THE EFFECT OF CAREGIVER SELF-EFFICACY ON HEALTH AND NUTRITION OUTCOMES IN YOUNG CHILDREN ENROLLED IN HEAD START

By

Kristy Feden

A DISSERTATION

Presented to the Faculty of

The Graduate College at the University of Nebraska

In Partial Fulfillment of Requirements

For the Degree of Doctor of Education

Major: Educational Leadership

Under the Supervision of: Dr. Tamara Williams

Omaha, Nebraska

March 15, 2019

Supervisory Committee

C. Elliott Ostler, Ed.D.

Debra Wisneski, Ph.D.

Kay Keiser, Ed.D.

Abstract

THE EFFECT OF CAREGIVER SELF-EFFICACY ON HEALTH AND NUTRITION OUTCOMES IN YOUNG CHILDREN ENROLLED IN HEAD START

Kristy Feden, Ed.D.

University of Nebraska, 2019

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Healthy development in the earliest years provides the foundation for adult health, while healthy adults comprise a thriving workforce. Investing in the health of young children is paramount to prevention of chronic diseases in later adulthood. Quality early childhood programs have an opportunity to maximize the healthy development of children by intentionally increasing caregiver self-efficacy as it relates to completing tasks associated with preventive care. The purpose of this exploratory data analysis study was to learn more about the relationship between level of caregiver self-efficacy and their ability to achieve required health and dental outcomes for children enrolled in a Head Start program. Sixty-seven families completed a self-efficacy questionnaire that was specifically focused on parent perception of their ability to navigate health and dental care for their child. Variables such as family demographics (e.g., socio-economic level, parent education level) and the intensity of Head Start services provided to the family were included in data analysis. Results indicated families demonstrated high levels of self-efficacy and most required moderate intervention from Head Start service providers, but there was not a relationship between the two variables. Caregiver proficiency with

four specific health and dental outcomes was significantly different from their reported level of self-efficacy. Parents were not achieving proficiency with dental outcomes in particular, despite high levels of self-efficacy. Implications of this research include incorporating the intentional development of caregiver self-efficacy around tasks necessary for preventive health and dental care for children into home-visiting services.

Dedication

This is dedicated first and foremost to the beautiful, vibrant families of Head Start who refuse to be defined by their current life circumstance and instead taught me more about grace, grit, and unabashed love for children, family, and community than I could ever have learned in a class or by reading a textbook. May this work help us all to dig deeper and collectively find clearer pathways for every child and every individual to access health and dental care, especially those who have barrier after barrier placed in their paths. And may our efforts serve to remove barriers with intention and ferocity so that every child experiences a healthy developmental trajectory.

My educational journey culminates with this research—but the journey never would have been completed without the tireless support of my own family. To my three girls, thanks for pushing me on and telling me how proud you are that I am completing this degree. You are my best and most important work! Thanks for challenging my thinking and keeping me focused on issues of social justice. I am so proud of your beliefs and your efforts to make this world a better, more equitable place, and hope that some of that tenacity is reflected in this work.

Mom and Dad, I thank you for the sacrifices you made to ensure we grew up in a home where healthy development was a top priority. You established a love for learning and helped me to develop my own strong sense of self-efficacy that has allowed me to achieve in ways too numerous to describe. Thanks also for graciously picking up kids after school (and feeding them dinner) so that I could get to class after work! To my sisters, thank you for setting an example for the rest of us in regard to tirelessly working

to remove barriers for children, families, communities, and even our global society. You have influenced my work more than you can possibly know.

Perhaps the most important person of all to thank is my husband…thank you for never questioning (after two graduate degrees that had already been completed—but unfortunately not yet fully paid for) when I said I wanted to complete a Doctorate in Education. You have never complained in twenty-five years about the workload I always seem to heap upon myself. Instead, you graciously cleaned the house, drove kids to their activities, and pretended like you could sleep through my 4:00 a.m. alarms that were set to complete research and do some writing before heading to work. I look forward to having fewer demands in the evenings and on weekends so we can once again enjoy some family time—I promise I am done working toward graduate degrees!

I would certainly be remiss if I didn't acknowledge my trusty writing partner—my faithful Corgi religiously woke up at 4:00 a.m. and lumbered up the stairs to my workspace to lay at my feet and keep them warm while I worked. That is the real reason I was able to stay focused through these long winter months (even now he's at my feet while writing this Dedication).

Finally, special thanks to the Educational Leadership Professors at The University of Nebraska Omaha for providing an outstanding, quality program that was responsive to the demands of working full time while trying to complete a rigorous degree. This experience was a journey that was well worth the taking. I gained so much from the process, learning experiences, and coursework—I can't wait to put this knowledge to work for the good of my community.

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Chapter 1

Early Health Matters

Healthy development and balanced nutrition in children's earliest years leads to enhanced readiness for kindergarten, higher school achievement, and ultimately, healthier adults. Sustainable development of our global society necessitates a proficient, consistent, healthy adult workforce (Babcock, 2014; Black & Dewey, 2014). Health problems that manifest during the early childhood years have a strong correlation to health problems in adulthood (Black & Dewey, 2014; Goldfeld et al., 2017; Minniss, Wardrope, Johnston, & Kendall, 2013; Woolfenden et al., 2013). Thus, the uncompromising growth of society depends on the positive trajectory of the development of our youngest citizens, beginning in the pre-natal period. "Healthy child development is the foundation for human capital and the basis for future community and economic development" (Goldfeld et al., 2017, p. 1). Implications related to health and nutrition during the earliest years are clear and essential for the formation of pathways for our youngest members of society to develop to their fullest potential (Richter et al., 2017). Home environments are the most influential spaces in a child's development (Babcock & Ruiz de Luzuriaga, 2016; Shonkoff & Fisher, 2013; Shonkoff & Phillips, 2000). Thus, support provided directly to those within the home environment, such as through parent and caregiver home visits in Head Start, has the potential to impact positive health and nutrition outcomes for young children. This study explored the relationship between caregiver beliefs in their ability to access and participate in the health care system and young children's health and nutrition outcomes.

Introduction of the Problem

Family and environmental implications in early childhood. The context of the immediate family has the most profound influence on the developing child, even more than childcare, preschool and home-based childcare settings (De Marco & Vernon-Feagans, 2013; Shonkoff & Fisher, 2013; Shonkoff & Phillips, 2000). Home environments that are responsive and enriching provide opportunities for children to explore and learn, and more than likely include adequate nutrition, preventive health care, and opportunities to engage in physical activities on a consistent basis. Families facing tremendous obstacles such as chronic stress, lack of health insurance or insurance that is limited in scope, poverty, food insecurity, lack of reliable transportation, or employment instability may have difficulty meeting the basic needs of their children (Bethell et al., 2017; Felitti et al., 1998). Furthermore, caregivers with these lived experiences may not perceive themselves as having the resolve, skills, or capacity to provide sustained responsive caregiving:

> Inequalities in their health and health-care access are intrinsically linked to the social determinants of health such as the safety and social capital of the community they live in, their family's socio-economic position and ethnicity and the impact these have on home environment and the choices their parents make (Woolfenden et al., 2013, p. E365).

Barriers to Access

Families need strong pathways to healthcare to foster development, but many face significant barriers to access thus limiting their ability to meet the health and nutrition

needs of their children (De Marco & Vernon-Feagans, 2013; Rossin-Slater, 2015; Woolfenden et al., 2013). Barriers to healthcare access exist in many ways, ranging from environmental to biological.

Environmental. Environmental barriers may include lack of transportation, inability to acquire reasonable housing costs, inability to secure employment that pays a reasonable wage, and lack of access to social services. In addition, the degree of exposure to violent crime, access to extended family members, and sense of community contribute to parental capacity to access health care (Bethell et al., 2017; De Marco & Vernon-Feagans, 2013).

Biological. Biological barriers include chronic or acute health conditions such as cerebral palsy or cystic fibrosis. Even in situations where children face biologically-based health concerns, there are inequities in health outcomes for children from vulnerable populations (Woolfenden et al., 2013).

Factors affecting health and development. Multiple determinants impact children's immediate health and can contribute to potential concerns with physical and mental health in adulthood (Ames, 2007; Thornton et al., 2016). Those determinants include food insecurity, access to health insurance, childhood obesity, poverty, level of parental education, and nutrition (Gundersen, 2015; Lee & Won, 2015; Minniss et al., 2013). Federally funded early childhood programs, to include Head Start and Early Head Start, were created to address the needs of families living in poverty (Lee, Zhai, Han, Brooks-Gunn, & Waldfogel, 2013). These programs have specific health and nutrition requirements that include monitoring compliance with physical and dental health exams

as well as specially trained staff who can guide families through often complex health care systems (U.S. Department of Health and Human Services, 2016).

Mitigation of factors in early childhood settings. Early childhood programs could have tremendous impact on children's dental and oral health, nutrition, physical health, as well as with parents by providing critical information and coaching related to healthy development (Ammerman et al., 2007; Shonkoff & Fisher, 2013; Skouteris et al., 2017). Despite the potential to play a significant role in the health and nutritional development of young children, most early childhood settings meet minimal health requirements under state law and have a primary emphasis on pre-academic skill development (U. S. Department of Health and Human Services, 2015).

Limited research exists on the health-related outcomes of Head Start programs, and focuses primarily on quantitative factors such as number of dental and medical appointments completed (Bryant et al., 2016; Lee & Won, 2015; Lee et al., 2013). Little is known about the confidence and competence of caregivers to actively engage in actions that change health trajectories for their children as a result of Head Start services, but promising research exists within the medical community suggesting caregiver self-efficacy is a key element to enhancing health and nutrition outcomes for young children (Harper et al., 2012; Lee & Won, 2015; Tataw & Bazargan-Hejazi, 2010).

Theoretical Framework

Nationally, 93.7% of children enrolled in Head Start in 2016-2017 had a consistent healthcare provider at the start of the year, 80.4% had a dental home, and 93.2% completed recommended well-child checks (U.S. Department of Health and Human Services, 2018). Caregivers are instrumental in regard to meeting those

requirements. However, we don't know what factors supported achievement of the previously mentioned statistics and precluded some families from meeting those requirements. The reason is because the National Services Snapshot does not provide information regarding caregiver competence and self-efficacy in regard to medical and nutrition outcomes for children (Bryant et al., 2016). Bandura's Social Cognitive Theory provides a framework for understanding the capacity of caregivers to manage different aspects of parenting and to impact their child's developmental trajectory (Bandura, Caprara, Barbaranelli, Regalia, & Scabini, 2011; Glidewell & Livert, 1992; Kohlhoff & Barnett, 2013).

Bandura's work on self-efficacy has been applied to situations where families are caring for chronically ill and medically fragile children. Studies show that individuals with higher self-efficacy are more likely to demonstrate persistence, healthy coping strategies, and experience more positive outcomes in regard to accessing medical care for their children (Finlayson, Siefert, Ismail, & Sohn, 2007; Pachter, Sheehan, & Cloutier, 2000; Pennell, Whittingham, Boyd, Sanders, & Colditz, 2012; Schwarzer & Warner, 2013; Tataw & Bazargan-Hejazi, 2010). Within this literature, Pennel et al. (2012) highlights Bandura's four main informational sources related to the development of self-efficacy: physiological and emotional arousal, verbal persuasion which includes coaching and feedback, vicarious experiences or modeling by others, and performance accomplishments such as past experience or task mastery. This study will apply a self-efficacy framework and use Bandura's four informational sources as a lens to analyze the different Head Start and Early Head Start services provided to families with varying characteristics in relation to health and nutrition outcomes.

Purpose

The purpose of this exploratory data analysis study was to explore the relationship between caregiver self-efficacy for families and health and nutrition outcomes for children enrolled in Head Start and Early Head Start in a Midwestern, suburban county.

Research Question

Main research question. What is the relationship of Head Start and Early Head Start services with caregiver self-efficacy for enrolled families, and how does caregiver self-efficacy relate to health and nutrition outcomes for children?

Sub-research question 1. How does self-efficacy vary according to family characteristics?

Sub-research question 2. How does caregiver self-efficacy vary based on intensity of Head Start or Early Head Start services provided?

Sub-research question 3. Is there agreement between the level of self-efficacy and the Tiered system that informs dosage of services?

Sub-research question 4. What is the relationship between self-efficacy, family demographics, and proficiency with health and nutrition requirements?

Operational Definitions

Self-efficacy. Albert Bandura first introduced the term "self-efficacy" through the framework of Social Cognitive Theory (Bandura, 1982). Self-efficacy for the purpose of this study is defined as a person's belief in their ability to perform a specific task in a successful manner (Holloway & Watson, 2002; Kohlhoff & Barnett, 2013; Pennell et al., 2012; Wittkowski, Garrett, Calam, & Weisberg, 2017).

Parental self-efficacy. Jones and Prinz (2005) introduced the term "Parental Self-Efficacy" as parental confidence in their skills as a caregiver, and how those skills translate to successful childrearing. Parental self-efficacy includes belief in one's parenting capabilities combined with their interpretation of capability based on the strength of those beliefs (Wittkowski et al., 2017). This study will focus specifically on parental self-efficacy in relation to shaping child trajectories in the areas of health and nutrition (Bandura et al., 2011).

Perceived self-efficacy. Bandura, as cited by Bohman (2014), defines self-efficacy as "beliefs in one's capabilities to organize and execute the courses of action required to produce given attainments" (p. 392).

Parental competence. Wittkowski (2017) and colleagues differentiate parental competence from parental self-efficacy. They conclude parental competence is a necessary component of parental self-efficacy, but that it is validated based on the perception of others as opposed to by the parent's own judgment.

Head Start. Head Start is a program administered by the Office of Head Start, within the Administration for Children and Families (ACF), U.S. Department of Health and Human Services (HHS). Head Start programs promote the school readiness of children ages birth through five from families living in poverty by facilitating their development across the following domains: social emotional, motor, cognitive, language and literacy, mathematics, health and nutrition, and family well-being. This study includes both Head Start (preschool age; ages 3-5) and Early Head Start children (prenatal through age 3).

Parent or caregiver. "Parent" or "Caregiver" includes adult(s) responsible for the care and well-being of the child. For purposes of this study, the "primary parent" as identified in enrollment paperwork was used to provide demographic data.

Poverty. According to the U.S. Census Bureau, the poverty threshold for a family of four in 2018 was based on an annual income of $25,100. This threshold was one prong of the criteria used to determine eligibility for Head Start. Eligible families fell at or below the poverty threshold, between 101%-130% of the poverty threshold, or over 130% of the poverty threshold.

Significance of the Study

Early Years Matter

Incontrovertible evidence exists regarding the importance of quality early childhood experiences, healthy environments, and secure, dependable, responsive relationships between young children and adults (Ferretti & Bub, 2017; Minniss et al., 2013; U.S. Department of Health and Human Services, 2015; Shonkoff & Fisher, 2013; Shonkoff & Phillips, 2000). The Committee on Integrating the Science of Early Childhood Development published in 2000 their landmark work *From Neurons to Neighborhoods: The Science of Early Childhood Development*, and describe the critical importance of the first years of a child's life as follows: "What happens during the first months and years of life matters a lot, not because this period of development provides an indelible blueprint for adult well-being, but because it sets either a sturdy or fragile stage for what follows" (Shonkoff & Phillips, 2000, p. 5)

Early childhood development, whether sturdy or fragile, results from an inextricable combination of multiple domains—motor, cognitive, social-emotional,

communication, self-help, and overall physical and mental health. But many early childhood programs omit health and nutrition and focus only on the more traditional pre-academic domains (U.S. Department of Health and Human Services, 2015). Early childhood health and nutrition have as much impact on future growth, development, and academic success as pre-academic skill development, and should be intentionally addressed during these formative years (Albino et al., 2017; Ames, 2007; Asarnow et al., 2015; Campbell et al., 2014; Goldfeld et al., 2017; Goodwin, 2010; Reynolds et al., 2014). Goldfeld et al. (2017) studied community-level effects on child development and concluded "investing in young children is important for the prevention of disease later in life and contributes to their full participation in society as healthy and productive adults" (p. 1).

Families who are at risk due to determinants such as poverty and limited knowledge of health care systems are particularly vulnerable in regard to fostering healthy development for their children (Babcock & Ruiz de Luzariaga, 2016). Rossin-Slater (2015) highlights the social impact of these vulnerable families by suggesting "the U.S. disadvantage in early-life health may have profound consequences not only for our well-being, but also for our economic growth and competitiveness" (p. 36). Families must be equipped with tools to persist in their efforts to access quality health care, attempt to seek preventive care for their child, and to maintain their efforts despite obstacles and roadblocks (Bandura et al., 2011; Finlayson et al., 2007; Kohlhoff & Barnett, 2013). Early childhood programs that foster and support high levels of caregiver self-efficacy in regard to caring for their child's health and nutrition needs may

subsequently equip parents with the skills they need to sustain healthy development well beyond the early childhood years (Gandoy-Crego et al., 2016; Wittkowski et al., 2017).

Methodology

This study utilized an exploratory data analysis design (Creswell & Creswell, 2018). Quantitative data was gathered to provide insight and understanding regarding the proposed research question(s).

Quantitative Design

Creswell and Creswell (2018) state survey designs provide a "description of trends, attitudes, and opinions of a population" (p. 147). This study utilized self-efficacy survey data collected directly from caregivers as a measure of their perceptions of their capacity to access health and nutrition services for their child. The survey method is preferred over an experimental design due to the fact all enrolled children and families are provided the services that are included as a variable in this study (e.g., home visits) and families can't be randomized to treatment vs. non-treatment groups. Furthermore, self-efficacy is linked to overall parental competence and resilience, which is critical to the long-term health of children, and one of the primary variables that will be measured in this study (Tataw & Bazargan-Hejazi, 2010). This study also analyzed data regarding dosage of Head Start services and measurable child health outcomes such as well-child health and dental checks, access to health and dental care, and current immunizations, in addition to family characteristics such as socio-economic status, ethnicity, and primary language spoken in the home.

Federally Funded Early Childhood Programs (Head Start)

Head Start was utilized as a guide for navigating the system of health and nutrition care in early childhood. Federally funded early childhood programs such as Head Start and Early Head Start have specific health and nutrition requirements that include monitoring compliance with physical and dental health exams as well as specially trained staff members who coach and guide families through often complex health care system (U.S. Department of Health and Human Services, 2016). In addition, these programs follow nutrition guidelines and provide consultative services from a registered dietitian for families who are dealing with childhood obesity, poor nutrition, malnutrition, and other related issues. But it is not sufficient to simply require completion of certain requirements (e.g., child well-checks, immunizations, dental screening) as caregivers may lack the knowledge, confidence, and perseverance to meet these requirements. Despite this speculation, limited research exists regarding the impact of family coaching and consultation on the capacity of the caregiver to meet basic health and nutrition requirements.

