stored in MAXQDA and each had a descriptive name to indicate the main idea explored in the memo (Charmaz, 2006). No memos were deleted and older information within memos was not edited when newer information was added. Instead, all entries into a memo were date-stamped in order to follow the line of thinking and provide an audit trail for each analytical piece discussed in a memo. Memos served several different purposes. Some memos simply fleshed out whether initial codes should be subsumed into one overarching code or remain separate. Some memos were concerned with relationships between codes. For example, in an initial analysis indicating that *Discussing Measurements* was the most frequently used code and identified the most frequently co-occurring codes, a memo was written to identify how each of the co-occurring codes was related to *Discussing Measurements* and any anomalies or exceptions to discerned patterns. Other memos were used to record thoughts for future analysis or perceived emerging patterns to check in the data. Memos themselves were not used as data for the analysis process, but rather as a concrete record of a portion of the analysis process.

Comparative Analysis

A hallmark of grounded theory's analytical method is the admonition for "constant comparison" of data: within and between incidents, groups, codes, concepts, data, and emerging theory (Birks & Mills, 2011; Glaser & Strauss, 1967). Simultaneously

generating and analyzing data creates the necessary condition for constant comparison, where existing data is compared to itself and to newly generated data. Newly generated data can refer to additional field work or to newly identified codes, categories, concepts, or relationships in existing data. According to Glaser and Strauss (1967), constant comparison is distinct from analytic induction (which is often used in qualitative and interpretive research) in its purpose. Analytic induction is intended to generate and test “a limited number of hypotheses with *all* available data (p. 104, emphasis in original). In contrast, constant comparison’s purpose is to generate, define, and refine conceptual codes, categories and concepts, as well as related properties, conditions, and causal relationships. These concepts or relationships do not have to be evident in every piece of data and the type of evidence used to construct the concepts can vary. Constant comparison is also a form of evaluation, where comparison between and within interactions provides a “test” of emerging hypotheses concerning relationships (Wuest, Merritt-Gray, Berman, et al., 2002). Comparison helps to identify anomalies, properties, exceptions, and exemplars of the emerging theory.

Constant comparison illustrates the abductive process discussed earlier where researchers move between deductive and inductive analysis (Schwartz-Shea & Yanow, 2012). As the inductive process of comparing initial codes between and within incidents creates concepts, initial hypothesizing about relationships between the codes and concepts is formed. Then a deductive process occurs where new data and other codes are compared to the hypothesized relationship that either support or oppose the hypothesis to varying degrees, requiring modification of the hypothesized relationship and a continuation of the process.

The constant comparison process happens from the very beginning in grounded theory. As each incident is analyzed, they are compared to previous incidents. Codes assigned to new incidents are compared to codes as they were assigned to previous incidents and are modified or refined. New codes or categories that are generated with new information are compared against previous incidents to see if they are applicable. As codes are applied to multiple incidents, dimensions and properties of the codes are identified that specify and delineate the code from other codes (Dey, 1999). The constant comparison method happens in tandem with all of the analytical steps of the process.

It is difficult to describe the constant comparison process in practice because of its cognitive and iterative nature, and the variety of items being compared at any one time. The following is one example of the constant comparison process as it was used in this project. From the first observation, the code of *Discussing Measurements* was created, indicating portions of the WIC interaction that discussed weight, height, and hemoglobin measurements that were assessed in the WIC clinic at some point during the encounter. As more interactions were analyzed, a second type of measurement was identified, one that referred to amounts and frequency of food or formula intake. The second type of measurement had similarities to the first, primarily that they both were discussed using quantitative terms and specific amounts (numbers of pounds, ounces, cups, etc.) but differed in the topic. The delineation between the two resulted in an assessment that *Discussing Measurements* had two properties or attributes: anthropometric, and food quantification. Additionally, looking at the measurement codes between and within incidents created an initial hypothesis concerning the purpose of discussing measurements and predictions of subsequent behaviors: for comparison against norms or

recommendations in an attempt to appraise a level of health and suggest alternatives if the level of health did not meet recommendations. The initial hypothesis came to mind during coding and a memo was written in order to capture the idea and document raw data that supported it. The memo was then edited and refined to account for new data as the process continued.

Constant comparison exhibits many of the simultaneous analysis procedures that happen in grounded theory. The most important thing for the researcher is to constantly move back and forth between ideas about codes and their properties and connections and back to the data to support, refine, or even discard the ideas depending on the evidence in the data. At this point, all analysis was closely tied to the data, the research questions, and the phenomenon under study.

Concept Creation

In keeping with the constructivist-interpretive methodology of this research, the term “concept creation” is used instead of “discovering concepts” purposely to indicate the idea that the concepts are creative constructs rather than objective representations of reality (Charmaz, 2006; Dey, 1999). The purpose of creating concepts is to subsume related codes and identify common elements that “render the data most effectively” (Charmaz, 2006, p. 139). The resultant concepts serve as theoretical and explanatory building blocks in the theory creation process (Charmaz, 2006; Dey, 1999). Concept creation arises through the two-stage coding process, memo writing, and constant comparison (Birks & Mills, 2011; Charmaz, 2006). The term “concepts” has different uses in each school of thought, but in this research, they are an abstraction of a grouping of related codes that illuminate some sort of cause and effect phenomenon in the data

(Birks & Mills, 2011, p. 93). Concepts are “indicated by the data,” meaning they are representative of the data even if they are not an exact reflection of it (Glaser & Strauss, 1967, p. 36). Glaser and Strauss (1967) go so far as to assert that concepts “have a life apart from the evidence that gave rise to them” (p. 36).

Concept creation in grounded theory has a specific purpose that goes beyond description of the data and is more than a general label for data (Sandelowski & Leeman, 2012). The creation of analytical, abstract, theoretical concepts is a crucial task of the grounded theorist requiring analytical and creative interpretive skills (Charmaz, 2006). Creating concepts must move the researcher further away from their data in the level of abstraction, but further into their data in the level of understanding, analysis, investigation, and explanation between and among incidents (Dey, 1999; Sandelowski, 2000). Suddaby (2006) captures the necessary level of abstraction for concepts and how it differs from the raw data:

researchers using grounded theory are less focused on subjective experiences of individual actors per se and are instead more attentive to how such subjective experiences can be abstracted into theoretical statements about causal relations between actors...the primary interest is not in the stories themselves. Rather, they are a means of eliciting information on the social situation under examination. (p. 635)

So, to be useful in creating a grounded theory, concepts must contain some causal information about the social process under scrutiny. Lin (1998), refers to this type of causal information as “causal mechanisms” as opposed to “causal relationships” found in positivist research. Causal mechanisms do not quantify the effect of one variable (or in this case, one category) on the other, but rather help to explain the ways in which the

identified causal relationship “is manifested and the context in which it occurs” (Lin, 1998, p. 167).

In order to define and understand causal mechanisms between concepts, Charmaz (1990, 2006) asserts that attention must be paid to a concept’s conditions and consequences. Conditions and consequences are the links to other concepts: the prerequisites that influence the underlying actions of the category, and the results of those actions. Analysis concerning conditions and consequences should have an explanatory and predictive quality in its contribution to the grounded theory (Charmaz, 1990). While concepts help the researcher build their grounded theory, a grounded theory is not comprised of a set of concepts. Concepts serve as a step of abstraction and analysis toward a grounded theory that has some level explanatory power (Birks & Mills, 2011).

Conclusion

This chapter outlined the use of grounded theory as a method, both for data gathering and data analysis and explored one overarching idea: that grounded theory as a method provides a systematic, rigorous, yet flexible method of collecting and analyzing data. Grounded theory methods are deliberate. The researcher must make conscious decisions about the best methods to use to generate, explore, and analyze the data. Because these methods are iterative and simultaneous, data generation or analysis processes that are not fruitful or do not help to explain the research question can be discarded and other leads followed. The importance of remaining close to the data is of the utmost concern, with all decisions and analysis based on whether they are defensible in the data. The result of analysis is not a theme or a notion, but a concept with defined properties and identified cause and effect mechanisms, a task requiring much more in-

depth and abstract analysis than identifying themes, a common output of interpretive research.

This chapter set out to describe the methods used in this research in order to illuminate the systematic nature of the analysis that created and defined the concepts discussed in the next chapter. Outlining the methods also is meant to demonstrate where data did not originate: namely in the literature or other theories. Concepts were created through the constant comparison model that requires an iterative process focused on increasing degrees of refinement and abstraction that is always informed by the data and the research question.

CHAPTER 5

CONCEPT ANALYSIS

The three core concepts discussed in this chapter describe the process of the WIC interaction, focusing on communication strategies used by staff members and participants. These three concepts are revealing, assessing, and advising. Revealing refers to strategies used to discover something about the participant or demonstrate something to staff members. Assessing consists of strategies for making a judgment and having that judgment understood by the other party. Advising, the one concept that is relegated to just staff members, includes strategies for imparting information to participants about nutrition facts and proposing future behaviors. This chapter will explore each concept individually and elucidate the underlying attributes that make up the concept and render it distinct from the others.

There are two necessary explanations concerning the use of the term “participant” and the use of data excerpts as examples throughout this chapter. In WIC, anyone who is receiving benefits is considered a participant. So, infants, age-eligible children, pregnant and postpartum women are all participants. But in this chapter, the term “participant” strictly refers to the adult who is interacting with the staff member. The data excerpts used in this chapter are intended to illuminate the analysis and allow readers to make their own decision about the degree to which the analysis has face validity. Excerpts used in this chapter are verbatim from the transcripts and are not an amalgamation of several representative excerpts as is sometimes seen in interpretive work. In addition, excerpts were chosen for their representative quality, as exemplars of the concept being discussed. In all cases, there were multiple examples that could have been used and that served as

the foundation for the concept analysis. Any excerpts that are the only example of a concept or topic are noted as exceptions. Finally, many excerpts are used more than once to demonstrate different concepts or attributes. This should not be taken as a sign of a lack of data, but a conscious decision to help with consistency and familiarity. In the following excerpts, C: indicates the staff member and P: indicates the participant.

Revealing

As a concept, revealing is made up of two subtly different attributes. One indicates discovery: exposing the unknown, allowing something hidden to be seen, uncovering. The other denotes demonstration: to display, show, exemplify. Staff members are responsible for the discovery attribute and participants for the demonstration attribute. Even though they are performed separately, discovery and demonstration are relational; they cannot stand alone and must be understood in relation to each other. This section analyzes the concept of revealing through analysis of its two attributes and their relationship to each other.

Discovery

Discovery is an integral design feature of WIC; part of the requirement for participant eligibility is that they demonstrate some form of nutrition risk, which is assessed by WIC staff (Agriculture, 2013). In the two WIC clinics, all who qualified were considered at nutritional risk because of their income status, since low income indicates risk of a poor diet, one of the federally identified nutritional risks. Participants did not have to show evidence of acute risks such as being significantly under or overweight, anemia, or premature birth. With all who were eligible considered at risk, it would be logical that discovery might be a minor or nonexistent part of the WIC encounter.

However this was not the case. Rather, discovery is a significant part of the WIC encounter, taking a considerable amount of time and focus. Staff members lead and facilitate the discovery process to reveal the health and nutrition status of participants, which was evident in all observed interactions. While each observed staff member had their own discovery routine, all were focused on anthropometric measurements (weight, height, and hemoglobin) and quantification of nutrition-related behaviors. Staff members also used the same tools and strategies for discovery, albeit to differing degrees. This section discusses what is revealed concerning participants' anthropometric measurements and nutrition related behaviors, how it is revealed, and the end result of the discovery process.

Gathering anthropometric data is the most conspicuous component of discovery during the WIC encounter. Staff members take and record these measurements on a regular basis (about every six months for each participant with some exceptions for infants and pregnant women, or participants who previously demonstrated an anthropometric risk such as anemia). Measurements are taken in an area that is often crowded and loud and there is an element of chaos and fuss: shoes to be taken on and off, diapers checked for dryness, sterilization procedures for hemoglobin measurements, and children to be corralled. Children often resist getting on the scale to be weighed or standing against the wall to have their height measured, requiring a staff member's promise of stickers for good behavior, or barring that, physical placement and restraint by mothers. Mothers often juggle several children and their shoes or chase toddlers in the area where measurements are taken. Infants are taken out of car seats to be placed on their back on a table to be weighed and measured, and pricked with a needle on their heel

for the hemoglobin measurement. Even measurements that go smoothly require effort, moving from one station to another, each participant one at a time, gathering children, car seats, diaper bags, and shoes. Through it all, adult participants and staff members alike generally remain calm, patient, and even upbeat throughout the process.

Anthropometric measurements allow staff members to discover information about participants that the participants may not be able to reveal on their own. Participants often express surprise at measurement results, indicating they could not have provided a report to the degree of accuracy and precision achieved by the staff members. Indeed, precision and accuracy are extremely important in the process of discovering anthropometric measurements. For weight measurements, participants remove their shoes and infants are checked for a dry diaper in order to reveal the most accurate result. Weights are taken twice with the participant getting off the scale or infants being picked up and placed back on the scale in between each measurement. Weights are reported in pounds and ounces for infants, and to a tenth of a pound for children and adults. Height measurements are also taken twice and are reported to an eighth of an inch. Hemoglobin tests are performed using either a finger stick for children under two or a machine that does not require a needle, both resulting with a digital read out to one decimal point of precision. The use of anthropometric measurements to discover an accurate, precise level of participant health demonstrates one element of WIC's definition of health, revealing a measure of health not accessible to the staff member any other way.

Discovering health through anthropometric measurements is the most definitive type of revealing, akin to common measurements taken at doctors' offices. However, anthropometric measurements occupy a small portion of the WIC encounter. Revealing

nutrition-related behaviors is the crux of the interaction, taking the most time and requiring the most input from the participant. Revealing nutrition behaviors is done in a conversational manner where the staff member and participant sit in the staff member's office and the staff member facilitates the discussion through the use of questions. Their questions are almost exclusively concerned with revealing quantitative values concerning amount and frequency of specific foods. Most often, staff members have reviewed notes from the participant's last visit, have an idea of what was discussed in previous appointments, and tailor their questions appropriately by following up on information gathered at the previous appointment.

One exception to the emphasis on quantification measures is a set of tools used by Arizona's WIC program called "Getting to the Heart of the Matter" to guide the information gathering part of the interaction:

'Getting to the Heart of the Matter' provides quick ways to identify parental needs and interests. Many of the tools are projective techniques. These techniques are simply questions and activities that don't have an obvious answer. Because there isn't a 'correct' answer, parents project their true feelings. This allows them to easily and honestly express their greatest needs and interests without worrying about how you, the WIC nutritionist, will perceive their responses or judge them as parents. (Pam McCarthy and Associates, n.d.)

Getting to the Heart of the Matter is explicitly designed with the intent to reveal what participants keep hidden: the honest truth. There were a variety of tools (referred to as projective tools) used by the staff members during observations: a set of pictures showing the same woman making different facial expressions, a set of pictures each with a different graphic such as a stopwatch or roller coaster, a set of paint chips in different colors, and a bag of differently textured fabrics. Staff members rotate between the projective tools, but the most common during observations were the two sets of pictures

and colors. Once the pictures or colors were set out on the desk, the staff member asked a general question that focused on the participant's feelings. The template for the general question was virtually the same for every staff member across observations, "Look at all of these pictures and pick the one that best describes how you are feeling about..."

Common topics included "how your child is eating," "feeding time with baby," or "your health/appetite." Once a participant selects a picture, the staff member puts the others away and responds by saying, "Tell me why you chose that picture." This is the opening for the participant to reveal "their true feelings" to the staff member.

Analyzing the use of the projective tools provides insight into what participants choose to reveal in response to an open-ended question where there are seemingly no right or wrong answers. Participant responses to the tools varied from confusion ("So the answer is on the other side of the card?"), to virtually no response (participant shrugged her shoulders), to a short answer ("His eating is fine"), to a short explanation of what the picture said to them ("I chose it [picture of a stopwatch] because this pregnancy seems to be taking forever"), to expressing a concern or difficulty ("The baby, I'm worried about her appetite"). While the use of this tool is normally limited to one question and answer, it gives a great deal of information about the concept of revealing. When offered a chance to reveal "their greatest needs and interests," participants do not respond in kind. In fact, the vast majority of participants observed responded with a positive report like, "he/she is good" or "he/she is a really good eater." A succinct response indicating all is well could elicit many different responses by the staff member, but the most common response is to follow up by asking if the participant has any concerns. For example,

C: So if I threw these colors out for you today, and I asked you, which color

represents the way you're feeling?

P: Orange!

C: Orange? Tell me about that.

P: It's bright.

C: So you're feeling bright?

P: Bright and spunky <laughs> Alive! Feeling good today!

C: And you're feeling pretty good about the way <daughter's name> is eating it sounds like.

P: Yes.

C: Is there anything that you're concerned about or worried about? Has the doctor said, has she seen the doctor lately? Any concerns about her weight or height or anything?

P: No.

Contrary to the stated description of the projective tools and their corresponding question (that there is no “right answer”), there *is* a “correct answer” or at the very least, an answer the staff members are looking for: the revelation of a problem or concern. In the example above, even after specifically asking if the participant felt good about how her daughter is eating and getting an affirmative response, the CNE follows up asking about concerns from the participant or her child’s doctor about *anything*. The participant’s response is not the right answer, so the CNE attempts to direct the conversation towards it.

Another type of response that provides evidence that staff members are attempting to discover a problem is the use of specific questions about behavior after participants reveal they have no concerns. This type of follow up questioning often results in the participant revealing a problem. In this example, the follow up questions reveal an issue the participant is having that was not mentioned during the projective tools exercise.

C: So these are different colors here and you'll want to look through the colors and pick one that best represents your feelings on how the boys are eating at home

and how they're growing.

