THE RELATIONSHIP BETWEEN FOOD CHOICE AND SELF-ESTEEM IN

SINGLE MOTHERS IN DENVER, COLORADO

by

CINDY VONG

B.A., SUNY Binghamton, 2013

A thesis submitted to the

Faculty of the Graduate School of the

University of Colorado in partial fulfillment

of the requirements for the degree of

Master of Urban and Regional Planning

Urban and Regional Planning Program

2017

This thesis for the Master of Urban and Regional Planning degree by

Cindy Vong

has been approved for the

Urban and Regional Planning Program

by

Carolyn McAndrews, Chair

Carrie Makarewicz

Jennifer Steffel Johnson

Date: July 29, 2017

Vong, Cindy (MURP, College of Architecture and Planning)

The Relationship between Food Choice and Self-Esteem in Single Mothers in Denver,

Colorado

Thesis directed by Assistant Professor Carolyn McAndrews

ABSTRACT

As world population continues to grow and cities become more urbanized, the niche of food planning becomes increasingly important to secure the basic needs of the community. Mothers, including single mothers, typically have a vested interested in the topic as social practices around food and food-related housework fall largely on them. Previous research has studied single mothers and their experiences with poverty, mental and physical health, and work/life balance, but there is no existing literature investigating the relationship between food choice and self-esteem. This study has two purposes: first, to demonstrate the significance and impact of food choice through the perspective of single mothers; and second, to share the lived experiences of single mothers with urban planners to inform an understanding of the attitudes, beliefs, norms, and other psycho-social influences with which they interact with policies. To investigate the relationship, ten single mothers living in Denver, Colorado, were recruited for narrative interviews to capture their lived experiences. Results show a causal relationship between food choice and self-esteem; however, the relationship is complicated by other competing factors, such as housing and transportation. This study is exploratory and provides a foundation for future research.

The form and content of this abstract are approved. I recommend its publication.

Approved: Carolyn McAndrews

DEDICATION

This thesis is dedicated to my best friend, Gabriel Henry Wolfson, for your unwavering support and positive example which teaches and reminds me to be *good*, both as a person and as a researcher.

I also dedicate this work to my family and friends who have been constant sources of encouragement and optimism. Thank you for being there.

ACKNOWLEDGEMENTS

First and foremost, I would like to express my gratitude to my thesis advisor, Dr. Carolyn (Carey) McAndrews, whose guidance, patience, and encouragement motivated me to take this thesis idea and run with it. Since my first semester, you have inspired me to challenge common beliefs, ask questions, and learn for the sake of knowledge. Thank you for keeping my sanity intact.

I would like to thank Dr. Carrie Makarewicz, whose door (and email) was always open and available. You helped me navigate through the weeds with your brilliant advice, insights, and recommendations. Thank you for sharing your expertise and experiences.

I would also like to thank Dr. Jennifer (Jenny) Steffel Johnson, whose enthusiasm, advice, and passion for social justice influenced my thinking and inspired my research. Thank you for helping me see the bigger picture.

Finally, very special thanks goes out to the single mothers who shared glimpses of their lives with me. Your stories, kindness, and support has enriched my research and does not go without deep appreciation.

TABLE OF CONTENTS

CHAPTER

LIST OF TABLES

LIST OF FIGURES

FIGURE

CHAPTER I

INTRODUCTION

*"Until you see a city how people who are most in need of help see it,
you're never going to reach them." - Kasim Reed, Mayor of Atlanta, Georgia*

Urban planning is a professional practice with goals of making the places that people live, work, and play better, more productive, and more equitable. Planners continuously find adaptive and innovative ways to respond to a growing and changing world by drawing on the expertise of disciplines such as sociology, economics, environmental science, engineering, and public health, but rarely psychology (American Psychological Association, 2005; Pfeiffer, 2016). Although often overlooked, urban psychology has immense utility and applications for planners as this research can "contribute to a greater understanding and amelioration of those problems associated with urban life, and promote and sustain those aspects of urban life that enhance individual and societal growth, development, and well-being" (American Psychological Association, 2005, p. vi).

The field of urban psychology emerged in 1905 when George Simmel, a European scholar writing during a time of rapid urbanization, began questioning the impact of this new environment on the individual. His central question was, "What impact has city life on the individual – our behavior, personality, values, relationships?" This query remains the focus of urban psychologists today (Takooshian, 2005), and its answers have implications for planners. Given that world population is increasing and cities around the globe are becoming more urbanized (World Health Organization, 2017), planners should reflect and seek to learn how their policies affect the psychological wellbeing of their city's residents and the outcomes of those effects, and either reaffirm the policy or course-correct as necessary. Although there is a small but growing body of research in planning on the subjective

wellbeing of individuals (Cao 2016; De Vos, Schwanen, Van Acker, & Witlox, 2013; Ettema et al., 2011), there is little to no focus on self-esteem.

One popular and common method of gauging the psychological state of an individual is an analysis of their self-esteem, a subjective evaluation of his or her self-worth. While the construct of self-esteem is complex and deeply personal with scarce understanding of it within the context of urban planning, I argue that an informed understanding of how urban policies and their outcomes make residents *feel about themselves, rather than particular life domains typically studied within wellbeing,* can lead to more effective policies in the future. For instance, incentivizing a major grocer to open a site in a low-income neighborhood may provide an option for food access, but it may also negatively impact residents' psychological wellbeing if the groceries are unaffordable and they are still unable to provide for their household despite increased access. A more appropriate policy, that also considers self-esteem, among other benefits, would be to work with community members to identify the neighborhood's food gaps, develop skills within the neighborhood to meet those needs, and finance projects that empower the community to fulfill and sustain itself, thereby increasing food access and attainment, social capital, relationships, and local expertise.

Development of the Research Question

The inspiration for this study occurred a couple of years ago. Like many others in Denver, Colorado, I am a non-native, a transplant that craved an urban home with a small-city feel. It is easy to get caught up in festivals that seem to occur every weekend or breweries that open with even greater frequency, but it is also near impossible to ignore or avoid the pervasive issue of homelessness in this city. In the summer of 2015, my significant other, Gabriel, and I were interested in finding a way to help.

While there are many local organizations that provide social support, we decided to contact St. Elizabeth of Hungary to offer material assistance for their Sandwich Line program, which provides food for people without a home. We were asked to provide 75 packs of two sandwiches for a total of 150 sandwiches. Gabriel and I made a trip to the grocery store where we cleared out a small section of the bread aisle. We then made our way to the edge of the store for the lunch meats. We stood in front of the refrigerated shelves for some time, discussing which option would be best for the church's clients. While I assumed ham would be a popular choice, Gabriel thought turkey would be better. But what if there were vegetarians? After some back and forth, we realized that the decision should not be up to us; the clients should choose for themselves. We made ham, turkey, bologna, and cheese sandwiches and delivered them the following day.

A member of the church contacted us later in the week with a thank you message. In that email, she said,

> Thank you so much for the wonderful sandwiches that you made for our clients at St. E's. The majority of them were thrilled not only with sandwiches but also with the choices. If you think about it one thing that they have lost is choices. (D. Regan, personal communication, August 25, 2015)

This message stuck with me because until then I had not appreciated the value, power, or meaningfulness of choices and being able to make them, especially regarding food which is not only symbolic but also an indicator of who and where you are. I imagined myself in position of the clients, and I wondered how my self-esteem would change if I were not able to access the foods that held deep meaning for me. I wanted to investigate further.

Originally, my research question was, "Is there a relationship between food choice and self-esteem?" However, this premise was very broad, so broad that it would be challenging to analyze the data from a widely diverse population. Food choice was a primary

focus of the study and because food is highly gendered and centered around family life, I decided on mothers as the population sample. But not all mothers are responsible – fully or partially – for food choices, especially when the presence of a partner distributes that obligation. Therefore, the population sample was narrowed further to single mothers who are primarily responsible for food choice and could speak to that impact on their self-esteem in their roles as mothers and as women. The principle and guiding question for this investigation was, "What is the relationship between food choice and self-esteem for single mothers in Denver, Colorado?"

Growth of Local Food Systems

Across the United States, "consumer, producer, and policymaker interest in local foods appears to be growing. Between 2002 and 2012, farm operations with direct-to-consumer sales of food for human consumption increased from 116,733 to 144,530" (U.S. Department of Agriculture, 2015, p. 1). Denver began its first formal initiative to address local food changes in 2010 under Mayor Michael Hancock with the creation of the Sustainable Food Policy Council (SFPC). The SFPC supports four major policies including (1) an amendment to the Denver Zoning Code that would allow the sale of raw agricultural goods and homemade food products on residential properties; (2) a local purchasing ordinance that gives preference in all City of Denver contracts to local farms and ranches and/or vendors from local farms and ranches; (3) expansion of Supplemental Nutrition Assistance Program (SNAP) benefits to all Denves farmers' markets; and (4) a broad range of food outlets (Denver SFPC, n.d.).

In 2015, Denver's Office of Economic Development hired its first Manager of Food Systems Development who would be responsible for planning and envisioning Denver's

local food landscape for the next 15 years. Blake Angelo was hired and tasked with "supporting the growth and development of food and farm businesses to find new and creative ways to support healthy food access in Denver's low-income communities" (Angelo, *New & Next*, 2016). However, when evaluating the success of local food programs thus far, Mr. Angelo noted inconsistent results. For instance, since the amendment to the Denver Zoning Code was approved, over 100 licenses for backyard farms and about 20 permits for front yard food stores have been issued, but Denver FRESH has struggled to gain interest. Denver FRESH was created to incentivize grocers to expand their operations to underserved areas of the city but after setting aside $10 million to fund projects, nearly $8.8 million remains unused due either to lack of incentives or too much disincentive. Mr. Angelo commented, "The problems in Denver's food systems are still being defined as there are multiple ways of looking at it" (personal communication, February 9, 2016).

There are also multiple ways of evaluating the outcomes of Denver's nearly 3,000 food-related organizations (B. Angelo, personal communication, February 9, 2016). This can include counting licenses to sell food, totaling sales from farmers' markets, or studying changes in food security. However, there is no planned assessment of the impacts of food access on self-esteem which is at the intersection between policy and behavior. While policies assume rationality, humans are not entirely rational, and they interact with policies differently based on their attitudes, beliefs, norms, and other psycho-social influences. Specifically, regarding this research, these factors may mean single mothers respond to the local environment differently than their single father or married couple counterparts.

The relationship between food choice and self-esteem is unexplored, but it is important to capture the lived experience of single mothers whose growing population has a

relatively precarious socio-economic position. Understanding the realities single mothers face and their perceptions of the local food system will provide insight into its effectiveness and broad awareness of the significance of food choice. If urban planners are to create great and equitable places, then they must address social and racial injustices by first understanding how stigmatized populations perceive their community. This can help urban planners guide, promote, and advocate for policies that afford more equitable opportunities and positions of empowerment for marginalized populations.

Statement of the Problem

Despite the growth and normality of female-headed households, single mothers are often received with concern and criticism. The Pew Research Center (2010) conducted an extensive survey in 2010 to measure the public's response and attitude towards changes in household structure. They found that when comparing major demographic trends that have transformed family life in recent decades:

> …the one trend that elicits the most negative reaction from the public is the increasing number of single women having children (p. 8). Sixty-nine percent say the trend towards more single women having children is bad for society, and 61% say that a child needs both a mother and father to grow up happily (p. ii). While the public embraces the changing role of women in society, most Americans still maintain a more traditional orientation towards family and marriage. (p. 7)

> To explain and elaborate on this widespread sentiment, Kalil and Ryan (2010)

observe:

> Such families evoke public concern in part because they are more impoverished and endure more material hardship than married-parent families. Fragile families have fewer sources of economic support and almost no financial assets. The economic fragility of these families stems largely from mothers'… relatively low skills and training, which often pose barriers to higher-wage work. Father absence and family instability are also cause for concern. (p. 40)

Consequently, there is the tendency for single mothers to experience social injustices due to their reduced power position in the social structure. When compared to other household

types, single mothers have more obstacles blocking social mobility and opportunity, including lower rates and levels of educational attainment, employment, and income. They are more likely to live in poorer areas of cities, experience greater housing and food insecurity and, Worrell (1988) argued, they are "more susceptible to economic and social stressors, including loss of employment, high-cost health insurance, child care problems, poor housing, and high educational expenses" (cited in Lutenbacher & Hall, 1998).