Delimitations

The study was conducted in one county in a Midwestern state that has a total of ninety-three counties. Participants represented families who met specific socio-economic requirements in order to have their child enrolled in a Federally-funded early childhood program, and therefore were generalizable to all early childhood programs or parents. The convenience sample of caregivers in a localized Head Start and Early Head Start program is a delimitation of this proposal.

Outline of the Study

Because healthy development in early childhood has such a tremendous impact on adult health and well-being, families need to have the confidence and competence to navigate complex health care systems. Early childhood services that emphasize the four major informational sources of self-efficacy (mastery of experience, vicarious experience, verbal persuasion, and physical/emotional arousal) can support the formation of self-efficacy in parents, thus impacting their capacity to access health care services for their child (Phan & Ngu, 2016). Chapter One introduced the problem, stated research questions, provided a framework for research, outlined the significance of the study, and briefly described the methodology. Chapter Two summarized a broad section of literature related to the study purpose and research questions. Chapter Three outlined the research design, study participants, and proposed a process for collecting data. Chapter Four outlined the results to include the summary of data that was collected, an analysis of data for each of the research questions, and a synthesis of the findings. Finally, Chapter Five provided a conclusion to the study, analysis of the findings, and recommendations for further study.

Chapter 2

Review of Literature

The purpose of this exploratory data analysis study was two-fold: to explore the impact of Head Start and Early Head Start services on the strength of caregiver self-efficacy, and to explore caregiver self-efficacy for families enrolled in Head Start and Early Head Start as it related to health and nutrition outcomes. Chapter Two includes a review of literature to support this study, the research questions, and theoretical framework. This chapter begins by describing the social determinants of health as well as a rationale for utilizing Head Start and Early Head Start as the setting for this study. Subsequent sections include a summary of findings related to health and nutrition outcomes in early childhood, as well as justification for Bandura's Social Cognitive Theory and four sources of self-efficacy as a framework for examining Head Start and Early Head Start services provided to enrolled families. From this point forward, the term "Head Start" refers to the Head Start program as a whole, including Head Start preschool-age services and Early Head Start services to pregnant women, infants, and toddlers. For purposes of this study, the term "early childhood" referred to children from birth through age five (or Kindergarten entry), although current practice is to define early childhood as the period from birth through Third grade.

Social Determinants of Health

Byhoff, Freund, and Garg (2017) define social determinants of health as "the conditions under which people are born, grow, live, work, and age" (p. 223). These determinants contribute to 70% of non-modifiable variation in health outcomes, making it

critically important to comprehensively address the systems within which children live and grow.

Early childhood settings and young children. Shonkoff and Phillips (2000) found that children in the United States spend measurable amounts of time in non-familial and out-of-home care. This translates to roughly 74% of children ages 3 to 6 years of age in some type of non-familial care, and 56% of those in a center-based childcare setting. Many children consume 50% to 100% of their recommended dietary allowances in child care settings and rely on unrelated adults to nurture and facilitate healthy nutrition attitudes, patterns of physical activity, and monitoring of physical health (Ammerman et al., 2007).

Despite the potential to play a significant role in the health and nutritional development of young children, most early childhood settings emphasize pre-academic skill development, and simply meet minimal health and nutrition requirements under state law (U. S. Department of Health and Human Services, 2015). A child's healthy development and nutritional intake has just as much impact on their future academic success as the development of pre-academic skills, yet few early childhood programs intentionally address these areas through comprehensive programming, monitoring, and parental coaching. Parental education coupled with intentional emphasis on health and nutrition in early childhood settings is necessary to prevent poor food choices and improve healthy trajectories for young children (Lee & Won, 2015). Early childhood programs could have tremendous impact on children's dental and oral health, nutrition, physical health, as well as with parents by providing critical information and coaching related to healthy development (Felitti et al., 1998; Shonkoff & Fisher, 2013).

Head Start, established in 1965, is an exception to the status quo that exists among a majority of early childhood programs in the United States. Head Start not only weaves intentional health and nutrition practices and expectations throughout its early intervention model, Head Start also provides family coaching and resources to support the healthy development of the whole child.

Head Start and Early Head Start

According to the U.S. Department of Health and Human Services Head Start Program Performance Standards (2016), Head Start and Early Head Start programs are required to collaborate with caregivers as partners in the "health and well-being of their children in a linguistically and culturally appropriate manner and communicate with parents about their child's health needs and development concerns in a timely and effective manner" (45 C.F.R. § 1302.41a). Given the implications of experiencing poverty as it relates to overall health and well-being, Head Start has responded to these implications with intentional regulations around child health and nutrition.

Description of services provided, family assessment, home visits. Head Start and Early Head Start programs are required to provide a minimum of two home visits and two parent-teacher conferences during the course of the program year for all children enrolled in a center-based program. Children enrolled in a home visiting program received a minimum of 22 group socialization activities and a minimum of 46 ninety-minute home visits over the course of the program year (U.S. Department of Health and Human Services, 2016).

Family strengths and needs were determined utilizing a family partnership process that included the identification of specific health and nutrition needs. This individualized

family partnership detailed activities to support family well-being, safety and health, as well as provisions for connecting families to community resources. There was also be a process in place to facilitate ongoing monitoring, allow for adjustment of the partnership as goals were met and barriers identified, and services intensified as needed based on the progress made by the family and their fluctuating needs. The family assessment and partnership process provided a mechanism for collaboration around health and nutrition goals and outcomes.

Impact of services on health and nutrition outcomes. U.S. Department of Health and Human Services Head Start Program Performance Standards (2016) require multiple actions related to health and nutrition outcomes: Staff are required to collaborate with families to identify a source of health care. This must be a family healthcare provider or pediatric specialist and cannot include an emergency room or urgent care. If the family doesn't have the capacity to identify a provider and access care, the Head Start staff member working with the family must assist families in applying for health care coverage and then identifying a primary provider to meet the needs of the child. Immunizations and preventive well-checks are also embedded within the Head Start framework. Within 90 days of the child attending a center-based program or receiving their first home visit, Head Start or Early Head Start staff must work with the family to identify documents indicating the child is up-to-date on immunizations, dental care, and overall health as documented by a recent physical. They are also required to obtain nutritional information by having the parent complete a nutrition questionnaire that is then reviewed by a dietitian. Again, if the family is not in compliance with the recommended schedule of immunizations, well-checks, or they have poor nutrition

indicators, the Head Start or Early Head Start staff are required to support the parents with making appointments and accessing the medical community. It is within these requirements that Head Start staff could focus on the four sources of self-efficacy through their advocacy work with the family (Shonkoff & Fisher, 2013; Tataw & Bazargan-Hejazi, 2010). Once this initial health and nutrition information is obtained, the Head Start staff are required to provide ongoing care and monitoring through periodic observations, conversations with families, and as appropriate, review of current medical records to ensure continued compliance with basic health care recommendations.

Requirements for oral health care monitoring are just as stringent in Head Start and Early Head Start as they are for general health and well-being (U.S. Department of Health and Human Services, 2016). According to Program Performance Standards (2016), staff are required to "facilitate and monitor necessary oral health preventive care, treatment and follow-up, including topical fluoride treatments" (45 C.F.R. § 1302.42c3). For communities lacking adequate fluoride in the water supply or for children with moderate to severe tooth decay, Head Start grantees are required to facilitate fluoride supplements and any other necessary treatment and preventive measures. If a child has a health problem or requires medication and the caregiver is not able to follow through, the Head Start grantee is required to collaborate with the caregiver to facilitate follow up assessment with the appropriate health care provider as well as to identify resources in order to obtain necessary medication.

The foundation and expectation for collaborative partnerships between Head Start staff and caregivers around health and nutrition is clearly detailed in Federal legislation. What is not clear is the process for achieving these requirements, or specific strategies for

utilizing home visits and other mechanisms of communication to build and develop the capacity of the caregiver to become confident in their ability to independently meet the health and nutrition needs of their child (Lee & Won, 2015). Shonkoff and Fisher (2013) propose a theory of change that focuses on the parent or caregiver due to their belief that "substantially better outcomes for vulnerable, young children could be achieved by greater attention to strengthening the resources and capacities of the adults who care for them" (p. 1).

Family and environmental implications in early childhood. Head Start was established in 1965 to promote school readiness for children in low-income families. Poverty is clearly the most important factor associated with overall health and access to preventive health care in early childhood (Ames, 2007; Babcock, 2014; Bitsko et al., 2016; Richter et al., 2017; Rossin-Slater, 2015; Woolfenden et al., 2013). Ames (2007) identifies specific barriers to child health that include lack of transportation, parental time constraints, lower level of parental education, and speaking a primary language other than English. Many of these factors are associated with poverty (Ames, 2007; De Marco & Vernon-Feagans, 2013). Families also struggle with the complexity of the health care system and many lack a regular source of care through a consistent medical care provider (Bitsko et al., 2016). This can be exacerbated by public versus private health insurance—families with access to private insurance tend to have increased access to primary and specialty care than those who rely on coverage through Medicaid or the State Children's Health Insurance Program (Ames, 2007).

Parents and caregivers faced with these barriers often experience greater personal stress as compared to individuals who have stable incomes, housing, transportation, and

access to health care. High, prolonged levels of parental stress have been linked to increased dental caries, the inability to support preventive health care for themselves and their children, and disrupted attachment (Felitti et al., 1998; Masterson & Sabbah, 2015; Morrison, Pikhart, Ruiz, & Goldblatt, 2014; Perry & Conners-Burrow, 2016). Early childhood programs that are connected with community resources and utilize coaching strategies to strengthen the parent's capacity to access resources for their child lead to healthier outcomes for children (Gortmaker et al., 2015; Minniss et al., 2013; Pérez-Escamilla, Cavallera, Tomlinson & Dua, 2017; Shonkoff & Fisher, 2013; Skouteris et al., 2017).

Health and Nutrition Issues Impacting Early Development

Head Start at its inception over fifty years ago intentionally included health and nutrition outcomes as part of their quest to prepare young vulnerable children for success in school. The body of literature establishing the impact of health and nutrition outcomes in early childhood is comprehensive not only in regard to adult health and well-being, but also in regard to the impact of health and nutrition outcomes on the economic growth of the United States.

Dental and oral health. Dental disease is preventable, but dental decay is a common, costly oral health problem among young children (Wang, Henderson, & Harniman, 2013). According to Nowak and Casamassimo (2015), tooth decay and cavities, scientifically referred to as dental caries, have declined in prevalence in older children and adults, thanks to advances such as fluoride treatments in routine dental care. The same advances when applied to the early childhood population have not resulted in a similar outcome. In fact, the prevalence of early childhood dental caries continues to be a

significant concern in regard to early physical health (Masterson & Sabbah, 2015; Nowak & Casamassimo, 2015). Children with untreated dental problems are more likely than children with good oral health to exhibit inconsistent school attendance, experience weight gain, and demonstrate learning and behavioral concerns (Culler et al., 2017; Nowak & Casamassimo, 2015). To further complicate this issue, children with diverse racial and ethnic backgrounds such as Latinx, American Indian, Alaska Native and African American populations have higher rates of poor oral health than children who are Caucasian (Albino et al., 2017).

Parental factors such as chronic stress, low educational attainment, oral health behavior, nutrition practices, and socioeconomic status influence children's oral health (Albino et al., 2017; Anaya-Morales, Villanueva-Vilchis, Aleksejūnienė, & Hernández, 2017; Masterson & Sabbah, 2015). According to Nowak and Casamassimo (2015), children experiencing poverty may face multiple barriers that inhibit good oral health to include limits to preventive care and individualized treatment options, limited access to providers, and a lack of parental knowledge about preventive oral care in the home.

Physical health. Children who experience good health during their early childhood years are more likely to grow to be healthy adults (Black & Dewey, 2014; Campbell et al., 2014; Goldfeld et al., 2017; Morrison et al., 2014; Rossin-Slater, 2015). Goldfeld et al. (2017) indicates healthy children are the cornerstone of sustainable communities because they are more likely to grow into healthy adults, encouraging them to invest early in the comprehensive development of their youngest constituents. Children today have access to nutrient-poor packaged foods, their active play has decreased considerably, and local communities are characterized by decreased play and

green spaces (Skouteris et al., 2017). An unfortunate by-product of these changes is the sharp increase in the number of very young children who are obese, as indicated by their body mass index (BMI) (Lee & Won, 2015; Skouteris et al., 2017). Obesity is one of the primary markers of healthy development and is linked to multiple health concerns in adulthood (Campbell et al., 2014; Gortmaker et al., 2015; Gundersen, 2015; Lee & Won, 2015).

In an effort to measure the benefit of high-quality early childhood programs on adult health, Campbell (2014) and her colleagues utilized current biomedical data collected on children who were randomly selected to participate in the Carolina Abecedarian Project (ABC) treatment group. The Carolina Abecedarian Project was conducted in the early 1970's in Chapel Hill North Carolina and is classified as a social experiment. The study measured the impact of a stimulating early childhood environment on the cognitive development of disadvantaged children by randomly assigning them to either a treatment or control group. The treatment group received comprehensive early intervention services as well as nutritious meals and preventive health care. What they discovered is that is that children who attended ABC in their first five years enjoyed better physical health in their mid-30s as demonstrated by lower prevalence of risk factors for cardiovascular/metabolic diseases, had higher rates of health insurance coverage, and had access to a hospital or physician's office care when sick than the group that did not receive comprehensive early intervention services (Campbell et al., 2014). Campbell and her colleagues also found no evidence of treatment effect from intervention that occurred past age five.

Nutrition. Nutritional environments in early childhood have a tremendous impact on the physical and dental health of young children (Ammerman et al., 2007). Gundersen (2015), found that families experiencing risk factors such as poverty, limited parental education and food insecurity may consume foods with lower nutritional values. Subsequently, foods loaded with sugar contribute to increased dental caries and cause weight gain in young children (Ammerman et al., 2007; Nowak & Casamassimo, 2015). Early childhood programs have a unique opportunity to mitigate nutrition deficits if they are required by state and local licensing regulations to meet U.S. Department of Agriculture (USDA) guidelines (U.S. Department of Health and Human Services, 2015). Programs such as the Child and Adult Care Food Program (CACFP), Supplemental Nutrition Assistance Program (SNAP), the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) and the National School Lunch Program (NSLP) have made an impact on food insecurity, but they have not been successful in regard to increasing the nutritional intake of families, particularly low-income families (Gundersen, 2015). In an effort to improve nutritional intake, legislation to restrict what can be purchased with SNAP benefits has actually backfired. Children most at-risk for nutritional deficits find themselves with families who are not participating in the program because of the restrictions (Gundersen, 2015).

Self-Efficacy

Mitigation of familial barriers that inhibit children's healthy development is a key focus of many early intervention programs and the purpose of this study (Lee et al., 2013; Peacock-Chambers, Martin, Necastro, Cabral, & Bair-Merritt, 2017; U.S. Department of Health and Human Services, 2016; Wittkowski, Dowling, & Smith, 2016). Self-efficacy,

as a predictor of actual competence or success with a task, is an important mitigating factor for families facing risk factors such as poverty, level of parental education, language other than English spoken in the home, and chronic stress (Finlayson et al., 2007; Pennell, Whittingham, Boyd, Sanders, & Coldtiz, 2012; Tataw & Bazargan-Hejazi, 2010). Bandura's Social Cognitive Theory provides the framework for understanding self-efficacy and the impact on caregiver behavior, particularly in regard to compliance with health care practices (Holloway & Watson, 2002; Pachter, Sheehan & Cloutier, 2000; Purssell & While, 2012). Efficacy beliefs are necessary for individuals to engage in behaviors and sustain efforts to achieve a specific task or series of tasks (Bohman et al., 2014). Specifically, efficacy beliefs impact parental health care utilization behaviors such as accessing quality health care, voicing concerns, identifying with a primary provider or consistent medical practice, and overall report of satisfaction with care (Reich et al., 2004; Tataw & Bazargan-Hejazi, 2010).

Early childhood programs such as Head Start that strive to support families in changing their child's developmental trajectory could consider strategies aimed at increasing parental self-efficacy, although surprisingly this potential strategy has not been explored extensively in the literature. Tataw and Bazargan-Hejazi (2010) conducted a study of the Health Services Utilization Improvement Model with 250 Head Start parents. This promising study did not identify self-efficacious behaviors as a variable, but rather focused on the impact of the relationship between parent and provider through the intentional teaching of preventive strategies for a variety of health conditions, providing specific instructions about finding a medical provider, assisting families with accessing health insurance, and providing basic patient rights. At the conclusion of a two-year

period, families who received direct instruction and coaching indicated they had greater understanding of a variety of health conditions that could impact their children, as well as reported greater satisfaction with their health care provider. Other limitations identified in the body of literature on self-efficacy include inconsistencies in regard to terminology, with many terms used interchangeably despite the fact they are different constructs. The following definitions will be utilized for purposes of this study:

Perceived self-efficacy. Bandura, as cited by Bohman (2014), defines self-efficacy as "beliefs in one's capabilities to organize and execute the courses of action required to produce given attainments" (p. 392). The terms self-efficacy and perceived self-efficacy will be used interchangeably in this study.

Parental self-efficacy. Parental self-efficacy includes belief in one's parenting capabilities combined with their interpretation of capability based on the strength of those beliefs (Wittkowski, Garrett, Calam, & Weisberg, 2017).

Parental competence. Wittkowski (2017) and colleagues differentiate parental competence from parental self-efficacy. They conclude parental competence is a necessary component of parental self-efficacy, but that it is validated based on the perception of others as opposed to by the parent's own judgment.

Self-efficacy is influenced by ecological factors, demographic factors such as socio-economic status and ethnicity, as well as characteristics of and interactions or experiences with one's child (Glatz & Buchanan, 2015). Personal self-efficacy beliefs can be influenced by changes in physiological/emotional arousal upon anticipation or attempting a task, verbal persuasion and feedback from credible sources, watching others perform the task, and previous experiences with the task (Pennell et al., 2012). In regard

to measuring self-efficacy, most studies utilize measures of self-report to determine the strength of belief regarding specific capabilities (Kohlhoff & Barnett, 2013). Self-efficacy measures can be both domain general, focusing on global characteristics such as "parenting skills," and domain specific, focusing on specific tasks such as those required for children with chronic health conditions (Pennell et al., 2012). However, Pennell et al. (2012) cautions against tools that use the concepts of parental self-efficacy, parental confidence, and parental self-esteem interchangeably as these are different constructs.