P: I don't really know. Umm, which one? I don't know it's a little confusing in a way...green looks like a happy color.

C: Ok! So do you have any concerns about how the boys are eating or growing?

P: No.

C: No? How many meals and snacks would you say they eat a day?

P: Breakfast and dinner, and then snacks in between.

C: Is there anything you wish they ate more of or less of? Like how are they with vegetables and fruits and meat?

P: They all like different vegetables and fruits. But, the only thing is milk.

C: Milk?

P: They like a lot of milk. Yeah. That's a big problem for us, is the milk. Because they like to drink more.

While it takes several follow-up questions, the participant eventually reveals a problem or concern with their children's nutrition behavior. The discussion then revolves around quantifying the problem and providing solutions to the problem.

Open-ended questions by staff members are not the norm during the rest of the encounter. Rather, questions related to nutrition behavior quantification are the norm. The following example is a typical exchange between staff members and participants:

C: For both, ok? So why did you pick blue for both?

P: Um, because I think it represents like the sky, and open air and they're just really good eaters.

C: You're good, so you feel good?

P: Yeah. I just put it down and they eat it.

C: Ok! Good job. Alright, so I know that you said that she eats well but we like to see how well they eat. <gets out measuring cups> So, tell me more detail, like how she eats fruits and vegetables a day.

P: Um, well if it's broccoli on the table, that's all she'll eat and she can probably eat a whole cup.

C: A whole cup of vegetable. Good. What about fruit?

P: Fruits, she eats like a whole banana, <interrupted by child taking measuring cups> She loves bananas she'll eat a whole banana, um, she'll eat the oranges, she

loves grapes, she like apples but I'm scared because of the skin. Um, what else? I think those are the ones she sticks...and strawberries. She sticks to those.

C: Ok, that's good. Sounds like she likes fruits and vegetables. How about, how does she do with milk, cheese and yogurt?

P: Milk, I only give her like one cup a day. Sometimes she doesn't want the milk everyday. But she has probably one or two cheese sticks a day. And then we do like the Go-Gurts for snacks.

C: Ok. For a snack, Go-Gurt. Besides milk does she drink anything else?

P: I do watered down apple juice or just water.

C: So, how much juice do you think a day does she drink?

P: She probably has like three sippy cups? But, I do...

C: <interrupting> And how big is the sippy cup?

P: Nine ounces?

C: Ok, so you do half and half.

P: I do about a third of juice and the rest water.

C: One third juice, so about three ounces of juice...

P: Three times a day.

C: And then three times?

P: So maybe nine ounces of juice.

C: Ok.

The conversation in the example above continues with the CNE asking questions about amounts and types of meat and snacks consumed by the older of the participant's two children. When the CNE receives an answer that is suitable or meets recommendations, she moves to the next topic quickly. The portion of the excerpt above where juice is discussed shows evidence to the CNE of a potential problem or concern and she stays on the topic to reveal more detailed information, moving on when enough information has been gathered. In this case, the participant does not identify the amount of juice as a problem, but the CNE seems to be concerned that the amount of juice consumed might be

a potential problem, and in response, gathers additional information so an assessment can be made.

Once the topics have been covered for the older child, a similar process begins for the younger child. In the discussion for this child, the participant reveals a problem early in the discussion, leading again to the CNE focusing on that topic to gather detailed information.

C: How is <baby name> doing?

P: Good. With her food?

C: Yeah.

P: Um, she's not as good with the vegetables as <older child's name> is but she's good with the fruits.

C: So vegetables, how much does she eat? Less than her...

P: Less than her, yeah.

C: Like a half a cup?

P: She'll do like mashed potatoes, anything potato she'll do, but she really sticks to her fruit. She likes bananas and grapes the most. Yeah pretty much anything like potato-wise.

C: Oh potato she likes more.

P: Yeah, whether it's mashed or cut up, she'll eat potato...

C: Any potato. <laughs>

P: Yeah any potato she'll eat.

C: But not green vegetables?

P: Not, she's not big on greens. I try, but...

C: No corn? No...

P: She likes corn.

C: Ok that's good! Tomato?

P: No. <older child's name> likes tomato <baby name> doesn't like tomato.

C: No spinach? <P indicates no> So she's picky on vegetables, huh?

P: Yeah, she's picky on the vegetables, not on the fruit.

With the discussion of the first child, the participant's responses seem to match recommendations and the CNE moves quickly from one topic to the next. When they start discussing the younger child, a problem is identified almost immediately and the conversation focuses on that issue, gathering more details, and drilling down into specifics. As the discussion continued, topics that were discussed for the older child such as milk, meat, snacks, water, and juice are not mentioned at all for the younger child, but instead, revolved around vegetable intake and suggestions for improvement. The difference in the discussions about the two children provides subtle but clear clues concerning the discovery process. If the questioning about different foods were solely for information recording and tracking purposes, the staff members would likely not concern themselves with discovering additional details only about topics expressed as a problem. As the example above shows, the primary purpose of discovery is to reveal a problem and its details.

As with the anthropometric measurements, precision and accuracy have a strong presence in revealing nutrition-related behaviors. Staff members use measuring cups as a tool to assist participants in visualizing and reporting the amount of food consumed. Liquids such as formula, milk, and juice are reported in ounces and staff members have a sample sippy cup to demonstrate the size of an eight-ounce cup. Participants often visibly compare the different cups before determining which one to use to answer the staff member's question.

C: When she drinks milk, how much milk does she drink? How many cups do you think? This is about an eight-ounce cup. <gestures to a demonstration sippy cup>

P: We just let her drink one cup or two cups a day.

C: One to two cups ok. What about vegetables? And fruit? How often does she eat?

P: About twice a day.

C: Twice a day for vegetable? So each time how much?

P: About this much <picks up a measuring cup>

C: What about fruit? You said apples, bananas, snacks, from the morning to evening, she eats...

P: She eats about a cup.

C: Besides milk does she eat anything like cheese or yogurt?

P: She goes crazy for cheese. She eats a lot of cheese.

C: So how much each time?

P: She probably eats about this much <picks measuring cup> We don't let her eat too much because...

C: <interrupting> So one third a cup a day or a few times?

P: That's like a day.

This example shows the use of the measuring cups for multiple questions and how the participants respond. In addition, the staff member follows up with questions about frequency in order to calculate a total for the day. The use of precision in reporting food consumption allows staff members to discover whether consumption meets recommendations, which are listed in terms of cups, ounces, and frequencies. For example, the recommendation for milk is usually described as, “No more than 16 ounces per day.” While the comparison to recommendations will be discussed in more detail in the *Assessment* section, it is applicable to the concept of revealing because it shows that staff members are not just interested in understanding problem areas, but the degree to which the problem exists.

One way to look at the concept of revealing is to ask, “What is not revealed in the WIC encounters?” Staff members ask a large number of questions to participants concerning many different areas related to nutrition behaviors. But, conspicuously absent from the discovery process from the staff member side of the encounter are revelations

about the consumption of junk food, fast food, or other non-nutritious food. Staff members never ask specifically about amounts or frequencies of non-nutritious food. One observed staff member occasionally asked what children drank besides milk, “like juice or soda or Capri Sun,” but it was not the norm. When unhealthy food was discovered, it was revealed by the participant but not as a response to a specific question about junk food, but as a response to a more general question like,

C: Can you tell me detail like which foods she likes?

P: She likes sweets. <laughs>

C: Oh she likes sweets! Ok, like...for example?

P: Umm, Pop-Tarts?

C: Pop-Tarts, ok.

Once the participant has revealed the consumption of unhealthy food, the staff member will generally ask more specific questions, but the staff member does not specifically broach the subject. In this next example, again, the participant (a pregnant woman) has revealed the behavior in response to a general question and then the participant pursues the discussion when the staff member does not immediately address the revelation.

C: Ok, it sounds like you're getting a wide variety. Is there anything you wish you ate more of or less of?

P: Maybe less junk food <laughs>

C: Yeah? How often would you say...

P: I drink a lot of soda <laughs>

C: What else do you drink during the day?

P: Is diet bad for the baby? Diet soda?

C: Well, they say that if you have too much of one thing, it can be harmful. How much soda would you say you're drinking?

P: Um, I think it might be every day.

C: How much?

P: Half a liter maybe? I don't know.

C: Ok. So you buy the two liters at home or do you buy the cans?

P: I buy the cans. I drink like four cans a day.

C: Four cans? What kind of soda is it?

P: Coke or Dr. Pepper.

C: And is it the regular or the diet or do you use both?

P: Sometimes I use both.

C: Ok. And then do you drink any water or juice?

P: I started drinking water a lot now.

As shown in the example directly above, the CNE frames her question in a way that might encourage a participant to reveal consumption of unhealthy food by asking, “Is there anything you wish you ate more of or less of?” but unlike milk, juice, formula, fruits, and vegetables, the topic is not broached directly and instead relies on the participant to fill in the blanks.

Analysis of the attribute of discovery illustrates three components of what is revealed in the WIC interactions: problems and their details, a definition of nutritious eating, and how to be a WIC participant. The revelation of problems and their details has been well established in this section. Staff members ask specific questions, focus on topics that they consider a problem, and gather further information. The excerpts and analysis also reveal at least a portion of the definition of nutritious eating and feeding a family. What the staff members ask participants to reveal demonstrates the relative importance of certain types of food, especially milk, fruits, and vegetables in WIC’s definition of health. It is clear that those food groups are considered important for a healthy diet. The absence of questions about junk food could indicate that WIC’s definition of health is not concerned with junk food, but other evidence does not support that idea since staff members do address the topic if the participant brings up the

problem. Instead, the fact that staff members usually do not ask about unhealthy foods is related to the last component of what is revealed by the discovery process, how to be a WIC participant.

It is difficult to convey the tone of the WIC interactions and especially the discovery process in writing because searching for a problem sounds like a negative process. However, nothing could be further from the truth in the WIC encounter. For example, although the anthropometric measurements have an atmosphere of chaos and fuss, the staff member is always friendly, patient, and ebullient in her praise when the measurements are taken, telling children, “you did such a good job!” or “you’re so brave!” The anthropometric measurements are also a time when the staff members often make comments about how beautiful a baby is or how cute a child’s outfit looks. There seems to be a distinct effort to make the WIC clinic a happy, helpful place and that is evident during the anthropometric measurement process. Staff members help mothers corral children, carry car seats, and soothe children who are scared of the anthropometric measurements. This “atmosphere of nice” is carried over to the one-on-one encounters and exists during the discovery process. Staff members show concern when participants express difficulty with certain foods or behaviors, ask questions in a friendly and outwardly unthreatening, non-judgmental manner, and keep the revealing process light and cheerful, even when non-healthy behaviors are brought up. The fact that staff members do not bring up unhealthy food is a part of this friendly, cheerful process, setting up the participants for success and avoiding topics that might change the dynamic.

In addition, during the discovery process, staff members reveal their authority, expertise, and expectation of compliance. Staff members reveal their professionalism

during the discovery process by emphasizing accuracy and precision in their questions and measurements. There were no instances in any observations of participants explicitly refusing to answer a question, declining anthropometric measurements, or acting in a hostile, irritated, or agitated way. Participants mirrored the cheerful, patient attitude even when they had been waiting for long periods of time before their encounter or were denied benefits they asked for such as a specific type of formula. They complied with all staff member requests for action during the interaction such as restraining children during anthropometric measurements and answering questions. In this way, the discovery process teaches participants how to comply with staff member requests and understand the accepted way to behave during the interaction.

Demonstration

Revealing a problem to be solved through information gathering focused mainly on the staff member side of the interaction: what is being asked, how it's being asked, and for what purpose. While staff members actively attempt to reveal participants' nutrition habits, participants do not simply passively answer the questions; there is evidence of an active presentation of information in response to staff members' inquiries. Through their answers, participants demonstrate their knowledge, their nutrition-related behaviors, and their effort in feeding their family healthy food.

Demonstrating knowledge is one method used by participants in the revealing process. In their answers to questions, participants often demonstrate that they know what they should do and why. Interviews with participants supported this observation, with all participants indicating they did not learn anything new about nutrition in the interactions. Nutrition knowledge is often volunteered in response to specific questions from staff

members. For example, “I usually water juice down just because it still has a lot of sugar in it,” or “If he doesn’t want it [leftover formula] within the next two hours after I put it in the refrigerator and he doesn’t wake up to eat the rest of it then I throw it away because it’s no good after two hours,” or “Well I’ve been trying to do two percent because I know whole milk is too much,” demonstrate the participant’s knowledge about the subject of staff members’ questioning, often resulting in positive feedback from the staff member. In those examples, knowledge is directly related to behavior; knowing juice has sugar leads to watering it down, knowing how long formula can be refrigerated safely leads to throwing it away after that time, and knowing whole milk “is too much” leads to serving lower fat milk.

Participants also demonstrate behavior that meets suggestions by staff members.

For example,

C: So if he’s getting the 2 cups of milk plus the cheese and yogurt, that’s good. Or you can try...umm, some moms will make smoothies out of the milk we provide.

P: Oh yeah, that’s what we did this weekend.

C: Yeah, and then you can add the fresh fruits and vegetables that we give too. And that way it makes it a little bit more nutritious. And you wouldn’t even have like to put ice cream in it. You could just put, just like, the milk, the ice, and then the fruits and veggies whatever ones you want to put and then you just blend it in that way.

P: <indicates yes>, that’s what we did this weekend actually.

C: Did you?

P: Yeah we used mangoes that are, the frozen mangoes.

C: Yeah, oh that sounds good.

P: And we put strawberries and bananas in the milk, and we didn’t have ice cream so we didn’t put ice cream, but it was really good and then we all, we all drank some out of it.

C: Oh good!

P: So that actually worked out.

In that example, the participant expresses that her current behavior already matches advice from the staff member, demonstrating her knowledge and behavior that meets recommendations before the advice is explicitly given. In a similar example, a participant who is meeting with the RD because her son has measured underweight over several encounters demonstrates that her behavior already matches the RD's advice, again, establishing her knowledge and adherence to good nutrition for her son.

C: Ok, so these are foods that, a lot of adults, we avoid them, because when we eat, even just a small amount, we gain weight. So they tend to be higher in fat and higher in calories. But when you have a little one that's on the petite side, it's ok to use these. So what I would recommend, is when you're making his foods, to think about how you could add these on top. So you as mom still know he's getting good nutrition, but he's also getting some added calories.

P: That's what I'm doing with the milk.

C: Awesome. Ok. So for example, if you're going to make those pancakes, you could do whole wheat pancakes so he's getting good grains

P: Yeah, that's what I do.

Another type of knowledge demonstrated by participants is knowledge about their children. For example, in response to a CNE who asked a participant how she knew when her infant was hungry, she replied, "There's um, I mean, like I *just know*. <emphatic> Like when he starts to like wiggle in his sleep and kind of yeah, like, I don't know, I can tell when he's hungry. But, um, so I just wait until he starts doing that. And then make the bottle." In another interaction, a participant demonstrates that she knows her child's fluctuating eating habits are a normal part of her development:

C: Ok, so I can get you that on our way out. And then how has <child's name> been doing?

P: She's been doing good. I think she's having a growth spurt because now, you know how they go through their moods that they don't want to eat very much a few days, and then they want to eat a bunch? Well she goes through her stages for a few days that she doesn't want to eat and now she's like eating everything so I know she's having a growth spurt.

C: Yeah! Well it sounds like you're smart because you're right, sometimes it is just a phase and so sometimes they don't eat as well and then they have days when they eat great.

P: Or they want something one day and then a few days later they don't even like it that day.

C: Absolutely!

P: And it's like you can't give them the same thing over and over. Because I'm a routine person I'm used to the same thing. She's not.

This exchange demonstrates the participant's knowledge about her child and the fact that children go through phases and growth spurts, which has a direct effect on the participant's behavior of feeding her child a variety of food because she is not a "routine person."

Participants also emphasize the effort they make when feeding their children, their discipline in their own or their child's eating habits, and their knowledge of nutrition and recommendations. Participants communicated they "tried" to do something nutrition related in 30 out of 36 observations. For example, "I try to get her to eat vegetables," or "she's not big on greens. I try, but..." or "I've been really hungry but I've been trying to control it." Their discipline and effort demonstrate that they are healthy, or at least know what should be done and attempt to do it, but often their best efforts are thwarted by their child's preferences or a family member's meddling.

P: I hate them watching TV while eating, but that's the only way I can have them sit at the table unless I try to distract them or try to talk so that they can sit at the table, but I'd rather have them watch TV because I know that's not a good habit. But I'd rather have them sit there and watch TV and eat rather than come and eat and hopping around and then never come back, you have to call them again to come back, or I have to follow.

C: Yeah, I can understand your concern. What I'd encourage is family meals, so do you sit down and eat with them at the same time?

P: Yes, Yes! But, they're the ones that don't want to come and sit. <laughs>

C: Well, they're going to learn from you so if they see you eating a good variety

of foods, and sitting down at the table, and just enjoying good conversation while eating, they'll grow into those habits as well.

P: That's what I'm trying to do but it's hard.

C: Oh I know! But you're a strong woman and you're doing a good job. You really are!

When faced with her children's predilection towards being distracted and not eating, she chooses to have the television on in order to get them to eat. This demonstrates both her knowledge of recommendations concerning meal times and her priority that her children should sit at the table and eat.

Participants also demonstrate their governance over what their children eat by revealing their enforcement of discipline with certain foods so their children do not consume too much:

C: Now tell me about how they do with dairy like milk, cheese and yogurt. How often...

P: Leave it up to him, when I buy yogurt he'll eat like 3 or 4 a day. <laughs>

C: Ok.

P: If I let him do it, but no, I only give him like one, that's it.

The idea of discipline is also used in what participants allow their children to think is a "treat." Many participants mentioned that their child does not drink soda or eat candy but instead, drinks juice or eats fruit snacks and consider those treats (with the underlying assumption that juice and fruit snacks are healthier than soda or candy).