The social condemnation and stigmatization of single mothers is outdated, unwarranted, and begs for reform. As Erika L. Sánchez (2015) says, "Single mothers need solutions, not shaming. [It is] time to banish social stigma, embrace the changing American family, and offer policy support." Not only do single mothers need solutions but they also need to be a part of the solution where their knowledge and lived experiences inform broader strategies, plans, and policies. Krumer-Nevo (2008) supports:

> Too often the voices and knowledge of poor people are perceived by policy-makers and researchers as anecdotal, providing items to be used when introducing an article or lecture, but not as a source of knowledge necessary for the setting of policy or for the refinement of intervention methods. (p. 556)

Single mothers have been studied for various research themes from poverty, to mental and physical health, to their influence on their children. However, there is limited literature investigating the mental wellbeing of single mothers as it relates to self-esteem: the sum of their self-evaluation, self-efficacy, and authenticity (Stets & Burke, 2014). Self-evaluation is a person's evaluation of him or herself that is determined by the evaluation of others (Sherwood, 1967, p. 404). Self-efficacy is the degree to which people believe in their ability to influence events that affect their lives (Bandura, 1994). Authenticity is the demonstration of acts that are in accordance with and true to an individual's desires, motives, ideals, or beliefs (Varga & Guignon, 2014). Considering the public's attitudes towards them, how do

single mothers believe they measure against the scrutiny of others? To what level do they perceive they can control the forces in their lives? And given challenges and barriers, how well have single mothers remained "true" to their personal standards and expectations, particularly in the realm of food choice?

Research Questions

This research was designed to investigate whether a relationship exists between food choice and single mothers' self-esteem and, in general, how single mothers navigate the local food system. Undoubtedly, there are a multitude of micro- and macro-level factors that affect and shape self-esteem, such as family and income, but this study seeks to understand food choice's place and influence. The following research questions guided this study:

1. Is there a relationship between food choice and self-esteem?

2. How does food choice impact the self-esteem of single mothers?

3. What is the relationship between food choice and self-esteem?

These research questions were the basis for the following research hypotheses:

1. There is a relationship between food choice and self-esteem where the food choices that are available or unavailable to single mothers can influence how they perceive themselves.

2. Food choice, including food accessibility, impacts the self-esteem of single mothers by affecting their evaluation of themselves determined by the evaluation by others (self-evaluation); their sense of being able to influence the events that affect their lives (self-efficacy); and their ability to act while staying true to themselves and their values (authenticity).

3. The relationship between food choice and self-esteem is correlational where the greater the number of limitations, challenges, or barriers, perceived or actual, to the food choices single mothers need and/or want, the lower the self-esteem, and vice versa.

Research Strategy

To answer the research questions, I used primary data collected through interviews and a brief survey with single mothers in the Denver area. The interview script was designed to solicit personal narratives and the survey allowed descriptive statistics. I recruited single mothers through broad tactics, including posted fliers, solicitation emails, and snowball techniques. Eligible participants were invited to meet for an in-person interview where they would share experiences, aspirations, and connections with food choice and food accessibility. After the interview, participants were given a survey which included questions about their demographics, factors that affect their self-esteem, and their perceptions of themselves. The data was then coded, presented, and analyzed for discussion.

CHAPTER II

BACKGROUND AND LITERATURE REVIEW

Background

Changing Family Compositions

Family structure in the United States commonly conjures up images of a traditional household comprising a married mother and father who provide care and support for their biological children. Nuclear families accompany romantic visions of suburban life and epitomize the ethos of the United States with values grounded in hard work and opportunity. However, the Population Reference Bureau (2012) indicated that since the 1960s, the number of married couples with children have steadily decreased, falling below 50% of all family households for the first time in 2010, and below 25% of all households. McFalls (2003) defines the distinction:

> Under the U.S. Census Bureau definition, family households consist of two or more individuals who are related by birth, marriage, or adoption, although they also may include other unrelated people. Nonfamily households consist of people who live alone or who share their residence with unrelated individuals.

Hereafter, the use of "household" will only reference family households.

Nontraditional families are becoming the norm and these include blended, multigenerational, interracial, same-sex, and single parent families. Of these typologies, the most common deviation from traditional households is single motherhood, by circumstance or by choice, as evidenced by the impressive surge from "3.4 million single mothers living with children younger than 18 in 1970 to 9.8 million in 2016" (U.S. Census Bureau, 2016F, *Table FM-2*). Badger (2014) summarized the trends this way:

> Not only are women having children later in life, but they are also doing so in less traditional ways: before marriage, without marriage, or with unmarried partners.

Single motherhood has grown so common in America that demographers believe that half of all children will live with a single mom at some point before the age of 18.

Family composition is changing in an "era of 'intensive mothering,' which places enormous responsibility on mothers to assure that their children have every possible advantage and judges mothers for the way their children turn out" (Layne, 2015, p. 1154). "A lot goes unsaid, but positive or negative judgments are quickly detected," says Beverly Grant, owner of Mo' Betta Green MarketPlace, pioneer of the local food movement, and single mother. She adds that single mothers want what is best for their children but have fewer resources to meet those needs and desires (personal communication, March 10, 2016).

The premise of this study is an investigation of the dissonance between cognition and behaviors in single mothers, framed around food choice and analyzed for its effect on their self-esteem. Single mothers have many demands put on them from employment, family hours, and housework, which includes meal preparation. Housework decreases as more mothers seek employment and hold jobs, however the demand of food preparation work does not decrease nor do their eating principles change (Devine et al., 2006). Thus, it follows that single mothers might experience cognitive dissonance between what they are actually able to provide their children and what they want to, and that this might impact mothers' views of themselves. By analyzing the effects of conflicting beliefs and behaviors, planners can better understand why different demographic groups, like single mothers, respond differently to policies, and thereby create more thoughtful policies that enable a wider range of residents to maintain congruence between cognition and behaviors.

Statistics of Single Mothers

Number of Households

Female-headed households are growing, as Figure 2.1 illustrates. In 1961, there were roughly 4.6 million female-headed households and over 15.6 million in 2016, an increase of more than 11 million in 55 years. During this timeframe, there have been greater surges and slowdowns, but the overall trend is upward (U.S. Census Bureau, 2016G, *Table HH-1*).
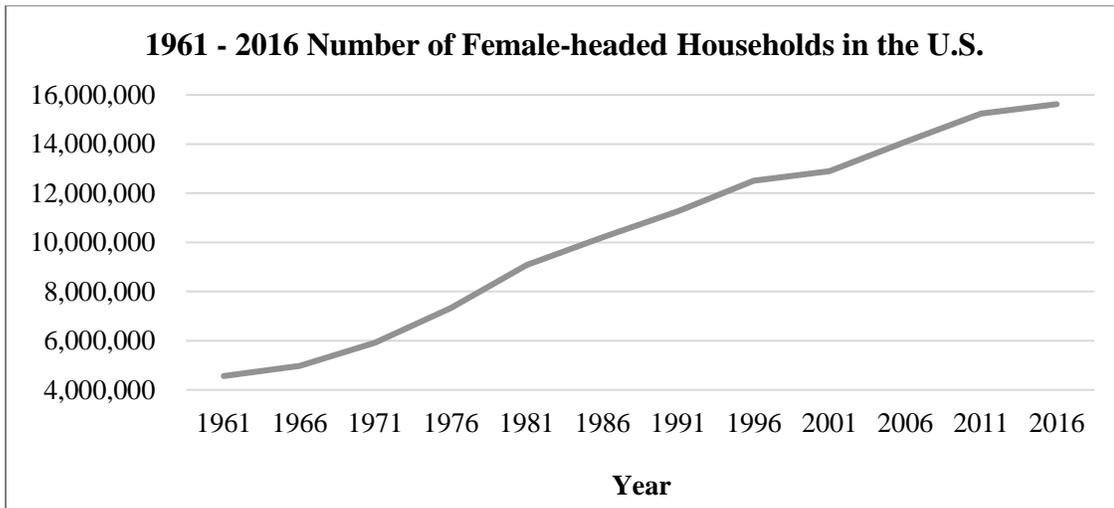
Figure 2.1 *1961 – 2016 Number of Female-headed Householders in the U.S.* (U.S. Census Bureau, 2016G, *Table HH-1*)

Race and Ethnicity

The racial distribution of single mothers, demonstrated in Figure 2.2, indicates that in 2016, 62% of all female-headed households with children under 18 are White and 31% are Black. Less than 10% are Asian and All other races and combinations, 2% and 5%, respectively. Additionally, roughly one-quarter or 24% of single mothers of any race were Hispanic (U.S. Census Bureau, 2016E, *Table FG10*).

Age and Marital Status

As Figure 2.3 shows, 85% of single mothers are between the ages of 25 and 54, 11.5% are under 25, and 3.5% are 55 and over. The age ranges most frequently represented are 35 and 39, followed by 30 and 34, and 45 and 54, respectively. Most single mothers with children under 18 have never been married (49.3%), followed by divorced (30.1%), separated (17.1%), and widowed (3.5%) (U.S. Census Bureau, 2016D, *Table FG6*).
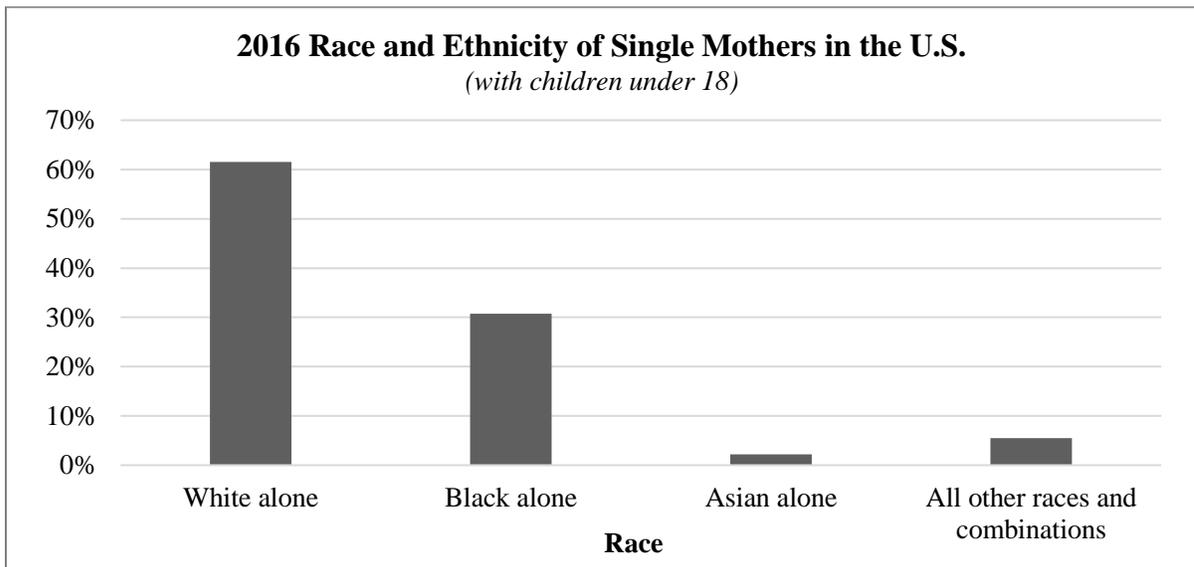
Figure 2.2 *2016 Race and Ethnicity of Single Mothers in the U.S.* (U.S. Census Bureau, 2016E, *Table FG10*)