Bandura's four sources of self-efficacy. The ability of a parent or caregiver to cope with unexpected and challenging situations regarding their child's health, persist in their efforts to access quality health care for their child, and sustain a relationship with a primary care provider over time is correlated with their perceived self-efficacy. It is challenging enough for any parent to assimilate unexpected situations, but for families experiencing poverty it can be overwhelming (Okech, Howard, & Kim, 2013; Taylor & Conger, 2017). While they don't identify reasons why some parents living with financial constraints demonstrate higher levels of self-efficacy than others, Okech, Howard, and Kim (2013) concluded it is possible for some families to demonstrate resiliency in the face of adversity because of their self-efficacious beliefs. Okech and colleagues recommended linking families with formal and informal sources of support in an effort to build self-efficacy. It is not enough, however, to simply provide supports to families without intention. Services and supports provided to families in an effort to improve self-efficacy should focus on strategies that will strengthen their resolve and capacity to manage the needs of their child and their family (Harper et al., 2012; Reich et al., 2004). Bandura (1997) identified four sources through which individuals interpret information,

leading to the formation of self-efficacious beliefs that provide the foundation for intentional services for families.

Performance: personal mastery. The most powerful source of self-efficacy is the personal interpretation of past performance (Chen & Usher, 2013; Holloway & Watson, 2002). When parents master a particular skill or behavior, they are more likely to continue to engage in that behavior or persist when challenges arise (Reich, Bickman, & Heflinger, 2004). Finlayson et al. (2007) identified the relationship between parental knowledge and beliefs regarding oral healthcare practices and the oral hygiene of their children. Mothers who brushed their own teeth and were knowledgeable about oral hygiene needs had children who were more likely to brush on a consistent basis. In a study of parent caregiving during pediatric cancer treatments, Harper and her colleagues (2012) discovered parents with high procedure-specific self-efficacy reported lower negative affective reactions before and during their child's cancer-related procedures.

Parents can experience diminishing self-efficacy if they perceive they have been unsuccessful in the past, or if they believe they lack the skills necessary to manage unexpected or challenging situations. This can manifest itself in many ways in regard to health and nutrition. Parents may lack the experience of coordinating an appointment with a specialist then advocating for and negotiating with their supervisor for time off work, which then leads to a lack of follow-up for their child's specific health needs. Another example might include the lack of experience with purchasing fresh fruits and vegetables or preparing nutritionally healthy meals, thus parents resort to known eating patterns that include high levels of sugar and processed foods. Prior experiences of

parents can have profound impact on their behavior and their capacity to manage the needs of their child (Cunningham & Renk, 2018).

Vicarious experience: modeling. Parents gain information through observation of others, modeling the behavior of others, or comparing their capability to that of someone else (Phan & Ngu, 2016). Chen and Usher (2013) describe the power of vicarious experiences, particularly when people are not sure of the measure of proficiency. Individuals who are unclear as to what constitutes success in regard to a specific task or activity learn by watching the performance of others and comparing it to their own personal skills and abilities. Head Start provides a strong parenting network through local parent committees as well as Policy Council, which is a governing body comprised of parents and community members. These groups provide an avenue for parents to talk with one another, share information, and observe how other parents in similar life situations manage the health care needs of their family.

Verbal persuasion: feedback, encouragement. Verbal persuasion consists of taking of encouragement from others who are perceived as influential or knowledgeable (Maine, Dickson, Truesdale, & Brown, 2017). At the heart of verbal persuasion is a relationship between the individual perceived as knowledgeable, and the individual receiving the feedback. As cited in the work of Chen and Usher (2013), Bandura states negative or judgmental feedback is actually more effective at lowering self-efficacy than positive or encouraging feedback is at increasing self-efficacy. Home visits in early childhood settings provide the vehicle for interaction between caregivers and early childhood personnel. Those interactions can provide positive and encouraging feedback, or inadvertently be perceived by parents as judgmental and negative.

Physiological: emotional state. The state that an individual is in will influence how they evaluate their self-efficacy. Emotional responses and feelings (e.g., stress reactions and tension) can lead to perceptions of limited skills and knowledge, whereas positive emotions can lead to a sense of confidence (Phan & Ngu, 2016). Some individuals may actually be motivated by stress and heightened anxiety, but others may find it creates a feeling of helplessness and frustration (Chen & Usher, 2013). For families living in chronically stressful situations, their emotional state may preclude their capacity to view themselves as capable of meeting the basic needs of their children.

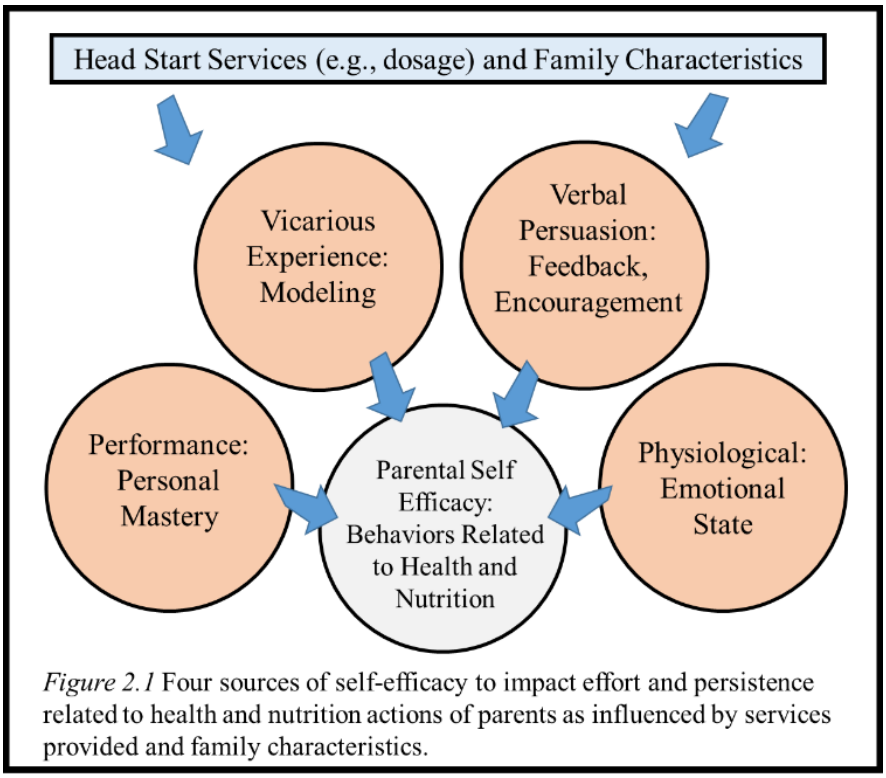

Figure 2.1 Four sources of self-efficacy to impact effort and persistence related to health and nutrition actions of parents as influenced by services provided and family characteristics.

These four sources of self-efficacy identify pathways for individuals to increase their beliefs about their ability to take action and persevere in specific situations. The goal of Head Start programs and services is to build parental capacity to meet the broad needs of their child in order for them to enter Kindergarten ready to learn. Head Start

does this through a variety of strategies and service-delivery models, with home visits as the cornerstone. Staff members providing home visits, if intentional, can utilize the four sources of self-efficacy to build the parent's belief that they can meet the needs of their child, regardless of the environmental or biological determinants that exist.

Head Start services are intended to set parents up for success through supportive and collaborative practices. These services vary in intensity based on the needs of the family and are responsive to wherever the family might be in regard to strength of self-efficacy beliefs when they enter the program. In regard to health and nutrition needs, Head Start intends to provide a responsive system of supports that may differ by dosage and intensity based on the needs of the family, with the goal of releasing responsibility to the family and fading out supports. The end result will be families who are confident and persistent in regard to locating healthcare providers, accessing preventive care, and ensuring their child has the follow up care needed to address health and nutrition issues as they arise.

Summary

Implications of poor oral and physical health are tremendous for young children and have far-reaching consequences. Children who experience social determinants of health such as poverty, limited access to health care, residing with a parent who has a limited level of education as well as a low-paying job, and who reside in stressful environments are at increased risk for developing poor health conditions in adulthood. Mitigation of these risk factors is possible, as demonstrated through a review of the literature. Second only to the family home, early childhood programs have the greatest potential to impact healthy developmental trajectories in young children which, in turn,

will support the child's readiness for school and long-term physical health. Promising practices include influencing and strengthening parental capacity to achieve proficiency with health and nutrition outcomes. Parents who believe they are capable of meeting the oral health, physical health, and nutritional needs of their children are more likely to persist with tasks related to proficiency in those areas. A review of the literature demonstrated parents with medically fragile children or children with chronic health conditions are more likely to comply with the child's specialized care when they have higher levels of self-efficacy. While self-efficacy research is limited in regard to the link between level of parental self-efficacy and compliance with routine health and dental care, studies from specialized medical care suggest this could be an avenue for early childhood programs to explore if they truly want to influence healthy developmental trajectories in young children.

Head Start is a harbinger among early childhood programs in regard to intentional focus on health and dental outcomes for young children. Head Start also provides a framework for supporting parents with accessing and maintaining health and dental care for their children. Despite this, few studies on parental self-efficacy as it relates to achieving health and dental outcomes have been conducted in Head Start programs. This study was embedded in research synthesized in Chapter 2 and focused on the relationship between self-efficacy and health and dental outcomes for young children within a Head Start setting.

Chapter 3

Social conditions will determine the degree of limitation on freedom or autonomy. The greater the limitation, the worse the health.

–Marmot, 2006, p. 2086

Health in early childhood is a strong predictor of health in adulthood (Goldfeld et al., 2017). Despite spending more than 20 years in the field of early childhood and public education, I did not think about that factor, nor did I pay attention to the health, nutrition, and dental outcomes of the children enrolled in the various school district-sponsored programs where I worked. I didn't give a passing thought due to the fact that once the requirements for proof of immunizations and a physical exam that had been completed within the six months prior to enrollment were met, those documents were filed away and never discussed again, unless the child had a chronic medical condition. Head Start forced me, thankfully, to pay attention to such things. When I think of all the families in my work prior to Head Start who faced issues such as chronic stress resulting from financial and other challenges, I realize that we missed a critical opportunity to find out from families whether or not they had access to ongoing preventive medical and dental care. We certainly made an impact on children's developmental trajectories by providing high quality, family-centered early intervention, but the intentional focus on health and dental outcomes could have enhanced those outcomes even further.

Head Start grantees are required to form a Health Services Advisory Committee to include community-based providers, parents, and others who have an interest in the health and nutrition outcomes for young children as described in Head Start Program Performance Standards 45 C.F.R. § 1302.40 (U. S. Department of Health and Human

Services, 2016). It was through this committee that my understanding of the critical link between health in early childhood and school readiness solidified. I then began to explore the health requirements for enrolled children and discovered at the time that several children were not fully immunized, and nearly half of the enrolled children did not have access to preventive dental care. I began to wonder what variables impacted families in regard to health and dental outcomes for their children. Knowing the families enrolled in Head Start may face multiple challenges to include falling at or below the Federal poverty level, I wondered what factors contributed to access to medical and dental care, and what role the Agency played in supporting families to achieve that access. Self-efficacy was a natural variable to explore, given the fact that many families appeared to have the determination and persistence to meet the health and dental needs of their children, and others appeared to lack the grit needed to persevere. I wondered how the Agency could leverage home visiting practices utilizing the sources of self-efficacy to increase the capacity of caregivers to manage health-related tasks (Bihlmaier & Schlarb, 2016). This research was designed to provide preliminary information related to those questions with the intent to inform future practice and increase intentionality in regard to the healthy development of enrolled children.

Profile of Data Collection and Analysis

The purpose of this study was to explore caregiver self-efficacy for families and health and nutrition outcomes for children enrolled in Head Start and Early Head Start programs as they related to the provision of Head Start services. Families eligible for Head Start must meet specific income criteria, in addition to other eligibility factors, to participate in the program. A majority of those families fall at or below the Federal

poverty line, placing with them the formidable task of caring for the health, nutrition, and general developmental needs of their children while simultaneously trying to "get ahead" by furthering their education in order to secure a higher paying job, obtaining affordable and safe housing, or securing safe and affordable child care. This can create an inordinate amount of stress, thus interfering with even the most seemingly simple tasks such as scheduling a well-baby check (Babcock, 2014). Parents with a high level self-efficacy are more likely to promote their child's health and well-being when faced with situations such as economic insecurity (Purssell & While, 2012). By gaining an understanding of the relationship between self-efficacy levels, intensity of services provided, and the capacity of parents who face economic challenges to engage in situation-specific behaviors regarding their child's health, a deeper analysis of these variables and their influence on healthy development will result.

An exploratory data analysis design was appropriate for this research as the intent was to understand what variables or factors influenced specific child health and dental outcomes (Creswell & Creswell, 2018). The factors in question included the level of intensity of family needs, level of caregiver self-efficacy, characteristics of the family, and the degree of proficiency with the completion of health and dental requirements. The design was appropriate for the study as quantitative data (e.g., intensity of services, proficiency with meeting health and nutrition requirements, family demographics, and self-efficacy survey results) was gathered and then integrated for overall analysis of the central research question. There were also differences among families such as level of parental education, degree of poverty, primary language spoken in the home, race, and ethnicity that were explored to determine any impact on the family's response to

intervention and their interpretation of their personal capacity to meet the health and dental needs of their child.

Procedures

The data source for this study included families and children enrolled in a Head Start program, as well as Family Advocates, Home Visitors, and Teachers employed by the Head Start agency in Nebraska.

Participant selection. This study utilized a convenience sample of enrolled families in a Head Start and Early Head Start program. Following Institutional Review Board (IRB) approval, the researcher notified staff about the research study both in writing and in person during a Family Services staff meeting in November, 2018 and shared that enrolled parents would be invited to participate in the research. Staff were not asked to assume responsibility for the self-efficacy scale and consent forms, but they were asked to remind parents about the option to participate during home visits and their ongoing contact with families. Each site was provided a large envelope to collect completed scales and consent forms, thus maintaining family privacy. Completed scales were then returned to the researcher in December, 2018.

Data access. The researcher had access to all current child, family and staff data (including anecdotal notes) through the agency electronic data management system. Quantitative data for this study was publically reported on the Program Information Report (PIR) and submitted to the Office of Head Start (OHS) on an annual basis (U.S. Department of Health and Human Services, 2018). However, data was reported in arrears so current data from the 2018-2019 school year would not be released to the public until the end of 2019. Specific written parental consent was obtained in order to

utilize current data from the Program Information Report (PIR) of the local Head Start agency. It should be noted that The Office of Head Start and the Department of Health and Human Services required the Institution IRB to be registered with the Office for Human Research Protections (OHRP) and for the approval to comply with the Code of Federal Regulations Title 45 (45 C.F.R. § 46). The University of Nebraska Medical Center has an active registration with OHRP according to the OHRP website for IRB #1, #2, #3, and #4.

Family Demographics

Description of county residents and agency-wide demographics. According to First Five Nebraska (2019), Participants came from a county that covers 248 square miles in Nebraska and a population of 172,460 people. Of those, 7.6% are under the age of five. A majority of the residents are White (82%). The remainder of the population included Hispanic (9%), Black (4%) two or more races (3%) and "other" (2%). In regard to children under the age of five, the demographics were as follows: White (74%), Hispanic (13%), Black (4%) two or more races (6%) and "other" (2%).

A majority of the adults in the County had at least a high school degree (95.2%) and over one-third of the population had a Bachelor's degree or higher (37.2%). Most family members eligible to participate in the study had an Associate's Degree or some college courses (41%), several had advanced degrees (16%) or high school diplomas (29%), and some lacked a high school diploma (14%). County residents averaged a household size of 3.3 with 24.6% of families with children under the age of 18 comprised of a female head of household and no male figure present in the home.

The Head Start Agency represented in the study had approximately 3.4% of enrolled children in foster care placements, based on the current Program Information Report (PIR). At the time of the study, the Head Start Agency did not have any families experiencing homelessness, although several families were experiencing some degree of need in regard to affordable housing options. Among enrolled children, 51% lived in a two-parent home, and 48% lived in a single-parent home. The remaining children resided in a foster care placement.

County residents have a median income of $89,500. The poverty rate (6.2%) and the unemployment rate are low (3.7%). Of the two-parent families eligible to participate in this study, a majority had at least one parent working outside the home. The number of parents working outside the home was lower in single-parent households. A small portion of the County fell below the state income average and included a higher percentage of individuals and families living in poverty.

The Head Start Agency, in contrast, served 221 children and of those 221 children, 67% were living at or below the federal poverty line, and 13% received some form of public assistance.

According to the most recent Head Start Program Information Report (PIR), a majority (86%) of enrolled children had health insurance. Most (82%) utilized Medicaid, and some (10%) accessed private insurance. The remainder of children utilized other sources for health care, and 14% of enrolled children did not have health insurance. Finally, 7% of adults with children enrolled in Head Start report they received mental health services.

Description of study participants. Individuals who consented to participate included parents and caregivers of children enrolled in the Head Start and Early Head Start program. Sixty-eight families provided written consent to participate in the research study (three participants were not included due to lack of complete self-efficacy and family assessment data and one family that declined to participate). Of those families, a majority of respondents (55%) were White. The remainder of the participants included Black (24%), Latinx (14%), and Asian (4%) families, and the remaining participants (3%) did not specify their race.

Families who consented to participate in the study had a high school diploma or General Education Development (GED) equivalent (36%), some had associates degrees (6%) and several had bachelor's degrees (40%). A small number of participants did not have a high school diploma or equivalent (9%). Most of the families who consented to participate fell at or below the Federal poverty level, which at the time of this study and in accordance with the Department of Health and Human Services guidelines for 2018, was $25,100 for a family of four (78%). Some families (19%) fell between 101-130% and some (3%) were considered to be over income (greater than 130% of the Federal poverty level).

Additionally, families who consented to participate in the study spoke English (78%), French (4%), Spanish (13%), Chinese (1%), Swahili (3%) and Nepalese (1%). While the survey was translated into Spanish and French, all surveys returned were in English.

Data Collection

Data regarding home visits and family partnership agreements was collected through ChildPlus which is an online data management system. ChildPlus is a comprehensive system designed to collect, analyze, and contribute toward ongoing monitoring and continuous improvement. It is specifically intended to help Head Start agencies meet and exceed Head Start Program Performance Standards. Staff who provided home visits and have regular communication with families entered anecdotal notes into the electronic database following each home visit. They also received training from the Researcher in November 2018 on Bandura's Four Sources of Self-Efficacy (See Appendix A). The Head Start Parent, Family, and Community Engagement Framework (PFCE) as obtained from the Early Childhood Learning and Knowledge Center (2019) was used to highlight family outcomes, which are the same as those on the family assessment that determine the tier of intensity the family may need (See Figure 3.1). Family Advocates and Home Visitors explored the sources of self-efficacy as well as research regarding the role self-efficacy plays in caregiver capacity to make decisions and engage in task-oriented behaviors. Finally, they discussed ways to cultivate the four sources of self-efficacy through their contacts with families and caregivers.