P: Well, they don't get straight juice. Uh UH. <indicating no> Even a Capri-Sun, we cut it open and we put it in their cups because they don't get straight juice. Once in a blue moon when we're on the road or whatever, we will give them the Capri-Sun. And, sweets to them, their candy bars, are those fruit bars. Or we'll get the fruit juice little gummy bears. Candy, cookies, they don't get that stuff.

Again, this demonstrates a participant's knowledge, the relation of that knowledge to their behavior, and closely governing what the child consumes.

Grandmothers are also a source of unhealthy food that must be disciplined

according to many mothers:

C: Kind of give me a snapshot too what he likes to eat for breakfast like lunch and dinner.

P: Umm, <audible sigh> For breakfast he likes cereal. Grandma, again, has been buying like Lucky Charms and Fruit Loops. And it was nice when I had WIC because that was my excuse to say, "Oh they only let us buy the healthy cereals!" Which, he eats those too. This morning, he had Cheerios.

Extra sweets or unhealthy foods are often attributed to "Grandma" with a corresponding complaint that Grandma does not comply with healthy habits the participant wants to instill in her children. Participants who mention Grandma as a negative influence always express that they have made an effort to change Grandma's behavior, but to no avail.

C: Is there anything that you want <other child's name> to do better? Anything else?

P: Well, I talked to grandma, he's like addicted to marshmallows at her house.

C: Uh oh!

P: <laughs> And he learned the new word "cookie." So grandma spoils them a lot. I talked to her because the nutritionist said that he isn't able to process sugar the same, but she gives <other child's name> a lot of junk food instead. She says, "But that's my job" and I'm like "Mom, just because one kid can't eat junk food doesn't mean you have to overload the other one."

Analysis of the demonstrating attribute addresses the last two components of the concept of revealing: revealing a good mother, and revealing compliance and self-governance. Participants demonstrate they are good mothers by revealing their knowledge and related behaviors, as well as their effort in trying to meet recommendations and health standards. In the observations, it became clear that good mothers feed their children nutritious food, monitor their habits, and know what is good and bad for their children and themselves. In several interviews, participants indicated that it was not until they became a mother that made healthy eating a priority. They

comply with staff member requests for information, provide information not specifically asked by staff members, and show effort and desire to meet recommendations. They reveal their acknowledgment of WIC's definition of health by detailing behavior that matches, managing food consumption, and minimizing unhealthy behaviors. Even bringing up unhealthy behaviors that were not part of a staff members' line of questioning demonstrates being a good mother, because showing concern over unhealthy behaviors (such as the soda consumption example in the previous section) is expected and appropriate.

The concept of revealing is important because it gives us information about the relationship between the staff member and participant during the interaction. Staff members use strategies and tools to discover information about participants, but that information can only be discovered if the participant complies and reveals the information. Participants demonstrate they are good mothers, but this revelation happens in the context of being asked about behaviors and attitudes during the discovery process. The two attributes are relational, each depending on the other, revealing an active participant who not only complies with staff member requests to a degree, but also actively presents themselves as good mothers who are knowledgeable about their family's health. In addition they reveal staff members as engaged not only in information gathering, but shaping the interaction to establish expertise, reveal problems, and teach participants what is expected of them.

Assessing

Assessing refers to categories of behavior that are related to evaluating or making a judgment about something: in this case, the degree of meeting WIC recommendations

concerning anthropometric measurements and nutrition-related behaviors. Some assessments, such as determining eligibility criteria or category assignment for benefits were observed, but will not be discussed here because they are not related to the research questions. As seen in the concept analysis for revealing, both participants and staff members make assessments during the interactions that are directly related to the revealing process. There are two attributes that make up the assessing concept: explicit assessments and implicit assessments.

Explicit Assessments

Explicit assessments designate judgments that are stated clearly by staff members or participants. There are three topics that are assessed explicitly: the degree to which a participant meets anthropometric or behavioral recommendations, identifying someone as a certain type of person, and identifying a participant as a good mother. The most common type of assessment concerns anthropometric measurements and reported behaviors.

Anthropometric measurements are assessed every time they are measured by comparing them to a recommendation: growth charts, Body Mass Index (BMI) recommendations, or a range of healthy hemoglobin measures. When participant measurements are within the acceptable ranges, they are often explicitly deemed “healthy.” For example, regarding an infant’s weight, “When I entered in the weight and length from the hospital. He’s in a healthy percentile. So that’s good!” Usually the staff members give the recommended ranges along with the actual measurement to provide a frame of reference.

C: So I entered in his height and weight. He's at the 77th percentile for weight to

height and 74th for height to age, so he's really healthy. Anything less than 10 is considered underweight and over 90 is considered overweight.

P: Ok.

C: So he's doing really good. The iron level that we checked today for the hemoglobin was 11.0. So the goal is to have it 11.1 or higher.

P: Ok.

C: So it's just a little bit low.

P: Ok.

The preceding excerpt gives a good example of two different assessments, one within the acceptable range and one that is not (albeit very close). Both assessments include the description of the recommendations and an explicit judgment. In the assessment concerning weight, the child is judged as “really healthy,” even though the child’s iron is “just a little bit low.” There is a mixed message in the assessment that a child is really healthy but then immediately expressing concern about the hemoglobin measurement. The explicit assessment that a child is “healthy” almost exclusively is tied to the anthropometric measurements, especially weight. But when the measurements do not meet recommendations, a blanket judgment about health is not provided. Instead, the assessment focuses on the measurement itself and how the measurement compares to the recommendations. As another example,

C: So baby weight's good. Weight for height is 90 percent. But the height for his age is only 3 percent. So he's short.

P: Short, yeah.

In this example, the explicit assessment is that the child is short, something that is not communicated as a reason for concern or suggestive of behavior modification. The participant acknowledges the assessment and immediately changes the subject to her concern about her older child.

P: I just had her seen <gestures towards the older child> at the other WIC office last month, my daughter, and she's losing a lot of weight. Is that normal?

C: A lot of weight?

P: Yeah, she, the last month...

C: Let me check and see what happened.

P: Yeah because she was like 23 almost 24 pounds last time and now she weighs 21. And when I took her to the doctor in the middle, the end of last month when I took her after <baby's name> got out of the hospital, she weighed the same as that but I don't understand why she's losing so much weight right now.

C: Ok.

P: It's confusing me.

C: Ok, <looking at computer> since last time in December, she gained about one pound and about one inch. Ok? So overall, compared with other kids, her height is short, it's only three percent but her weight's good, 90 percent.

This excerpt is an example of a participant actively assessing her child's health in a way that invites the CNE to make a professional assessment. In this case, the CNE assesses the child's weight as "good" although this child is assessed as "short" as well. Again, the assessment of short is not expressed as a cause for concern (even though low height measurements can indicate a failure to thrive).

Assessing nutrition-related behaviors is common and tends to happen throughout the encounter as participants are answering questions about food consumption and infant feeding practices. Staff members also sometimes sum up the information revealed during the encounter with the assessment. For example,

C: So she's doing good. I can give you this handout so you can make sure you know that she's eating ok. It looks like she's eating ok for fruit and vegetables. For milk sometimes she drinks one to two and she eats cheese too so that's good.

The CNE is basically summarizing what she found during the revealing process and assesses that what has been revealed is "ok" or "good." Assessments also are made about

behaviors that do not meet recommendations. In this example, the participant previously revealed that her children eat several hot dogs a day and snack on gummy fruit snacks.

C: And then earlier you said they eat hot dogs. What kind of hot dogs? Because most of them they have a lot of sodium and fat. If you look at the nutrition facts, because they're processed food, there's sodium. So just not every day.

P: She doesn't eat, she eats hot dogs but not as much my older son does.

C: So that's good. Let's see, it looks like they eat everything, just need more vegetables and healthy snacks and less hot dogs.

The assessment here concerning behavior is explicitly stated, and stated as an imperative, that they “need” to eat more vegetables and fewer hot dogs.

Explicit assessments are often made to reassure participants who have made their own assessment about something. For example, earlier in the interaction, the participant made an assessment that her children eat too much fruit and not enough vegetables. The CNE acknowledges that assessment, but makes her own to ease the participant’s concern.

C: They're fruit eaters?

P: Fruit? Of course they love fruit!

C: And you know that's ok too. It used to be that the recommendations would suggest two servings of vegetables, three of fruit. And now the school of thought is if they go through stages where they just want to eat fruit, that's ok. Still offer them the vegetables but the big deal is that things are all different colors.

The CNE gives an explicit assessment that loving fruit is ok and the “big deal” is the color combination on the plate, not what foods make up that combination. This example also demonstrates another type of assessment: identifying someone as a certain type of person: in the example above, “fruit eaters.” Participants and staff members most often use explicit assessments to identify children as either a “good eater” or a “picky eater”, with the latter almost exclusively referring to vegetable consumption. Other assessments include “I’m not a milk person,” “She’s not a routine person,” “I’m a soda person,” “So

they're carb kids," or "Some kids are super tasters." For reference, the first three assessments were made by participants and the last two by staff members. These explicit assessments are a kind of shorthand that conveys information about the participant or their children. The type of information and how it is used is explored in the *Implicit Assessments* section below.

Another type of explicit assessment used by both staff members and participants is to invoke a doctor's assessment. Staff members invoke a doctor's assessment when anthropometric measurements or behaviors do not meet recommendations, usually by asking whether the participant has spoken to their doctor about it or whether their doctor is concerned. For example,

C: Of course, it happens, right? So is he better today or is he still feeling bad?

P: No, he's better today. I switch him between Pedialyte and light formula. Like, two ounces of water and one formula.

C: Ok. Did his doctor mention to do that? To help with the...

P: Yes, I'm sorry, three water and one formula until he gets better.

WIC does not recommend infants drink anything besides breast milk, formula, or water so the introduction of Pedialyte and "light formula" prompted the staff member to ask about the doctor's assessment. This also is evidence of an implicit assessment by the staff member that the participant is not doing the right thing. In that same vein, participants often invoke a doctor's assessment in order to support the behavior in which they are engaging. For example,

C: Ok, now how about how well does she do with milk, cheese and yogurt?

P: Milk, well she's still on formula because my doctor told me not to switch her until now.

C: So formula, how much formula ?

P: How many ounces is she eating of formula? Nine ounces.

C: Nine ounces a day?

P: No, every time she eats a bottle. Eight or nine ounces every time she eats a bottle.

C: Eight to nine, bottle, about three times?

P: Three or four. Depends on how many naps she wants to take, how tired she gets.

C: Ok. So she's still on the bottle.

P: Uh huh <indicates yes> Yeah, we're trying to break it but my doctor told me to wait until she goes back because of her weight.

In this case, the recommendation is that children switch completely off of the bottle and formula at age one. The participant's response demonstrates that she knows the recommendation, and heads off criticism of the behavior by indicating that she was told by her doctor to continue her child on the bottle until her next appointment. Besides mentioning that WIC cannot provide formula past the age of one year old, the topic was not discussed further.

Staff members use explicit assessments to indicate to participants that they are a “good mom” or have done a “good job.” These assessments tend to be peppered throughout the interactions as encouragement or praise for having children whose anthropometric measurements are within range, or showing effort concerning nutrition-related behaviors. In this example, a child’s hemoglobin measurement has improved since the last appointment: “So that's good. The last time we checked him, his hemoglobin was 9.7, which is on the lower side. And today it was 12.5 so it's good. So good job!” In this next example, the explicit assessment concerning a good mom is also directly tied to anthropometric measurements as well as meeting behavior recommendations for using a sippy cup.

C: So his weight and height, what I put in, he's at 57 with weight and height so

he's really good actually. Height and age he's at 56 too so he's right in the same percentile with both so he's doing really good. Are you a little concerned mom about his weight? Or his intake, or you're better now that he's eating a little bit more?

P: The weight, a little bit. I know he's, because the last time with his well check and for his immunizations doctor said is at 45 percent and his length is 75 percent. <laughs>

C: Ok, so he was really tall with them.

P: Yeah, that's the last time. Yeah, I don't like him to lose any! He's ok, he's light. That's how my other kids were like, they're not chubby they're just right size.

C: Ok good, because they're pretty long. I think they grow and they stay pretty slim. Ok mom so you're doing an awesome job I'm really proud of you. He's eating already his meals, you're introducing the baby cereal and already his three little meals. And later on you can start doing some snacks. And you're already with the sippy cup of water, that's awesome, so he can learn how to use a sippy cup.

P: Yeah, I took the bottle away so he knows, this is the water.

C: Ok, so he's really smart already!

The CNE goes so far as to assess the baby as smart. The assessments throughout this excerpt are explicit and positive, reflecting on the “goodness” of the mother’s behavior.

Explicit assessments are never used to deliver negative information. There are no instances of a staff member assessing a child as unhealthy. Participants are never told they are engaging in wrong or bad behavior, but instead are encouraged to change behavior in certain ways (as outlined in the *Advising* section). Negative assessments only come from participants, but participants revealing unhealthy behavior and explicitly assessing it as such is not the norm. With that being said, staff members do communicate assessments of unhealthy or unrecommended behaviors to participants, but do so implicitly.

Implicit Assessments

Implicit assessments are judgments that are implied or can be assumed by other information provided. Like explicit assessments, implicit judgments are used to appraise the degree to which participants meet anthropometric and nutrition-related recommendations and to evaluate participants as good mothers. But implicit assessments have another use, one that is the sole purview of participants: the degree to which a participant agrees with a staff member's assessment or recommendation. This section will explore the use of implicit assessments and the ways in which they are communicated.

Staff members use implicit assessments quite often when discussing anthropometric measurements with participants, especially weight measurements that do not fall within the recommended range. Comparing anthropometric results to recommendations within the interaction allows the participant to come to their own conclusions about the state of their (or their child's) health without an explicit judgment from the staff member. For example,

C: When we checked him in January he was 25 pounds 10 ounces.

P: Is that ok?

C: Yeah.

P: Is that normal?

C: Well, when we checked him in January he was 29 and 6/8 so almost 30 inches long and that brings him to the 97th percentile. So the goal for percentiles is you want them anywhere from 10 to 90. So like below 10 would be underweight and above 90 would be overweight.

P: Ok.

The assessment in that example is clear: the child is overweight. However, the CNE did not have to tell the mother that her child was overweight and instead gave enough information for the participant to come to her own conclusion. While this may seem like

an unnecessary distinction, the fact that it is used exclusively to inform the participant that something does not meet recommendations is significant. It is a communication strategy that takes the onus off of the staff member to hand down a judgment that could be upsetting to the participant, but still allows the information to be communicated.

Another variation of the use of implicit assessments is using a tool that allows the participant to make the assessment for themselves, which often results in an explicit assessment by the participant. This excerpt concerns a pregnant woman's weight gain:

C: Ok. It sounds like you're already doing a good job. So I'm going to, the last thing we have to do is just graph your weight gain so far. So I'm going to fill this out...So you're at 27 weeks gestation and you've gained about 33.8 pounds based on the pre-pregnancy weight of 118. So I'm going to <trails off - marking paper graph> And what about, has the doctor said anything about your weight gain so far?

P: Um, no. He said I should gain some more weight like maybe 10 more pounds.

C: Ten more pounds total? Ok.

P: Yeah. I'm not sure.

C: So what's nice about this graph is it shows you up here the recommended weight gain, so total weight gain would be about 11 to 20 pounds and then it also breaks it down per trimester around how much you should be gaining every week.

P: So I'm overweight?

C: Well, when you were at 17 weeks gestation you were here <pointing to graph> and now you're here. So the way the graph reads is anything in this light colored portion is considered not enough weight gain. The goal is to be in the white portion. And then up here would be too much weight gain.

P: Oh <laughs>

C: But there's some moms that never make it in the white portion and that's ok as long as they're following this same curve. So for instance, you started here and you want to follow that curve up like this <draws on graph>

P: So I gained a lot.

C: So then since you're here right now, the goal is to still follow this line, but like this <draws on graph>.

P: Ok.

Using the graph to display the participant's weight gain gave an immediate cue that the woman had gained too much according to WIC's guidelines. The participant understands the implications of the graph immediately and makes the explicit assessments herself, "So I'm overweight?" and "So I gained a lot." The CNE never explicitly acknowledges or agrees with those assessments: she does not have to because it is laid out clearly on the graph and the participant has made it clear she understands. With the participant making her own assessment, the CNE does not have to defend a judgment or be put in a position of explicitly telling a participant unpleasant news. The previous example also shows another implicit assessment that communicates to participants that there may be a problem: invoking a doctor's assessment. In the example above, before the CNE shows the graph with the clear indication that there has been too much weight gain, she asks the participant what her doctor has said. This allows the CNE to know if the participant already has been told that she has gained too much weight or not and signals that the weight gain might be something that should be assessed by a doctor.

Implicit assessments are also made by staff members indicating the participant is a good mother. In this example that was used during the discussion of explicit assessments, there is an implicit assessment that the participant was responsible for her child's improved hemoglobin measurement. "So that's good. The last time we checked him, his hemoglobin was 9.7, which is on the lower side. And today it was 12.5 so it's good. So good job!" The phrase "good job" is obviously an explicit assessment, but also implies that the participant put forth some sort of effort that caused the improved measurement, and it is not discussed further. This implicit assessment about mothers making an effort to improve their children's anthropometric measurements and nutrition-

related behaviors is a theme that runs through all three concepts and will be discussed in more detail in the next chapter.