2016 Age of Single Mothers by Marital Status in the U.S.
(with children under 18)

■ Never Married ■ Divorced ■ Separated ■ Widowed
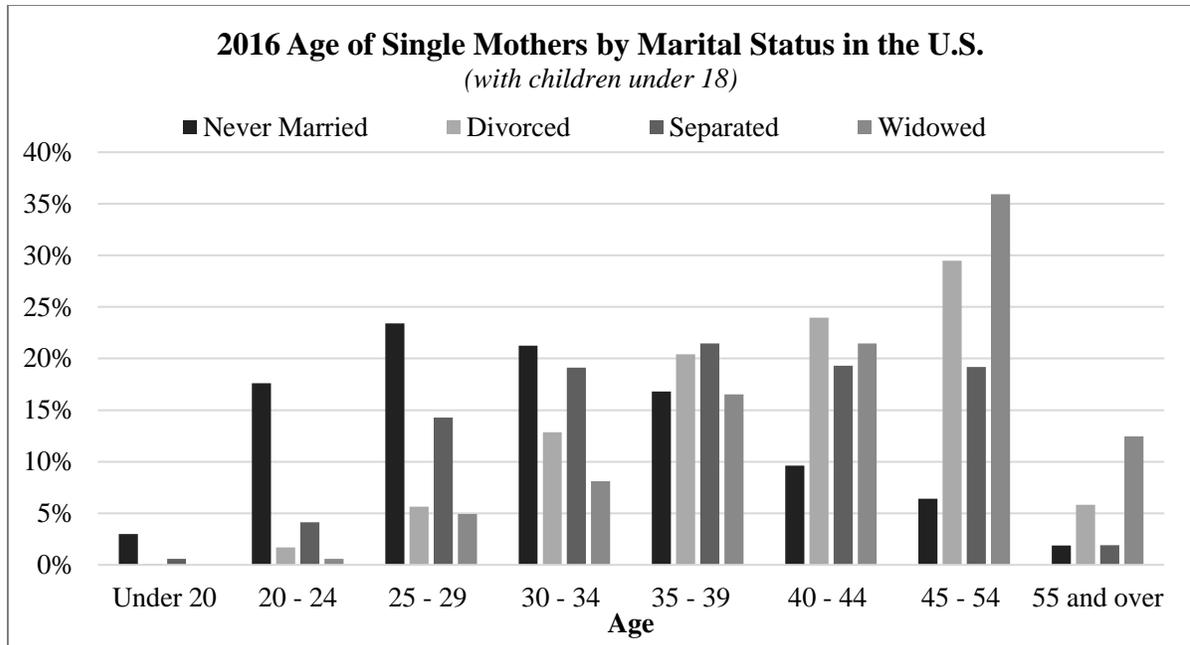
Figure 2.3 *2016 Age of Single Mothers by Marital Status in the U.S.* (U.S. Census Bureau, 2016D, *Table FG6)*

Female-headed, Male-headed, and Married Couple Households

Single parenthood in the United States is not equally distributed between male-headed and female-headed family households. The number of female-headed households have far exceeded the number male-headed households as far back as recorded in the 1940 Census. That year, there were approximately 4.9 million single parent households; 69% were headed by females while 31% by males. Years later in 2016, the proportion of household type is roughly unchanged with nearly 22 million run by a single parent; 71% headed by females and 29% headed by males. However, female-headed households fall second when including married couple households. Together, there are over 82 million married couple, female-headed, and male-headed households, representing 73%, 19%, and 8%, respectively (U.S. Census Bureau, 2016G, *Table HH-1).*

Educational Attainment

Figure 2.4 illustrates the distribution of educational attainment for each household type. Over 80% of all single mothers, single fathers, and married couples have, at a minimum, a high school education, 86%, 84%, and 91%, respectively. Most single mothers have "Some college" (37%), followed by their high school diploma (29%) and a Bachelor's degree or higher (20%). Alternatively, most single fathers are high school graduates (36%), trailed by "Some college" (29%) and Bachelor's degree or higher (19%). Of married couple households, 70% have higher education experience with 27% obtaining "Some college" and 44% earning a Bachelor's degree or higher. Additionally, married couples are over twice as likely as single mothers or single fathers to have a Bachelor's degree or higher (U.S. Census Bureau, 2016A, *Table F2*).
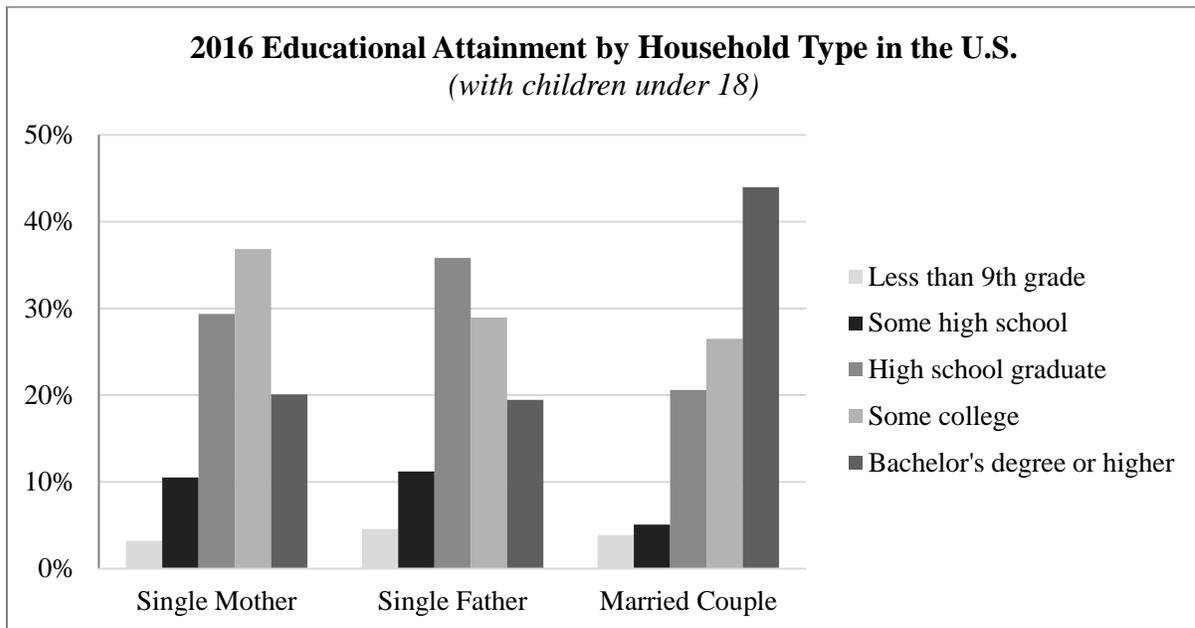
Figure 2.4 *2016 Educational Attainment by Household Type in the U.S.* (U.S. Census Bureau, 2016A, *Table F2*)

Labor Force

Illustrated in Figure 2.5, labor force status trends between household types show similar patterns between employed, unemployed, and not in labor force. Single mothers, single fathers, and married couples have over 70% of their population employed, 71%, 78%, and 80% respectively; however, the U.S. Census Bureau is unclear if this includes full or part time work. The minority of each household type is unemployed, ranging between 1-8%, and this indicates that the individual does not hold employment but is looking. Of household types not in the labor force, single mothers lead with 23%, followed by married couples at 19% and single fathers at 14%; "Not in Labor Force" represents individuals who are not employed but also not searching for a job, going to school, or retired.

It is important to note the advantage married couples have over single parent households. Married couples have twice the potential to find employment with two individuals whereas single mothers and fathers can only rely on themselves. They also have more possible permutations in the labor force. For instance, married couples that are employed includes both partners employed; only husband employed when both in labor force; only wife employed when both in labor force; husband employed when only husband in labor force; and wife employed when only wife in labor force. Additionally, married couples that are unemployed considers both partners unemployed; husband unemployed when only husband in labor force; and wife unemployed when only wife in labor force (U.S. Census Bureau, 2016B, *Table FG1*; 2016C, *Table FG5*).

2016 Labor Force Status by Household Type in the U.S.
(with children under 18)

■ Employed　■ Unemployed　■ Not in Labor Force

[Bar chart showing labor force status by household type. Single Mother: Employed ~71%, Unemployed ~6%, Not in Labor Force ~22%. Single Father: Employed ~78%, Unemployed ~8%, Not in Labor Force ~13%. Married Couple: Employed ~80%, Unemployed ~1%, Not in Labor Force ~19%. Y-axis ranges from 0% to 90%.]
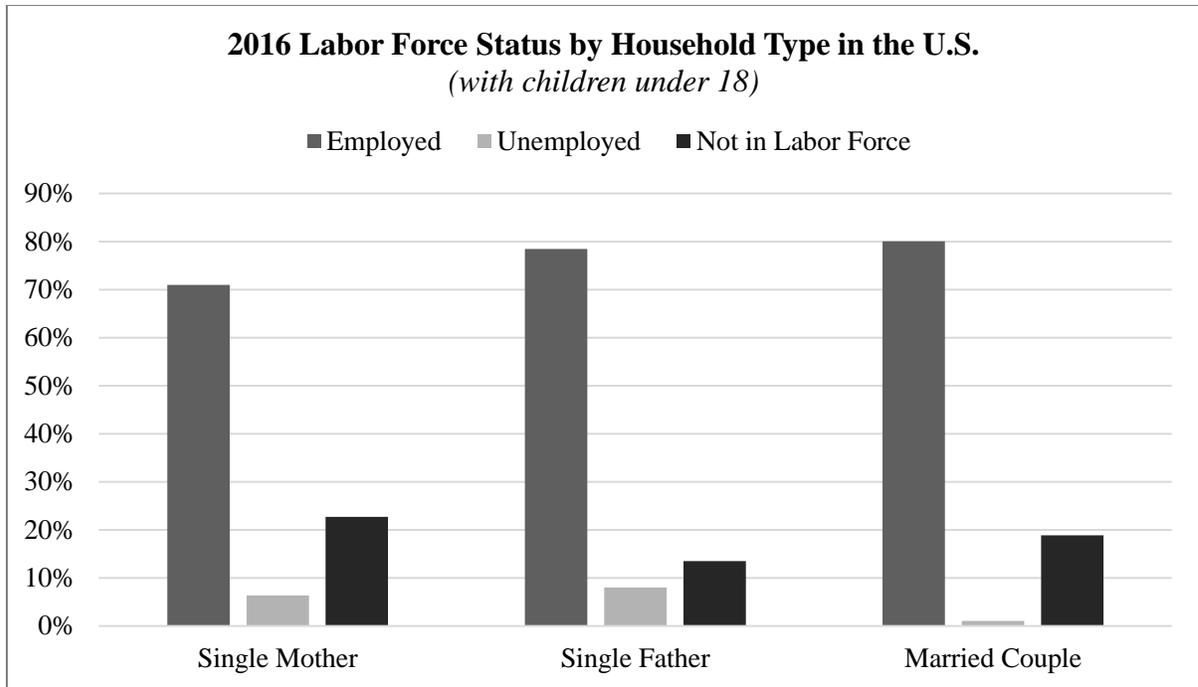
Figure 2.5 *2016 Labor Force Status by Household Type in the U.S.* (U.S. Census Bureau,

2016B, *Table FG1*; 2016C, *Table FG5*)

Income

Income varies widely within and between household types, and Figure 2.6

demonstrates these differences. Most single mothers earn under $10,000 (18%) while 10% of

single fathers and 2% of married couples are in this range. Conversely, only 11% of single

mothers fall within the highest income range while 21% of single fathers and 42% of married

couples earn $100,000 and over. Thirty-six percent of single mothers and 52% of single

fathers have incomes of $50,000 and over, despite single mothers having higher rates and

levels of educational attainment. Fifty-nine percent of married couples earn $75,000 and over

which, like with the labor force, can be attributed to the advantage of dual-income potential

over single parent households (U.S. Census Bureau, 2016B, *Table FG1*; 2016C, *Table FG5*).