Family characteristics such as rate of poverty, education level(s) of the primary parent, race, ethnicity, and primary language spoken in the home were collected through the online data management system and included in the final analysis. Race was self-identified by the parent completing the enrollment form, and represented their identification with one or more social groups such as White, Black, Asian, Other Pacific Islander, or some other race. Families may self-identify with more than one race.

Ethnicity determined whether a family is of Hispanic origin or not. Ethnicity was also self-reported by the parent at the time of enrollment.

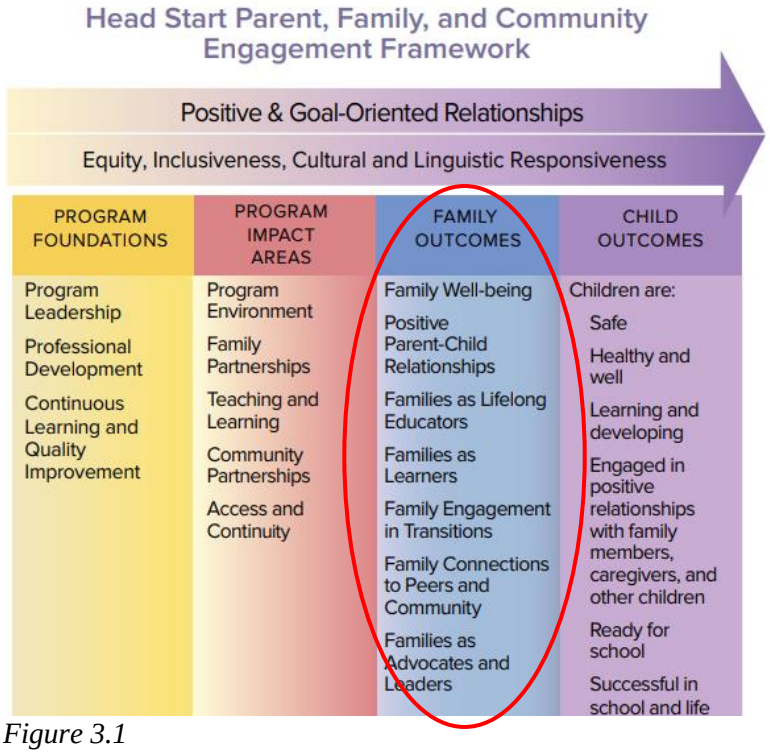

Figure 3.1

Description of Instruments

Self-efficacy. The Vanderbilt Mental Health Services Efficacy Questionnaire (MHSE) was developed in 1991 by researchers at Peabody College of Vanderbilt University (Reich, Bickman, & Heflinger, 2004). The scale was developed specifically for use with the Vanderbilt Family Empowerment Project (FEP) which focused on the promotion of caregiver involvement in their child's mental health services. The MHSE was modified to reflect general health and dental care and utilized to gather information regarding parental self-efficacy. The authors of the scale, Dr. Leonard Bickman and Dr. Stephanie Reich, gave permission for the scale to be modified and used in this research

study (See Appendix B). According to Reich, Bickman, and Heflinger (2004), the 25-item Likert scale demonstrated adequate reliability at the time of the initial use of the questionnaire (Cronbach's $\alpha = .89$, split-half reliability = .85, 3-month test-retest = .76).

For purposes of this study, the scale was modified from 25 to 35 Likert style questions (See Appendix C). Of those 35 questions, 53% focused on parental self-efficacy regarding medical care for their child, 45% focused on dental care, and 2% were related to parental self-efficacy regarding general health care. Within the 35 questions, 47% were phrased in a positive manner (e.g., "I have made an important difference in the dental treatment my child received") and 53% were reversely-worded (e.g., "I feel overwhelmed when asked to do things about my child's health care"). Finally, in regard to Bandura's four sources of self-efficacy, the scale contained 20 questions (57%) designed to focus on performance accomplishments, 11 questions (32%) focused on physiological and emotional arousal, and 4 questions (11%) focused on vicarious experiences or modeling. Internal consistency for the revised self-efficacy scale was high (Cronbach's $\alpha = .91$). Internal consistency for the items related to medical care (Cronbach's $\alpha = .86$) and dental care (Cronbach's $\alpha = .81$) was acceptable as the minimum level for internal consistency is .70 (Aumeboonsuke, 2017).

Self-Efficacy Scale Administration. The self-efficacy scale was delivered in November, 2018 to all enrolled families through their child's primary provider which would have been a Home Visitor or classroom teacher. The scale was available in English, Spanish, and French. A reminder e-mail and text message regarding completion of the self-efficacy scale was sent to all enrolled families approximately two weeks after the initial distribution with a request to return the scale prior to the two-week winter

break. A second copy of the scale and consent form was sent home in January, 2019 with all enrolled families who did not return the original. The researcher explained the purpose of the study to Family Advocates, Teachers, and Home Visitors, and they were encouraged to ask the families they served if they had questions or needed more information regarding participation in the research study.

Validity. The Vanderbilt Mental Health Services Efficacy Questionnaire was validated under its original form by the original authors. Construct validity, internal validity, and external validity cannot be transferred to the modified self-efficacy scale that was used in this study.

Family assessment: Tiers of intensity of intervention. According to Head Start Program Performance Standards, Head Start agencies are called to develop and implement a family partnership process and related activities that:

> Support family well-being, including family safety, health, and economic stability, to support child learning and development, to provide, if applicable, services and supports for children with disabilities, and to foster parental confidence and skills that promote the early learning and development of their children. The process must be initiated as early in the program year as possible and continue for as long as the family participates in the program, based on parent interest and need. (45 C.F.R. § 1302.52)

Head Start programs must develop and implement effective family assessment procedures designed to identify family strengths and needs as well as family goals and aspirations. The identified strengths and needs must be related to the following family engagement outcomes: Family well-being, parent-child relationships, families as lifelong

educators, families as learners, family engagement in transitions, family connections to peers and the local community, and families as advocates and learners.

The Head Start agency that participated in this research study established a family assessment process built around those specific outcomes. Each outcome had a series of actions that contributed toward achievement of the desired end point. Examples of those actions included Children's Health—establishing a medical and dental home/insurance coverage and Families as Lifelong Educators—getting my child to school on time. Family Advocates and Home Visitors worked with families upon enrollment into the program to complete the family assessment process utilizing the Family Strength and Need Assessment (See Appendix D). Families were then asked to rate their perceived capacity to complete specific tasks as either an area of need, area that is improving, area that is a strength, or an area that is not applicable to their current family situation. From there, Family Advocates worked collaboratively with the parent or caregiver to develop a Family Partnership Agreement. The Family Advocate and the parent or caregiver subsequently engaged in a formative process of reviewing progress, revising goals and actions, evaluating and tracking whether the identified needs and goals were met, as well as adjusting strategies as necessary.

The Head Start agency staff (Family Advocates) met in the spring of 2018 to review outcome data from previous Family Assessment and Family Partnership Agreements. Each staff member utilized the list of family needs as outlined in Program Performance Standards and rank-ordered them from most intensive (i.e., requiring a minimum of weekly contacts from the Family Advocate as well as time outside of direct contact with the family to coordinate community resources) to least intensive (i.e., need

could be addressed with a brief phone call or printed resource such as a handout on toilet-training strategies). Consensus regarding the level of intensity was achieved through review of ChildPlus data, number of home visits and parent contacts, and family progress toward achieving outcomes established in the Family Partnership Agreement. The Family Strength and Need Assessment was revised to reflect the current format utilized for this study. Families who report a need (3 points) or that they are improving (2 points) in the areas of Family Well-Being, Positive Parent-Child Relationships, and Families as Lifelong Educators fall into the most intensive level of Home Visiting and Family Advocacy services (Tier 3). Families who report a need or that they are improving in the areas of Families as Learners, Family Engagement in Transitions, Family Connections to Peers and the Local Community generally require less intensive services (Tier 2). Finally, the area of Families as Advocates and Leaders is generally the least intensive in regard to Home Visiting and Family Advocacy services (Tier 1). The area of Special Needs/Family Support was placed in Tier 1 by the staff due to the fact it didn't apply to all families, but further consideration will be given to that assigned level of intensity following the conclusion of the study. Families who have children with significant medical or developmental needs may require more intensive support (Harper et al., 2013).

The tiered system not only served as the foundation for measuring intensity of services for purposes of this study, it also met the requirement outlined in Program Performance Standards regarding the assignment of staff and resources. Program Performance Standards call for assigning staff and resources based on the urgency and intensity of identified family needs and goals (U.S. Department of Health and Human

Services, 2016). Staffing allocation is based on the intensity of the needs of families served.

Family assessment administration. Family assessments and the development of partnership agreements were completed by Home Visitors or Family Advocates within 60 days of enrollment into the program. The results were then entered into ChildPlus. Partnership Agreements are subsequently reviewed a minimum of every six months or as determined by changing family situations. Movement among tiers of intensity is fluid and depends on the current family situation. Data from the Family Strengths and Need Assessment was gathered in January, 2019 and provided a snapshot of Tiers of intensity for that moment in time. Any changes in intensity of services from point of enrollment to January, 2019 were not identified for purposes of this study.

Internal Consistency. Internal consistency for the Family Strength and Need Assessment was moderately high (Cronbach's $\alpha = .82$) suggesting the assessment tool is measuring consistent responses across respondents.

Analysis and Strength of Claims Made

The power of the research in this study was demonstrated by analyzing each data source and independently validating each source. Relationships within the data were identified, and the overlapping areas were integrated to check the accuracy of each data source. In instances where the findings didn't overlap, additional analysis occurred and was probed further using descriptive statistics. This analysis was aligned with specific research questions.

Given the substantial importance of healthy development in early childhood and influence of social determinants of health on developmental outcomes, this study utilized

timely completion of specific health and dental outcomes as a way to determine parental proficiency. Because the researcher wanted to identify potential parent behaviors that influence proficiency with health and dental outcomes, parental self-efficacy was measured as a variable. Self-efficacy is typically measured as a domain-specific characteristic and is hypothesized to influence task effort and persistence (Bihlmaier & Schlarb, 2016; Luszczynska & Urte, 2005). With these two factors as the underlying premise, the researcher formulated a main research question and five sub-research questions.

Main research question. The main research question was focused on the relationship of Head Start and Early Head Start services with caregiver self-efficacy for enrolled families. Specifically, the researcher was interested in the relationship between caregiver self-efficacy and health and nutrition outcomes for children as outlined in Figure 3.2. This was answered through analysis of sub-research questions.

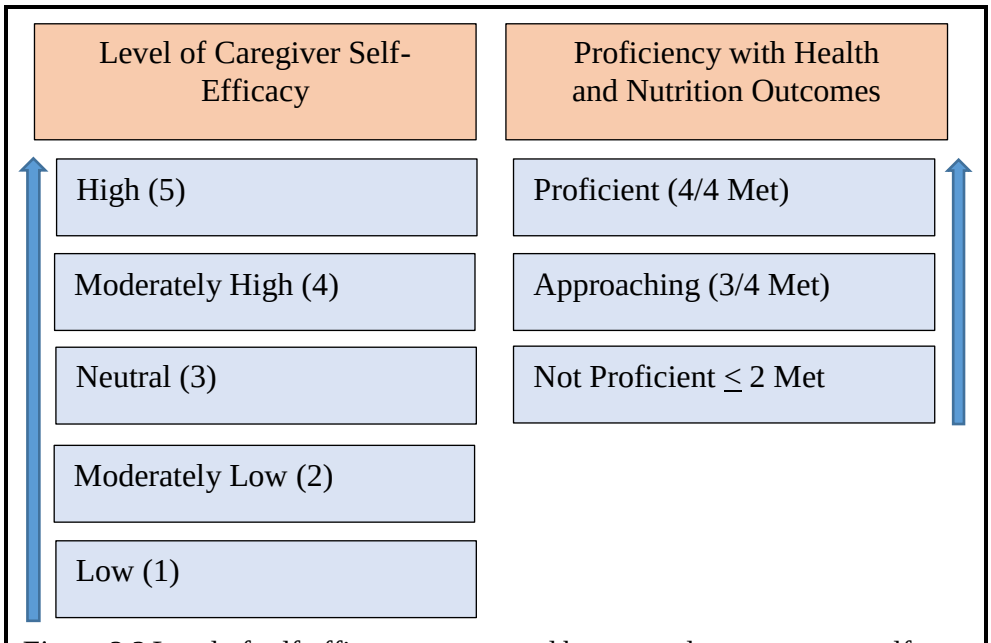

Figure 3.2 Level of self-efficacy as measured by parental response on a self-efficacy scale. Proficiency as measured by evidence of the following outcomes: medical and dental home, current immunizations, and a current dental exam.

Sub-research question 1. The first sub-research question addressed the level of parental self-efficacy across specific family characteristics/demographics. Those characteristics included level of primary parent education, socio-economic level, race, and language spoken in the home. Self-efficacy was measured as High, Moderately High, Neutral, Moderately Low and Low. The score distribution of the self-efficacy questionnaire was analyzed using measures of central tendency. Additionally, analysis regarding differences in mean scores for family demographics across levels of self-efficacy was conducted using a chi-square test.

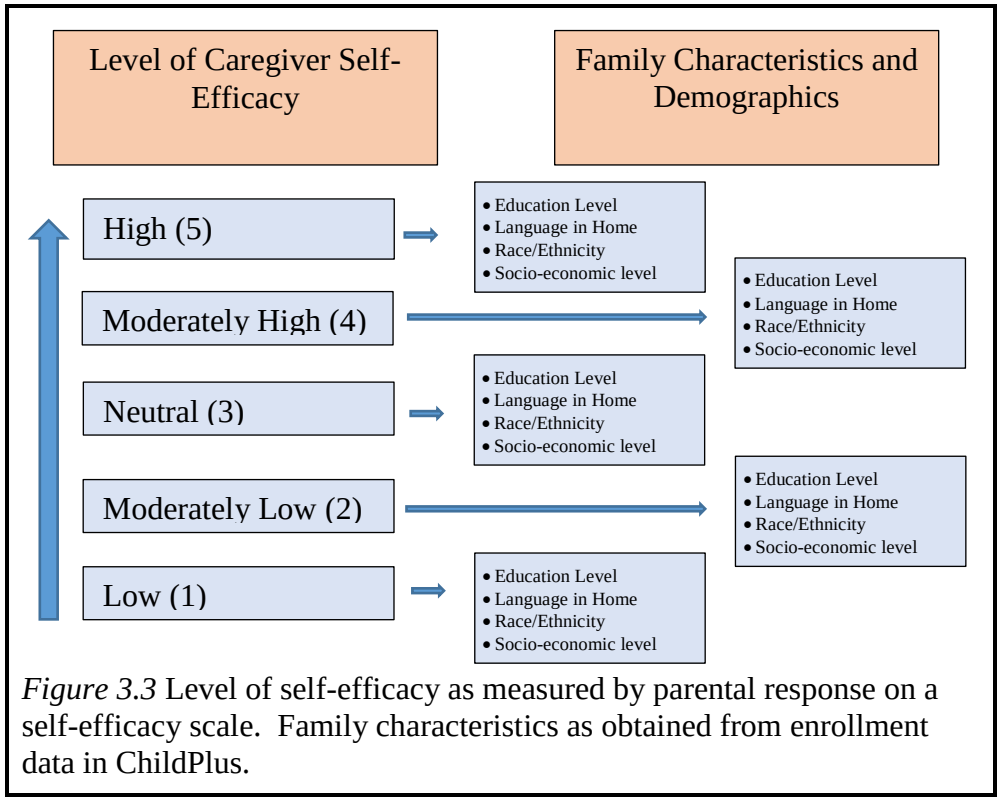

Figure 3.3 Level of self-efficacy as measured by parental response on a self-efficacy scale. Family characteristics as obtained from enrollment data in ChildPlus.

Sub-research question 2. The second sub-research question was interested in caregiver self-efficacy as it relates to intensity of Head Start or Early Head Start services provided (Tier I, Tier II, Tier III). Data was first analyzed using the Pearson Product Moment Correlation to determine the degree to which these variables were co-related

(Abrami, Cholmsky & Gordon, 2001). Data was then analyzed using a within-groups design or repeated measures design, due to the fact the same respondents were used for each variable (Kiess & Green, 2010). Self-efficacy was measured in the same manner as described in sub-research question one. Intensity of Head Start services was measured using the results of the Family Assessment. Tier I consisted of 50% or more of items rated as a Strength, Tier II consisted of 50% or more of items rated as Improving, and Tier III consisted of 50% or more of items rated as a Need.

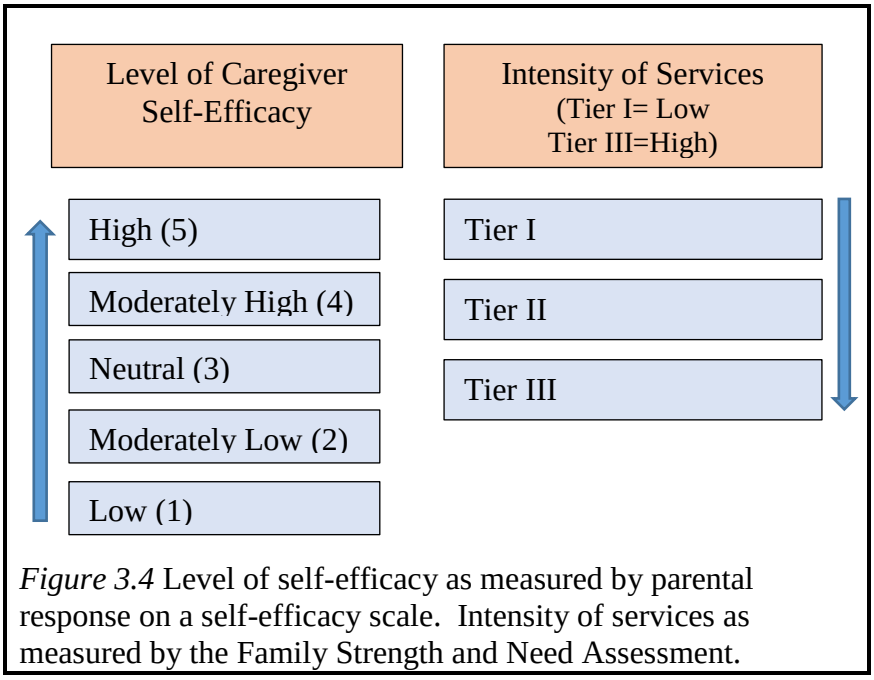

Figure 3.4 Level of self-efficacy as measured by parental response on a self-efficacy scale. Intensity of services as measured by the Family Strength and Need Assessment.