One area where implicit assessments are apparent is in participant responses to assessments or suggestions by staff members. These types of responses are assessments of the degree to which the participant buys into what the staff member is communicating. In many cases, it is difficult to discern whether the participant is agreeing with assessments or advice provided by staff members; there is often a lot of nodding and responses of “ok.” The participant may be agreeing, or may just be playing along, being polite, in order to move through the interaction. But there were instances of participants neither agreeing nor disagreeing in a way that indicated they assessed what the staff member had to say and were not in agreement. Both of these examples include juice which is salient because there is a distinct impression that most mothers felt that juice was healthy, even though WIC only recommends four total ounces a day that should be mixed with an equal amount of water and only for children over the age of one year old. While most participants emphatically responded that they watered down juice and kept the quantity low, two participants implicitly took issue with the recommendation. In this first example, the participant indicated she gave juice to an infant, before the recommended age:

C: Ok. Why do you give him juice?

P: Why? Because when he's eating I give him juice.

C: Ok. So just to let you know, he's a baby, he needs formula and should only have juice when a doctor recommends it because they cannot poop. But if he is ok without juice we don't recommend it because it's not good for his teeth.

P: Ok. Yeah, his pooping he's doing good. I tried a little bit, since I have my other kids, so I mean I'm giving him little by little and he's doing good. He's pooping ok.

C: Yeah yeah I know but we don't recommend the juice because of the sugar.

P: Yeah, I know and it's, I dilute it. I put a little, like an ounce and a half of water and just a little bit of juice. It's not a lot.

The participant does not explicitly say she does not agree with the juice recommendation, but it is implicitly communicated through pointing out she understands the recommendation and her assertion that the baby is “doing good.” In the second example, the participant has revealed that her child “likes a lot of juice.” The CNE is trying to make a case for less juice and especially for not letting the child drink juice in a bottle at night. The participant’s implicit assessment that the juice recommendation is not important comes across as disinterest (or perhaps feigned interest) in the suggestions made by the CNE:

C: And then, so that's good that you're already aware about the, leaving, with using the bottle the liquid will stay in the mouth.

P: Oh yeah. Yeah.

C: And about the sugar in the juice. How do you feel about decreasing how much juice he's getting per day?

P: I usually water it down.

C: Oh that's good. Is it like half and half?

P: Yeah. It's about half and half, maybe a little bit more juice.

C: Ok. Another suggestion I hear from moms is they'll fill up the cup with water and they'll use the juice that we provide to make ice cubes so they freeze it...

P: Oh really? Hmmm...

C: And then they put those frozen juice cubes in the water and it's kind of fun for the kids to do...

P: Yeah that's interesting I've never heard of that before.

C: Yeah and then that way it limits how much juice they're actually getting.

P: Ok. That's an idea.

It may be difficult to assess simply from the written transcript, but the responses given by the participant really come across as non-responses, as a way to play along without

agreeing with what the CNE has suggested. Previously in the interaction, this participant indicated, “All my kids drink a lot of juice. All my kids have to get their top teeth pulled out,” which serves as further evidence that changing the habits surrounding juice was most likely going to fall on deaf ears.

Identifying as a certain type of person during the interaction was discussed in the *Explicit Assessments* section as a shorthand method of communication about nutrition-related behaviors. This section will explore the implicit assessments underlying that explicit description. The first implicit assessment that is often evident when a participant makes a statement that they or their child is a picky eater or “not a milk person” is the degree to which the participant thinks the suggestions made by the staff member are feasible and the importance of preferences. Staff members and participants alike show little desire to suggest or accept the idea of eating something (or asking a child to eat something) just because it is considered healthy if there is not a preference for it. So, when a participant deems someone as a certain type of person, it communicates their preferences as well as the chances that a suggestion will be followed. For example,

C: So she's picky on vegetables.

P: Mmhmm <indicating yes>

C: So, she likes raw or she likes cooked vegetables?

P: She just won't eat them! <laughs>

C: Won't eat them? <laughs>

P: She'll eat lettuce and tomatoes that's it.

C: Lettuce and tomato

P: Mmhmm <indicating yes>, that's it. She just, uh uh <no>, my daughter isn't a big vegetable person. I don't know why.

As the conversation continues, the CNE gives several suggestions asking if the participant has tried putting vegetables in soup or cutting them up small and the

participant kept referring back to the statement that her daughter is not a vegetable person. This serves as an assessment that anything the CNE suggests concerning vegetables is probably not going to be successful. The CNE gets the message and concludes the vegetable conversation by acknowledging the two vegetables the child would eat and suggested to serve those two vegetables every day.

Identifying as a certain type of person also allows the participant to communicate that she has made an effort to change eating habits, especially related to vegetables. Showing effort is one way participants present themselves as good mothers, and identifying a child as a picky eater allows them to demonstrate that despite their best efforts, their child is picky or stubborn. For example,

P: He's picky. My problem is <emphasized> vegetables. I cannot get them to eat vegetables.

C: Both of them?

P: Both of them. I have tried broccoli, I have tried short green beans, long green beans, carrots, cooked, uncooked, sliced, they don't like...<girl's name> will sometimes eat au gratin potatoes...<to dad> can you think of a vegetable that they eat? <dad indicates no>

The participant goes on to say she and her husband “love vegetables” and “eat the odd ones that most people don’t like, like brussels sprouts.” So despite their modeling of good eating habits, despite trying many different vegetables, their children are “picky” and thus their best efforts are not resulting in meeting recommendations.

Explicit and implicit assessments are not inter-related like the attributes for the concept of revealing, but instead demonstrate the two strategies used by staff members and participants to communicate their judgments to the other person. The fact that implicit judgments are often used to allow participants to reveal the bad news to themselves and explicit judgments are most often related with healthy behaviors is

evidence that some topics are considered sensitive or taboo, but still are important to communicate. The use of assessments by participants again shows an active participant who shapes the process of the interaction demonstrates her levels of knowledge and effort as a mother.

Advising

It is not surprising that the concept of advising emerged from the data because of the nutrition education focus of WIC. Advising is comprised of two related activities: providing grounds for action and proposing action. Action is key for this concept; the information provided by staff members is not focused on increasing participants' general nutrition knowledge. Instead, nutrition knowledge is contextual, passed from staff members to participants as evidence or rationale to support the proposed action that is a result of the revealing and assessing processes. This requires two types of information: expert information given by an authoritative source, and practical information that can be implemented in participants' lives. Expert and practical information work in tandem and were evident in every observation except one, which had neither. This section will outline and detail the two types of information as well as the differing strategies used to deliver the information.

Grounds for Action

Grounds for action are explanations and information given to participants that are intended to provide context and rationales for proposed actions. Information given as grounds for action is directly related to the concept of assessing described earlier, because the information is always tied to something that has already been discussed or a judgment that has been made. This relationship will be explored in detail in the next chapter but is

necessary as a foundation to this section. “Grounds for action” was initially coded as “expert information” and encompasses very specific types of advice to influence preferences, modify future behavior, or support existing behavior. Grounds for action are specific, most often expressed quantitatively in terms of amounts or frequencies. For example, in a discussion about hydration needs for a breastfeeding mother, the CNE gives this information:

And a just a really general rule is about eight cups per hundred pounds of body weight, but that doesn't mean you have to drink that much water. If you're eating a good variety of foods and a good variety of fruits and vegetables, about 20% of that hydration comes from the food intake.

That excerpt is a good example of the quantitative, precise nature of the type of information that is given as grounds for action. Giving information in order to modify current or future behavior or changing preferences are common and especially revolve around discussions about infant formula preparation, serving sizes, breastfeeding, and food consumption.

Providing knowledge as grounds for action in infant formula preparation is demonstrated in almost identical ways across staff members. When a participant indicates her infant is partially or completely formula-fed, the staff member always asks how the formula is prepared.

C: Now you told me earlier you said six to seven ounces, but if he drinks seven ounces how do you mix it?

P: Just regular milk.

C: So how, I know, but how..

P: Oh, seven? I do three scoops and a half.

C: And how many ounces of water?

P: Seven.

C: Ok. So we usually recommend doing an even number, ok? The reason is

sometimes you do half, it can be less than half or more than half. And the concentration could be wrong. So maybe do eight and four and then if you have an extra bottle, pour that extra one in there and save for the next feeding. So for the next feeding you mix six and then you put together, six and one is seven.

In this example, grounds for action is presented as a recommendation with a supporting statement explaining the rationale behind the recommendation: that using a half a scoop is not exact and can result in formula that is not prepared accurately. The recommendation itself is implicit advice, but is also intended to increase the participant's knowledge concerning formula preparation. In a separate observation, a staff member communicates the same information but gives a bit more explanation as rationale:

C: Ok, and then how many scoops per ounces of water?

P: I put one and half scoops because I do, when I do three ounces, I put one and half, and when I do four ounces, it's two scoops.

C: Ok. And then so when you're doing, let me show you with this <gets out measuring spoons>, when you're scooping up the formula, some parents will scoop up against the side of the can or they'll pack it in a little bit. And then that makes it a little bit too concentrated for their little tummies. So what you do, you just do one loose scoop and then you knock the top off.

P: Oh ok.

C: And then also since she's only needing three ounces sometimes, best practice is to still make a four ounce bottle. So you'd do the four ounces, plus the two loose scoops. And then if you know she's only going to need two or three ounces, you can put that other ounce in a different bottle and save it for later. Because what happens is if you do one and half scoops, it's not really exact.

P: Not completely right, yeah.

C: Yeah and you don't want her to have too much where it will upset her tummy but you don't want her to have not enough because she needs those nutrients. And the reason I say to put it in another bottle is because once her mouth touches the bottle, it can have bacteria from her mouth if you save it. So you can just put it in a fresh bottle that you haven't used yet and then use it later.

There is a seriousness and expertise to grounds for action as demonstrated in this example. Explaining that the current method of formula preparation can result in sub-par

nutrition and exposure to harmful bacteria for the infant provides knowledge for the participant as well as demonstrating the imperative to modify behavior.

Modifying the amount and type of food offered to a child is a common topic for advice. Milk, juice, and vegetables are areas where participants either offer too much or too little in comparison with recommendations. In this example, the participant has expressed a desire to reduce milk consumption but is unsure how since “all they want is milk.” The CNE starts the advising process by explaining the recommendation and the reasons to limit milk:

Because the goal is no more than 16 ounces of milk for the whole day. And that's just because, one, sometimes it inhibits their iron absorption. Two, sometimes it can lead to constipation. And then three, if they're getting too many calories or too much liquid from the milk they don't want to eat the solids later.

This example shows the quantitative recommendation and the rationales behind the limitation; again, giving an imperative to modify parental behavior in how much milk they give their children because of the possible health consequences. Similar grounds for action are given for juice, calling attention to potential health issues. In this interaction, the participant indicated that she was feeding juice to her 10 month old, when juice is not recommended by WIC until a child reaches one year of age. This example demonstrates the use of grounds for action as rationale to modify future behavior.

C: Ok. Why do you give him juice?

P: Why? Because when he's eating I give him juice.

C: Ok. So just to let you know, he's a baby, he needs formula and should only have juice when a doctor recommends it because they cannot poop. But if he is ok without juice we don't recommend it because it's not good for his teeth.

P: Ok. Yeah, his pooping he's doing good. I tried a little bit, since I have my other kids, so I mean I'm giving him little by little and he's doing good. He's pooping ok.

C: Yeah yeah I know but we don't recommend the juice because of the sugar.

The CNE recognizes that the participant is not buying into the first statement concerning juice recommendations and seems to conclude that the likelihood of behavior modification is low. This leads to a second statement concerning the recommendation to support the first and emphasize the importance of the information.

Modifying future behavior using grounds for action is especially common in discussions about breastfeeding. In the observed interactions with pregnant women where the topic of breastfeeding was broached, all of the participants had had previous experience breastfeeding and indicated they had stopped breastfeeding earlier than desired because the baby was not getting enough to eat. Staff members use expertise to acknowledge the participant's previous experience and explain what to expect in the future. In this example, a RD asked a pregnant participant, "What are your thoughts on breastfeeding?" The participant responded that she was planning to breastfeed and had breastfed her first child but stopped earlier than she wanted because she "didn't feel like <child's name> was getting enough milk." The RD responded by giving expertise that directly responds to (and corrects) the assessment by the participant.

C: One thing just to know what to expect with breast milk is that typically it's very small amounts of breast milk that come out for baby. So even like half an ounce or an ounce, it's super normal. But if we think about a bottle, you can pour eight ounces in a bottle, so it seems like, how could that be enough?

P: Well it just, it seemed like I couldn't even get like two ounces and at the time that's what they usually eat about an ounce or two but it just doesn't seem like, or I would be full and I would try and pump and it wouldn't pump and then she wasn't feeding at that time so they were just hurting, and I was just going back and forth and it was just a struggle.

C: I can understand. Just so you know, baby actually will take more milk out than pumping will. So when you pump, it looks like you're getting less than baby would actually drink from the breast. Ok? And then super small amounts are very normal, especially really early on. Because baby's stomach is about the size of a marble. Just very very tiny. So probably baby will feed frequently, but would be getting all the breast milk baby needs.

P: Ok. So she'll, she wouldn't, get, not get what she needs.

C: Absolutely.

P: Ok. And how would you be able to tell though? Because that's what I wasn't sure of.

C: Typically when babies are gaining weight and they have lots of wet and dirty diapers, then they're good! And that's how we tell.

P: Ok, sounds good.

The information that infants only need a very small amount of breast milk, as well as giving the participant information to be able to assess herself whether her baby is getting enough is intended to support the participant's decision to breastfeed and give her information that will prevent her from weaning earlier than desired because of misinformation.

Grounds for action has an apparent underlying assumption that participants' lack of knowledge is responsible for actions that do not meet recommendations. The examples given in this section are evidence that giving recommendations with accompanying rationales is considered important to changing behavior. But the staff members do not conclude their advice with knowledge; they continue with practical advice concerning actions that will allow participants to meet recommendations. Expert advice and information addresses what is recommended and why it is recommended, and practical advice addresses how to behave in the recommended way. The next section explores the types of action proposed when recommendations have reportedly not been met and when individual preferences may preclude participants from meeting recommendations. As a side note, many of the excerpts from this section will be presented again in the next section for consistency and to demonstrate the interrelated nature of advising's attributes.

Proposing Future Action

The primary characteristic of the advising concept is the type of advice that is given. It is not simply educating participants on types of nutrients or what is considered “good” or “healthy” food, but instead, expressly focuses on action. During initial coding, this type of information was coded as “giving practical information,” indicating that it was concerned with actions as they are practiced outside of the WIC clinic in order to meet recommendations. The previous section outlined how staff members use expertise as rationales for proposing future action. Giving some sort of advice for future action was observed in every interaction except for one, and like the concept of revealing, takes up a large portion of the interactions. Proposed actions are expressed as strategies for behavior change as well as a way to modify individual preferences to correspond with WIC recommendations.

This excerpt from the previous section is a good example of how practical information follows expert information and is given as a strategy for the participant to follow in order to meet recommendations.

C: Ok, and then how many scoops per ounces of water?

P: I put one and half scoops because I do, when I do three ounces, I put one and half, and when I do four ounces, it's two scoops.

C: Ok. And then so when you're doing, let me show you with this <gets out measuring spoons>, when you're scooping up the formula, some parents will scoop up against the side of the can or they'll pack it in a little bit. And then that makes it a little bit too concentrated for their little tummies. So what you do, you just do one loose scoop and then you knock the top off.

P: Oh ok.

C: And then also since she's only needing three ounces sometimes, best practice is to still make a four ounce bottle. So you'd do the four ounces, plus the two loose scoops. And then if you know she's only going to need two or three ounces, you can put that other ounce in a different bottle and save it for later. Because what happens is if you do one and half scoops, it's not really exact.

P: Not completely right, yeah.

C: Yeah and you don't want her to have too much where it will upset her tummy but you don't want her to have not enough because she needs those nutrients. And the reason I say to put it in another bottle is because once her mouth touches the bottle, it can have bacteria from her mouth if you save it. So you can just put it in a fresh bottle that you haven't used yet and then use it later.

The staff member not only gave the recommendation, but gives practical examples of how to measure the formula to meet requirements of precision, to make bottles with an even number of ounces, and how to avoid bacteria contamination.

Changing preferences, especially concerning adult consumption of milk and children's consumption of vegetables is another type of proposed action. When discussing dairy consumption, many pregnant and postpartum women express that they do not like milk in general or do not like the nonfat and low-fat milk provided by WIC. In these situations, staff members tend to give strategies to change the participants' preferences toward the milk provided. The most common proposed action in this case is for the staff member to advise hiding or disguising the milk to make it more palatable. Advice to use the milk in smoothies, soups, or with instant breakfast shakes are the most common suggestions. One staff member suggested a participant buy a gallon of whole milk and mix it with the WIC provided low fat milk. In this excerpt, the participant has expressed that she does not drink one percent or skim milk:

C: Ok. Well what some people do is they buy like a gallon of whole and then they mix it. Or just like use it for smoothies, do you like yogurt at all?

P: Mmmmmmm <like a question or unsure>

C: Not a big fan?

P: Well I like it but there's only two that I like so, <laughs>

C: Ok, well one thing I was thinking of, if you made a smoothie, if you like yogurt but if not that's ok. Because with your WIC checks you have the frozen fruit, you also have fresh fruit and then the cans as well. But like Fry's has a great

fruit medley I don't know if you like this one, I like it, but it's got like mango and pineapple, strawberries, and we make smoothies with that. So you have your WIC juice, if you had your milk which you don't like, but if you put some frozen, the frozen fruit in there. We don't want you to overload on juice either but maybe a quarter cup or a half a cup of fruit juice and some ice cubes and the milk and blend it up, and kind of disguise it. You could even add some flavoring if you wanted to. Carnation instant breakfast is something we recommend, but I know you're not worried about gaining weight you're happy you lost weight. Also, do you like bananas?

P: <indicates yes>

C: A lot of times moms will come back and tell us if they throw a banana in the blender with it. Even, I don't know if you're a fan of peanut butter but like a lot, like banana and peanut butter with the milk and make a smoothie, I know it sounds weird but actually tastes good. And then it kind of thickens it up because I think sometimes it's also the texture of the 1% milk if you're used to the whole...