2016 Income by Household Type in the U.S.
(with children under 18)

■ Single Mother   ■ Single Father   ■ Married Couple
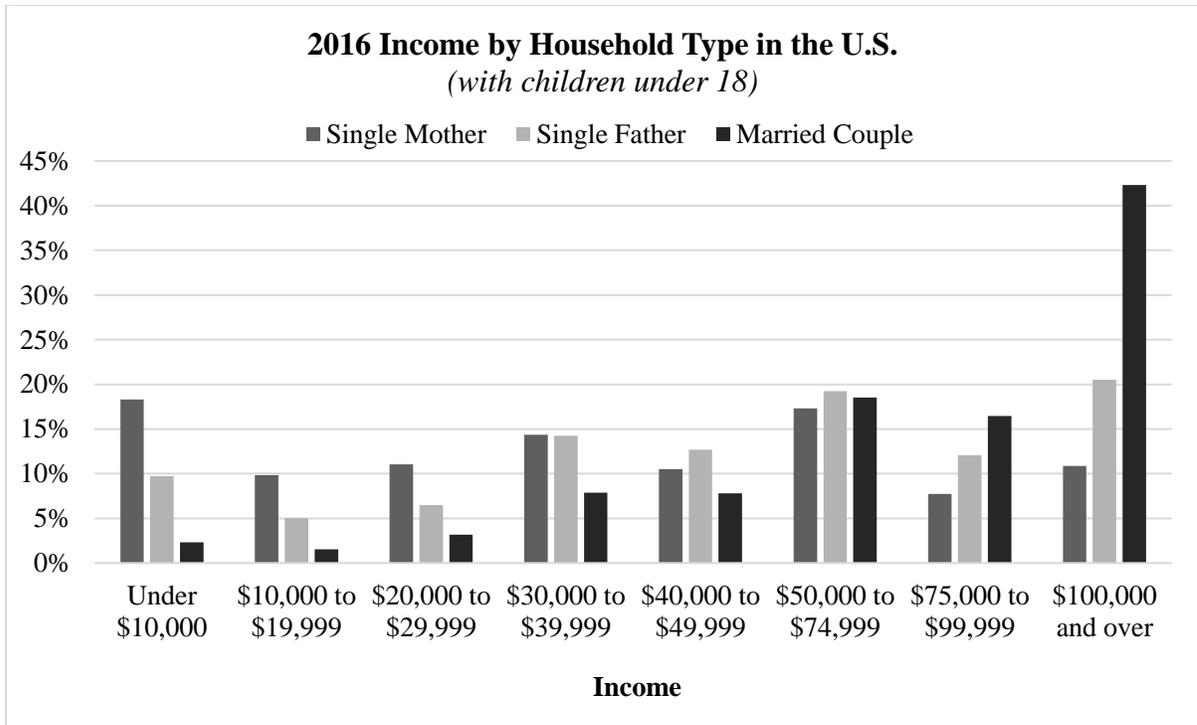
Figure 2.6 *2016 Income by Household Type in the U.S.* (U.S. Census Bureau, 2016B, *Table FG1*; 2016C, *Table FG5*)

Poverty Rate

The poverty rate is a measurement that uses family size and income to calculate a threshold, a dollar amount that families can compare their income against; families and every individual therein who earn below the threshold is considered in poverty. Although there are challenges in using this calculation because it does not determine the true amount needed for a household to have a decent standard of living, it is worth mentioning due to widespread reference and reliance on the measurement. Female-headed household have the highest percentage (34%) of poverty when compared to single fathers (19%) and married couples (5%). Married couples have the greatest most number of families below poverty trailed by female householders then male householders at 3.4 million, 3.3 million, and 385,000, respectively (U.S. Census Bureau, 2016B, *Table FG1*; 2016C, *Table FG5*). DeNavus-Walt

and Proctor's (2015) research study evaluates the relationship between education, employment status, and income level to illustrate that single mothers face direr economic challenges than single fathers or married couples.

Table 2.1 *2016 Poverty by Household Type* (U.S. Census Bureau, 2016B, *Table FG1*; 2016C, *Table FG5*)

2016 Poverty by Household Type			
	Total	Below Poverty Level	Percent
Married Couple Household	62,628,000	3,438,000	5%
Male-headed Household	2,033,000	385,000	19%
Female-headed Household	**9,781,000**	**3,289,000**	**34%**
Total	74,442,000	7,112,000	10%

Literature Review

Urban planning is typically viewed from perspectives of other disciplines, but rarely psychology. The scientific exploration of the human mind is one of the oldest fields of study. For well over a century, psychologists have investigated the intricate connection between mental characteristics and human behavior to gain an understanding of how people think, learn, perceive, communicate, and remember. Psychology has since branched into many subsets including social psychology, cognitive psychology, and evolutionary psychology, but one concept – self-esteem – remains a popular topic as numerous experiments have been conducted to support theories of its sources, limitations, purposes, and implications. So, what is self-esteem? Self-esteem can simply be described as a person's subjective sense of self-value. It is a resource from which individuals can draw the strength, will, and ability to overcome challenges and fears in order to learn and grow from them. Although scholars discuss and debate the factors of self-esteem, this study adopts the three dimensions outlined by Stets and Burke (2014): self-evaluation, self-efficacy, and authenticity.

<u>Dimensions of Self-Esteem</u>

Self-esteem is a construct with multiple dimensions. The first is self-evaluation. "Self-evaluation is a function of objective public evaluation – that is, a person's evaluation of himself is in large part determined by evaluations by others" (Sherwood, 1967, p. 404). Positive evaluations are desirable, but Leary (2007) suggested that they cannot be an end in themselves (as cited in Swann & Bosson, 2010, p. 606). Swann and Bosson (2010) elaborated:

> Like paper currency, positive evaluations are valuable more for what they symbolize than for their intrinsic properties. In particular, positive evaluations are valued because they are markers of one's *social worth* and thus satisfies a desire for communion, i.e. belonging and interpersonal connectedness... (p. 606)

The desire for social worth is supported by the "sociometer theory which proposes that the self-esteem system evolved as a monitor of social acceptance, and that the so-called *self-esteem motive* functions not to maintain self-esteem per se but rather to avoid social devaluation and rejection" (Leary, 1991, p. 32). Leary and Baumeister (1995) based this theory on the "assumption that human beings possess a pervasive drive to maintain significant interpersonal relationships, a drive that evolved because early human beings who belonged to social groups were more likely to survive and reproduce that those who did not" (as cited in Leary, 1991, p. 33).

A second dimension of self-esteem is self-efficacy. Self-efficacy, the desire for human agency, is described by Bandura (1994) as the degree to which people believe in their ability to influence events that affect their lives. It reflects an individual's degree of confidence in their capabilities; "the stronger their perceived self-efficacy, the more active their efforts to expend and persist in the face of obstacles and aversive experiences" (Bandura, 1977, p. 194). Pearlin et al. likened efficacy to the idea of mastery or being in

control (as cited in Stets & Burke, 2014, p. 410) where control is driven by "the need for

security which induces a person to gain 'knowledge' about the self and the environment,

about the relation between both, and about their development in the future" (Trommsdorff,

1994, p. 39). Buss (2014) notes, however, that:

> [While the exercise of human agency] does not guarantee that one will have a greater
> range of option in the future, or the sort of opportunities one most wants to have,
> autonomous individuals at least have the authority to determine and enforce the rules
> that govern their lives.

Authenticity is a third dimension of self-esteem. Authenticity is demonstrated when

an individual acts in accordance with desires, motives, ideals, or beliefs that are not only his

or her own, but are also expressions of his or her 'true' self (Varga & Guignon, 2014).

"People experience themselves continuously through feelings, intentions, and actions,

however, each person responds very selectively to this stream and identifies some aspects as

manifesting the 'true' self but discounts or rejects other aspects" (Turner & Schutte, 1981, p.

1). For some, their 'real' self is revealed through conformity to norms, values,

demonstrations of competence, and self-control whereas others are revealed by way of

impulsiveness, discovery, and freedom from inhibitions (p. 12-13). Erickson and Trilling

interpreted authenticity as the "positive feeling associated with fulfilling one's personal

expectations or commitments," while Harter read it as "expressing oneself in ways that are

consistent with inner thoughts and feelings" (as cited in Stets & Burke, 2014, 411); all in all,

authenticity reflects the enduring self that corresponds to standards, values, and intentions

that are internally-derived.

These three dimensions – self-evaluation, self-efficacy, and authenticity – provided a

framework for the research methodology to answer the question: *How does food choice

impact the self-esteem of single mothers?* How do single mothers perceive themselves as

providers when they are being judged by others (self-evaluation)? Do single mothers believe

they are in control and capable of changing their situation (self-efficacy)? And how 'true' do

single mothers remain to themselves given potential challenges or obstacles in other aspects

of their lives (authenticity)?

<u>Identity Theory and Self-Verification</u>

Identity theory also contributes to understanding the problem of food choice.

"According to identity theory, the self is composed of multiple identities that reflect the

various social positions that an individual occupies in the larger social structure" (Cast &

Burke, 2002, p. 1042). Stets and Burke (2014) explain that an identity is a set of meaning that

defines individuals and emphasizes what it *means* to belong to social categories or groups,

occupy their roles, and be unique persons. For example, what does it mean to be female

(social identity), a single mother (role identity), or a caring person (person identity)?

An individual's social/group, role, and person identities are linked to the self-esteem

dimensions of self-evaluation, self-efficacy, and authenticity, respectively (Stets & Burke,

2014). Burke and Stets argued that "in identity theory, the verification of these different

bases of identities is linked to different self-esteem outcomes" (as cited in Stets & Burke,

2014, p. 410). Specifically:

> The verification of social/group identities provides a general sense of being found
> worthy and valuable, the verification of role identities provides a sense of efficacy or
> competency, and the verification of person identities generates the feeling that one is
> being one's true self. (p. 410)

From identity theory principles, Stets and Burke (2014) found that "these three dimensions

are moderately correlated and, they are distinct concepts with their own patterns of

relationships to each other" (p. 429).

In situations when an identity is activated, a feedback loop is also activated (Burke & Stets, 2009).

> The loop has several components: (1) an identity standard (the meanings defining the identity); (2) output (meaningful behavior), (3) input (how people think others see them in the situation, that is, reflected appraisal meanings), and (4) a comparator (which compares the meanings in the input with the meanings of the identity standard to assess the degree of correspondence between these two sets of meanings). (Stets & Burke, 2014, p. 412-413)

This system of feedback is powerful in that it enables individuals, like single mothers, to control situations and adjust their behavior to elicit a desired response from others. On the other hand, the comparator standard could also illicit negative self-esteem if the mother feels others do not think they are living up to the identity standard of a mother, e.g. by not preparing healthy meals.

The verification of social/group, role, and person identities is achieved when others affirm our existing self-view (Chen, English, & Peng, 2006), thereby providing confirmation that others view us as we view ourselves. Self-verification of identities is essential in grounding one's sense of self and "bolstering feelings of existential security" (Swann, Rentfrow & Guinn, 2002, p. 369). William B. Swann, Jr. (1983) explained that the self-verification theory suggests that people actively work to preserve and are motivated to seek confirmation of their self-view (as cited in North & Swann, 2009, p. 131). Cooley, Lecky, Mead, and Secord and Backman reasoned that the motivations of self-verification theory stem from the assumption that "stable self-views provide people with a crucial source of coherence, an invaluable means of defining their experience, organizing experience, predicting future events, and guiding social interaction" (as cited in Swann et al., 2002, p. 369). "Because self-views serve these important functions, people become invested in maintaining them, even if these self-views are negative" (North & Swann, 2009, p. 131).

According to North and Swann (2009), the presence of either positive or negative self-views becomes stable through the self-verification process. People who view themselves positively may choose to interact and be around others who view them similarly, and conversely, people with negative self-views may choose to interact and be around others who view them negatively. Self-verification of positive self-views provide benefits for individuals. Direct benefits include psychological coherence, reduced anxiety, and improved health while indirect benefits include harmony of social interactions, improved quality of relationships, and trust. There are also drawbacks of self-verification for people with negative self-views. The first direct consequence is lower self-esteem where people with negative self-views occupy themselves with others who view them in a negative light, thereby perpetuating the cycle of negative self-views which leads to the second direct consequence of depression. Indirect consequences of self-verification of negative self-views include poor quality work environments and painful personal relationships. While this research is not a deep dive into the psychology of single mothers, this paper does intend to explore if and how single mother identify with their social/group, role, and person identities, and subsequently the self-esteem dimensions of self-evaluation, self-efficacy, and authenticity.