Sub-research question 3. The third sub-research question explored the degree of agreement between the level of self-efficacy and Tiered system of intensity of services. Data was first analyzed using the Pearson Product Moment Correlation to determine the degree to which these variables were co-related (Abrami, Cholmsky & Gordon, 2001). A chi-square test was conducted to test the relationship between intensity (Tier I, Tier II, and Tier III) and level of self-efficacy.

Sub-research question 4. Finally, the fourth sub-research question explored the relationship between self-efficacy, family demographics, and proficiency with health and nutrition requirements. Data was first analyzed using the Pearson Product Moment Correlation to determine the degree to which these variables were co-related (Abrami, Cholmsky & Gordon, 2001). Data was then analyzed using a within-groups design or repeated measures design, due to the fact the same respondents were used for each variable (Kiess & Green, 2010). Additional exploration of the difference in level of proficiency according to the race of the primary parent was conducted using a t-test.

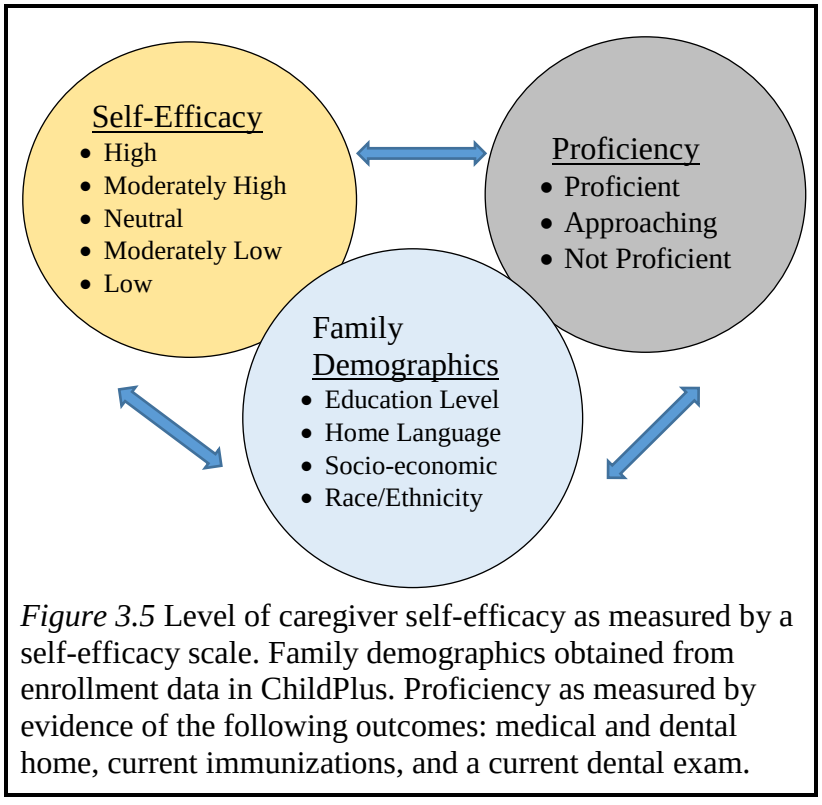

Figure 3.5 Level of caregiver self-efficacy as measured by a self-efficacy scale. Family demographics obtained from enrollment data in ChildPlus. Proficiency as measured by evidence of the following outcomes: medical and dental home, current immunizations, and a current dental exam.

Organization of the Study and Future Steps

This single group, exploratory data analysis study focused on the perceptions of self-efficacy of parents at the start of the research period, identified the intensity of services provided to the family based on the results of a family assessment, and

calculated the proficiency of the parents to meet four specific health and dental outcomes. Parents clearly played a pivotal role in this study with a majority of data reflecting parent perceptions or behaviors. The rationale behind this is supported by the Department of Health and Human Services (HHS), administrator of Head Start funding, with their recognition of the effectiveness of programs that build the capacity of parents. Shonkoff and Fisher (2013), authors of a recent HHS Public Access document, concluded the following:

> Substantially better outcomes for vulnerable, young children could be achieved by greater attention to strengthening the resources and capabilities of the adults who care for them rather than by continuing to focus primarily on the provision of child-focused enrichment, parenting education, and informal support (p. 1).

Thus, the impetus behind this study was to determine pathways that allowed for "greater attention" and focus on strategies and supports for parents and caregivers, as well as to discover more about variables that undermine those pathways.

The organization of this study as described in this chapter is straightforward. Following the provision of written consent, families completed the Health and Dental Services Efficacy Questionnaire. Throughout the study period, Family Advocates and Teachers provided home visits which had the potential to serve as a catalyst for building the self-efficacy of caregivers. Staff had the capacity to document anecdotal notes in the agency data system (ChildPlus), although most documented only that the visit occurred as well as the family partnership outcome(s) that were addressed, and did not include a narrative description of the conversation with the caregiver.

Demographic data, dental and health proficiency data, and the level of intensity of services was gathered on the same date in December, 2018. These data provide a snapshot of that particular moment in time, and do not reflect any changes over time that may have occurred, particularly in the area of family outcomes and intensity of services. Family Advocates and Home Visitors provided verbal anecdotal information regarding topics of focus during home visits as well as their experience working with families on health and dental outcomes. That information will be integrated into the analysis in Chapter 5.

Chapter Four

Analysis and Findings

This chapter begins with an overview of the demographics of the participants, followed by data analysis of the results of the self-efficacy scale, level of proficiency with health and dental outcomes, and intensity of services provided to families who consented to participate. The interaction of the data and relationships among variables was analyzed in accordance with the sub-research questions following the general overview of individual variable data. The chapter will conclude by connecting the results back to the main research question, which is interested in the relationship between Head Start services and level of caregiver self-efficacy in regard to proficiency with required health and dental outcomes for children.

Response Rate

The Agency utilized for this research study had the capacity to enroll 221 children. At the time of this research, the Agency was at 100% capacity. All families received written information about the study immediately following IRB approval, and were provided an opportunity to participate. Sixty-seven families of enrolled children provided written consent to participate in the study and returned self-efficacy questionnaires out of the total population of 221 families, which resulted in a 30% response rate. Two families lacked family assessment data, in addition to one of the two submitting a self-efficacy scale that was missing 11 responses. Therefore, their data was not included in the analysis, which brought the total number of participants to sixty-five. Another family returned their consent form and declined consent to participate. That scale was not included in the total response rate.

Self-Efficacy Scale Version (English, Spanish, French)

The Health and Dental Services Efficacy Questionnaire was translated into Spanish and French and those translated documents were provided to families who indicated, based on review of ChildPlus data, that Spanish or French was their primary/preferred language. Out of the 67 scales that were returned, all were completed in English.

Demographics of Study Participants

Demographic data of caregivers who consented to participate was gathered through ChildPlus. Table 4.1 represents the race, socio-economic level, primary language spoken in the home, education level of the primary adult, as well as whether the family had a child enrolled in Home Visiting (no center-based services), Early Head Start center-based or Head Start center-based. A majority of the families had children enrolled in a center-based classroom. Those classrooms required a minimum of two home visits per program year, but they did not require a specific duration for those visits. In contrast, the Home Visiting families received weekly home visits at a minimum of 90 minutes per home visit. Most parents had either a high school diploma/GED or college degree. The study participants represented similar patterns of diversity when compared with the Agency as a whole. For example, according to the most current Program Information Report (2017-2018), 32% of parents indicated their race to be Black, 60% of parents indicated their race to be White, compared with 24% Black and 55% White reported by study participants. Ethnicity was reported as 31% Hispanic or Latinx Origin Agency-wide, and 14% of participants reported they were of Hispanic or Latinx origin. On the

Program Information Report (PIR), 86% of families speak English as their primary language compared with 78% of study participants.

Table 4.1
Family Demographics

Program	*n*	Percentage
Head Start	42	65
Early Head Start	20	30
Home Visiting	3	5
Level of primary parent education	***n***	**Percentage**
No High School/GED	6	9
High School/GED	24	37
Associates Degree	3	5
Some College	6	9
College Degree	26	40
Graduate Degree	0	0
Socio-economic level	***n***	**Percentage**
Over Income	2	3
101%-130% of poverty line	12	18
0%-100% of poverty line	51	79
Race/Ethnicity	***n***	**Percentage**
Black	16	25
White	35	54
Latinx	9	14
Asian	3	5
Not Specified	2	2
Primary Language	***n***	**Percentage**
French	3	5
English	50	77
Spanish	8	12
Chinese	1	2
Swahili	2	3
Nepalese	1	2

Self-Efficacy Scale Analysis

The main research question as well as sub-research questions identified the level of caregiver self-efficacy as a variable. Self-efficacy was measured using a 35-question scale completed by the parent or caregiver (The Health and Dental Services Efficacy Questionnaire). The scale was divided into questions related to medical care (18 questions) and questions related to dental care (15 questions) as well as questions related to general health care (2 questions). In order to measure the internal consistency of both the medical and dental questions, Cronbach's alpha was completed on questions related to medical care (Cronbach's $\alpha = .86$) and dental care (Cronbach's $\alpha = .81$). Participants responded utilizing a 5-point Likert scale with responses ranging from Strongly Agree (5) to Strongly Disagree (1). Participants could range from Low levels of self-efficacy (1) to High levels (5) in accordance with their questionnaire responses. Table 4.2 summarizes the mean and standard deviation for questions related to dental care and Table 4.3 includes the same information for questions related to medical care.

Table 4.2

Means and Standard Deviations for the Health and Dental Services Efficacy Questionnaire—Dental (15 questions)

Parent/caregiver belief in their ability…	*M*	*SD*
to change what is done by people who provide dental care to my child	3.71	1.17
to help dentists in treating my child	4.16	.96
to tell dental providers how my child and family should be treated	4.07	.89
to get what my child needed from dental care services, no matter what I have done	4.54	.72

Parent/caregiver belief in their ability…	*M*	*SD*
when something goes wrong with my child's dental care, there is little I can do to affect services	4.22	.92
to work with dentists to help my child get the best possible care	4.41	.66
to look forward to participating actively in my child's dental care	4.53	.59
to feel overwhelmed when asked to do things about my child's dental care	4.45	.72
dealing with dentists turned out to be easier than I thought it would	4.15	.70
to know what is going to happen with my child's dental treatment will happen, no matter what I do	3.75	1.31
other parents taught me how to get what my child needs from dental services	3.39	1.20
to think it is hopeless to try to deal with dental services	4.52	.77
to know I made an important difference in the dental treatment my child has received	3.99	.75
I don't know how to get information on the best dental services for my child	4.32	.79
I have seen other parents deal effectively with dental services for their child	3.72	1.0

Table 4.3

Means and Standard Deviations for the Health and Dental Services Efficacy Questionnaire—Medical (18 questions)

Parent/caregiver belief in their ability…	*M*	*SD*
to do what needs to be done to work with my child's health care services	4.57	.53
to think what goes on in health care is just too complicated for me to deal with	4.35	.85
to change what is done by the people who provide health care to my child	4.15	.88
to know it is hopeless to try to deal with health care services	4.31	.79
to know my skills in dealing with health care will help me to change things that might be wrong with my child's treatment	4.17	.83
to know no matter how hard I try, my child won't get the health care they need	4.63	.60
to change the course of my child's health care treatment by making myself heard	4.29	.65
with all the things I have to do, it would not be possible for me to be involved in my child's medical treatment	4.45	.96
to be involved in the plan for my child's medical care	4.72	.45
I hardly ever get what my child needed from health care services, no matter what I have done	4.52	.77
to know I made an important difference in the health care treatment my child has received	4.04	.94
to get information on the best health care services for my child	4.24	.91

Parent/caregiver belief in their ability…	*M*	*SD*
to think what is going to happen with my child's health care treatment will happen, no matter what I do	4.04	1.12
to know I have seen other parents deal effectively with health services for their child	4.0	.78
to think no matter what others say or do, I do not think I should be involved in my child's medical treatment	4.69	.66
to know other parents have taught me how to get what my child needs from health care services	3.42	1.24
I feel overwhelmed when asked to do things about my child's medical care	4.48	.70
I feel overwhelmed when asked to do things about my child's health care	4.52	.66

In order to further analyze the score distribution of the self-efficacy questionnaire, measures of central tendency were gathered on dental and medical questions regarding positive statements of belief (e.g., Question 6 "I believe that I can help dentists in treating my child" and Question 23 "I have made an important difference in the health care treatment my child has received") as well as reversely-worded statements of belief (e.g., Question 31 "I don't know how to get information on the best dental services for my child" and Question 28 "No matter what others say or do, I do not think that I should be involved in my child's medical treatment"). Results are displayed in Table 4.4.

Table 4.4

Mean, Standard Deviation and Variance of Positive and Reversely-Worded Statements Related to Health and Dental Care

Perspective	Domain	*M*	*SD*	s^2
Positive	Dental (8 questions)	4.05	.36	.13
Positive	Medical (7 questions)	4.17	.43	.18
Reverse	Dental (7 questions)	4.21	.35	.12
Reverse	Medical (11 questions)	4.40	.20	.04

A two-sample *t*-test assuming unequal variances was calculated to test the hypothesis that there would be no difference in means between positive statements of belief and reversely-worded statements of belief for both medical and dental questions. The means for positive dental statements of belief (*M*=4.05; *SD*=.36) and reversely-worded dental statements of belief (*M*=4.21; *SD*=.35) were equivalent ($t(11) = -1.26$, $p > .05$). The means for positive medical statements of belief (*M*=4.17; *SD*=.43) and reversely-worded medical statements of belief (*M*=4.40; *SD*=.20) were equivalent ($t(6) = -1.58$; $p > .05$). The means for positive dental statements of belief (*M*=4.05; *SD*=.36) and positive medical statements of belief (*M*=4.17; *SD*=.43) were also equivalent ($t(10) = -0.26$; $p > .05$). Finally, the means for reversely-worded dental statements (*M*=4.21; *SD*=.35) and reversely-worded medical statements (*M*=4.40; *SD*=.20) were equivalent ($t(8)=-0.75$; $p > .05$). Parents who participated in this research did not differ in their level of self-efficacy for medical as compared to dental outcomes, nor did they vary according to the phrasing (positive or reversely-worded) of the question.

The questionnaire was further analyzed in accordance with Bandura's four sources of self-efficacy. Most of the questions on the Health and Dental Services Efficacy Questionnaire (20 questions) reflect caregiver personal interpretation of past

performance. For example, "What I do to work with dentists will help my child to get the best possible care." Parents who have experienced success with scheduling appointments, completing required series of immunizations, and obtaining dental checks for their child are more likely to persist with those behaviors (Reich, Bickman, & Heflinger, 2004). Thirty percent of the questions were linked to emotional responses and feelings (11 questions). Families who live in chronically stressful situations may have an emotional state that interferes with their ability to perceive themselves as capable of meeting the basic needs of their child (Babcock & de Luzuriaga, 2016; Felitti et al., 1998). Finally, eleven percent of the questions on the scale focused on parental self-efficacy as obtained by the comparison of their ability to meet the health and dental needs of their child to another person or family member's ability to meet those same needs within their family. There were no questions that emphasized the fourth source of self-efficacy, which was verbal persuasion, feedback and encouragement. Verbal persuasion is perhaps the most naturally occurring source of self-efficacy in a program model that utilizes home visits. The Family Advocates and Home Visitors are typically viewed as having knowledge and expertise, and they work diligently to establish a relationship with caregivers. This relationship can be leveraged to provide positive encouragement and increase parental self-efficacy, or the Family Advocate or Home Visitor could be perceived as giving negative or judgmental feedback, thus lowering self-efficacy. This study did not include measures of verbal persuasion.

In order to test the null hypothesis that states the means for questions related to performance/mastery, physiological/emotional state, and vicarious experience/modeling sources of self-efficacy are equal, a two-sample t-test assuming unequal variance was

utilized. Caregiver responses on questions with a physiological/emotional source (*M*=4.40; *SD*=.19) compared to a performance/personal mastery source of self-efficacy (*M*=4.27; *SD*=.28) were not statistically different from one another (t(26)=1.94, *p*=.06). There was a significant difference in the scores for performance/personal mastery (*M*=4.27; *SD*=.28) and vicarious/modeling (*M*=3.63; *SD*=.28) conditions, (t(4)=6.16, *p*=.004). Caregiver responses on questions with a physiological/emotional source (*M*=4.40; *SD*=.19) were significantly different from responses on questions with vicarious/modeling (*M*=3.63; *SD*=.28) conditions (t(3)=7.79, *p*=.004). Levels of caregiver self-efficacy were higher when the source of the self-efficacy resulted from personal mastery (e.g., being a contributing partner to their child's medical care) or physiological state as opposed to observing others, modeling the behaviors in regard to health and dental outcomes, or comparing their success with meeting the medical and dental health needs of their child with the success of someone else.

Responses on the self-efficacy questionnaire tended to be very close to the overall mean (*M*=4.23) and demonstrated little variance, therefore further item analysis was not completed. The mean rating for each question is summarized in Table 4.5. The variance among the mean scores for each item on the questionnaire was low (*varX*=.11; *SD*=.33).

Overall results indicate a majority of the respondents reported moderately high levels of self-efficacy (*n*=42; 65%), some reported high levels of self-efficacy (*n*=17; 26%); and a few caregivers were neutral in their overall response (*n*=6; 9%). None of the respondents reported moderately low or low levels of self-efficacy. Although there was very little variation in scores (self-efficacy means ranged from 3.39 and 4.72) and most were clustered at either Strongly Agree (for positive statements) or Strongly Disagree (for

reversely-worded statements), the individual item results are reported by percentage in Table 4.5.