Rather than tell the participant to drink the low fat milk provided by WIC because it is healthy, or to substitute other dairy products for milk, the staff member tries to work around the issue by giving suggestions to disguise the milk and make it taste good. Suggestions for children who do not like vegetables follow a similar strategy for proposed action. Participants are encouraged to cut vegetables small and put them in soups or sauces, or disguise the vegetables with cheese or ranch sauce. Participants are also told that some children need exposure to some foods 10 to 15 times to change their preference, and are advised to continue offering the foods even if the child does not like it or will not eat it.

Unlike grounds for action, which is expressed by staff members in similar ways across observations, proposing future action tends to fall under several different strategies. Staff members give a lot of advice during the interactions and most of the time the advice is spread over multiple topics such as juice, milk, formula preparation, weight loss strategies, etc. Participants who have more than one child especially receive a large amount of information since often the children have been assessed with differing needs or

risk factors. Staff members use several strategies when dispensing advice to the participants: subtle hints, visual cues, and rules of thumb. These strategies are used to communicate the proposed action in a way that is easy to remember, allows the participant to assess if current action meets what is proposed, or allows staff members to avoid conflict and participants to save face. The remainder of this section will present examples of proposed action through the strategies used to express the advice to participants.

While most of the interaction involving information gathering relates to the concept of revealing, there were many instances where staff members gave subtle cues about future action. In a sense, this strategy reveals the recommendations to participants, but the primary purpose in these cases is to communicate suggested behavior. This strategy was most often seen when discussions turned to juice consumption. The following excerpt is a typical example:

C: And then how often does he get juice?

P: Juice...like two times a day.

C: Ok. And does he get that in a sippy cup or a bottle?

P: Sippy cup.

C: Ok that's good! So he does like to use a sippy cup.

P: Yeah.

C: And is it about more or less than this with the juice? <indicating a measurement line on the demonstration sippy cup>

P: I think it's like about that much

C: Ok. Do you mix the juice with water at all?

P: <emphatic> Yeah.

C: Oh good, good job! Because with juice it will have, even the 100% juice it'll still have sugar in it. So it's good that you're mixing the water.

P: Yeah, I'm mixing.

This example shows that the proposed action, diluting juice with water, is posed as a question, but the question is serving as a suggestion for future behavior. The participant gives the “right” answer, which is followed by grounds for advice by the staff member. The sippy cup question is also a subtle cue as to the recommended behavior for children of a certain age to be weaned from the bottle, but it is not as obvious until the CNE responds positively.

Embedding recommendations as cues within questions about participant behavior can also allow the staff member to avoid direct confrontation or conflict about non-recommended behaviors and subtly propose new behaviors. In this case, a participant is giving her infant juice before the recommended age of one year:

C: Besides the formula does he drink anything else?

P: I'm giving him apple juice.

C: Apple juice. How much?

P: I give him about two ounces

C: Two ounces?

P: Yeah.

C: Ok.

P: It's not a lot.

C: Not a lot. Not every day, right?

P: No.

C: Ok, a few times a week?

P: Yeah.

The question, “Not every day right?” is a clear indication that according to WIC, juice should not be given to the child every day. This interaction continued with the staff member explicitly informing the participant that WIC does not recommend juice for children under the age of one because of the sugar content, but it was clear from the

excerpt above that at the very least, the proposed action is to provide less juice. In addition, this strategy allows participants to save face so to speak. By giving a cue as to the correct behavior, the participant does not have to say they are not meeting the recommended behavior but at the same time, can learn the recommended action.

C: When she eats grains, for example pasta or rice or bread, what kind does she eat? Whole wheat? Regular? Or...?

P: She eats wheat.

C: Now on her plate, grain is one-fourth of the plate or more than one-fourth of the plate?

P: It's about one-fourth of the plate.

The way the questions are framed in that example give strong cues about the “right” answer for grain consumption. It is also a visual cue and rule of thumb for the recommendations for grain, something that could be easily remembered by the participants for the future even if they are not actually performing that behavior.

Tools that help WIC participants visualize information given by WIC staff are commonly used in the interactions, especially when discussing serving sizes and meal planning. The RD and many of the CNEs had a color printout of a graphic from ChooseMyPlate.gov on their desks in easy view of the participant. This graphic shows a dinner plate divided into four quadrants to demonstrate the recommended proportions of fruits, vegetables, proteins, grains, and dairy. At one WIC clinic, a painting of this graphic is prominently displayed on a wall in the waiting room. The graphic does not have any numerical serving sizes but visually displays fruits and vegetables as half of the plate and grains and proteins as the other half. The fruits and proteins quadrants are smaller than the grains and vegetables quadrants. Through tacit and explicit use of the graphic, WIC staff propose future action concerning meal planning and serving sizes

through this visual tool. In addition, WIC staff have a color handout showing pictures of sample meals that correspond to the recommendations in the MyPlate graphic.

Demonstration is another visualization tool used by the staff members. In this example, as the CNE is giving practical advice to the participant about best practices for preparing infant formula so it is not too concentrated, she is using a tablespoon measurement to physically demonstrate the actions she is describing:

Some parents will scrape the scooper like right up against the can. Or they'll level out the formula so it kind of settles the powder and they're really getting a little bit more than they need. Because if they have too much concentrated of the formula in their bottles they might, that might lead to constipation sometimes. So if you want you'll just do a loose scoop and then you knock the top off. So you don't have to like pack it in there or scrape it against the side it's just a loose scoop and you knock the top off. So that's best practice when preparing the bottle.

In another observation a participant requested a breast pump and indicated she had never used one before. So the CNE took out all of the parts, demonstrated to the participant how to hook them together, and then physically demonstrated how the pump should be positioned on the breast.

The most commonly used advising tools are items the participant can take with them as a reference or reminder, such as handouts. Handouts are used as a resource that participants can refer to once they are home and contain more information than can be communicated effectively in the interaction. Staff members only give handouts that are applicable to something that was discussed during the interaction. For example, if the staff member has made an assessment that a participant's iron is low, they will commonly discuss nutrition-related ways to increase iron and then provide a handout with more detailed information for the participant's reference. In this example, the RD is going over

a handout that explains how to increase iron levels with a participant whose child had a hemoglobin level lower than recommended:

So we're including those foods high in Vitamin C and then limiting that milk to 24 ounces which is two cups which is what you're doing already so you're good there. And then how this works is you have these foods which have two milligrams of iron, and then these foods which have one to two, so these will be the higher in iron foods compared to these ones. But any of them are good to offer. Ok? And then it also has a sample menu. But keep in mind this menu is for children a little bit older than your kids. So for portion size for them, <gets out measuring cups>, <girl's name> is almost three, so she would need about three tablespoons of each food. Ok? So for example if we were having this meal, she could get two tablespoons bananas, one tablespoon of strawberries. And then here you could do two tablespoons of broccoli, and then one tablespoon of carrots. Three tablespoons of the grilled chicken and three tablespoons of rice. See how that works?

What is not evident from the transcript in this example is that the handout is on the desk, facing the participant, and while the RD is talking, she is pointing, drawing arrows between high iron foods and high Vitamin C foods, and circling those that are highest in both. This is a common strategy for handouts; they are rarely given without explanation and calling attention to specific items in the handout.

Rules of thumb are used as easy to remember pieces of advice. The most common rules of thumb have already been apparent in previous excerpts, for example, that a child's stomach is as large as their fist, a serving size is a tablespoon of food per child's age, and half of the plate should be fruits and vegetables. Rules of thumb are also used to allow participants to assess whether they are following recommendations when they are at home. For example, in a discussion about hydration needs for nursing mothers, a CNE gave two rules of thumb:

C: And a just a really general rule is about eight cups per hundred pounds of body weight, but that doesn't mean you have to drink that much water. If you're eating a good variety of foods and a good variety of fruits and vegetables, about 20% of that hydration comes from the food intake.

P: Ok. I didn't know that, that percentage.

C: Well always kind of think if it makes a puddle on your plate, so like melons and berries are a good source. But other things are too.

The “general rule” allows the participant to make her own calculation and hydrate accordingly, and the comment about foods making a puddle on the plate gives a visual cue supporting the statement that hydration needs do not need to be completely fulfilled through drinking water.

As discussed earlier, measuring cups and spoons are commonly used to assist participants in reporting their nutrition behavior, and they are also used to communicate recommended behaviors. Recommending a tablespoon per year of age for each food on the plate is one common rule of thumb that is often with the staff member showing the tablespoon to the participant as a visual cue. Most staff members also have a demonstration sippy cup on their desks that have markings related to the number of recommended ounces of juice or milk, and to use as a visual cue to emphasize the importance of watering down juice. Water bottles and small cups are often given to participants who report wanting to drink more water or to wean their child off of a sippy cup or bottle. Both have measurements marked in ounces, which is usually pointed out by the staff member as a way for the participant to know the correct amount of whatever they are drinking.

While these three strategies have been discussed separately, they often occur in tandem where the staff member frames advice as a rule of thumb, demonstrates concepts using tools the participant is likely to have at home, prompting the participant to visualize the concept. In the following example, all three strategies are evident:

C: So for portion size for them, <gets out measuring cups>, so <girl's name> is

almost three, so she would need about three tablespoons of each food. Ok? So for example if we were having this meal, she could get two tablespoons bananas, one tablespoon of strawberries. And then here you could do two tablespoons of broccoli, and then one tablespoon of carrots, three tablespoons of the grilled chicken and three tablespoons of rice. See how that works?

P: Per meal?

C: Per meal. Yep

P: I don't think they eat that much <laughs>

C: You wouldn't say they eat that much? For example, her little tummy is going to be the size of her fist, so it is quite small. So what I'd encourage, is just keep mealtimes a happy time, offer them a portion size, let them eat what they will, anything they don't eat, I would, you know, when it's done, it's done. So if they're up and ready to get away from the table and all over the place, I would just say, "Ok, let's clear the table" and then maybe an hour and a half later, offer that snack. Ok? And so they're still getting good nutrition, you don't have to feel like you're starving your kids, but also then it doesn't just drag on forever and it help to build those healthy habits. Does that sound ok?

P: Ok

C: And then for <boy's name> so he's five years, so he's about a fourth of a cup. And I don't have my fourth of a cup out. Do you have measuring utensils at home?

P: Yes.

C: Ok. So for <boy's name> it would be a fourth of a cup. Ok? Ok! You're doing a good job. You are.

In this excerpt, the participant had been referred to the RD because one of her children was assessed as “underweight” and she expressed concern that neither of her children were eating enough at mealtimes. The measuring cups are used as a tool to ensure the participant can measure the amount of food her children should eat at each meal in order to comply with recommendations for serving sizes. The measuring cups also serve as a visual tool where the participant can visualize the amount of food that each measurement contains. The participant responds to that visualization by commenting that her children did not eat that much, suggesting that she visualized the suggested amount of food and compared it against a typical meal. Finally, the measuring cups are used as a rule of

thumb, something easy to remember that the participant can use at home in the future to ensure she is meeting the recommendations for serving sizes.

Reassuring participants their behavior or experience is normal and then supporting that experience with advice is also common. Often, pregnant or postpartum women report that they do not feel like eating full meals but tend to snack during the day. Staff members support this by telling the participants that what they are experiencing is normal and even recommended, and give advice how to eat small meals in a healthy way. In this excerpt, the participant reported that she did not have much of an appetite after giving birth and the staff member responds with advice:

C: Also with your WIC checks you have the little fruit packs, like the applesauce, the little snack packs of fruit. Also the frozen fruit. There's a killer fruit medley at Frys. You can get that with your checks. It's got papaya and strawberries and pineapple. It's really great to stir in some yogurt or make a quick smoothie. It doesn't have to be that you're sitting down and eating a big meal. It's ok still to do small frequent meals like you did while you were expecting. Ok? Do you think, any goals for next time?

P: Well, that I do. Like I won't sit and eat a big meal. But I do have a yogurt or an apple during the day.

C: And see, that all counts. That's ok. Because then that's a serving of dairy and, yeah, something that I've shared with people, I'm not a big eater all at one time so when I'm at home on the weekends, I might have a piece of toast or a muffin, like the english muffins in the morning and then maybe 10 or so a piece of fruit and maybe at 11, a piece of cheese. But if you were to put it all together it makes a whole meal. So it's ok to stretch it out. Your string cheese too. Do you like cheese?

P: Yeah.

C: Because you can get those with your WIC checks. The string cheese. So that's easy.

The staff member not only gives advice concerning healthy snacks, but invokes her own experiences matching the participant's and tells the participant "that all counts" and

“that’s easy.” In that same interaction, the staff member also reassures the participant, “don’t be hard on yourself now about losing weight.”

Besides invoking their own experiences as shown above, staff members invoke other mothers’ experiences as a way to communicate proposed action. For example, “A lot of times moms will come back and tell us...” or, “Other things that work for a lot of moms are...” to show that other participants have had the same issues have found an acceptable solution. Referring to other mothers’ experiences also is used to reassure participants that they are doing the right thing or are not alone in their frustration or experience.

P: Right. Wow. Well because every time I've had a big meal like if we go out to eat or something, I can't even finish it and my stomach is just so tight and it's just upsetting.

C: A lot of moms actually experience that and it's because baby's pressing on your stomach as well, so they just get full a little quicker.

Invoking other mothers’ experiences also is used to support and give evidence for the advice being dispensed, saying that other mothers have been successful following the advice. For example, “And then and I use this all the time, but I actually have my moms come back and tell me that it works.” Another variation of this strategy is to tell participants that the advice itself has come from other mothers. For example,

And then some suggestions I hear from moms is they'll try a different activity to wean their child from the bottle where they get used to having milk to put them to sleep. So they'll read them a story or soothe them, do some other type of nighttime or nap time activity instead of the bottle. And really it's just breaking them from the habit.

There is a distinct phenomenon in the way advice is expressed by staff members that is evident throughout the examples in this section: they very rarely tell participants they must or need to do perform a specific behavior. Instead, the proposed action is

suggested, not demanded, and proposed behaviors are communicated as best practices, recommendations, or things that other mothers have tried. In addition, even when participants reveal behaviors that do not match recommendations, advice is conveyed as suggestions, not admonitions. For example, in the following excerpt, a pregnant woman has been assessed as gaining too much weight for her stage of pregnancy. Earlier in the interaction, she asked the CNE if soda was bad for the baby and revealed her soda intake was, “A lot. I drink like four cans a day.” So while the CNE was giving advice to keep the participant’s weight in check for the rest of her pregnancy, she could have suggested decreasing or eliminating her soda habit. However, the CNE chose a different option:

C: So for instance you wouldn't want to gain too fast where you're jumping up this way, but you wouldn't want to stay the same or lose weight either because you're still growing for baby. Any question on that part?

P: No. It's ok.

C: And actually what helps because you wouldn't want to restrict your calories so much during pregnancy, but just trying to pick healthy choices when you're eating, and also the soda will have a lot of extra calories as well. So if you add more water during the day that will help with the weight gain. Alright?

The CNE acknowledges the soda consumption but the explicit proposed action is to be careful about restricting calories and to add more water.

The concept of advising is composed of two inter-related attributes: grounds for action and proposing future action. Grounds for action sets up the knowledge and rationales for the subsequent suggestions for future action. Staff members use tools to help participants understand, remember, and refer to the recommended actions and their rationales. The focus of this concept is to convince the participant the action is necessary and suggest practical ways behavior can be modified.

Chapter Summary and Conclusion

This chapter outlined the three core concepts that will be the foundation of the grounded theory model presented in the next chapter. Analysis of the concept of revealing shows that staff members engage in a process of discovery with an intent to reveal problems in the anthropometric measurements or nutrition-related behaviors of the participants. They do this by asking a series of questions about behaviors and requesting more information when participant answers do not fit the recommendations. Through this process they also demonstrate to the participant the expected way to behave: to be compliant with staff member requests and be pleasant and accommodating. In return, participants tailor their answers to staff member questions to demonstrate their level of knowledge about health, nutrition, and their families. They also indicate that they are making an effort to do the right thing and to govern their family's health, enforcing discipline when needed. The two attributes of revealing are inter-dependent with each relying on the other.

The concept of assessment consists of the part of the interaction where judgments are made. Analysis of this concept shows that both staff members and participants actively make assessments and do so in explicit and implicit ways. Explicit assessments by staff members are concerned almost solely with praise, deeming a child as healthy or judging someone as a good mother. Explicit assessments by participants often are verbalizations of an implicit assessment being made by the staff member. Both of these attributes of assessing communicate levels of health, definitions of a good mother, and acceptance of information being delivered by the other party, especially the staff member.

The concept of advising is also made up of two attributes: grounds for action and proposing future action. These attributes are inter-related and most often happen in

tandem concerning any single topic. This is the only concept out of the three that is not actively communicated by the participant; however, participants do assess the validity and possibility of success of the advice. Advising allows staff members to communicate WIC's definition of health and associated nutrition-related behaviors.

CHAPTER 6

GROUNDED THEORY PRESENTATION AND DISCUSSION

The primary output of grounded theory research is the creation of a grounded theory that defines and explicates the core social process of the phenomenon under study. The previous chapter set the groundwork by exploring the three core concepts serving as the foundation for the grounded theory presented in this chapter. Revealing, assessing, and advising were presented as stand-alone concepts, each with attributes that provided description and analytical boundaries. The concepts were presented with examples from the raw data in order to demonstrate how the concepts were generated, provide evidentiary support, and to explain the parameters of each concept. This chapter builds on the concept analysis by identifying and explaining the core social process indicated by the concepts and their relationships to each other.