Single Mothers, Self-Esteem, and Psychological Wellbeing

Psychological distress and mental health disorders are evident in single mothers more frequently than in all other groups of parents, especially married mothers (Broussard, Joseph & Thompson, 2000; Tran & McInnis-Dittrich, 2000). Single mothers are twice as likely as married mothers to suffer from depression (Cairney, Boyle, Offord, & Racine, 2003), and are at greater risk for chronic depression lasting a year or more (Peden, Rayens, & Hall, 2005). Epidemiological surveys suggest that single mothers have lower levels of self-satisfaction,

higher levels of anxiety (McLanahan, 1984), and are more prone to substance abuse through

heavy drinking and illegal drug use (Cairney et al., 2003; Kalil & Ryan, 2010).

> In regard to psycho-social risk factors, single mothers report higher levels of chronic stress and more life events and childhood adversities than married mothers. Single mothers also report less perceived social support, fewer contacts with friends and family, and lower levels of social involvement. (Cairney et al., 2003, p. 445)

Researchers have largely determined that stress plays a critical role in accounting for these

psychological and mental afflictions (Broussard et al., 2000; Cairney et al., 2003).

Stress is the result of changes that cause emotional and physical strain in an

individual, and the degree to which that individual *feels* stress depends on how he or she

defines the stressor event and whether there are sufficient resources to alleviate it (Broussard

et al., 2000). Because single parents undertake the responsibilities of parenthood alone with

limited external support, they are particularly susceptible to overwhelming stress caused by

chronic, complex, and compounding economic and social stressors.

Single mothers in the United States are disproportionately poor with the highest rates

of poverty when compared against single fathers, married couples, and 18 other affluent

Western democracies (Brady and Burroway, 2012). Their economic situation is a function of

several factors such as low wages, poor education, inadequate skills, mental and physical

health disorders, few assets, and lack of spousal or social support (Brady and Burroway,

2012; Kalil & Ryan, 2010). Because their resources are limited, many single mothers find

their opportunities for social mobility and success limited as well. For low-income single

mothers, stressors include worries related to work, housing, food insecurity, discrimination,

stigma, exposure to violence, victimization, and illness (Broussard et al., 2000). When

experienced by poor families, McCubbin, Thompson, and McCubbin (1996) argued that the

accumulation of stressors renders a family vulnerable (as cited in Vandsburger, Harrigan, &

Biggerstaff, 2008). Everett, Hall, and Hamilton-Mason (2010) observed that women of color were even more challenged as they must also manage the effects of racism in addition to poverty and sexism (as cited in Broussard et al., 2000, p. 192).

Poverty inflicts more than stress by further affecting self-perception and self-esteem. Collins (2005) found that poor women tended to believe that others watched them closely and ''looked down'' on them because of their low-income status, while Mickelson and Williams (2008) reported that poor women had increased feelings of shame about their poverty even in relation to other poor individuals, along with feelings that others treated them differently because they were poor (as cited in Broussard et al., 2000, p. 193-194). Low-income single mothers may also feel powerless and without control because of their limited choices which were identified by Callahan and Lumb (1995) to include schooling, clothing, food, transportation, recreation, and social events (as cited in McIntyre et al., 2003, p. 318). However, researchers suggest that social stressors, such as limited social networks, have a greater impact on psychological wellbeing than the financial stresses associated with single parenthood (Cairney et al., 2003; Tran & McInnis-Dittrich, 2000).

Networks of social relationships with family members, friends, significant others, coworkers, and acquaintances builds a perception of support that is important to people's wellbeing. Southwick, Vythilingam, and Charney (2005) recognized that "positive social support of high quality can enhance resilience to stress, help protect against developing trauma-related psychopathology, decrease the functional consequences of trauma-induced disorders, such as posttraumatic stress disorder (PTSD), and reduce medical morbidity and mortality (as cited in Ozbay et al, 2007, p. 35). House (1981) identified the four components of social support including informational, emotional, appraisal, and tangible support, and the

absence of these resources among single mothers enables daily stressors (as cited in Campbell-Grossman, Hudson, Keating-Lefler, & Fleck, 2005, p. 241). "The lack of social support leads to poor mental and physical health outcomes, and worries about support heightens stress" (Broussard et al., 2000, p. 193). Wagner (1993) included that single mothers who feel socially isolated show consistently higher levels of psychological distress (as cited in Tran & McInnis-Dittrich, 2000, p. 4).

> Pearlin (1989) explained that:
>
> …all coping - regardless of the nature of the stressor - served to *change the situation* from which the stressors arise, to *manage the meaning* of the situation in a manner that reduces its threat, or to *keep the symptoms of stress within manageable bounds*" (as cited in McIntyre et al., 2003, p. 318).

If single mothers, independently handling stresses, pressures, and demands, cannot manage stress, they can be susceptible to *overwhelming* stress described by Price, Price, and McKenry (2010) as stress so immobilizing and so incapacitating that "family boundaries are no longer maintained, customary roles and tasks are no longer performed, and family members are no longer functioning at optimal physical or psychological levels" (as cited in Broussard et al., 2000, p. 191).

The stressors presented in this section do not imply that the single mothers who participated in this study, or all single mothers in general, relate to the experiences of their peers. Rather, this background serves to demonstrate what some other single mothers have felt and to determine if, within the theme of food choice, the interviewed participants identified with these sentiments. Do single mothers feel depression and low self-satisfaction when it comes to their food choices or is it actually a source of empowerment and pride? How impactful are the stressors of food choice compared against others, such as housing options, disability, and job or career?

Food, Mealtimes, and Single Mothers

"Social practices around food are highly gendered, and, in the context of family life, fall largely to mothers" (Madden & Chamberlain, 2010, p. 292). Charles and Kerr (1988) and Moisio et al. (2004) found that "women are predominantly responsible for the procurement, preparation, and serving of food, and through the provision of healthy and tasty meals, women maintain harmonious family relations and symbolize love and nurturing for family members" (as cited in Madden & Chamberlain, 2010, p. 292). Food is laden with meaning and it is from meals that culture, social constructions, and social communication are drawn (Rozin, 1996). If single mothers are unable to fulfill responsibilities around food and meals for the family, how does that affect her psychology, her senses of identity?

Mealtimes are embedded in the social, cultural, and economic context of the day (Fiese & Schwartz, 2008), however, with more mothers becoming employed, the time spent on housework, including meal preparation has decreased. This may be a contributing factor to the devaluation of family mealtimes (Devine et al., 2006) with the impact being that mothers unable to participate in shared meals can be left feeling disconnected from the world and those they love (Hopkins, 2004). In addition to time pressures, low-income families, often including female-headed households, frequently have higher rates of food insecurity (Huddleson-Casas, Charnigo, & Simmons, 2008) and reside in food deserts where there is greater difficulty procuring healthy foods. Low-income families in poor neighborhoods must spend extra time and effort to obtain food of comparable nutritional quality compared to their more advantaged counterparts (Fiese & Schwartz, 2008). Chilton and Booth (2007) found that food-insecure women experienced 'hunger of the mind', which they defined as a sense of hopelessness and depression" (as cited in Huddleson-Casas et al., 2008, p. 1134). Further,

the food that they are able to find is symbolic of their social status and shapes a perception of their identity as individuals that can maintain or emphasize class differences (Madden & Chamberlain, 2010).

For low-income families, limited time and energy resources can cause "...changes in food consumption patterns such as a decrease in food preparation at home, an increase in the consumption of fast foods, a decrease in family meals, and an increase in the consumption of convenience or ready-prepared foods" (Jabs & Devine, 2006, p. 196). These food coping strategies are categorized by Devine et al. (2006):

> (1) managing the feelings of stress and fatigue from spillover (treating, parallel eating and compensating), (2) reducing the time and effort used for food and meals (skipping meals, simplifying and speeding up, multitasking, planning ahead, and getting help with food), (3) redefining and reducing expectations (redefining eating together, serial eating), and (4) setting priorities and trading off (prioritize food and eating, trade off). (p. 2592)

It is important to note, as Moen (2003) pointed out, that most of these strategies were aimed at coping with feelings of stress, not addressing the sources of it (as cited in Devine et al., 2006, p. 2592).

Food coping mechanisms can be sources of stress themselves because they are often inconsistent with mothers' personal values and expectations about maternal roles, such as preparing healthy meals, eating meals with their children, and knowing what their children were eating. For some mothers, making sure their children went to bed with 'something in their bellies' was the best they could do most days (Devine et al., 2006). There is also moral dilemma between being a guardian and caretaker. On the one hand, mothers feel pressure to feed their children a healthy diet, but on the other hand, they also want to treat their children to pleasurable foods. For instance, if they feed their children chocolate, women can be morally reprehensible and positioned as bad mothers (Madden & Chamberlain, 2010).

In the United States, and in Western culture in general, mastering and controlling situations is given high value. Yet the coping mechanisms mothers use suggest that they do not feel they have the power, the self-efficacy or authority, to change the situations in which they find themselves, another possible contributor to feelings of dissatisfaction and guilt, noted by Giddens (1991) (as cited in Devine et al., 2006, p. 2599). Although they try to live up to highly-valued social ideals for feeding their families and themselves well, these mothers confront daily demands that compete for their time and energy. Folkman and Moskowitz (2004) also found that the coping strategies available to them were also unlikely to produce a sense of overall mastery and control over crucial aspects of life, positive emotions that would help them support and sustain more effective coping efforts (as cited in Devine et al., 2006, p. 2599).

CHAPTER III

METHODOLOGY AND DATA

This research investigation is intended to study the relationship between food choice and the self-esteem of single mothers living in Denver, Colorado. A search for existing literature on the impact of food choice on single mothers' self-esteem yielded no results, therefore this study is exploratory and seeks to establish the existence of a relationship. It is hypothesized that there is a connection between food choice and self-esteem where the greater the perception or actuality of food choice, the higher the self-esteem of single mothers due to an increased sense of self-evaluation, self-efficacy, and authenticity.

This paper has two purposes. The first is to demonstrate the significance and impact of food choice through the perspective of single mothers. The second is to inform urban planners of the lived experiences of single mothers with the belief that true understanding of the day-to-day realities of their city's residents could inform more appropriate, effective, and meaningful policies that afford more opportunities and positions of empowerment for marginalized populations. Due to the small sampling size of 10 participants, and the snowball recruitment approach, the results of this study are not generalizable to the entire population of single mothers in Denver, Colorado or elsewhere. However, the experiences of these participants are still valid and legitimate, and their stories provide a foundation for current practice and future studies.

Participant Sample

Broadly, the target population for this study was single mothers who met the four requirements to be eligible to participate: (1) at least 18 years old; (2) never married, legally separated, divorced, or widowed; (3) primary caretaker of her child(ren); and (4) live in the

City and County of Denver. While 11 single mothers were interviewed for this research project, only 10 were included in the results and data analysis; one participant was excluded because during her interview, it came to be known that she has a common law husband, thereby rendering her ineligible for the study.

Single mothers were recruited to participate through posted fliers (2 participants were enlisted after they responded to a flier), solicitation emails (2 participants), and snowball techniques (6 participants). Interviewees were screened prior to the in-person meeting by phone call or email to confirm they met the eligibility requirements of the study. Following confirmation, the women chose a comfortable location and date and time for the interview that included two parts—a discussion and a survey. Respondent characteristics are presented in tables below. All questions were optional which resulted in varying numbers of responses.

All participants were volunteers and compensated for their time with a $10 gift card to Safeway or King Soopers, two major regional grocery stores. While the sampling of single mothers was informal rather than systematic, this was appropriate due to the exploratory nature of the study. Recruitment efforts ceased before theoretical saturation was reached, meaning that the study closed before informational redundancy emerged and all paradigm variations could be accounted for (Sobal, 2001); this was due to lack of funding and a limited timeframe. Additionally, this research involved the use of human subjects and as such, all processes and procedures were reviewed and approved by the Colorado Multiple Institutional Review Board.