Table 4.5

Caregiver Responses from the Health and Dental Services Efficacy Questionnaire

Questions	Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree	*M*
I believe that I can help doctors in treating my child.	0%	0%	4%	39%	57%	4.51
Dealing with doctors turned out to be easier than I thought it would.	0%	1%	13%	54%	31%	4.17
I know that I can do what needs to be done to work with my child's health care services.	0%	0%	1%	40%	58%	4.57
What goes on in health care is just too complicated for me to deal with.	55%	30%	11%	5%	0%	4.33
I believe that I can help dentists in treating my child.	4%	0%	12%	42%	42%	4.15
There is little I can do to change what is done by the people who provide health care to my child.	39%	42%	14%	3%	2%	4.16
I often feel it is hopeless to try to deal with health care services.	49%	34%	15%	2%	0%	4.32
I find it easy to tell dental providers how my child and family should be treated.	1%	3%	18%	42%	36%	4.08
My skills in dealing with health care will help me to change things that might be wrong with my child's treatment.	0%	3%	18%	38%	41%	4.19

Questions	Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree	*M*
I have hardly ever gotten what my child needed from dental care services, no matter what I have done.	63%	31%	4%	0%	1%	4.52
When something goes wrong with my child's dental care, there is little I can do to affect services.	48%	33%	15%	3%	1%	4.30
What I do to work with dentists will help my child to get the best possible care.	0%	0%	9%	41%	50%	4.42
With all the things I have to do, it would not be possible for me to be involved in my child's medical treatment right now.	62%	32%	0%	2%	5%	4.45
I look forward to participating actively in my child's dental care.	0%	0%	5%	38%	58%	4.53
I intend to be involved in the plan for my child's medical care.	0%	0%	0%	28%	72%	4.71
I feel overwhelmed when asked to do things about my child's dental care.	54%	40%	4%	0%	1%	4.45
I have hardly ever gotten what my child needed from health care services, no matter what I have done.	63%	31%	3%	1%	1%	4.51
Dealing with dentists turned out to be easier than I thought it would.	0%	1%	13%	54%	31%	4.14
I have found out that what is going to happen with my child's dental treatment will happen, no matter what I do.	33%	39%	9%	9%	10%	3.72

Questions	Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree	*M*
I don't know how to get information on the best health care services for my child.	43%	46%	4%	3%	3%	4.22
I have seen other parents deal effectively with health services for their child.	0%	3%	22%	48%	28%	3.98
Other parents have taught me how to get what my child needs from dental services.	9%	12%	29%	30%	20%	3.42
No matter what others say or do, I do not think that I should be involved in my child's medical treatment.	76%	19%	1%	3%	0%	4.68
I often feel it is hopeless to try to deal with dental services.	63%	31%	3%	2%	2%	4.51
I have made an important difference in the dental treatment my child has received.	0%	1%	24%	49%	25%	3.98
I don't know how to get information on the best dental services for my child.	46%	45%	6%	2%	2%	4.30
Other parents have taught me how to get what my child needs from health care services.	12%	11%	17%	44%	17%	3.44
I feel overwhelmed when asked to do things about my child's medical care.	57%	37%	3%	3%	0%	4.46
I have seen other parents deal effectively with dental services for their child.	3%	7%	27%	40%	22%	3.69
I feel overwhelmed when asked to do things about my child's health care.	58%	39%	0%	3%	0%	4.51

Medical and Dental Outcome Proficiency

ChildPlus data was analyzed across four specific required outcomes: Medical home (child has access to a regular, preventive medical provider), dental home (child has access to a regular, preventive dental provider), current immunizations, and current dental exam. The Nebraska Department of Health and Human Services issues immunization requirements for schools. These requirements were utilized by the Head Start Agency to determine compliance with immunization requirements. One child did meet the requirements for an exemption and is reported as having a waiver. Results are presented in Table 4.6.

Table 4.6
Health and Dental Outcomes (*n*=65)

Medical Home	*n*	Percentage
Yes	56	86
No	9	14
Dental Home		
Yes	38	58
No	27	42
Immunizations		
Current	61	94
Not Current	3	4
Medical/Religious Waiver	1	1
Dental Exam		
Current	28	43
Not Current	37	57
Proficient	20	31
Approaching	22	34
Not Proficient	23	35

Note. Proficiency = 4/4 outcomes met, Approaching = 3/4 outcomes met, and Not Proficient = 2 or less outcomes met.

Intensity of Services

Family Strength and Need Assessment data was gathered for each participant who provided consent to participate in the study. There were two families who did not have a completed Family Strength and Need Assessment due to the time frame of their child's enrollment. The Assessment must be completed within 60 days of enrollment and the children had been enrolled less than 60 days at the time the data was collected. Most families indicate they are improving in the areas related to Family Well-Being, Positive Parent-Child Relationship, Families as Lifelong Educators, Families as Learners, Family Engagement in Transitions, Family Connections to Peers and the Local Community, Families as Advocates and Leaders, and Special Needs/Family Support.

Table 4.7

Intensity of Services (*n*=65)

	n	Percent of total
Tier I (Strength)	17	27
Tier II (Improving)	47	72
Tier III (Need)	1	1

Most families indicated they are making improvements in their capacity to access and address the indicators included on the Family Strength and Need Assessment. This includes basic skills such as budgeting, cooking healthy meals, understanding child development, and accessing clothing and housing. These families require low to moderate intensity support, receiving at least one home visit per quarter. The researcher was interested in learning whether there were differences between the mean levels of intensity of services. The null hypotheses stated there are no differences between Tier III

(*M* = 1.18), Tier II (*M* = 1.00), and Tier I (*M* = .69) means. Tier III indicated the most intensive level of need for families and was characterized by factors such as parental health, child health, mental health, improving or gaining employment, meeting monthly financial obligations, accessing transportation and getting child to school on time. Families who rate these actions as a 3 (Need) or 2 (Improving) may require more intensive supports. In an effort to measure difference in mean, a two-sample t-test assuming unequal variances was completed.

Table 4.8

Comparison of mean levels of intensity (Tier I, Tier II, and Tier III)

	M	s^2	*df*	*t*	*t*-critical (two tail)
Tier III Tier II	1.18 1.00	.02 .10	7	1.47	2.36
Tier II Tier I	1.00 .69	.10 .22	5	1.15	2.57
Tier III Tier I	1.18 .69	.02 .22	3	2.06	3.18

In this case, the null hypothesis is accepted. There are no differences between the means of the groups according to level of intensity of services. This variable will be explored further in relation to level of parental self-efficacy and proficiency with medical and dental outcomes.

Analysis of Research Questions

Self-efficacy and family characteristics (sub-research question 1). Chapter Two outlined multiple variables and social determinants of health that are likely to impact family health and well-being. Factors such as parental stress, degree of violence

in the community, level of income, and other social conditions are examples of those variables that impact child health (Hearst, Martin, Rafdal, Robinson, & McConnell, 2012). Sub-research question one focused on the relationship between level of self-efficacy and family characteristics such as level of parental education and socio-economic level. Table 4.9 provides a summary of each demographic and the subsequent level of caregiver self-efficacy as measured by the caregiver's mean response on the questionnaire. Self-efficacy is considered high (4.5 - 5), moderately high (3.5 - 4.4); neutral (3.4 - 2.5); moderately low (2.4 - 1.5); or low (1.4 - below).

Table 4.9

Self-Efficacy and Family Demographics

	n	*M*	*SD*	Level
Race or Ethnicity				
Black	15	4.07	.46	MH
White	36	4.44	.59	MH
Latinx	9	*	*	*
Asian	3	*	*	*
Nepalese	2	*	*	*
(Latinx, Asian, Nepalese)	14	4.14	.66	MH
Parent Education Level				
College	27	4.26	.59	MH
Some College	6	*	*	*
High School	24	4.21	.59	MH
No High School (NHS)	6	*	*	*
Associates Degree (AA)	4	*	*	*
(NHS, AA, Some College)	16	3.71	.44	MH
Primary Language				
English	52	4.13	.53	MH
French	3	*	*	*
Spanish	8	*	*	*
Chinese	1	*	*	*
Swahili	2	*	*	*
Nepalese	1	*	*	*
(All Non-English speaking)	17	3.76	.50	MH

	n	*M*	*SD*	Level
Socio-Economic Level				
Over Income	2	*	*	*
101%-130% of poverty line	13	4.23	.44	MH
0-100% of poverty line	52	4.25	.58	MH

*****Not reported to protect subgroups with less than 10 respondents
Note: Self-Efficacy is reported as H=High; MH=Moderately High; or N=Neutral

One cursory glance over the data ends with the conclusion that self-efficacy means do not vary according to caregiver demographics, and there is little variation in scores. Parents who had some college, spoke French and Chinese, and were over income reported slightly lower self-efficacy, although the difference was not large enough to be statistically significant. A chi-square test of independence was conducted to further examine the relationship between caregiver self-efficacy across family demographics. The relationship between these variables was not significant. Results are presented in Table 4.10 for race/ethnicity, language spoken in the home, level of parental education and socio-economic status.

Table 4.10
Chi-square test of independence for Family Demographics and Level of Self-Efficacy

Family Demographic	Level of Self-Efficacy *M*	*df*	x^2_{obs}	x^2_{crit}
Race/Ethnicity		4	.17	9.49
Black	4.07			
White	4.44			
Latinx	*			
Asian	*			
Nepalese	*			
Language Spoken in Home		5	.61	11.07
English	4.13			
French	*			
Spanish	*			
Chinese	*			
Swahili	*			
Nepalese	*			

Level of Primary Parent Education		4	.06	9.49
College	4.26			
Some College	*			
High School	4.21			
No High School	*			
Associates Degree	*			
Socio-Economic Status		2	.09	7.81
Over Income	*			
101%-130% of Poverty line	4.23			
0-100% of Poverty line	4.25			

*****Not reported to protect subgroups with less than 10 respondents
**$p \leq .05$

There was not a significant difference among self-efficacy means within the family demographic categories included in this study.

Self-efficacy and amount of services (sub-research question 2). Head Start services are provided based on the ebb and flow of the needs of the family. These needs are quantified following completion of the Family Strength and Need Assessment, and that information was utilized to determine Intensity of Services. The service-delivery model primarily uses home visits, in conjunction with center-based early childhood services, when applicable as face-to-face contacts with families provide rich opportunities to strengthen caregiver skills and knowledge (Shonkoff & Fisher, 2013). This study explored the relationship between level of self-efficacy and the intensity of services provided to families. A Pearson Correlation between mean intensity of services and mean level of self-efficacy produced a correlation of $r = -.04$. These results suggest that an association between intensity of services and level of self-efficacy is not likely. A Oneway ANOVA was conducted to test the null hypothesis that the means are equivalent. There was not a significant difference between intensity of services means and self-

efficacy means F (2, 62) = .14, $p > .05$ and therefore we accept the null hypothesis. Results are displayed in Table 4.11.

Table 4.11

One-way ANOVA Intensity of Services and Self-Efficacy

	SS	*df*	*MS*	*F*	*p*	*F crit*
Between	.10	2	.05	.14	.87	3.15
Within	21.04	62	.34			
Total	21.14	64				

$p > .05$

Self-efficacy and tiers of intensity (sub-research question 3). Sub-research question 3 focused on the relationship between level of self-efficacy (high, moderately high, neutral, moderately low, low) and intensity of services (Tier I, Tier II, Tier III). Families in Tier I who required less intensive services had a mean self-efficacy score of 4.00 as compared to families in Tier II who required a moderate level of support by indicating that they were "improving" in most areas on the family assessment. Those families had a mean self-efficacy score of 4.22. Families in Tier III requiring the most intensive support had a self-efficacy mean of 4.06.

Head Start Program Performance Standards require implementation of a family partnership process and the identification of family strengths and needs as early in the program year as possible. This research was conducted 5 months into the program year. Most families had already completed the partnership process and had been receiving services from Home Visitors and Family Advocates focused on supporting multiple determinants, including child health. Most children had access to health care (n = 58)

and were up-to-date on immunizations (n = 63). Approximately half of the children were connected to a dental provider (n = 38) and had received preventive dental care (n = 30). This study did not analyze the time delay between the baseline family assessment, which determines intensity of services, and completion of the self-efficacy questionnaire. In order to test the relationship between Intensity and Self-Efficacy, a chi-square test was conducted and produced x^2 (1) = .59, which is not statistically significant ($p > .05$). The level of intensity (Tier I, Tier II, Tier III) is independent of the level of self-efficacy. A regression analysis was used to determine the strength of the linear relationship between level of intensity and level of self-efficacy. Results indicate a weak linear relationship as indicated by a correlation of .060 between the two variables (r^2 = .004) which is not significant at $\alpha = .05$ ($F(1, 62) = .225$, $p = .637$).

Self-efficacy and health/nutrition outcomes (sub-research question 4). Higher levels of caregiver self-efficacy impact critical parent and child outcomes, including outcomes related to health and dental care (Pennell et al., 2012; Purssell & While, 2012; Wittkowski et al., 2017). The final sub-research question focused on the relationship between level of self-efficacy, family characteristics, and health and nutrition outcomes. In an investigation of the effect of caregiver self-efficacy on proficiency meeting health and dental outcomes, there was a significant difference between level of self-efficacy mean and proficiency with health outcomes mean. Despite caregiver self-efficacy falling at a moderately high to high level, parents were not proficient with health and dental requirements. Results are summarized in Table 4.12.

Table 4.12

t-test for Proficiency and Self-Efficacy

	M	s^2	*df*	*t*	*t* critical (two-tail)	*p*
Proficiency	1.95	.66	65	17.74	2.00	.00
Self-Efficacy	4.18	.30				

Going back to the proficiency data, most families (94%) were keeping up-to-date with their child's immunizations and they had access to a medical home (87%). When we looked more closely at dental care, fewer families reported having access to a dental home (57%) and over half (55%) had not obtained preventive dental care for their child. Further analysis regarding family demographics and level of proficiency demonstrated a difference between the mean for families who were Black (*M=1.47)* and families who were White (*M=2.14)*. This difference was measured using a two-sample *t*-test assuming unequal variances ($t(28) = -2.88$, $p = .01$).

In order to determine whether the child's age impacted these results, a two-way ANOVA was conducted to determine if a difference exists in mean scores for dental self-efficacy and medical self-efficacy between Early Head Start and Head Start parents. Early Head Start includes Home Visiting and focuses on children under the age of three. Head Start includes children ages 3-5 years. The age of the child (Early Head Start or Head Start) did not have a significant impact on caregiver self-efficacy means for medical or dental questions. The main effect of the child's age, Early Head Start (*M*=4.08, *SD*=.14) and Head Start (*M*=4.28, *SD*=.10), yielded an *F* ratio of $F(1,1)=44.44$, $p>.05$ which is not statistically significant. The main effect of medical (*M*=4.27, *SD*=.17)

or dental (M=4.09, SD=.10) yielded an F ratio of $F(1,1)=36.00$, $p>.05$ which is also not statistically significant. These results are described in Table 4.13 and Figure 4.1.

Table 4.13

2x2 Factorial Design Table: Main Effect of Age Level

	Age Level		
	Early Head Start	Head Start	
Dental	3.97	4.20	4.09
Medical	4.18	4.35	4.27
	4.08	4.28	

Figure 4.1 demonstrates there is no indication of interaction between the controlled variable of age level (Head Start and Early Head Start) and dental or medically-focused self-efficacy.

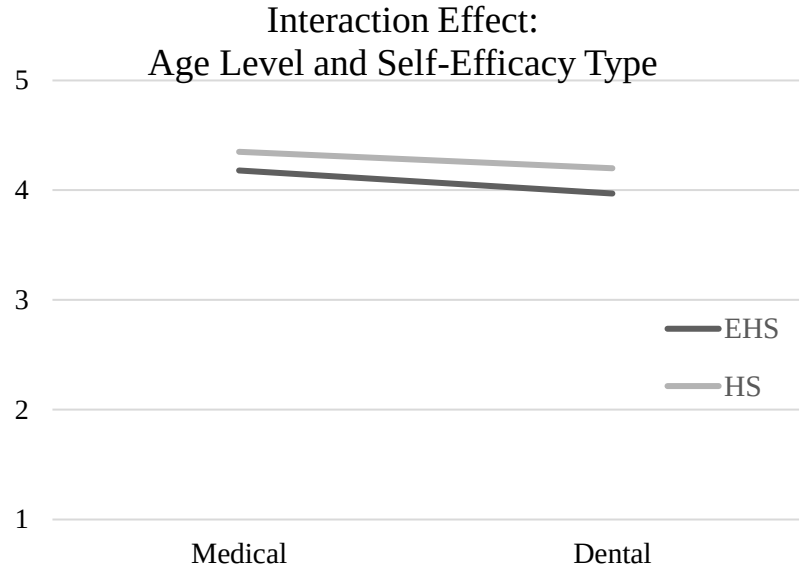

Figure 4.1 Interaction between Self-Efficacy related to medical actions and Self-Efficacy related to dental actions across age

Main Research Question

Given the tremendous importance of healthy developmental trajectories in early childhood, this study focused on variables that could potentially influence health and dental outcomes for children. Four specific sub-research questions were addressed through comprehensive data review and analysis, and two consistent factors arose from that process: caregiver self-efficacy clustered at the moderately high to high range across participants independent of family characteristics, and most families required a moderately intense services according to results of their family assessment, independent of level of self-efficacy. There was little variability in the data as demonstrated by multiple measures of variance.

Caregivers demonstrated moderately high to high levels of self-efficacy when self-efficacy questions focused on their physiological/emotional state and performance/personal mastery. The means differed significantly for questions focused on caregiver self-efficacy as they related to vicarious experiences or modeled behavior of others in regard to health and dental care for their child. Finally, caregivers who reported high levels of self-efficacy were not proficient with child health outcomes, particularly in the area of dental care.

Chapter 5

Conclusion, Discussion, and Recommendations for Further Study

Long term adult health outcomes originate in the earliest years of life (Black & Dewey, 2014; Woolfenden et al., 2013). Because our global society requires a healthy, productive work force, programs that emphasize the healthy development of young children are imperative to continued economic growth and development (Asarnow et al, 2015). Program emphasis, however, should not focus solely on the cognitive, social, and communication development of the child. Strong emphasis on strengthening parent and caregiver capacity must be the cornerstone of quality early childhood programming (Morrison et al., 2014; Perry & Conners-Burrow, 2016; Shonkoff & Fisher, 2013; Skouteris et al., 2017). This is particularly important in regard to impacting children's developmental trajectories in the areas of health and nutrition—and becomes paramount when working with families who have limited socio-economic and healthcare resources (Ames, 2007; Purssell & While, 2012; Tataw & Bazargan-Hejazi, 2010). One promising pathway to improving parent and caregiver capacity is to focus on increasing levels of self-efficacy through a targeted, integrated approach that includes comprehensive family assessment and opportunities for flexible supports.