In keeping with both the traditional and constructivist-interpretive schools of grounded theory creation, the grounded theory presented here is concerned with the core social process underlying the observed WIC interactions: *negotiating healthy self-government*. The core social process was generated through an analysis of the relationships between the three concepts of revealing, assessing, and advising. The concept analysis also produced a theoretical framework, providing information concerning the inputs to the core social process and outputs from it. Taken as a whole, this framework makes up the grounded theory.

This chapter begins with a description of the core social process, focusing on relationships between the three concepts. Inputs, outputs, and their relationship to the core social process will then be identified and explained. Once the grounded theory has

been presented, the discussion will turn to implications of the grounded theory for the literature and contributions the grounded theory makes to address gaps identified in the Literature Review chapter. In addition, potential implications for policy will be identified and directions for future research will be outlined.

Grounded Theory is Concerned with Process

Before presenting the grounded theory, it is important to clarify how this type of theory differs from traditional forms that are concerned with prediction, control, and linear causality. Glaser and Strauss (1967) refer to the type of grounded theory presented here as a substantive theory. Substantive theory differs from formal or grand theory because it is contextually dependent on a specific setting or phenomena: in this case, WIC interactions. Substantive theory focuses on identifying and understanding the core social process underlying the phenomenon under investigation and is generalizable only to the setting at hand based on the data. Most importantly, especially for this research, substantive theory is considered a *starting point* that can eventually, with the inclusion of additional data for comparison and analysis from various settings, be more widely generalizable (Glaser & Strauss, 1967). By Glaser and Strauss' definition, the theory of the core social process identified here is only strongly applicable to the two clinics from where the data was generated. However, future data generation and comparison of different settings can eventually modify and refine the grounded theory, allowing it to be generalizable on a much larger scale and even to other types of interactions outside of the WIC program. With that being said, theoretical generalizability for purposes of prediction and control is not the primary purpose of this research. Rather, the underlying constructivist-interpretivist methodology produces grounded theory that offers an

understanding of patterns of relationships and how they are embedded in a larger social context (Charmaz, 2006).

Referring back to the constructivist-interpretive methodology is important here because of what is entailed when creating a grounded theory. The core social process and grounded theory discussed in this chapter is not simply a description of the concepts from the previous chapter or a compilation of themes from the raw data. Rather, an intellectual leap must be made from the raw data and concepts to the theory, moving “beyond the obvious” to “elicit fresh understandings about patterned relationships between social actors” (Reichertz, 2007; Suddaby, 2006, pp. 635-636). Interpretation and abstraction is key in order to make theoretical sense out of the causal mechanisms and processes identified in the data.

Core Social Process - Negotiating Healthy Self-Government

The core social process identified in the WIC interactions is a process of *negotiating healthy self-government*. Before delving into the details of the process, some defining of terms is in order: specifically, negotiation and self-government. These terms are being used in a particular manner that may not be self-evident. For this research, negotiation “is viewed as a transactional interaction process” (Pavlenko & Blackledge, 2004, p. 4) used as a method for “getting things accomplished” (Strauss, 1978, p. 2). The word *negotiating* is used here purposefully to indicate two important components of the core social process: both staff members and participants actively shape interactions, and there is some effort to achieve an agreement that may be tacit or explicit that is focused on a behavioral goal. Defining negotiations in this way suggests that the existence of negotiations does not require an adversarial relationship or one in which the two parties

have divergent interests or opposing demands (Pruitt, 1981). Rather, the use of the term here stresses negotiation as a purposeful, interactional process that is part of everyday life between social actors.

In the public administration and public policy literatures, the term *self-government* often refers to a form of institutional management where decision-making tasks, conflict management, resource allocation, and other management or regulatory tasks are performed by stakeholders rather than the state. This type of institutional arrangement is associated with Ostrom's (1990) writings on the management of common pool resources. However, there is another use of the term, and it is this second definition, originating from Foucault's (1994) concept of governmentality that is applicable here. For this research, self-government refers to voluntary efforts by an individual to regulate and manage their behavior in a particular way; for example, to be healthy, a good mother, a responsible citizen, or a productive worker (Petersen & Lupton, 1996). Self-government is an endeavor by "an autonomous person capable of monitoring and regulating various aspects of their own conduct" (Dean, 1999, p. 12).

Now that the key terms have been defined, the core social process that is the basis of the grounded theory becomes more self-explanatory. The actions taking place during interactions between staff members and participants are a negotiation process, where the topic of negotiation is healthy self-government. Negotiations center around definitions of "healthy" that are expressed by both staff members and participants and methods to achieve that definition of health through specific practices of self-government. Negotiating healthy self-government is the *purpose* of the interaction and it is accomplished through the relationships between the concepts of revealing, assessing, and

advising. However negotiating healthy self-government does not happen in a vacuum: there are inputs and outputs crucial to the process. The remainder of this section outlines additional details of negotiating healthy self-government as well as identifying and explaining inputs and their relationship to the process and resultant outputs. This framework of inputs, process, and outputs make up the grounded theory.

Inputs - Definitions of Health

There are three inputs into the process of negotiating healthy self-government: specific definitions of health, the atmosphere of the clinics, and active actors. The specific definitions of health held by staff members and participants is one of the most surprising findings of this research. Prior to field work, a major underlying assumption was that the definition of health itself would be contested between staff members and participants, resulting in a negotiation process. However, that was not the case in the observed interactions. Rather, the evidence indicates that participants and staff members alike are working from the same basic definition of health, or at least demonstrate within the interactions a common understanding of the definition of health described below. It makes logical sense that the staff members would demonstrate the same definition of health since they are trained to promote a certain notion of nutrition and healthy eating. What is surprising is that the negotiations between staff members and participants did not concern the definition of health, but instead focused on issues of experience, expertise, and identity. The staff members promote a definition of health that focuses on individual behaviors as the central determinant of health and the participants actively negotiate their role and interpretations of appropriate health-related behaviors. The behaviors under consideration are not directly related to WIC food benefits, but rather are forms of self-

regulation, a governing of individual behavior. This finding holds for participants whether they were new to WIC or not at the time of the observation.

There are three components to this agreed-upon definition of health: health is defined by action, health must be monitored by experts, and health indicates goodness. At first glance, the proposition that health is defined by action may seem contradictory to the evidence provided in the previous chapter where explicit judgments of health such as “he’s healthy” or “she’s a healthy weight” were almost exclusively associated with assessments concerning anthropometric measurements. But, if anthropometric measurements were the primary indicator of health in the WIC interactions, it is logical that they would be the focus of the discussion, which they are not. Instead, it is *compliance with recommendations* that indicates health. What is revealed and assessed during the interactions are actions: types and quantities of food, formula preparation, juice dilution, bottle weaning, etc. Actions are the focus of the discussions between participants and staff members where participants’ reported actions are compared against best practices and recommendations and are found lacking in some way in almost every interaction, prompting advice of alternate or modified actions. Participants demonstrate their knowledge by revealing that their actions correspond with recommendations and suggestions. Both staff members and participants define health primarily by measurements of action, not measures of the body or knowledge.

The second component of the definition of health, health must be monitored and determined by experts, is based the comparison of actions to recommendations, which requires some level of monitoring to reveal actions, and expertise to assess and compare with regulations and suggest alternate courses of action. There is a level of authority,

based on expertise that is required on the part of the staff members to legitimately reveal, assess, and advise. Staff members communicate this authority in several different ways. First, the staff members are dressed in scrubs: a visual cue that indicates medical expertise and authority. Especially in the clinic that is located in the same building with other medical offices, the WIC workers are dressed in the same way as the doctors, nurses, and other medical professionals. In several observations, participants indicated they had talked to “a nurse” the last time they had been in the WIC clinic, referring to the staff members (none of whom are trained as nurses). Another way authority is communicated is the emphasis on precision and accuracy. As mentioned in the previous chapter, weights and heights are each taken twice and recorded to one decimal point of accuracy. Infants are checked for a dry diaper before weighing in order to ensure an accurate weight, and children and women are measured without shoes, again, to ensure an accurate measurement. Hemoglobin tests using the finger stick method require a sterilization and gloving process, a medical process lending an air of medical expertise.

The presentation of authority through expertise continues with the revealing, assessing, and advising processes, where again, accuracy and precision while discussing food consumption or formula preparation manifests in the use of specific measurements in cups and ounces. Assessing reported food consumption against recommendations and providing rationales for suggested behavior modification also requires expertise and a specific realm of knowledge. Demonstrating authority through expertise is crucial for health to be defined by actions because of the revealing, assessing, and advising processes. The staff members, in revealing participant behaviors that do not match up with recommendations, attempt to convince participants to change those behaviors in

specific ways. Here is where the expertise comes in: the actions that are revealed in the interactions generally have to do with healthy behaviors, not with unhealthy behaviors such as smoking, consuming too much alcohol, overeating, consuming junk food, or other unhealthy behaviors. Rather, the actions that do not match with recommendations are not risky, not obviously threatening to immediate health, and may not be viewed as a problem by the participant. With health defined at this level of action, where there are not obvious risks to health, some other reasoning must come into play to convince participants to make the effort to change their behavior.

This focus on actions and the use of expertise to judge participant actions leads to a process of negotiation of what behaviors can and should be modified. Actions are negotiated, not bodies. Participants are not told to lose weight or have their children lose weight or other body-specific advice. Rather, the body is taken out of the equation and the focus is on action that may affect the body in an obvious or non-obvious way. Assessments and advice concerning actions are often unrelated to bodily experiences: for example, when mothers reveal that they feed their children amounts of formula requiring a half scoop of powder, the staff members advise to only use full scoops because the concentration of powder could be inaccurate, resulting in an over concentration of powder which can cause digestion issues, or under concentration which can lead to a lack of nutrients. However this advice is not based on bodily examination and often the mothers express that using half scoops of formula does not result in digestion problems with their infants. But the action is what is under investigation and negotiation, not the experience of the body. Expertise is often in opposition with other types of experience, especially experience with older children. Mothers who have performed unrecommended

actions with older children with no obvious negative consequences are not convinced that the action is in need of modification.

While this definition is shared among staff members and participants, who is the relevant expert is not agreed-upon. For example, invoking a doctor's opinion or assessment was used by both staff members and clients but for different reasons. Staff members tended to ask about a doctor's assessment to bolster their own assessment or to ease the blow if they were going to give unpleasant news such as assessing a child as overweight. Participants on the other hand, tended to invoke a doctor's assessment to contradict the staff member's assessment or advice.

Finally, the last component of the shared definition of health is that health is related to goodness. Health is a normative concept in WIC interactions. Recommendations are referred to as "best practices," and mothers are praised for children being within recommended anthropometric ranges or making efforts to feed their children healthy food. Being a good mother is closely tied into health and making efforts to participate in health-promoting actions. In fact, in one WIC clinic, a quote was prominently displayed on a wall in the waiting room reading, "I show my love by feeding my family healthy food." Mothers are heavily implicated in this notion, expected to make their best effort to keep their children healthy, beginning with pregnancy and throughout their childhood. While mothers are always treated in a positive manner and reported behaviors are never judged as bad or wrong, there are very strong messages that a mother's effort is directly related to the child's current and future health.

Governing what children eat is communicated as important by both staff members and participants. Participants indicate they try to limit snacks and sweets, even when

other factors intervene like grandma. Participants often reveal with pride that their children like certain types of healthy foods like fruits or vegetables, or prefer water over juice, preferences that have reportedly been influenced by the mother's regulation of what the child eats. Participants are encouraged to limit children from drinking too much milk or juice, or having too many sugary snacks. Making suggestions concerning serving sizes through the use of quantitative amounts (the rule of thumb of a tablespoon of food per year of age) indicates the "right" or "best" amount of food for a child.

This judgment of goodness being connected with motherhood creates a phenomenon where there is an implied obligation of mothers in WIC to change their behavior. There is an expectation that advice will be attempted, goals are often set (usually by the staff member) indicating follow up, and participants are often asked how something they brought up in a previous appointment was going, inferring that there should be progress of some kind. This obligation to attempt advice and report progress is in direct contrast to the non-obligatory nature of the tangible benefits provided by WIC. WIC participants do not have to show any change in behavior or anthropometric status to continue to receive food benefits. As long as they continue to be categorically and income-eligible, they continue to receive their benefits.

Inputs - Atmosphere of the Clinics

The second input into the core social process of negotiating healthy self-government is the atmosphere of the clinics. Both clinics bore similarities to medical offices with workers in scrubs, posters on the walls with information about health and nutrition, and medical paraphernalia such as gloves and needle disposal containers. This medicalized atmosphere was even more pronounced at the clinic housed within the

community health center because of its proximity to other health providers' offices within the building as well as a pharmacy and lab. The atmosphere concerns not only the physical setting of the clinics, but the ethos as expressed by the staff members and participants. There is a supportive, friendly, non-judgmental, client-centered atmosphere that also lays the foundation for the negotiated interactions.

The physical setting of the clinics contributes to the core social process because it sets the stage for the type of information to be gathered and discussed and establishes a medicalized atmosphere where it is normal to measure weight and height and draw blood. It also establishes a foundation of authority and expertise, where participants sometimes refer to staff members as nurses. The physical setting cannot be considered a causal factor in negotiating healthy self-government in this research because of the research design, but it contains contextual cues that provide information about the types of activity that will be accomplished and the initial role of both the participants and staff members.

The friendly, supportive atmosphere serves as an accompanying structural component with the physical environment to the negotiation process, allowing it to proceed in a relatively predictable way. The supportive atmosphere sets participants up for success and reduces chances of bringing up sensitive subjects or areas of conversation that may be perceived as criticism or invoke a defensive posture by the participant. In every observation, staff members provided enthusiastic, positive feedback to participants. Participant reports of behavior were never contradicted or challenged even when there was direct contrary evidence, like when parents reported their children only drank milk or water but the child was drinking a neon colored beverage from their sippy cup. Breastfeeding is another good example of the supportive environment, where any length

of time a mother reported breastfeeding her child was praised, even if it did not match recommendations. This environment of praise and absence of explicit negative judgment seems to be important in allowing participants to present themselves in a particular way, to voice their opinions and offer alternate behaviors than what is suggested by staff members.

Inputs - Active Actors

The final input, active actors, is important for the core social process because in order to negotiate, there must be at least two actors who are actively involved in the process. While this seems self-explanatory, it came as somewhat of a surprise during field work because of the lack of attention to the possibility of an active client in much of the literature. Much has been made of power differentials between street-level bureaucrats and clients, with street-level bureaucrats wielding power as they see fit (see Clark-Daniels & Daniels, 1995; Maynard-Moody & Musheno, 2000) but the possibility of an active client has received much less attention, even in the co-production literature where an active client is assumed.

The most important facet of active actors is the recognition that staff members and participants alike actively construct their presentation of themselves and the information they give within the encounters. Staff members carefully present information in a non-threatening, positive, non-judgmental manner and participants present themselves and their family's behavior in the best possible light, while still behaving as a good client who comply with staff member requests and recommendations. This is not to say that reporting of non-nutritious habits is ignored by staff members or that participants appear to engage in blatant deception or highly calculated presentations. Rather, active

actors present themselves and the information they communicate in a particular way that is not accidental or random, and they respond to each other within the context of this presentation or identity.

Another way in which participants and staff members can be considered active actors is their discussion and recognition of the fact that the participants do not enter the WIC interactions as a blank slate. Instead, participants already have practices and habits in which they engage, knowledge from various sources besides WIC, life-long experiences with nutrition and eating, and identities as mothers. Staff members also have their own nutritional practices, routines they engage in during interactions, and identities as experts and helpers. The fact that staff members and participants have a history and identity is not necessarily crucial for negotiating healthy self-government. Rather, it is the explicit acknowledgement of these practices and identities that allow for negotiations to take place within the interactions.

Current actions and practices are an input into the social process because of the importance they are given. Participants are not told to change actions to something completely different or foreign. Rather, staff members take a significant amount of time revealing the practices and actions participants currently engage in and use those actions as a starting point for negotiating future action. Participants use their own actions in the same way: they explain why an action is being performed, for example, because of their child's preferences, and use that action and reasoning as a starting point for negotiating future action. This demonstrates an active actor who is engaging in behaviors for a variety of reasons. Ignorance of what *should* be done is usually not one of those reasons.

Staff members acknowledge and take these behaviors into account, in effect, legitimizing them and recognizing them as acceptable.

Staff members are also active actors in the process. While they are bound by regulations concerning available food packages and their own individualized routines within interactions, all staff members showed attentiveness to the client and an ability to change their routine or focus when necessary. For example, if a client brought up a problem not directly related to WIC, such as a desire to apply for AHCCCS or attending a breastfeeding class, staff members actively engaged with the participant to help them with their goal. They did not brush it off as “not their job,” but enthusiastically looked up resources or other information for the participants. This active engagement with client problems demonstrates that interactions are flexible, setting the stage for the ability to negotiate.

The three inputs, a shared definition of health, the clinic atmosphere, and active actors all play important roles in allowing the core social process to happen. The shared definition of health gives a common starting point and goal concerning health, providing a strong foundation of agreement and knowledge allowing for targeted negotiations. The clinic atmosphere provides a safe, supportive place to give and receive information about nutrition practices and to find a solution that is acceptable, or at least communicated as acceptable by both parties, and to resist advice and present alternative modes of action. The existence of active actors ensures that negotiations take place, not just admonitions. While it would not be appropriate at this point to claim that these three inputs are necessary and sufficient for the core social process, they act as causal mechanisms for negotiating healthy self-government as the core social process.

Negotiating Healthy Self-Government

In explaining the core social process, the primary focus will be on what is negotiated, how negotiations proceed, and how the concepts of revealing, assessing, and advising contribute to the process. One of the first negotiations that takes place within the interaction concerns what and how much is revealed. Staff members question participants to reveal their nutrition behaviors, focusing on certain, specific behaviors and pursuing additional details for behaviors that do not meet recommendations. Participants respond by revealing information in a way that demonstrates their knowledge, discipline, and attention to their family's health. The concept of revealing indicates what is important. For staff members, revealing concentrates only on behaviors related to WIC food items such as milk, juice, fruits and vegetables, and anthropometric measurements of height, weight, and hemoglobin. But what is chosen to be revealed concerning participant behavior also indicates what behaviors are considered normal or problematic. The revealing process not only reveals participant behaviors and adherence to recommendations, but what practices are considered healthy.