<u>Participant Profiles</u>

Participant 1 was passionate about organic food and having a healthy diet for her daughters and herself. She loved cooking and trying new recipes with a healthier spin, but

found that the lack of a grocery store in her neighborhood made preparation a challenge because she would have to drive across town to pick up any forgotten ingredients. Her neighborhood was a food desert that she felt would be closer to being complete with the addition of a grocery store of some kind. At the time of our interview, she had just been hired at a local nonprofit organization that focuses on food, and she was excited for the opportunity to share some of her food values with the city through their programing.

Participant 2 had a diverse upbringing, having lived on a tropical island and in New York City. Because of her prior food experiences in these places, she seemed disappointed with Denver's food system. Denver, by comparison, lacked access to cultural and dietary diversity where she had to commute for one hour just to find foods that reflected her culture. She felt that she and her family made educated decisions about food, even though their diet was not strictly healthy and they indulged from time to time. Participant 2 was in between jobs when we spoke, but was furthering her education by getting an master's degree online.

Participant 3 and her children were in the process of transitioning from vegetarianism to veganism. She made this decisions for her family after having been diagnosed with cancer. They recently moved from Mississippi to Denver in part because she wanted a better food environment; Denver had far more selection and access than Mississippi. Veganism appeared to be a way to bond with her children because they planned meals together and her older daughter helped research foods for their new diet.

Participant 4 was a director at a local nonprofit organization. Her schedule was busy between her own obligations and supporting her daughter's volleyball activities. She grew up in a more traditional way with the table set every night and her mother preparing homecooked meals for the family to enjoy together. While this is less practical for her life

now, Participant 4 made concerted efforts to keep these traditions going when time allowed. Her diet was balanced between eating out and cooking at home, but always tried to make healthy choices. However, Participant 4 also had a relaxed attitude where she was not too critical of herself for occasional unhealthy meals or indulgences.

Participant 5 was familiar with thinking about the relationships between food, access, and health because she had a background in public health and worked for a local nonprofit organization applying that education. She was concerned about food inequity around the city and believed that all residents should have the opportunity to access health food. Participant 5 grew up with her mother's cultural cooking but had adopted an American diet for family. She admitted feeling occasional guilt over what she fed her children and the types of decisions she has had to make, but she also felt lucky to have a strong supportive network.

Participant 6 valued cultural food, trying new things, and learning how maximize the use of ingredients. She saw food as a way to "broaden her horizons" and did not want to her foods to be stereotypical; she wanted her children to have the same values. She had two daughters – one in high school and the other in college. Participant 6 worked in administration for a company outside the city and commuted by LightRail, even though she owns a vehicle. She was also taking classes for a different career path although she was still deciding what path that would be.

Participant 7 had a family history of colon cancer which had been a major influence in their lives. Her mother passed away from the disease, her sister was in remission, and her brother was undergoing chemotherapy. As the only child who had not been diagnosed, Participant 7 was conscientious of her diet and learned from her siblings the foods that were or were not recommended by their doctors. She had recently taken cooking classes to learn to

cook more healthily and improve her health. During our conversation, she expressed deep disappointment in her children's school lunches because they were poor quality and her children would not eat them. The children received free school meals, but Participant 7 felt that the program was useless because she still had to buy food for her boys' lunch.

Participant 8 had an interracial family with three sons whom she adopted after fostering them. Following the adoption, they experienced financial hardship and needed to access food banks although none provided the adequate nutrition Participant 8 wanted for her family. For two years, they required external assistance, but their economic situation has since improved and they can now buy and prepare meals that better conform with their values of fresh and organic foods.

Participant 10 was teenage single mother in the process of finishing high school. Along with her daughter, she lived with her mother and two sisters in a neighborhood that is a food desert which causes accessibility challenges. Participant 10's mother was primarily responsible for purchasing food and while getting to the store was fairly easy, getting home from Walmart required advanced planning. Their family does not have a car, so the mother must either buy little enough that she can carry the groceries on the bus alone; request her daughters to go accompany her to help carry the groceries; take a taxi which is money that could have otherwise been spent on food; or ask a friend or family member to drive them to the store although they are often not available until the late evening when the selection of food is poorer quality. Participant 10 wanted a healthier lifestyle for herself, family, and daughter, but her neighborhood did not afford her this opportunity.

Participant 11 led a stressful life, balancing a full-time position as an academic researcher, volunteering, caring for her young son, and managing the complicated situation

with her son's father. She recently bought a brand-new house but her busy schedule meant she did not have much time to organize or clean her home, which in turn prevented her from utilizing her kitchen as desired although she would love to cook. Participant 11 valued health and eating well, however time constraints and inaccessibility to preferred stores, namely Whole Foods, made healthy food choices difficult. Additionally, she grew up with a religious background but her faith clashed with her son's father's faith, and therefore, she struggled to pass tradition along to her son.

<u>Demographic Characteristics</u>

An intentional effort was made to recruit women with diverse backgrounds to capture a broad range of perspectives and experiences. While there was diversity in educational attainment and age, there was little variety with race and ethnicity. Fifty percent of the participants were Black or African American, 30% were two or more races, and 20% were White, not Hispanic or Latino; there was no representation by Hispanic or Latino, American Indian or Alaska Native, Native Hawaiian or Pacific Islander, or Asian single mothers. Ninety percent of the participants had at least some level of college education; the only outlier was one single mother who was still in school pursuing her high school diploma. The average age of participants was 39.8 years old with a range between 18 and 47 (Table 3.1).

Table 3.1 *Demographic Characteristics of Participants*

Demographic Characteristics of Participants	
Characteristic	
Race	Participants (n=10)
White, not Hispanic or Latino	2 (20%)
Hispanic or Latino	–
Black or African American	5 (50%)
American Indian or Alaska Native	–
Native Hawaiian / Pacific Islander	–
Asian	–
Two or more races	3 (30%)
Other	–
Education	Participants (n=10)
Less than high school	1 (10%)
High school graduate or equivalent	–
Some college or associate's degree	3 (30%)
Bachelor's degree	3 (30%)
Graduate or professional degree	3 (30%)
Age (Years)	Participants (n=8)
Average	39.8
Range	18 - 47

Family Characteristics

The average household size of the participants was three people. Most single mothers lived with only their children but one participant also lived with her sisters and mother. The mothers in this sample had an average of two children with a range between one and four. All mothers were single at the time of their interview. Additionally, on average they had lived in Denver for 24 years with the range between four and 47 years (Table 3.2).

Table 3.2 *Family Characteristics of Participants*

Family Characteristics of Participants	
Characteristic	
Household Size	Participants (n=8)
Average	3.13
Range	2 – 5
Number of Children	Participants (n=9)
Participant 2	2
Participant 3	4
Participant 4	1
Participant 5	2
Participant 6	2
Participant 7	2
Participant 8	3
Participant 10	1
Participant 11	1
Average	2
Marital Status	Participants (n=8)
Single	8 (100%)
Length of Time in Denver (Years)	Participants (n=8)
Average	24.25
Range	4 – 47

Economic Characteristics

    Most interviewees were employed with 60% working full-time and 10% working part-time. Thirty percent were not employed but they were either taking classes or going to school, although they did not mention this to be their exclusive reason for not holding employment. Nearly every income range was represented except $10,000 to $14,999, and 30% of participants had incomes of $50,000 to $74,999 (30%). Fifty-six percent of participants had paid work as their exclusive source of income and another 33% had other sources of income in addition to paid work. One participant did not receive income from paid work but had other income supports. Interestingly, eight women noted paid work as an income source, but only seven of the single mothers held some type of employment; the source of paid income for the eighth individual was unclear. Of the women who offered their

monthly expenses, rent was the greatest cost followed by food, other, transportation, and

medical insurance, respectively (Table 3.3).

Table 3.3 *Economic Characteristics of Participants*

Economic Characteristics of Participants	
Characteristic	
Employment Status	Participants (n=10)
Not employed	3 (30%)
Employed, part-time	1 (10%)
Employed, full-time	6 (60%)
Other	–
Annual Income	Participants (n=10)
$1 to $9,999	1 (10%)
$10,000 to $14,999	–
$15,000 to $24,999	2 (20%)
$25,000 to $34,999	1 (10%)
$35,000 to $49,999	2 (20%)
$50,000 to $74,999	3 (30%)
$75,000 or more	1 (10%)
Sources of Income or Income Support	Participants (n=9)
Paid work	8 (89%)
Exclusively paid work	5 (56%)
SSI	–
Disability	–
TANF (child support)	3 (33%)
Rental income	1 (11%)
Investments	–
SNAP (food stamps)	3 (33%)
Business income (owner or part owner)	–
Reduced or free school lunches	3 (33%)
WIC	1 (11%)
Self-employed (artist, distributor, etc.)	2 (22%)
Gifts or loans from family or friends	3 (33%)
Other	–
Monthly Expenses	
Rent	Participants (n=9)
Average	$738.88
Range	$300 - $1,500
Transportation	Participants (n=9)
Average	$266
Range	$50 - $500
Medical Insurance	Participants (n=6)
Average	$123.33

Range	$0 - $500
Food	Participants (n=9)
Average	$377.78
Range	$0 - $600
Other	Participants (n=6)
Average	$268.17
Range	$100 - $550

Research Procedure

This study employed qualitative approaches using narrative ethnographic research to capture the experiences and perspectives of single mothers living in Denver, Colorado and quantitative approaches using the Likert scale and Rosenberg Self-Esteem Scale (Rosenberg, 1965) to measure self-esteem. Mixed methods were appropriate to corroborate and compare how the participants *said* they felt about their situation or themselves and how they *evaluated* their situation or themselves. The mixing of data helps to illustrate a more complete reality of a participant's experience by acknowledging factors that can affect self-esteem in addition to food choice. During the interview, participants were asked to share experiences, aspirations, and connections with food choice and food accessibility; immediately following the discussion, they completed a survey that included questions about their demographics, factors that affect their self-esteem, and their perceptions of themselves. In the analysis, this study places greater emphasis on participants' qualitative stories than quantitative data as they provide deep and rich insight into the participants' lived experiences and relationships with food choice and self-esteem. The small sample also limits the use of the quantitative survey data.

Purposive sampling techniques were used to determine the participant population for this research. Single mothers were selected deliberately based upon the prediction that they would share similarities in lived experiences and be able to demonstrate the relationship

between food choice and self-esteem based upon the three dimensions of self-evaluation, self-efficacy, and authenticity. While this method was subjective, it was appropriate due to the exploratory and ungeneralizable nature of the study, the small sample size, and the focused geographical scope (Teddlie & Yu, 2007).

Data Collection

In-person interviews were the primary method for data collection with a brief survey following the conversation. Interviews are of great utility, allowing researchers to develop a more complete sense of their participants through the participants' own narrative. As questions are answered, they are complemented by tone, body language, and voice which adds perspective and insight into the interviewee's attitude and experience. Alshenqueeti (2014) adds that "as interviews are interactive, interviewers can press for complete, clear answers and can probe into any emerging topics" (p. 40); in this study, interaction was essential to produce a richer understanding of the participants' relationship and experience with food choice. The survey administered following the interviews used standardized questions to collect demographic data and capture the participants' in-the-moment measure of factors affecting their self-esteem and their self-esteem as whole; research on wellbeing shows that pairing subjective with objective measures is best (Diener & Suh, 1997). After the interview, I created memos to document observations, reactions, and thoughts.

Data collection occurred between November 2016 and May 2017. Interviews were conducted in English and were expected to take between 30 minutes to one hour, although two ran longer by about 10 minutes. After being screened, eligible participants chose a place, date, and time for the interview where they received a Research Participant Information and Consent Form, which required a signature before proceeding. As the interviews were

conducted, I took notes while simultaneously using a LiveScribe pen as an audio-recorder. The notes were scanned and the audio-files were extracted, and then both were transferred to a cloud-based, password-protected account; the physical notes were shredded and the audio-files were deleted after being transcribed verbatim and coded. Due to the interactivity of interviews, the conversation followed a semi-structured format that asked both general and specific questions and required either long or short answers. The full interview and script for this study can be found under Appendix A.