Self-efficacy influences how individuals view their capacity to accomplish tasks, their persistence, degree of effort, and even whether or not they attempt the task in the first place (Bandura et al., 2011; Kohlhoff & Barnett, 2013). Harper et al. (2013) describes self-efficacy as "essential to sustaining an individual's effort to cope with stressful tasks, determining success in adversity management, and adjusting to stressful

tasks over time" (p. 1658). Because families who meet income eligibility requirements to enroll in Head Start are likely facing factors associated with making a livable wage, they are already at risk for increased, prolonged stress (Enebrink et al., 2015; Felitti et al., 1998). Families experiencing determinants such as those included in this study may experience heightened, prolonged stress which can impact their perception of their ability to accomplish specific tasks (Babcock & de Luzuriaga, 2016; Enebrink et al., 2015).

High levels of self-efficacy can serve as a protective factor for families and facilitate the completion of specific tasks related to their child's healthy development. The prior experiences of parents have profound impact on their behavior and their capacity to manage the needs of their child (de Silva-Sanigorski et al., 2013; Finlayson et al., 2007; Masterson & Sabbah, 2015).

Early childhood programs such as Head Start that utilize home visitation as part of their program design have the capacity to influence levels of parental self-efficacy, particularly in regard to specific child-rearing tasks such as preventive health and dental care. Early childhood providers equipped with knowledge regarding Bandura's sources of self-efficacy as described in this study could utilize these strategies to intentionally support the development of strong self-efficacious beliefs in parents.

Summary of the Study

This study examined the self-efficacy levels of families enrolled in a Head Start program in a suburban county in Nebraska as they related to the parent's perceived capacity to address health and dental care for their child. In addition, the level of intensity of services provided to the family was analyzed in relationship to the parentally

reported level of self-efficacy, as was the proficiency level of the parent regarding specific health and dental outcomes.

This study was significant given the limited data that exists regarding the measurement of specific health and nutrition outcomes in early childhood (Lee et al., 2013). Medical literature has established the connection between parental self-efficacy and acute health/mental health outcomes for children with chronic conditions, but little research exists regarding parental self-efficacy and the link to general preventive care. This study was designed to measure the relationship between parental self-efficacy and the achievement of specific health and dental outcomes that are required in Head Start programs, in an effort to identify more effective ways to intervene with families with the specific intent to improve early health trajectories for children.

The purpose of this single-group, exploratory data analysis study was to explore the relationship between caregiver self-efficacy for families and health and nutrition outcomes for children enrolled in Head Start and Early Head Start in a Midwestern, Suburban county. The main research question asked "What is the relationship of Head Start and Early Head Start services with caregiver self-efficacy for enrolled families, and how does caregiver self-efficacy relate to health and nutrition outcomes for children?" From November, 2018 through February, 2019 the researcher gathered the Health and Dental Services Efficacy Questionnaire as completed by parents who consented to participate and analyzed multiple data points to include family assessment data, parent/caregiver demographics, and compliance with medical and dental requirements from the ChildPlus data management system. Family Advocates and Home Visitors, staff who work most intently with parents, were trained in November, 2018 on the

sources of self-efficacy. Anecdotal information was solicited from those same staff members regarding their general perceptions of conversations with families and the degree of emphasis on health and dental care during those conversations.

Sub-Research Question 1

The first sub-research question asked how self-efficacy varied according to family characteristics. Specific demographics or characteristics included socio-economic level, primary language spoken in the home, race/ethnicity, and primary parent education level. Self-efficacy means were not statistically different across parent/caregiver characteristics. Most families fell at or below the Federal poverty level (*n*=52) and had an Associate's degree or higher (*n*=37). Respondent demographics for race, ethnicity and primary language spoken in the home closely mirrored the distribution of the Agency as a whole. The mean for level of self-efficacy was 4.16 indicating families who consented to participate in the study demonstrate relatively high levels of self-efficacy.

Level of parent education had no statistically significant association with level of self-efficacy. Parents with some college courses had the lowest mean self-efficacy rating, and parents with a college degree had a mean of 4.26, which was the highest. Families who spoke Chinese and French had the lowest self-efficacy mean while families who spoke Nepalese reported the highest mean. Mean scores cannot be reported for all demographic variables as there were fewer than 10 families in most. It should be noted that all surveys were completed in English, despite the fact some families who participated in the study indicated they speak a primary language other than English (*n*=15). Families who were over income (130% of the Federal poverty line) reported the

lowest self-efficacy mean, compared with families who fell at or below the Federal poverty line who reported the highest mean.

Despite the small sample size, results are promising in that there was not a statistically significant difference in mean self-efficacy scores across family demographics. Self-efficacious beliefs were strong in families who experienced multiple social determinants as well as families who represented racial and ethnic groups who have been found to be at higher risk for health concerns (Albino et al., 2017; Bryant, et al., 2016; Culler et al., 2017; Lee & Won, 2015; Masterson & Sabbah, 2015; Morrison et al., 2014).

Sub-Research Question 2

The second sub-research question focused on caregiver self-efficacy as it relates to the level of intensity of services for families (Tier I—Strength, Tier II—Improving, Tier III—Need). The relationship between the tiers of intensity and level of parental self-efficacy was not statistically significant. A review of family assessment data showed a majority of participants fell in the improving range (n=47) with a mean self-efficacy score of 4.22. This means parents indicated they were making progress toward the family outcomes addressed in the assessment, but not yet exhibiting multiple strengths in regard to the over-arching domains as outlined in the Head Start Program Performance Standards (2016).

The family assessment used in this study was created in 2016 by Agency personnel and was intentionally aligned with the Head Start Parent, Family, and Community Framework referenced in Chapter 3 as well as with Head Start Program

Performance Standards. Limitations of the family assessment will be discussed later in this chapter.

A majority of participants reported they are improving and not in need of specific support for the sub-outcomes included in the assessment. Families report the greatest areas of need within the Family Well Being domain. Areas that were most likely to be rated as Improving or as a Need included meeting monthly finances, gaining employment, securing clothing, and accessing nutritious food. Interestingly enough, several parents reported they were improving (but didn't report as a strength) in regard to accessing health care for themselves. Several families also rated mental health services and support at the Improving level, indicating they do not believe their ability to address mental health needs or manage stress is a strength.

Sub-outcomes such as safety, healthy and safe relationships, safe housing, safe community, and access to nutritional food that are included in the family assessment align with Social Determinants of Health, which heightens the importance of intentionally supporting families who indicate anything less than a strength in these areas. Byhoff, Freund, and Garg (2018) define Social Determinants of Health as "the conditions under which people are born, grow, live, work and age" (p. 223). They estimate up to 70% of fixed, unchangeable variation in health outcomes can be attributed to Social Determinants of Health.

Families need to exhibit tenacity to persist in their efforts to access and navigate the health care system, particularly if they are burdened with additional determinants that create barriers. Self-efficacy is one variable that has influenced health outcomes in regard to acute childhood conditions, and could be an effective mitigating factor. Results

of this study, however, are inconclusive regarding the relationship between level of caregiver self-efficacy and the intensity of services necessary to buffer the impact of determinants on family well-being.

Sub-Research Question 3

The third sub-research question further explored the Tiered system that defined intensity of services and the level of caregiver self-efficacy. Scores on both the family assessment and the self-efficacy questionnaire were polarized and had very little variability. There was not a significant relationship between lower intensity services (Tier I) and high levels of self-efficacy. Nor was there a relationship between the most intensive services (Tier III) and lower levels of self-efficacy. In fact, results indicated the opposite—the one participant who fell in Tier III (Need) reported a self-efficacy mean of 4.0 (High).

Sub-research question 4

Sub-research question 4 was interested in the relationship between self-efficacy, family demographics, and proficiency with health and nutrition requirements. Family demographics did not significantly impact proficiency with health and dental outcomes as required by Head Start programs. Additionally, family demographics did not have an impact on the level of self-efficacy reported by caregivers who participated in the study. What was significant is that despite moderately high to high levels of caregiver self-efficacy regarding health and dental services, study participants were either not proficient (meeting fewer than 2 medical and dental outcomes) or approaching proficiency (meeting 3 out of 4 outcomes). Analysis showed the age of the child was not a contributing factor to the significance of level of proficiency. And families tended to meet medical

requirements (medical home, current immunizations) at a higher level than dental requirements (dental home, preventive dental exam).

The Agency involved in the research completed a comprehensive community needs assessment over the course of several months in 2018. The findings were discussed at a strategic planning meeting in April, 2018 and corroborate the disparity in dental versus medical outcomes as described in these results. The community in which the Head Start program is located has multiple assets including a Federally-funded health center, accessible health department, two major hospitals, and a multitude of medical providers. Gaps were identified in regard to accessible dental care. Additionally, few dental providers accept Medicaid, which happens to be the primary insurance for most of the families enrolled in this Head Start program. Family Advocates reported enrolled families expressed a lower level of trust with dental providers as opposed to medical providers which may also interfere with compliance with preventive dental care.

When asked about conversations with parents regarding dental care, Family Advocates who shared anecdotal information for this study reported they mainly provide information to families about local Dentists who accept Medicaid, but typically don't engage in more direct conversation regarding preventive dental care. It is more common to have direct conversations regarding health and medical needs.

Overall Research Question

Ultimately, the purpose of this research was to explore variables that could strengthen services to families, particularly families impacted by Social Determinants of Health, in an effort to improve the health of young, vulnerable children. Results were promising in that families who may not earn a livable wage and report moderate concerns

with factors related to family well-being demonstrated high levels of parental self-efficacy. These same families are accessing preventive medical care for their child and are keeping up-to-date on childhood immunizations, but they are not achieving the same results for preventive dental care. Self-efficacy and family engagement continues to be identified as a modifiable variable in regard to improving children's oral health (Bryant et al., 2016; de Silva-Sanigorski et al., 2012). Results from this research, although limited by scope, demonstrated high levels of self-efficacy alone were not sufficient for achieving preventive dental care outcomes.

These results supported what was discovered during the literature review in regard to the sources of self-efficacy. Performance or personal mastery was regarded as the most powerful source of self-efficacy (Chen & Usher, 2013; Holloway & Watson, 2002). Self-efficacy survey results demonstrated a higher mean level of efficacy for questions focused on the performance/personal mastery and physiological/emotional state sources of self-efficacy versus the vicarious modeling mean level. Families who participated in this research were not influenced as directly by observing how other parents or family members accessed health and dental care for their children, nor were they necessarily comparing their capacity to access health and dental care to the capacity of someone else. Parents in this study denied feeling overwhelmed or hopeless when faced with managing their child's medical and dental care. They overwhelmingly believed their actions resulted in positive outcomes for their child's health.

Study Limitations

There were two limitations that became clear during the course of the study period. First, family assessment data was difficult to analyze due to the nature of the

measurement criteria which was "Need, Improving, or Strength." Results were vague and clustered most respondents within the ill-defined "improving" category. Information was not descriptive enough to allow for meaningful comparison to self-efficacy and proficiency data.

Another potential limitation was that parents served as the conduit for both measurement of self-efficacy and intensity of intervention. There were no checks of internal consistency to determine whether or not parents demonstrated particular response patterns that might have influenced overall results. Family Advocates shared the family assessment results technically reflect the degree of trust and strength of relationship between Agency staff and families, as that influences whether or not families are candid in their response.

Future Research Implications

This study was but a starting point for future research, given the small number of participants (n=65) and focus on a specific county in Nebraska. Future research is needed to dig deeper into reasons for the lack of proficiency with dental outcomes, despite high levels of caregiver self-efficacy. The community needs assessment conducted by the Agency participating in the study corroborated these concerns regarding dental care and acquisition of basic preventive care within timelines recommended by the American Academy of Pediatric Dentistry. Further research is needed to address questions surrounding dental care as well as to answer the question of whether or not barriers are related to level of caregiver self-efficacy.

Additional information regarding the vicarious experience or modeling source of self-efficacy is necessary. While families have opportunities in Head Start to come

together through activities such as Parent Committees and Policy Council, it is not clear whether those opportunities foster conversations around health and dental care. This could be an untapped resource and one that could be leveraged to enhance parental self-efficacy, particularly in regard to preventive dental care. Further investigation could include parent focus groups with the intent to discover how families are learning about dental care requirements, which dental providers are being utilized in the community, and any barriers to access as a result of Medicaid or other insurance-related issues.

Future research should include multiple Head Start agencies, particularly agencies serving rural communities who may not have the same level of accessibility to dental and medical care. The county in which the research was conducted had multiple points of access for medical and dental care as documented in a comprehensive community needs assessment summary. The level of caregiver self-efficacy as well as proficiency levels may reflect the availability of resources within the community.

The Health and Dental Services Efficacy Questionnaire had strong reliability, but that could have been a result of the increased number of items (35 items) and the degree of similarity among items. Additionally, the mean of the questionnaire placed caregiver self-efficacy somewhere between somewhat high and high levels. This is a celebration for the families in the Agency, particularly because of the fact some of the variables associated with the Social Determinants of Health (e.g., parental education, socio-economic status) appeared to have no influence on the level of self-efficacy as indicated by study results. The lack of variability in responses limited the ability to identify specific barriers to proficiency and intensity of services, which limits the application of these results. Barriers could be unrelated to the level of parental self-efficacy. Future

research could explore alternate variables such as parental resiliency and the strength of the relationship between staff and caregiver as they related to parental proficiency with health and dental outcomes.

Future research should also carefully consider the timing of the administration of the self-efficacy questionnaire. It was not possible to isolate the effect of any Family Advocate or Home Visitor services that occurred prior to the study period. Caregiver self-efficacy was measured at the start of the study period (which was roughly half-way through the program year), but there was no way of knowing whether or not the high levels of self-efficacy resulted from services that had already been provided to families since the start of the program year. Family Assessments may have been completed as early as a year prior to the start of the study period, thus, family intensity may have changed during that time frame but wouldn't have been reflected as such in ChildPlus. This could account for the lack of relationship between intensity of services and caregiver self-efficacy. Ideally in future research, baseline levels of self-efficacy would be gathered at the time of enrollment in order to provide specific information for intervention as well as to coincide with the baseline family assessment.

Response options on the family assessment tool should be adjusted for future research to reflect a more sensitive Likert-type scale. The current assessment tool was limited by three response levels (Strength, Improving, Need), and did not clearly differentiate levels of family need. Future research should place more intentional focus on Bandura's sources of self-efficacy as a framework for working with families. Training on content for anecdotal note-taking would allow for documentation of conversations during home visits, which could be coded according to the four sources of

self-efficacy. Staff who work directly with families and complete home visits would benefit from learning strategies to leverage the four sources of self-efficacy, as high levels of self-efficacy can buffer the impact of social determinants.

Conclusion

Hearst and colleagues (2012) summarize precisely why this study was necessary:

> Interventions that improve health, educational and social outcomes early in life decrease long-term effects of social disadvantage and improve school performance, result in less health risk and may play a role in reducing later life health disparities due to social stratification (p. 204).

Early childhood programs have impacted the developmental trajectory of children in ways that support their future academic success, particularly for young children experiencing social determinants such as poverty (Hearst et al., 2012; Reynolds et al., 2014). Programs such as Head Start that require intentional focus on health and nutrition outcomes offer a standard that transcends a multitude of external influences that inhibit children's healthy development, but even with these requirements, we can take a stronger, more intentional role in influencing health trajectories for young children.

These results indicate self-efficacy alone is not sufficient to achieve all health and dental outcomes, but it is a starting point. Caregiver level of Self-efficacy is a worthwhile factor to include in the family assessment process as families enroll in the program and begin their Head Start journey. Bandura's four sources of self-efficacy could become part of the framework early childhood staff utilize when working with

families to achieve family goals. A high level of self-efficacy related to health and dental care for their child is something that parents and caregivers can take with them beyond their years in Head Start programs, and that will influence their children's health well into elementary years and beyond. Self-efficacy isn't limited by life circumstances, as results of this study clearly show that families experiencing challenges associated with socio-economic status can develop a strong sense of self-efficacy.

We must include intentional focus on health and dental outcomes as part of our definition of what constitutes a quality early childhood program. Gathering health and dental documents and checking them off a list of required forms isn't sufficient. As this study shows, it will take focused conversations with families, knowledge of community resources, and targeted facilitation of self-efficacy skill development around health and dental outcomes to impact lasting change in the health trajectories of our youngest children.

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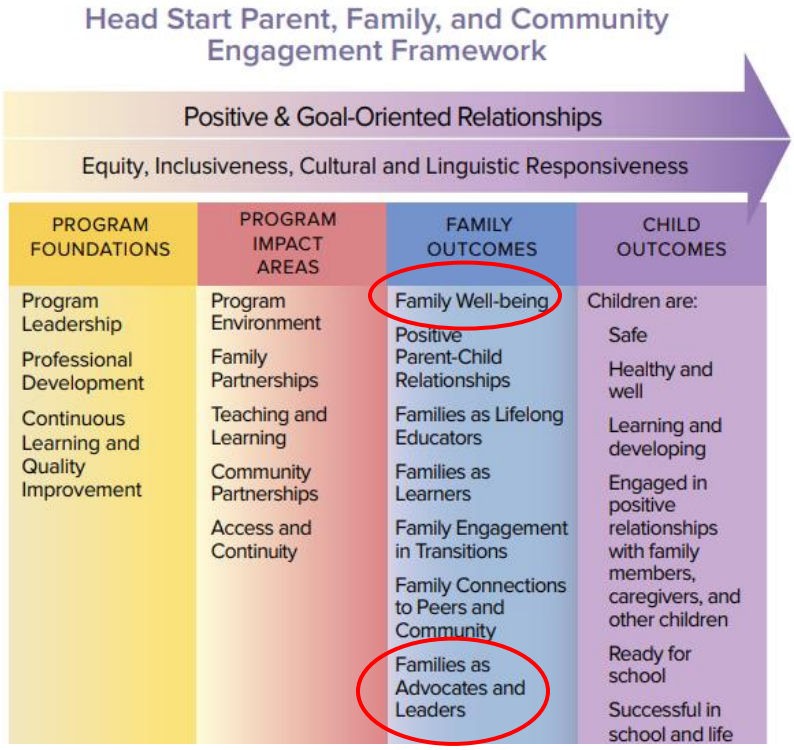
Appendix A



Think of a goal you have had in your life (one that you achieved). What did it take for you to achieve that goal? Did you experience setbacks? How did you overcome them to reach your goal?

Family Partnership → *ID Strengths/Needs Develop Family Goals* → *Family Well-Being*

<u>Family Well-Being (ECLKC)</u>

- Identify individualized safety, health, and financial goals
- Obtain needed information and education
- Access supportive community resources

<u>Jigsaw Activity</u>:

Review your assigned section of the ECLKC resource on Family Well-Being. Why are these sections important to family well-being? What is the impact for children and families?