Participant revelations indicate what is important in their presentation of their identity as mothers and participants. Indicating that "everything is fine" or "he/she is a good eater" is a way to demonstrate a certain level of health in their family, reflecting on their goodness as a mother. The way in which participants indicate their goodness as a mother is through demonstrating their effort, discipline, knowledge, and concern about their family's health. This is at least partially a response to staff member strategies of discovery, assessment, and advice where participants align the presentation of themselves with what is being promoted by staff members.

Exploring the relationships between the concepts of revealing, assessing, and advising at least partially illuminates WIC's definition of health through the questions asked by staff members and types of anthropometric measurements taken (revealing), judgments concerning the degree to which the measurements and food consumption complied with recommendations (assessing), and the types of rationales and advice for action provided (advising). Participant responses also reveal their acceptance and understanding of the specific definition of health being promoted.

The definition of health observed in the interactions has several elements. First, the absence of illness is not the main determinant of health. Rather, health is defined by compliance with anthropometric and behavioral recommendations. These recommendations are quantifiable and have an element of precision and accuracy for purposes of comparison. Expertise is required in the form of knowing and understanding the recommendations and having the capability for measurement and assessment. Compliance with recommendations is modifiable through regulation of individual behaviors in specific ways. Finally, the regulation of health is the domain of the family, especially the mother.

Participants did not contest the major tenants of the definition: they allowed anthropometric measurements to be taken without issue, they agreed to the components of a healthy diet, and that behavior is directly related to health. This may also be dependent on the basic definition of health: the fact that weight and hemoglobin, milk, grains, and fruits and vegetables are important. There is also evidence that WIC's definition of health is shared or accepted by participants in some fashion through demonstration of their health knowledge meeting WIC recommendations and effort

towards health promoting behaviors (revealing) and judgments about health status or feasibility of suggested actions (assessing). However, there is also evidence that the participants do not accept all judgments and advice given, indicating points of departure from WIC's definition of health. Participants actively present themselves and their actions in particular ways and assess and negotiate the components of the definition of health.

Items such as levels of physical activity or junk food are not broached with participants, and revelations concerning sensitive subjects such as an overweight child are quickly transformed into a discussion of positive actions, where the object of concern is no longer, for example, the weight of the child, but the child's preferences towards WIC provided foods. This is a crucial tactic of the negotiation process on the part of the staff members. The exclusion of non-nutritious behavior from the revealing process does not indicate that staff members or the WIC program in general is uninterested in trying to change unhealthy behavior. Rather, it indicates that higher priority is given to eliminating possible points of contention, disagreement, or confrontation that could result in an explicit assessment of a child as overweight. This strategy is mirrored by participants as well, who express disagreement by showing evidence of "playing along" or by simply not responding.

Revealing is related to the concepts of assessing and advising in a very straightforward way: staff members only make assessments and give advice about what was revealed. Staff members do not bring in other topics unrelated to what was revealed and their advice is always directly and obviously connected to revelations. Because staff members do not bring up potentially sensitive topics during the revealing process, the

assessments and advice do not generate confrontation or defensiveness from the participant. This connection between constricted topics of revelation and the assessing and advising concepts results in explicit negotiations concerned with actions, not bodies, identities, or values. Rather, tacit negotiations concerning identities and values occur while negotiating actions through the promotion of some actions over others, relating some actions as indicative of a good mother, promoting individual control over behaviors as an imperative, and comparing behaviors to recommendations stemming from authority and expertise. Each of these negotiation topics serve to define and reinforce socially constructed notions of health, healthy behaviors, and motherhood.

Assessments revolve around two topics: the degree to which participants meet recommendations, and judgments concerning identity. Advising is directly related to assessments since advice is only given for information that has been revealed and assessed as a deficit. Staff members and participants make assessments concerning both topics either implicitly or explicitly and both topics are negotiated in terms of self-government and rationales for either meeting or falling short of recommendations. For example, when a participant is assessed as not meeting recommendations, participants often negotiate the feasibility of meeting the recommendation based on a reported identity, such as being picky. The concept of assessing is also where identities related to expertise and experience come face-to-face and are negotiated, usually implicitly, where a mother's experience with a specific behavior such as juice consumption is in conflict with the staff member's expert recommendations. The negotiation is implicit because often there is little or no discussion on the part of either the staff member or participant concerning behaviors that do not meet recommendations beyond stating the

recommendation and the participant expressing they understand or already know the information. No explicit agreement beyond an understanding of the recommendation is reached and participants do not negotiate their positions besides expressing them originally. This is at least partly due to the communication tactics of the staff members who avoid confrontation and topics that may create conflict.

Negotiations within the interactions have several unique characteristics. The first is that any decisions made, goals discussed, or advice dispensed is non-binding on the part of the participant. The participant is not required in any way to adhere to recommendations given by staff members in order to receive their WIC benefits. In addition, the negotiations are additionally socially non-binding: staff members do not admonish participants for non-compliance or express dissatisfaction or disappointment. This is a unique context where essentially, the participants have nothing to lose, are not required to make trade-offs or concessions, and do not need to negotiate recommended behaviors or demonstrate compliance but they do.

Advising indicates how to comply with what has been revealed and assessed as important. Advising is always concerned with behavior and combines rationales and reasoning for behavior with practical suggestions for that behavior. The connections between the three concepts are relatively straightforward. Revealing is the foundation of the social process because it determines what is assessed and what advice is given. Judgments by staff members are only made about items that were revealed and advice is directly related to revealed behaviors or anthropometric measurements.

Outputs

One of the main concerns of the WIC literature concerns outcomes: whether participating in WIC results in better nutritional and health outcomes than those who do not participate in the program. This type of outcome was not possible to ascertain with this research. However, outputs from the core social process are observable and give valuable information about negotiating healthy self-government. It is important to note that specific outcomes, for example, whether a participant's identity as a good mother changed based on the interactions are not observable. Rather, outputs describe the outcome of the process and are based on what was negotiated during the interactions. The first output concerns identity construction and reinforcement. Participants demonstrate their identity as good mothers during the interactions and the staff members continually reinforce that identity. Identities as mothers are tied to anthropometric and nutrition-related behavior of their children and the WIC interactions contribute to an increasingly detailed list of criteria for identifying as a good mother.

Another output is the socialization of healthy practices and knowledge, which serves to refine and reinforce the definition of health held by both staff members and participants. Messages of health are generally consistent and constantly reinforced in the interactions. Staff members promote specific practices as best practices, solutions to problems like picky eaters, or suggestions for sticking to a healthy diet. Foods are described in terms of relative degrees of healthiness with sugar and fat being the main determinants for less healthy food (the term "unhealthy" was never used in regards to food by staff members). Practices and the related rationales or knowledge behind them such as watering down juice, weaning from a bottle at the appropriate age or preparing

formula correctly are reinforced: a socialization process towards the current definition of health being promoted.

There are three components to negotiating healthy self-government. First, the process reveals the definition of health as it is promoted by staff members and understood by participants. What is understood as healthy behavior is revealed, reinforced, and negotiated through this process during the interactions. Second, negotiating healthy self-government is bound up with identities of expertise (staff members) and good mothers (participants). These identities are manifested in all three concepts and are contested and negotiated in two out of the three. Finally, methods of self-regulation or self-government as it is being referred to here are what is being produced throughout the process: they are the main take-away for the participant and the primary location of identity reinforcement.

Implications for the Literature

There are three main questions from the review of the literature that can now be addressed. The first gap stems from the WIC literature and asks the question, what happens in the interactions between WIC staff members and WIC participants? How is nutrition information presented and received? The second question raised by the gaps in the street-level bureaucracy literature deals with how staff members and participants enact their roles. What is the relationship between the two? Is there evidence of client passivity, unequal power relations, and divergent interests between staff members and participants? The third gap is related to the co-production literature and Whitaker's (1980) conception of co-production: is there evidence of co-production and if so, what is being co-produced and what is the process?

WIC Literature

The identification and explanation of the core social process, negotiating healthy self-government, provides a good deal of information about the process of the WIC interactions and the ways in which nutrition information is presented and received. The first implication for the WIC literature is the nature of nutrition education in the interactions. Nutrition education is not presented in a didactic style or as a teacher/student relationship. There is no pre-determined “lesson” to be given by the staff member and learned by the participant. Instead, nutrition education is a problem solving process where gaps between participant behavior is revealed and assessed, and alternate behaviors are suggested. Specific knowledge or skills such as linking certain behaviors with risks for disease or how to read and understand nutrition labels were not the subject of conversations. These findings show that the clinics are using patient-centered education techniques to communicate nutrition information (Deehy, Hoyer, Kallio, et al., 2010; Sigman-Grant, Rye, Loesch-Griffin, & Mitchell, 2008). Participant-centered education focuses on client behaviors, motivations, feelings, and experiences rather than knowledge, which is appropriate in the observed interactions since participants demonstrated relatively high levels of knowledge concerning the nutrition-related information promoted by WIC.

The WIC literature on interactions is meager and tends to focus on evaluations of implementations of new interaction techniques and subsequent participant satisfaction (see Isbell, Seth, Atwood, & Ray, 2014; North Dakota Department of Health Nutrition and Physical Activity, n.d.). These techniques come out of the health care provider literature that suggests positive results in sustained health-related behavior change based

on communication styles within the provider-patient interaction (Beck, Daughtridge, & Sloane, 2002; Haskard Zolnierrek & DiMatteo, 2009; Paterson, 2001). Evidence from this study indicates that WIC interactions are consistent with the concept of motivational interviewing, a type of patient-centered education (North Dakota Department of Health Nutrition and Physical Activity, n.d.; Ogu, Janakiram, Hoffman, et al., 2014).

Motivational interviewing is collaborative, attempts to evoke patient values and motivations, and recognizes patient autonomy (Rollnick, Miller, & Butler, 2008).

Although the term “motivational interviewing” did not arise in any conversations with staff members or in official WIC documentation, each of these characteristics were observed in every WIC interaction. The friendly, mothering atmosphere and conversational communication style creates a space where participants collaborate with staff members in order to reveal a problem and identify a practical solution. Staff members used a variety of questioning techniques, especially the projective tools to identify participant motivations, emotions, values, and behaviors. Discussions about possible behavior change were non-binding and never communicated as an imperative. Rather, participants were trusted that the knowledge and practical advice they received in the interaction would motivate them to modify their behavior in the suggested way.

In addition, four specific motivational interviewing strategies were observed during the interactions: expressing empathy towards the participant, accepting and dealing with resistance to suggestions or desired behaviors, developing participant self-efficacy, and identifying and addressing discrepancies between desired and current behavior (Lowenstein, Foord-May, & Romano, 2009). WIC staff members were extremely empathetic, providing emotional support when participants expressed hardship

or barriers to desired behavior. Staff members also showed their empathy by providing resources for non-WIC services, such as helping participants apply for AHCCCS, identifying clinics providing low-cost immunizations, and connecting teen mothers with a local support program. Confrontation and conflict were non-existent in the encounters, and there is evidence of staff members changing the subject or dropping a subject that had potential to put the participant on the defensive. Invoking a physician's assessment and giving the participant enough information to make their own judgment were two strategies used frequently to deal with resistance and keep conflict at bay. Staff members encouraged self-efficacy, assessing participants as "such a good mom" and expressing their confidence in participant abilities. Finally, the bulk of the WIC interactions dealt with identifying and addressing discrepancies through the revealing, assessing, and advising processes.

While this research cannot make the connection between the communication strategies in the interactions with behavioral outcomes, some literature has found a positive relationship between participating in patient/participant-centered communication techniques and desired behavior change (see Beck, Daughtridge, & Sloane, 2002; Haskard Zolnierok & DiMatteo, 2009; North Dakota Department of Health Nutrition and Physical Activity, n.d.; Ogu, Janakiram, Hoffman, et al., 2014; Paterson, 2001). What this research can provide however, is an understanding into the mechanisms within the interactions that might lead to behavior change. For example, the findings show that WIC participants are motivated by a responsibility to feed their children healthy food and are usually responsible (or feel responsible) for their family's eating habits and this responsibility is intimately tied to identity as a good mother. However, barriers such as

grandmothers or picky eaters often get in the way (Birkett, Johnson, Thompson, et al., 2004; Chadwick, Crawford, & Ly, 2013). This research helps to understand how identity may play a role along with motivations and knowledge where decisions concerning behavior are tied with a definition of the self in multiple roles as mother, daughter, or benefit recipient.

In addition, the findings from this research raise a question related to the goal of patient/participant-centered, or individualized interactions: does holding all participants to the same standards of behavior conflict with the idea of participant-centered interactions? In the example of the participant who gave her infant juice before the recommended age, she expressed in an interview that in her experience, juice for infants was unproblematic and her child enjoyed drinking juice. Does problematizing behavior that does not adhere to a general recommendation treating all infants identically serve to empower or increase the self-efficacy of the participant (two goals of participant-centered education)? Is it respectful of a participant's conscious choices to feed their child in the way they see fit? These questions arise based on the findings that WIC participants have a similar definition of health as what is promoted by the WIC program and differences or discrepancies are at the margins and might not be considered a significant risk factor for future health. If self-efficacy and autonomy are key principles of participant-centered education, closer examination of possible threats to those principles could provide useful strategies for health promotion.

Street-Level Bureaucracy Literature

The implications for the street-level bureaucracy literature concern the relationship between the front-line service provider and the client and how that

relationship shapes the way the client experiences the policy. This research illuminates the social process of that relationship and highlights the interactions between WIC staff members and participants. The findings from this research affirm several assertions in the street-level bureaucracy literature. First, that the relationship between street-level bureaucrats and clients is personal and discussions and decisions have implications for clients' daily lives is supported by this research (Lipsky, 1980/2010; Maynard-Moody & Musheno, 2003). The main topic of conversation in the WIC interactions concerns nutrition-related behaviors, not food package benefits. Revelations, assessments, and advice are personal and practical, meant to affect participants' behavior independent of their WIC participation or benefit consumption. Second, the findings from this research agree with the literature eschewing the idea that street-level bureaucrats' decision-making calculus is mainly concerned with enforcing policy and regulations. Rather, decisions are made based on predicted or perceived consequences of behavior, or in the case of this research, predicted or perceived benefits to health and nutrition-status. Finally, Lipsky (1980/2010) contends that interactions between clients and street-level bureaucrats teach clients how to behave properly as clients, something that mirrors the finding that through the interactions, WIC staff members model desired attitudes of pleasant compliance.

The finding that staff members and participants alike participate in a “socially negotiated encounter” which is actively shaped by both parties begins to address the most relevant gap in the street-level bureaucracy literature (Fineman, 1998, p. 953). The primary influences on the interaction are social, rather than based on policy regulations, and the social context of the interaction bounds the actions and influence of both participants and staff members (Fineman, 1998). Staff members and participants alike

position themselves socially, as mothers, clients, experts, and health care providers, and move between their identified roles during the interactions as needed. Staff members move seamlessly between giving motherly advice based on their own experiences to explaining nutritional recommendations as an expert authority. Participants move between performing the role of a compliant client to one of a mother defending nutritional behaviors based on a child's preferences or stated identity. The "atmosphere of nice" bounds behaviors such as explicitly stating a child as overweight or complaining about the length of time spent in the waiting room before being seen. But it also allows actions such as negotiating or expressing disagreement with staff members or asking participants increasingly personal questions about their behaviors. The street-level bureaucracy literature (with the exception of Fineman (1998)) simply does not take these social factors into account, instead focusing on the bureaucratically defined power differentials between a person providing public services and a person consuming them. In the case of the observed WIC interactions, food package benefits did not shape the topic of interactions or the manner in which each party behaved. Rather it was a social encounter requiring the deployments of signifiers of different identities such as mother or expert that shaped the interactions and experiences of both staff members and participants.

Another relevant finding for the street-level bureaucracy literature is the recognition of common interests and goals between staff members and participants within the WIC interaction. With few exceptions, the street-level bureaucracy literature assumes diverging interests between administrators and clients, where clients have unlimited demands and administrators are limited by time, resources, and policy regulations

(Meyers, Glaser, & Donald, 1998). Within the WIC interactions, staff members and participants expressed very similar definitions of health, and negotiations were at the margins in terms of quantities and frequencies of certain foods, or the importance of certain behaviors such as waiting until six months of age feed to something other than formula or breast milk to an infant. Participants communicated that they made an effort to feed their family in a healthy way, recognized a connection between nutritious eating and health, and felt nutrition was important, all characteristics of the definition of health WIC promotes. Staff members did not have to teach participants the basics of how to eat within WIC's definition of health or convince them that nutrition was important: those efforts were only needed with very specific details or recommendations such as only preparing even numbers of ounces of formula.

There is also a related concern that constraints faced by street-level bureaucrats concerning demands, regulations, and resources combined with their relatively high levels of autonomy and discretion manifest in differential treatment of clients that reduce fairness and equity in service delivery. The findings from this research turn that assumption on its head. First, while WIC staff members enjoyed a great deal of autonomy, with no managers observing or often even physically in the clinic, discretion in service delivery leading to differential treatment of participants or differing delivery of benefits was not observed. Staff members rarely mentioned the contents of the food packages besides asking participants if they wanted "the one with more cheese or more milk". During the first month of observations, the clinic was offering a one-time set of farmers' market vouchers, which were offered to every observed participant during the time the vouchers were available.