Verification strategies were used throughout the study to maintain reliability and validity. First, the methodology was rigorously evaluated for congruence with the research question that sought to answer, "Is there a relationship between food choice and self-esteem for single mothers?" This ontological question required interviews as the mode of data collection because the authentic sharing of one's reality must come from that individual. Further, I held the belief that the interviewees were the only knowers of their realities, so the interview questions were developed to uncover their individual perceptions and lived experiences and I asked them individually to convey their subjective experiences with reality; this also protected against the imposition of my bias. Another verification strategy was the transparency of the methods of sampling, data collection and analysis, and rigor which have been explicitly shared. This research did not follow an established methodology, so these aspects were required to fit with other aspects of the methodology while adhering to the philosophical assumptions under the research question (Davis, 2012).

Data Analysis

Data were first analyzed by using *thematic* coding to categorize parts of the interviews into several common themes or ideas. *Pattern* coding was used as the second

cycle coding method to identify trends, patterns, and relationships between the participants' experiences. Surveys results were compared against the individual interviewees' responses and overall theory to test for cognitive dissonance. I took several steps to uncover the patterns and themes:

1. Transcribe the audio files of the interviews verbatim

2. Review all transcripts, surveys, and memos, adding notes as needed

3. Write a memo for main findings and major themes across all interviews

4. Develop a pre-determined coding system of codes and themes

5. Read interviews, coding pre-identified codes and noting emergent codes; analyze against survey results

6. Compare coded interviews and surveys for trends, patterns, and major themes

7. Develop model to represent the relationship between food choice and self-esteem for the study participants

8. Interpret and present findings

Pre-Identified and Emergent Themes and Codes

Table 3.4 illustrates the themes and codes that were pre-identified after an initial read-through of all of the interview transcripts; they reflect salient finding and major themes. Emergent themes and codes were added to the table as I read through and coded each interview individually. There were six and 11 pre-determined themes and codes, respectively, and six and 46 emergent themes and codes, respectively.

Limitation

This study has several limitations and therefore, it is not generalizable. The participant sample size was small, making it difficult to assert significant relationships to a

larger population. Data was self-reported through interviews, and there are several sources of potential bias, including selective memory, telescoping, attribution, and exaggeration; also, self-reported data cannot be independently verified. There is a lack of existing literature on this topic meaning there is not a source to corroborate or compare the findings. With only one researcher, the coding system and data analysis procedure were not checked via multiple coding techniques (University of Southern California Libraries, 2017).

Table 3.4 *Pre-identified and Emergent Themes and Codes*

Pre-identified and Emergent Themes and Codes			
Pre-identified		**Emergent**	
Original Themes	Original Codes	Emergent Themes	Additional or Emergent Codes
Food	Health; Habits; Values or beliefs; Culture		
Learning/Teaching			Comfort; Sources; Children; Skills
Concerns			Applicators (Pesticides, Chemicals); Sugar, salt, oil content; Quality; Prices; Processed foods; GMO; Future for children; Healthy meals kids will actually enjoy; Hormones/Steroids; Packaging; Local/Where it originated; Preservatives
Access	Store proximity from home; Barriers to food; Mode of transportation		Locality, Proximity from work/school; Barriers to access; Affordability; Delivery options
Selection	Stores; Choices in stores		
Social Relationships	Family; Friends		Children; Support, in general; Membership club; Less social engagement
		Wish List	Food; Access; Outcomes
		Evaluation of Self	Food choice for self/children; Providing for self/children; Self-esteem
		Time	Balance; Busy individual schedules; Mom accommodating kid's schedule; Coping; Efficiency
		Community	Honoring culture and diversity; Concern for neighborhoods; Equal access to healthy food; Community working together
		Competing Factors	Housing; Transportation; Stress; Health; Control
		Perception of local food system	Positive, Negative

CHAPTER IV

RESULTS AND DISCUSSION

The purpose of this research investigation was to determine if a relationship existed between food choice and self-esteem in single mothers living in Denver, Colorado. The following research questions guided this study: (1) Is there a relationship between food choice and self-esteem?; (2) How does food choice impact the self-esteem of single mothers?; and (3) What is the relationship between food choice and self-esteem? The survey results, research findings, and discussions presented in this chapter are based on the data analysis of semi-structured interviews, surveys, and memos summarizing my observations.

Survey Results

Factors Affecting Self-Esteem

The interplay between food choice and self-esteem cannot be considered in a vacuum separate from other factors that affect one's ability to function and quality of life. In order to evaluate the degree to which food choice impacts self-esteem in comparison to other factors, the participants received a survey and were asked to indicate the degree to which the following negatively impacted their self-esteem: disabilities, food choice/food access, income, transportation, family relationship, stress/depression/mental conditions, relationships with significant others, education level, culture/heritage, friends, housing/neighborhood/city, job/career, and physical appearance. The Likert scale was used with a range from 1 to 5 with 1 representing "Not at all" to 5 representing "A lot."

Table 4.1 *Factors Negatively Affecting Self-Esteem*

Factors Negatively Affecting Self-Esteem											
Factors	001	002	003	004	005	006	007	008	010	011	Average
Disabilities	1	1	1	1	1	1	3	1	3	1	1.4
Relationship with SO	3	2	1	1	1	1	4	1	4	1	1.9
Friends	1	3	1	1	1	1	3	4	4	1	2.0
Culture or Heritage	1	5	1	1	1	1	4	5	3	2	2.4
Transportation	1	1	2	3	2	1	3	5	3	4	2.5
Stress, Depression	2	2	1	1	3	1	4	5	5	2	2.6
Neighborhood	1	3	5	1	3	1	3	5	2	2	2.6
Job or Career	1	3	4	1	1	4	4	5	2	2	2.7
Family Relationships	1	2	5	2	2	1	4	3	4	4	2.8
Physical Appearance	1	2	1	3	2	2	5	4	4	4	2.8
Food Choice/Accessibility	1	3	5	2	3	1	3	5	4	2	2.9
Education	1	4	2	1	2	5	3	5	4	2	2.9
Income	1	1	4	3	2	4	4	5	4	4	3.2
Average	**1.2**	**2.5**	**2.5**	**1.6**	**1.8**	**1.8**	**3.6**	**4.1**	**3.5**	**2.4**	**2.5**

Of the factors measured, Income most negatively impacted the self-esteem of the participants with an average score of 3.2. Food Choice/Accessibility and Education tied for second (2.9) while Family Relationships and Physical Appearance tied for third (2.8). The factor that impacted participants the least was Disabilities with an average score of 1.4.

General Self-Esteem

Overall, the single mothers who participated in this study had positive perceptions of themselves and valued their self-worth. While at times their self-esteem may waiver, nearly all participants agreed or strongly agreed with the statements, "On the whole, I am satisfied with myself;" one woman disagreed.

Table 4.2 *Rosenberg Self-Esteem Scale*

Rosenberg Self-Esteem Scale											
	001	002	003	004	005	006	007	008	010	011
On the whole, I am satisfied with myself.	Strongly Agree	Agree	Strongly Agree	Agree	Agree	Agree	Agree	Agree	Disagree	Agree
At times, I think I am no good at all.	Agree	Disagree	Strongly Disagree	Disagree	Disagree	Strongly Disagree	Disagree	Disagree	Agree	Disagree
I feel that I have a number of good qualities.	Strongly Agree	Agree	Strongly Agree	Agree	Strongly Agree	Strongly Agree	Agree	Agree	Agree	Strongly Agree
I am able to do things as well as most other people.	Strongly Agree	Agree	Strongly Agree	Agree	Agree	Agree	Agree	Strongly Agree	Agree	Agree
I feel I do not have much to be proud of.	Strongly Disagree	Disagree	Strongly Disagree	Disagree	Strongly Disagree	Strongly Disagree	Disagree	Strongly Disagree	Disagree	Disagree
I certainly feel useless at times.	Disagree	Agree	Strongly Disagree	Disagree	Agree	Strongly Disagree	Disagree	Disagree	Agree	Disagree
I feel that I'm a person of worth, at least on an equal plane with others.	Strongly Agree	Agree	Strongly Agree	Agree	Agree	Strongly Agree	Agree	Strongly Agree	Agree	Agree
I wish I could have more respect for myself.	Disagree	Disagree	Disagree	Disagree	Agree	Disagree	Disagree	Disagree	Agree	Disagree
All in all, I am inclined to feel that I am a failure.	Strongly Disagree	Disagree	Strongly Disagree	Disagree	Disagree	Strongly Disagree	Disagree	Strongly Disagree	Disagree	Disagree
I take a positive attitude towards myself.	Strongly Agree	Agree	Strongly Agree	Agree	Agree	Strongly Agree	Agree	Agree	Disagree	Agree

Research Question One

<u>Results</u>

The first of three research questions addressed by this study was: Is there a

relationship between food choice and self-esteem? The research hypothesis was:

> There is a relationship between food choice and self-esteem where the food choices that are available or unavailable to single mothers can influence how they perceive themselves.

Each of the 10 study participants affirmed the existence of a relationship between

food choice and self-esteem; however, this was approached and interpreted from different

perspectives. One relationship was described by Participant 6 who shared an example of a

causal relationship between self-esteem and food choice, but mainly regarded food choice,

and her food values, as an indication of self-growth and morality:

> Participant 6: I could see how that if you have low self-esteem, I guess you don't give a damn, and you just kind of eat whatever. But I just feel like, for me, I think you grow and learn differently, and you know better so you do better, in a sense. It's like, if you know right from wrong, and you gotta do right, you don't do wrong 'cause ultimately wrong doesn't get you anywhere. But ultimately, I say 90% of the time I try to do right.

In another relationship, two participants viewed food being a method through which

to find comfort or cope, perhaps with situations of intense emotions:

> Participant 1: I know there's a relationship we have with food and so, some people use food as comfort and as a means to get through difficult things.

> Participant 7: When I was feeling real down and depressed after my mom passed away, I found myself just eating, eating, eating... And I was only eating because I was down. And once I finally got control of that and saw a counselor because I was depressed, and admitted to myself that I was actually depressed, that's when I started educating myself and our food choices became better, became a little bit healthier.

Participant 7 also described a causal relationship where commanding control of her situation,

a demonstration of self-efficacy, led to healthier food choices.

Seven single mothers expressed a causal relationship, of which two women suggested that self-esteem affected food choice while five women indicated that food choice affected self-esteem. Illustrating how self-esteem influences food choice, comments included:

Participant 4: Food and self-esteem can go hand-in-hand. You can be in a low and you're trying to work out, you're trying to do the right thing, and then all of a sudden, you're like, "What for?" …and you fall off the wagon. It can be positive self-esteem too. When you're in those moment, it's like, "Ok, this week I'm going to try to do better." And you have that *mmph*, trine keep your self-esteem positive and do some better things. But yea, self-esteem plays a lot into it.

Participant 10: I feel like if I cared about myself a little bit then I would probably eat more healthy and make healthier decisions to make myself healthy and make me feel good about myself.

Both interviewees' statements further suggest a cyclic pattern of self-esteem influencing food choice influencing self-esteem.

Conversely, five single mothers demonstrated a causal relationship where food choice affects self-esteem. The following are their remarks:

Participant 2: I only do food that I like. We don't eat McDonald's, for instance. We decide what we eat. And I've gotten my 7-year-old on board with a 'No McDonald's' policy. And so, it really feels good.

Participant 3: I think that if you're making healthy choices regarding your food options then it shows you are taking initiative to propel your life in a positive direction or being mindful of yourself and your ability to make better choices.

Participant 5: I think that there's a correlation between self-esteem and sense of control. So, back to that sense of control question, if my choices are limited, that can feel as if I'm not as in control of my life as I want to be which definitely impacts my self-esteem.