Think about the parents you work with (and have worked with). What are some words you would use to describe those families that demonstrate Family Well-Being?

Understanding Self-Efficacy can help us enhance our work with families and subsequently strengthen family well-being.

- Self-efficacy, as a predictor of actual competence or success with a task, is an important mitigating factor for families facing risk factors such as poverty, level of parental education, language other than English spoken in the home, and chronic stress.

- Bandura's Social Cognitive Theory provides the framework for understanding self-efficacy and the impact on caregiver behavior, particularly in regard to compliance with health care practices.

- Efficacy beliefs are necessary for individuals to engage in behaviors and sustain efforts to achieve a specific task or series of tasks.

- Specifically, efficacy beliefs impact parental health care utilization behaviors such as accessing quality health care, voicing concerns, identifying with a primary provider or consistent medical practice, and overall report of satisfaction with care.

Self-efficacy. Albert Bandura first introduced the term "self-efficacy" through the framework of Social Cognitive Theory (Bandura, 1982). Self-efficacy is defined as a person's belief in their ability to perform a specific task in a successful manner.

Parental self-efficacy. Jones and Prinz (2005) introduced the term "Parental Self-Efficacy" as parental confidence in their skills as a caregiver, and how those skills translate to successful childrearing. Parental self-efficacy includes belief in one's parenting capabilities combined with their interpretation of capability based on the strength of those beliefs.

Perceived self-efficacy. Bandura, as cited by Bohman (2014), defines self-efficacy as "beliefs in one's capabilities to organize and execute the courses of action required to produce given attainments" (p. 392).

Parental competence. Wittkowski (2017) and colleagues differentiate parental competence from parental self-efficacy. They conclude parental competence is a

necessary component of parental self-efficacy, but that it is validated based on the perception of others as opposed to by the parent's own judgment.
Self-efficacy, as a predictor of actual competence or success with a task, is an important mitigating factor for families facing risk factors such as poverty, level of parental education, language other than English spoken in the home, and chronic stress.

Why Self-Efficacy?

Studies show that individuals with higher self-efficacy are more likely to demonstrate persistence, healthy coping strategies, and experience more positive outcomes in regard to accessing medical care for their children. Within this literature, Pennel et al. (2012) highlights Bandura's four main informational sources related to the development of self-efficacy: physiological and emotional arousal, verbal persuasion such as providing coaching and feedback, vicarious experiences which could include modeling by others, and performance accomplishments such as past experience or task mastery.

Performance: personal mastery. The most powerful source of self-efficacy is the personal interpretation of past performance. When parents master a particular skill or behavior, they are more likely to continue to engage in that behavior or persist when challenges arise. Parents can experience diminishing self-efficacy if they perceive they have been unsuccessful in the past, or if they believe they lack the skills necessary to manage unexpected or challenging situations. Prior experiences of parents can have profound impact on their behavior and their capacity to manage the needs of their child.

Vicarious experience: modeling. Parents gain information through observation of others, modeling the behavior of others, or comparing their capability to that of someone else. Chen and Usher (2013) describe the power of vicarious experiences, particularly when people are not sure of the measure of proficiency. Individuals who are unclear as to what constitutes success in regard to a specific task or activity learn by watching the performance of others and comparing it to their own personal skills and abilities. Head Start provides a strong parenting network through local parent committees as well as Policy Council, which is a governing body comprised of parents and community members. These groups provide an avenue for parents to talk with one another, share information, and observe how other parents in similar life situations manage the health care needs of their family.

Verbal persuasion: feedback, encouragement. Verbal persuasion consists of taking of encouragement from others who are perceived as influential or knowledgeable. At the heart of verbal persuasion is a relationship between the individual perceived as knowledgeable, and the individual receiving the feedback. As cited in the work of Chen and Usher (2013), Bandura states negative or judgmental feedback is actually more effective at lowering self-efficacy than positive or encouraging feedback is at increasing self-efficacy. Home visits in early childhood settings provide the vehicle for interaction between caregivers and early childhood personnel. Those interactions can provide

positive and encouraging feedback, or inadvertently be perceived by parents as judgmental and negative.

Physiological: emotional state. The state that an individual is in will influence how they evaluate their self-efficacy. Emotional responses and feelings such as stress reactions and tension can lead to perceptions of limited skills and knowledge, whereas positive emotions can lead to a sense of confidence. Some individuals may actually be motivated by stress and heightened anxiety, but others may find it creates a feeling of helplessness and frustration (Chen & Usher, 2013). For families living in chronically stressful situations, their emotional state may preclude their capacity to view themselves as capable of meeting the basic needs of their children.

What role does self-efficacy play in the achievement of Family Well-Being? Think of the words you came up with earlier to describe parents (or yourself). Are you starting to see a particular source of Self-Efficacy rise to the surface when you think of those words and actions of either yourself or the parent?

How do you Intentionally Support the Development of Self-Efficacy?

- Support the caregiver/parent as they try something new. Success builds self-efficacy, failure erodes it
- Provide opportunities for parents to observe other parents who are successful—learning through modeling
- Provide credible communication and feedback to guide and motivate a parent
- Work with families to reduce stressful situations—community connections
- Other Ideas:

Upcoming Research Opportunity: Self-Efficacy and Child Health/Dental Outcomes
Appendix B

University of Nebraska Omaha

IRB PROTOCOL # 815-18-EX **Page 1 of 2**

NARRATIVE CONSENT
Parental Consent for Participation

Title of this Research Study
The Effect of Caregiver Self-Efficacy on Health and Nutrition Outcomes in Young Children Enrolled in Head Start

Dear Parent:

You are being asked to take part in a dissertation research study of how parent beliefs in their ability to access and participate in the health and dental care of their child impacts the child's health and nutrition outcomes. You are being asked to take part because your child is enrolled in Head Start or Early Head Start. Please read this form carefully and ask any questions you may have before agreeing to take part in the study.

What the study is about: The purpose of this study is to explore the relationship between parental beliefs in their ability to access and participate in the health and dental care for their children, and health and nutrition outcomes for children enrolled in Head Start and Early Head Start in [redacted] Nebraska. The study will also look at the impact of Head Start services on parental beliefs in their ability to meet the health and dental needs of their child. Only families enrolled in Head Start or Early Head Start are eligible to participate.

What you will be asked to do: If you agree to be in this study, you will be asked to fill out a questionnaire twice prior to April, 2019. If you agree to be in this study, you are also giving consent to use child and family data that is collected for reporting purposes (e.g., Is your child current on their immunizations, does your child have access to health care, income level of the family, race, language spoken in the home, employment).

Risks and Benefits: There are no reasonable or foreseeable (or expected) risks. The benefits are indirect in that results of this study may inform future supports and services for families enrolled in Head Start.

Privacy: Your answers and the information regarding your child and family will be confidential. The records of this study will be kept private. In any sort of report including the dissertation, there will not be any information included that will make it possible to identify you or your child. Research records will be maintained in a locked

IRB Approved
Valid until 11/28/2023

University of Nebraska Omaha

file and all electronic information will be coded and secured using a password protected file. Only the primary researcher will have access to the records.

Taking part is voluntary: Taking part in this study is completely voluntary. You may skip any questions that you do not want to answer. If you decide not to take part or to skip some of the questions it will not affect your or your childs future relationship with Head Start or Early Head Start. If you decide to participate, you are free to withdraw at any time. If you would like a copy of the results of this study, they will be provided to you at the conclusion of the study period.

Questions: The primary researcher is Kristy Feden, Executive Director. Please ask any questions you have prior to giving consent. You can reach Kristy at [redacted] you have questions regarding your rights as a subject in this study, you may contact the Institutional Review Board (IRB) at 402-559-6463. Or, click on the Your Rights tab at https://www.unmc.edu/irb/.

You will be provided a copy of this form to keep for your records.

Statement of Consent: I have read the above information, and have received answers to any questions that I have asked. I consent to take part in the study as well as to release my child and family data from the Program Information Report (PIR) in the ChildPlus database. I understand that information about my child and family will be kept confidential and we will not be identified in any way.

Enrolled Child's Name:
Program (Circle One):**Home-Based Early Head Start Head Start**

This consent form will be kept by the researcher for at least three years beyond the end of the study.

Appendix C

Correspondence Regarding Questionnaire

Kristy,
The only copy I could find was a bound copy from my masters thesis, long ago. I scanned a copy (attached). Will this work?
Stephanie

Stephanie M. Reich, Ph.D.
Associate Professor, Education
University of California, Irvine
(949) 824-5970
smreich@uci.edu

Douglas, Susan <susan.douglas@vanderbilt.edu>
Reply all
Mon 10/15, 8:50 AM
Kristy Feden;
Stephanie Reich <smreich@uci.edu>
Hi Kristy – I wish I could help you but I wasn't involved in the development of that measure so I do not have access to it. That being said, it sounds like Stephanie Reich would be the right person as noted in your email below. I have cc'd Stephanie on this email.

Best wishes for your dissertation!

Susan

From: Kristy Feden
Date: Sunday, October 14, 2018 at 10:39 PM
To: "Douglas, Susan" <susan.douglas@vanderbilt.edu>
Subject: Self Efficacy Questionnaire

Dear Dr. Douglas:

Dr. Bickman gave me your name and asked that I reach out to you regarding obtaining a copy of the Vanderbilt Mental Health Self Efficacy Questionnaire. The research I have conducted indicates I need to contact the authors to obtain permission to use the survey for my Dissertation. Is this something you could help me with? Thank you in advance for your time! Here is the original e-mail I sent to Dr. Bickman:

Sun 10/14, 4:11 PM
Kristy Feden;
+1 more
Inbox
please contact susan douglas

Len Bickman
Research Professor
Vanderbilt University &
Florida International University
Editor-in-Chief, Administration and Policy and Mental Health Services Research

Reply all|
Wed 10/3, 9:48 PM
Kristy Feden
Inbox
You forwarded this message on 10/10/2018 9:43 PM
one of my coauthors has a had copy that she will send to me when he returns from overseas in a few days
Len Bickman
Research Professor
Vanderbilt University &
Florida International University
Editor-in-Chief, Administration and Policy and Mental Health Services Research

On Oct 3, 2018, at 5:17 PM, Kristy Feden wrote:

Good afternoon!

Thank you so much for your reply. I actually don't have a copy of the questionnaire and haven't been able to locate one as everything I have read says to contact the author directly. Would there by chance be anyone in your department that would have a copy? I am really excited about the prospect of using this questionnaire for my dissertation research. I appreciate your help!

Kristy

From: Bickman, Leonard [mailto:leonard.bickman@Vanderbilt.Edu]
Sent: Wednesday, October 03, 2018 3:49 PM
To: Kristy Feden
Subject: Re: Vanderbilt Mental Health Self Efficacy Questionnaire

If you have a copy of it you can send it to me as well as use it. It is not been modified but you are welcome to do that, however, I would like to see what you have done
Len Bickman
Research Professor
Vanderbilt University &

Florida International University
Editor-in-Chief, Administration and Policy and Mental Health Services Research

On Sep 15, 2018, at 6:56 AM, Kristy Feden wrote:

Greetings Dr. Bickman:

I am working on my Dissertation in the field of Educational Leadership at the University of Nebraska Omaha. My research question centers on the impact of Head Start/Early Head Start services on caregiver self-efficacy, as well as the subsequent impact of parental self-efficacy on children's health and nutrition outcomes. The Vanderbilt Mental Health Self Efficacy Questionnaire is a measure that continues to rise to the surface in regard to parental beliefs regarding their ability to access mental health care for their child. I just finished reading the article you co-authored with Stephanie Reich and Craig Heflinger (2004) and know that this Questionnaire has promise for the research I am proposing.

Is the Questionnaire available for use in Dissertation research? I am in the Proposal phase and plan to move to IRB phase in late October and need to finalize methodology. Additionally, has the Questionnaire ever been modified to reflect general health as opposed to mental health services? Specifically, I am interested in parental self-efficacy as it relates to general health care (e.g., pediatric well-checks, preventive care in early childhood, oral health care).

I look forward to your response and have appreciated the wealth of information you have provided on many critically important topics. I am a School Psychologist (in my former professional life), and am very appreciative of your significant contributions to the field of mental health, particularly in regard to very young children and their families.

Take care,

Kristy Feden

Appendix D

Health and Dental Services Efficacy Questionnaire

*Adapted from the **Mental Health Services Efficacy Questionnaire;*** Bickman, Earl, & Klindworth (1991), Vanderbilt University

The following statements concern beliefs about children's health and dental care services and parents' involvement in those services. Please decide how much each statement describes how YOU feel about the health and dental services YOUR child is receiving.

Circle one number that represents your answer the best based on how much you **agree** or **disagree** with that statement.

Question	Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree
1. I believe that I can help doctors in treating my child.	1	2	3	4	5
2. Dealing with doctors turned out to be easier than I thought it would.	1	2	3	4	5
3. There is little I can do to change what is done by people who provide dental care to my child.	1	2	3	4	5
4. I know that I can do what needs to be done to work with my child's health care services.	1	2	3	4	5
5. What goes on in health care is just too complicated for me to deal with.	1	2	3	4	5
6. I believe that I can help dentists in treating my child.	1	2	3	4	5
7. There is little I can do to change what is done by the people who provide health care to my child.	1	2	3	4	5
8. I often feel it is hopeless to try to deal with health care services.	1	2	3	4	5
9. I find it easy to tell dental providers how my child and family should be treated.	1	2	3	4	5
10. My skills in dealing with health care will help me to change things that might be wrong with my child's treatment.	1	2	3	4	5
11. No matter how hard I try, my child won't get the health care they need.	1	2	3	4	5
12. I have hardly ever gotten what my child needed from dental care services, no matter what I have done.	1	2	3	4	5
13. When something goes wrong with my child's dental care, there is little I can do to affect services.	1	2	3	4	5
14. Parents like me can change the course of our children's health care treatment if we make ourselves heard.	1	2	3	4	5
15. What I do to work with dentists will help my child to get the best possible care.	1	2	3	4	5
16. With all the things I have to do, it would not be possible for me to be involved in my child's medical treatment right now.	1	2	3	4	5
17. I look forward to participating actively in my child's dental care.	1	2	3	4	5
18. I intend to be involved in the plan for my child's medical care.	1	2	3	4	5
19. I feel overwhelmed when asked to do things about my child's dental care.	1	2	3	4	5
20. I have hardly ever gotten what my child needed from health care services, no matter what I have done.	1	2	3	4	5
21. Dealing with dentists turned out to be easier than I thought it would.	1	2	3	4	5
22. I have found out that what is going to happen with my child's dental treatment will happen, no matter what I do.	1	2	3	4	5
23. I have made an important difference in the health care treatment my child has received.	1	2	3	4	5

Question	Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree
24. I don't know how to get information on the best health care services for my child.	1	2	3	4	5
25. I have found out that what is going to happen with my child's health care treatment will happen, no matter what I do.	1	2	3	4	5
26. I have seen other parents deal effectively with health services for their child.	1	2	3	4	5
27. Other parents have taught me how to get what my child needs from dental services.	1	2	3	4	5
28. No matter what others say or do, I do not think that I should be involved in my child's medical treatment.	1	2	3	4	5
29. I often feel it is hopeless to try to deal with dental services.	1	2	3	4	5
30. I have made an important difference in the dental treatment my child has received.	1	2	3	4	5
31. I don't know how to get information on the best dental services for my child.	1	2	3	4	5
32. Other parents have taught me how to get what my child needs from health care services.	1	2	3	4	5
33. I feel overwhelmed when asked to do things about my child's medical care.	1	2	3	4	5
34. I have seen other parents deal effectively with dental services for their child.	1	2	3	4	5
35. I feel overwhelmed when asked to do things about my child's health care.	1	2	3	4	5

**The following information will be kept confidential. Your names will not be included in the final report.

Your Name:_____

Child's Name:_____

My Child is in:

___ Early Head Start (Name of Teacher or Home Visitor:_____)

___ Head Start (Name of Teacher:_____)

*Adapted from the **Mental Health Services Efficacy Questionnaire***
Bickman, Earl, & Klindworth (1991), Vanderbilt University

Appendix E

2018/19 Family Strength and Need Assessment

Participant Name: _____ **ChildPlus ID:** _____

Date Completed: _____ **Case Worker:** _____ **School Year:** _____

Scoring Legend: 3.0 Need 1.0 Strength
2.0 Improving 0.0 N/A

Assessment Item	Initial Assessment	End of Year Assessment
Family Well-Being (Tier 3)		
Employment-gaining employment/skill/or training (to include GED, diploma, apprentices		
Finances-meeting monthy obligations/budgeting		
Parent's Health-establishing medical & dental home/insurance coverage; regular visits		
Children's Health-establishing medical & dental home/insurance coverage; regular appo		
Safety-securing safe housing/feel safe in community & home		
Healthy and Safe relationships-Domestic Violence or Child Protective Services		
Mental Health--seeking assistnace for dealing with stress/able to deal with stress in heal		
Nutrition/Food--accessing affordable, healthy foods		
Clothing--accessing affordable clothing		
Transportation--accessing transportation/vehicle that is safe and running/car seats		
Positive Parent-Child Relationship (Tier 3)		
Knowledge and understanding of child development/milestones/routines/discipline/potty		
Mother and/or Father bonding with child(ren)		
Reading to my child/promoting learning at home		
Families as Lifelong Educators (Tier 3)		
Setting goals with education staff for child		
Seeking educational resources		
Getting my child to school on time and on a regular basis and only miss when there is a		
Families as Learners (Tier 2)		
Life Skills-cooking healthy meals, budgeting money, and managing time/schedule		
English as a Second Language (ESL)		
Literacy Skills for adults in home		
Family Engagement in Transitions (Tier 2)		
Supporting child(ren) in transitions from EHS to HS/HS to kindergarten/family is school r		
Supporting child(ren) in new experiences and situations (e.g. move, new baby, etc.)		
Family Connections to Peer and Community (Tier 2)		
Establishing positive support systems/feel connected to other parents in the program		
Connecting to schools/Head Start/Head Start staff		
Connecting to community		

Assessment Notes:

2018/19 Family Strength and Need Assessment

Participant Name: _____ **ChildPlus ID:** _____

Assessment Item	Initial Assessment	End of Year Assessment
Families as Advocates and Leaders (Tier 1)		
Gaining strong leadership skills		
Making informed decisions on child's education and advocate for child as needed		
Becoming an Activie Leader in the community/church/civic groups/Policy Council		
Special Needs/Family Support (if applicable) (Tier 1)		
Establishing adequate services and support for a child/family member with special need		
Meeting Family's emotional needs in reference to supporting a child/family member with		