WIC staff members also did not use discretion in the process of the interactions in the inequitable manner described by the literature. Instead, routine and revelations by the participants drove the interactions rather than any evidence of judgments based on participant goodness or deservedness. In fact, the two times when the revealing, assessing, and advising process was not accomplished in full, it was because of actions by the participants who took control of the interaction and guided it along a different path than usual. In both cases, participants moved the focus away from the questions posed by the staff member in the revealing process and instead, expressed assessments about nutrition related behaviors in which they engaged. For example, when asked if her daughter was “still picky with vegetables,” a participant exclaimed, “No! I figured it out” and spent the rest of the interaction explaining all of the vegetables her daughter currently ate. This circumvented the normal process but was a result of participant behavior, and the discretion demonstrated by the staff member was to allow the process to unfold.

In addition, staff members were not constrained by determining eligibility and denying participation because of a practice of allowing one month’s worth of checks to participants who were categorically eligible but who did not provide residency or income information. Finally, staff members did not seem constrained by the volume of their caseload. Because both clinics were on a walk-in basis only, the caseload varied from day-to-day and during any single day. The staff members were never observed rushing through client interactions even when they knew the waiting room was full. Staff members always took time to input notes into the computer system after each encounter and to research information about their next participant before calling them back. Staff members communicated to me that it was important to give each participant the time they

needed and deserved and they felt the participants appreciated that attention and individualized treatment. Staff members also used this attitude to diffuse tense situations when reports of people complaining about the wait times were communicated from the front desk. They would apologize profusely for the long wait and then emphasize that it was important to take whatever time each family needed without rushing because each family was important. This tactic immediately subdued frustrated participants who rather than complain to the staff member, would express their appreciation for the individualized attention and asked if there were less busy times to target for their next meeting. Being unconstrained by time even during busy periods as well as engaging in practices that seemed consistently fair and equitable in resource distribution over all participants contradicts many of the findings related to street-level bureaucrat discretion and its theorized effects.

Maynard-Moody and Musheno (2003) recognize the role of identity, asserting that street-level bureaucrats define themselves by their role “as agents, as wielders of power who know what is best for other citizens” (p. 20), and because of this identity, “can put a fix on people, assigning them a social identity or group belonging” (p. 21). There are two areas where this research differs in its findings concerning identity. First, staff members, while identifying as experts concerning health and nutrition-related behaviors and standards, do not demonstrate an identity as a wielder of power. Staff members regularly change the subject or cease a topic of conversation when perceived conflicts arise, especially if a physician's advice is invoked. There are no binding agreements within the interactions and staff members have no ability to withhold food benefits based on client actions (except in cases of fraud, a change in residency, income,

or categorical status, none of which were observed). The staff members identify as experts, as mothers, and as helpers in the interactions, assisting clients with problems that arise during the revealing process. The second area of difference concerns participants. Maynard-Moody and Musheno do not consider that participants might have their own projected identities and “put a fix” on the staff member, thus affecting the interaction. This research indicates that WIC participants assign *themselves* a social identity, that of a good mother, which is not contested, and in fact, is consistently reinforced by staff members. Some participants asked staff members if they were mothers, presumably giving an identity to the staff member that might affect perceptions of credibility. Recognizing that participants enter the interaction actively presenting a specific identity that is not an attempt to influence the quantity of benefits they receive may provide more nuanced understanding of the relationship between street-level bureaucrats and clients.

Co-production Literature

The self-governance co-production literature stems from Whitaker’s (1980) definition of co-production where front-line service providers and clients jointly identify the client’s problem and find a solution through interactions. These interactions are complex, may produce disagreement or non-compliance on the part of the client, and involve more than the client expressing a need for the public service or benefit provided by the street-level bureaucrat. Whitaker (1980) refers to this co-production process as citizen/agent mutual adjustment, where client behavior change is the public service being delivered (Brudney & England, 1983). Through this process of co-production, clients learn the criteria and suggestions for desired behavior in order to self-govern.

The observed interactions in this research closely mirror Whitaker's (1980) description, providing evidence of co-production as a technique of governance. Staff members interact with clients to reveal a problem to be solved and interactions focus on strategies and suggestions to solve the identified problem. Solutions are practical and coupled with rationales given for behavior change, which are meant to improve participant knowledge and capacity for nutrition-related behaviors (Sharp, 1980). Discussions primarily focus on the problem solving and resolution process and reported behaviors that meet recommendations receive little attention. Participants establish themselves as active agents in the discussion, demonstrating their capacity for solving the problem and assessing advice given by staff members. For their part, staff members express recognition of an active participant who has preferences and practices that must be taken into account when giving advice, and the relationship with participants stresses cooperation (Needham, 2007; Ryan, 2012). Benefits are not dependent on behavior change, relying on the participant to internalize and embody the rationales for changing behavior to meet program objectives of improving participants' nutrition and health status. The lack of sanctions or incentives for behavior change corresponds with Alford's (2002) assertion that building knowledge and capacities is more effective for co-production.

One finding from this research illustrates an area of the co-production literature that needs further study: the effect of problematizing everyday life. The WIC interaction is centered around establishing "a common understanding of the citizen's problem" (Whitaker, 1980, p. 244). The WIC participant is often unaware they have a problem until staff members reveal it. This is not necessarily a matter of revealing something unknown

about the participant, for example, if the participant did not know until they were tested at the clinic that they showed signs of anemia. Rather, participant “problems” are constructed based on differences between recommendations and behaviors, such as consuming milk that is not low-fat or providing children too much juice per day. The problems identified are at the margins, expressed in differences of ounces or times per day, and concern practices of everyday life. The question this process poses for co-production is whether regular meetings with staff members where problems are always found and discussed could eventually result in diminishing returns. If a participant always has a problem, never quite measures up, is there a negative effect on the chances of the participant continuing to actively participate in the discussion or show evidence of co-production? This question cannot be addressed here since each participant was only observed once, but could have implications for co-production as a technique of self-government.

This research addresses three main questions derived from the review of the literature: what happens in WIC interactions, what is the relationship between the staff member and the participant, and is there evidence of co-production? While the findings of this research are not immediately generalizable outside of the context of the observed clinics, they do provide evidence that begins to fill those gaps. First, WIC interactions are pleasant, participant-focused, and concerned with nutrition-related behaviors rather than focusing on knowledge. Participants and staff members have amicable relationships during the interactions and there was no evidence of conflict or hostility. Participants expressed appreciation and respect for the staff members and described interactions as helpful. Staff members actively shaped the interactions through communication strategies

and what I call an “atmosphere of nice” but did not display discretionary decision-making resulting in inequitable or significantly different treatment of clients. Participants were also active in shaping the interactions and demonstrated identities as good mothers who make an effort to feed their family nutritious food. Through the revealing, assessing, and advising processes, the citizen-agent mutual adjustment form of co-production was evident, with co-production concerned with behaviors of self-government rather than coming to an agreement about a specific definition of health.

Implications for Policy and Future Research

While it is important to be cautious with claims concerning possible policy implications because of the research design, the findings suggest some implications for policy theory that are suitable for future research. These implications concern the promotion of self-government as a desired outcome of program interventions, the role of identity in interactions between representatives of the state and recipients of public services, and the atmosphere of nice.

The finding that has the most significant implications for policy theory relates to the core social process, negotiating healthy self-government. The interactions are designed to allow for active participation from the participant, allowing them to get something accomplished (Strauss, 1978). In the case of WIC interactions, the thing to be accomplished is self-government: learning, embodying, and practicing nutrition-related behaviors that conform to recommendations, with “practices” being the key term. The practices in the WIC interactions are not explicitly focused on the food benefits, but on conduct that will ideally endure beyond participation in the program. These practices are not random, but are based on “apparently neutral, scientific discourses” that “establish

norms of behavior” (Bevir & Rhodes, 2010, p. 50). In much of the public health and health promotion literature, focusing on individual practices as important determinants of health is unproblematic. With research linking certain lifestyle factors with chronic disease, individual responsibility to reduce risk factors for disease is the major message of health promotion efforts, including WIC (Maes & Karoly, 2005). However, promoting individual responsibility for health is not a completely benign or neutral endeavor: there are political, social, and economic factors that influence what behaviors are normalized and what are problematized. In addition, there is widespread acknowledgment that individual behaviors are not the only risk factors for chronic disease and social factors contribute significantly to risk of chronic disease (Link & Phelan, 1995). However research and health promotion activities have not followed suit and continue to be focused on the individual.

Individual practices of self-government have public value because in the aggregate, they can increase efficiencies, reduce costs, and affect the well being of the population (Sørensen & Triantafillou, 2009). Additionally, practices of self-government allow goals of the state, in terms of the health of the population, to be achieved with limited direct influence or intervention (Dean, 1999). If individuals are governing themselves in ways that are considered beneficial to the population as a whole, then the state does not need to directly intervene.

A crucial aspect of Foucault’s notion of self-government is that the self-governing practices in which people engage are not random. Rather, they are part of a modern form of governing, where the state is concerned with “the way in which the conduct of individuals or of groups might be directed,” and “to structure the possible field of action

of others” (Foucault, 1992, p. 341). Individual behavior is “conceived as something that can be regulated, controlled, shaped and turned to specific ends” through techniques of governing such as incentives, sanctions, and knowledge provision (Dean, 1999, p. 11). Certain behaviors are incentivized, supported, or normalized while others are not. Knowledge and expertise concerning “best practices” or proper behavior are part of the common discourse and as such, are taken for granted as the correct course of action even though they are historically and culturally situated. With that being said, this conception of self-government is not deterministic. Practices are not predetermined and there is opportunity for autonomy, agency, and resistance to the discourses and knowledges being promoted or supported. Often it is not until individuals resist or partake in alternate practices that the taken-for-granted nature of the norm comes to light (Foucault, 1992).

Practices of self-government are especially applicable to health and nutrition and the way those topics are discussed in the WIC interactions. The definition of “healthy” no longer indicates simply an absence of disease, but has expanded to include “general forms of existence and behavior” (Foucault, 1984, p. 283). Individual control of health risks through disciplined action and lifestyle modifications is the primary way in which health is communicated between WIC staff members and participants. The concepts of revealing, assessing, and advising are explicitly focused on action, on behaviors that must be regulated in order to be healthy. There is a normative element to the practices of self-government: they are “best practices” and indicate that someone is a good mother. The evidence given in the previous chapter shows that these messages about the importance of individual self-governing practices and their effect on health are not lost on participants. They communicate their knowledge of best practices such as watering down

juice, demonstrate their efforts to establish healthy habits among themselves and their children, and reveal their frustrations with picky eaters or grandma's interference. They demonstrate their disciplinary efforts in trying to "eat right", "be good", and monitor their children's habits. The presence of discipline and effort indicates their goodness as mothers and their understanding of the importance of their role in their family's health and well being.

With the focus on the individual and their behavior, a distinct problematizing ethos occurs within the WIC interaction. An element of surveillance (revealing) and judgment (assessing) indicate the norms of behaviors and the ways in which participants do not measure up. Everyday behaviors are problematized even when they do not necessarily pose a direct threat to health or wellbeing. For example, when anthropometric measurements do not indicate risk factors for health, or participants' reports about their own or their children's health do not indicate a problem, a problem is almost always identified and communicated to participants. In essence, a diagnosis of "healthy" is indefinable and unattainable, as there is always additional work to be done. This research does not attempt to determine if this process is ultimately problematic or harmful to the participants. In fact, there is strong evidence from the observations that WIC participants are complicit and compliant with the process of revealing, assessing, and advising, and "buy in" for lack of a better term, to the practices of self-government WIC promotes. WIC participants expressed high levels of satisfaction with their participation in WIC, appreciation for the suggestions they received from staff members, and intentions to put the advice into practice.

Participant satisfaction notwithstanding, is there an effect of tying health so intimately to the identity of a good mother? Being a good mother means participating in practices of healthy self-governing, but since those practices never measure up under scrutiny, health is unattainable. Does this have an effect on the good mother identity? Through the process outlined in this research, it is clear that what is co-produced is not the policy itself, but social norms of behavior, patterns of practice, and identities. Motherhood and health are not defined or established in a vacuum but are part of a social context that is reflected, reinforced, and reproduced through the co-production process.

A practical implication concerns the nature of what is discussed in the WIC interactions and its possible effects on research concerning participant behaviors and health outcomes. The discussions of practices were at the margins, concerned with the minutiae of behaviors concerning quantity and frequency of food consumption. One aspect to this focus is that changes are small, well defined, and achievable by the participant. However, if the changes are small, determined by ounces or cups, will those changes be reflected in research asking, “does WIC work?” It is plausible that small changes may not significantly affect behavior or reports of behavior enough to demonstrate a positive relationship between behavior change and WIC participation. If discussions are on the margins, results might be on the margins, suggesting that alternate or additional conceptions of the question, “does WIC work?” might be in order.

Future research can build on the grounded theory presented in this chapter, researching other WIC clinics in different geographic areas to understand whether and how the process of negotiating healthy self-government differs in diverse contexts. Additional research into WIC interactions will continue to refine and modify the

grounded theory for WIC as a substantive area, but also could be explored in other areas of interactions between street-level bureaucrats and program participants. Grounded theory's foundation in pragmatism also suggests that refining and expanding the grounded theory to a point where it can be tested or applied in other contexts to be of practical use is an important step for the development and understanding of the theory and social process.

This research also establishes that the interactions are complex and multi-dimensional, with staff members and participants alike utilizing nuanced communication strategies. These interactions occur in a context where traditional policy tools of incentives and sanctions are non-existent, and knowledge tools are used as rationales for changing behavior in desired ways, but are not the main focus of the interactions. Understanding the use of communication tactics such as motivational interviewing and an atmosphere of nice in other policy contexts would be helpful in understanding how those factors influence behavior above and beyond current rational actor based theories of behavior. Finally, additional research into the ways identities come into play in interactions between street-level bureaucrats and clients can provide additional tools for communication between the two and recognition of both as active in the relationship and subsequent outcomes.

Chapter Summary

WIC interactions are a complex process of tacit and explicit negotiation concerning practices of self-government. Three inputs serve as causal mechanisms for the core social process: a shared definition of health, the atmosphere of the clinic, and active actors. Each of these inputs is inter-related and set the stage for negotiations between

staff members and participants. A shared definition of health ensures that participants and staff members are working towards a common goal and have similar notions of how to get there. The “atmosphere of nice” ensures that participants and staff members can negotiate without fear of reprisal or negative feedback. Active actors have ideas and practices that can be negotiated, and actively contribute to the process. These inputs create a space where what is negotiated is practices of self-government, where discipline, knowledge, and effort to change individual, everyday behavior in order to match recommendations is the primary subject of conversation and negotiation. Because of the topics that are negotiated and the close ties between practices of self-government and motherhood, outputs of the process construct and reinforce societal norms concerning appropriate practices of nutrition and definition of a good mother.

The grounded theory addresses several identified gaps in the literature. First, it helps to answer the question of how WIC interactions proceed and how nutrition education is communicated and received. Second, it contradicts some findings in the street-level bureaucracy literature concerning conflicting interests between front-line service providers and clients, and provides evidence concerning how clients present and represent themselves during the interaction. Finally, it contributes to the co-production literature through detailing a process of co-production and indicates that the policy itself is not the focus of co-production, and instead it is societal constructs concerning practices of health and motherhood that are produced and reinforced.

CHAPTER 7

CONCLUSION

The major goal of this research was to study WIC interactions as they occurred in everyday life and gain an understanding of the process of co-producing WIC as a public health policy. The focus was on interactions: what happens when WIC staff members and WIC participants meet to discuss nutrition behaviors? There were two puzzles motivating the research. The first puzzle concerned the definition of health and how it might vary between staff members and participants. It was initially assumed that staff members would promote a definition of health that differed from participants' beliefs, based on assumed differences in education and training. The second puzzle concerned process: how is nutrition information conveyed to participants in a way that might engender behavior change when staff members do not have use of traditional policy tools such as incentives or sanctions to encourage desired behavior and discourage undesirable behavior?

To investigate those puzzles, the primary research question was very straightforward: what is happening in the WIC interactions? The primary action of interest was whether a shared definition of health was being created or co-produced and if so, how? To investigate how staff members and participants interacted with each other within the context of WIC health promotion, a constructivist-interpretive methodology was used to understand how meanings concerning health were discussed, shared, or contested in practice. Through participant observation of WIC interactions, it quickly became clear that staff members and participants had very similar definitions of health as expressed within the interactions, agreeing on the importance of comparing behaviors and

measurements to expert recommendations, the types of foods that are considered healthy, and the priority of feeding children healthy food and creating healthy nutrition habits.

The devil was in the details of behaviors that supported that definition of health, which were the main topic of negotiations between staff members and participants. The types of negotiated behaviors were consistent with the notion of self-government: disciplinary practices intended to govern individual behavior without direct influence from the state.

This research represents a unique approach of inquiry into the WIC program, resulting in nuanced analysis of behavior and interpersonal communication techniques performed within the interactions instead of relying on reports of experiences. In addition, this method demonstrates that information such as definitions of health or assessments of advice are observable. Using participant observation allowed one of the most significant findings of the research to come to light, a finding that most likely would have remained hidden using other strategies of inquiry. This finding concerning the way in which an identity as a good mother is leveraged by both participants and staff members is a fundamental contribution of this work. Identity as a good mother shapes how the participants present themselves and their family's nutrition behaviors, and is used by staff members as a fundamental rationale to promote behavior change.

Investigating WIC from a public policy and administration point of view yielded unique results, focusing on process, not outcomes. The use of the concept of co-production allowed the question "what is produced as a result of these interactions" to be posed. The answer to that question is complex and nuanced, but concerns identity, practices, and social norms, topics not commonly broached by the traditional WIC literature. Negotiating healthy self-government reflects the social context under which

WIC works in the clinics and represents a method of governance tied to the notion of good mothers. Negotiating healthy self-government contributes to understanding *how* WIC works and provides alternate avenues for investigating *whether* WIC works.

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