Participant 8: So, yea, there's a huge self-esteem there. Like I can't plan that, "Ok, we're going to have spaghetti and meatballs." It's not an option. Yea there is a lot of self-esteem in that. Huge. When you don't have money, you can't prepare good foods, and you don't feel good if you're not giving your kids good food.

Interviewer: So, if you made better choices and had time to actually execute those better choices, like the juice, do you think that that would make you feel better about the choices that you made?

Participant 11: I mean, I just think it would make me feel better in general.

<u>Discussion</u>

The results reveal that for these 10 single mothers, a relationship exists between food choice and self-esteem. From the interviews, three distinct typologies emerged – morality, coping, and causal. Although interview data support the existence of relationships between food choice and self-esteem, the association cannot be narrowly defined as there are several methods of interpretation that are neither simple nor fixed in perspective.

These relationships – morality, coping, and causal – present just three approaches to the connection between food choice and self-esteem and demonstrate that there is no single way of understanding the issue. Morality relationships view food choice as a symbolic representation of an individual doing "right" or "wrong" where engaging in self-indulgence equates to becoming an immoral person (Madden & Chamberlain, 2010). Coping relationships use food to obtain psychological comfort and evoke positive emotions (Locher, Yoels, Maurer, & van Ells, 2006). Causal relationships in which self-esteem influences food choice can lead to either decreased or increased food intake (Olivera & Wardlea, 1999) and unhealthy dietary practices such as binge eating and self-induced vomiting (Madden & Chamberlain, 2010). These results are in keeping with previous findings, however this study expands on this area of research by explicitly focusing on the causal relationship of food choice affecting self-esteem

Of the five single mothers that identified a relationship where food choice impacted their self-esteem, two women shared positive experiences and three shared negative experiences. Participant 2 and Participant 3 described exercising their power to determine

and decide the foods that reflected their values and preferences. In doing so, they express agency which leads to positive feelings about their situation. Conversely, Participant 5, Participant 8, and Participant 11 had more negative attitudes about their experiences.

Participant 5 perceived fewer available choices to her because she works in a neighborhood that is a food desert where "there is one grocery store and a ton of corner stores that don't have healthy options." Additionally, the grocery store that is within proximity of her home does not have the selection she prefers:

> The King Soopers near us doesn't have organic produce, it just doesn't. But if you go down the street to, like might be eight blocks, to a more affluent neighborhood, their King Soopers has organic produce. They have a ton more options.

For Participant 5, these factors that limit her choices reduce her sense of control and ultimately impact her self-esteem as a whole.

Participant 8, after adopting her three children, went through financial strain and needed to access the food bank, which her family utilized for about two years. During this time, the foods she valued, such as fresh produce or organic products, were unavailable to her and instead of being able to choose the foods she wanted, she had to accept what the food bank provided her. These experiences informed her relationship between food choice and self-esteem where not having money negated the possibility of preparing, much less purchasing, the foods she valued, and the inability to provide her children with quality food negatively affected the way she felt.

Participant 11 has a busy and full schedule, working full-time and volunteering with a young son that is involved in his own activities. She has health goals of reducing her cholesterol and losing weight, and dietary goals of eating healthier with one strategy being to start juicing. Because of the numerous demands on her time, Participant 11 has been unable to make significant steps towards these goals:

So, like I got a juicer. My thing was that I was going to start because I like juice so I got a juicer and I got containers to, you know, keep everything fresh in my fridge. Ok, the containers are on the dining room table. The juicer, I have not read the directions yet, it's in a cabinet, and all the fresh stuff I got never made it to the containers and is rotting in my fridge.

For Participant 11, having more time to fulfill her dietary goals and make the better choices would improve her feelings in general.

Research Question Two

Results

The second of three research questions addressed by this study was: How does food choice impact the self-esteem of single mothers? The research hypothesis was:

Food choice, including food accessibility, impacts the self-esteem of single mothers by affecting their evaluation of themselves determined by the evaluation by others (self-evaluation); their sense of being able to influence the events that affect their lives (self-efficacy); and their ability to act while staying true to themselves and their values (authenticity).

Each of the 10 participants provided unique insights throughout the interviews that demonstrated how their food choices impacted the dimensions of self-esteem. Table 4.3 lists exemplar quotations from the stories these women shared.

Table 4.3 *Impact of Food Choice on the Dimensions of Self-Esteem*

Impact of Food Choice on the Dimensions of Self-Esteem	
Dimensions of Self-Esteem	**Examples**
Self-Evaluation	**Participant 1**: "I buy organic even though it costs more. I'll spend money on food and my mom would give me a hard time." **Participant 11**: "You know, most of our friends like, there's a mom and there's a dad, and people are like, 'I don't know how you do it, and-.' You know, 'cause I volunteer. But my house is a mess, and we don't sit down and eat together, and we're always on the run. I'm just like, 'It is what it is.' If we make it to soccer on time, it's a win. If we make it to school on time and he has lunch, you know, it's a win."

Self-Efficacy	**Participant 1**: "Really, the GMO is what bothers me the most. [So] I buy organic even though it costs more."
	Participant 2: "We decide what we eat. And I've gotten my 7-year-old on board with a "No McDonald's" policy. And so, it really feels good... to be able to say to a 7-year-old that this is not what your body needs. And it's empowering."
	Participant 3: "I'm originally from Denver so part of my reason for wanting to come back is knowing that there is a lot more nutritional choices here and that there's a more health-conscious environment."
	Participant 5: "If I'm getting tight with budget and I feel like I'm very limited in my choices because of that, I definitely feel like I don't have as much control over my life. Things get questioned. Questions that go in my head are, 'Am I going to make a salad for the boys that they may or may not eat, or am I going to pick up the fast food, or am I going to heat a pizza or something that I know will actually feed them and fill them up.' It's hard to, it's hard to make those decisions sometimes. And when you have to make those decisions, it doesn't feel like we're in control."
	Participant 6: "I need to definitely open my horizons. I have, and have my children open up their horizons [too] 'cause it's a big whole world out there."
	Participant 7: "With colon cancer running in our family, we're just very picky on a lot of things that we do put in our body... that was a wake-up. Now that I got more educated from that, I love my choices of food. Prior 'til then, I thought that I was loving it, but I was in love with the food and not, you know. And then I end up taking the *Cooking Matters* class because I wanted to become more aware of other things so I start being proactive myself to figure out what I need to do to learn more about what's not in my norm and now I'm a little more comfortable about it."
	Participant 8: "When we used to have to go to the food bank, you don't get to choose your week's meals until you know what foods you got out of the food bank. [But now] we have a choice. Yea, we get to make a choice. We get to choose if we have a salad made out of different colors of tomatoes and we get to choose if we're gonna have actual tacos with actual meat in it."
	Participant 10: "I started [learning how to cook]. I said after Easter I was going to start cooking so, for example, the other day I cooked chicken breast for her [my daughter]. Lemon chicken breast, that's one of her favorites. And yesterday, we had shrimp and steak.
Authenticity	**Participant 1**: "I mean sometimes, I'll make macaroni and cheese from scratch, like soul food. I'll try to make a healthier version."
	Participant 2: "I would like more variety. More ethnic products that reflect my ethnicity, and my background, and my culture."
	Participant 3: "I cook daily and I'm constantly working with new ingredients because of trying to find different way to incorporate our new [vegan] diet."
	Participant 4: "I have this adage we need to definitely give back to small business, so we always try to support our local restaurants."
	Participant 5: "Being close enough to walk is important to me. We don't walk to the grocery store as much as I would like just because there are two major streets that we have to cross but I, there's some sort of block there for me."
	Participant 10: "I would definitely like us to explore new foods and stuff. Culture, when I was little, wasn't that big of a thing, like my mom really didn't cook 'Mexican' meals and that's one thing I would like to learn how to cook and do 'cause my aunts and uncles do it. They make dishes my grandmother used to make and my mom doesn't do it, but I would like to do that for my daughter."

<u>Discussion</u>

These results reveal that food choice can be a positive or negative demonstration of self-evaluation, self-efficacy, and/or authenticity for these 10 participants. Most frequently, the interviewees shared instances of self-efficacy in which they exercised agency to influence some aspect of their lives. Authenticity was second most common with participants split between positive and negative examples. Self-evaluation was somewhat mentioned by only two participants. While food choice can influence these dimensions of self-esteem, there is insufficient evidence to assert that this affects self-esteem overall.

Self-efficacy was a pattern for every single mother and each exhibited some behavior or habit that enabled them to make their food choices consistent with their food values. Many pre-identified and emergent coding themes are also captured in the exemplar quotes of self-efficacy, including Food, Learning/Teaching, Concerns, Access, Selection, Social Relationships, and Perceptions of Local Food System. An exceptional example of a single mother going great lengths to influence life is Participant 3 who moved her family of four children from Mississippi to Denver in part to be in a food environment more conducive to her dietary needs and preferences.

Positive authenticity through food choice represented a participant's ability to see herself and her values in her actions. Actions could illustrate multiple "truths" as well. For instance, through making healthy soul food from scratch, Participant 1 demonstrated her cultural background and priority for healthy food. Negative authenticity was represented in situations in which the interviewee had some limitation, challenge, or barrier preventing her from realizing her food values. These obstacles were either internal, like Participant 10 being unable to cook in general and therefore unable to cook the food of her culture, or external,

like Participant 5 living with two major streets between her and the grocery store, rendering it generally inaccessible.

Self-evaluation was cited by two participants, suggesting that the other eight single mothers did not feel their food choices were judged by anyone within their social network. Participant 11's evaluation by her friends was positive; they were impressed with her ability to find time for volunteer work in addition to her busy schedule. Interestingly, her reaction to this positive evaluation was negative as if she were upset that her outward appearance of structure did not match the realities of her life at home, "…my house is a mess, and we don't sit down and eat together, and we're always on the run. I'm just like, 'It is what it is.' If we make it to soccer on time, it's a win. If we make it to school on time and he has lunch, you know, it's a win." In this example, Participant 11's attitude might suggest a lack of self-efficacy where she makes decisions to cope with her situation, even if it is not ideal.

These stories of self-evaluation, self-efficacy, and authenticity through food choice do not suggest a specific impact on overall self-esteem. One potential reason is that the three dimensions are not weighted equally by every woman, and further, this was not measured in this study. For example, Participant 1 may value authenticity more than self-evaluation, meaning that food choices that do not represent her culture will influence her self-esteem greater than feeling negative judgement for her food choices. Another explanation is that there are competing factors that affect self-esteem. The survey provided after each interview identified 12 priorities that can also influence how the participants feel about themselves; there may be more that were not listed. Given that the design of this study was not intended to parse out every nuance that forms self-esteem, the hypothesis could not be supported.

Research Question Three

<u>Results</u>

The third of three research questions addressed by this study was: What is the relationship between food choice and self-esteem? The research hypothesis was:

> The relationship between food choice and self-esteem is correlational where the greater the number of limitations, challenges, or barriers, perceived or actual, to the food choices single mothers need and/or want, the lower the self-esteem, and vice versa.

Every participant had both positive and negative factors that affected their food choice. Positive factors enabled the women to make the food choices that conformed with their values or preferences, while negative factors were limitations, challenges, or barriers to the food choices the single mothers needed or wanted. Table 4.3 shows the positive and negative factors the participants personally identified as affecting food choice; the factors are recorded in order of mention and only unique items are listed.

Table 4.4 *Factors Affecting Food Choice*

Factors Affecting Food Choice		
	Positive	**Negative**
001	Reflect on foods that I grew up with; love cooking and trying new dishes; knowledgeable about food; kids like different types of foods; selection of stores; stores close to work; owns car; resources to not go hungry; organic options (n=9)	Stores are not close and not in neighborhood; no health store in neighborhood; no year-round farmer's market; has to work grocery shopping into work days; Safeway closed because Walmart opened; lives in food desert; time balance; given a "hard time" by mother for buying organic (n=8)
002	Ok with cooking; knowledgeable of culture and cultural foods; preferred store has great variety with international foods, non-GMO, and diet accommodation; one grocery store in walking distance; educated about food; creativity; educating children; social relationships (n=8)	Ok with cooking; busy family schedule; preferred store is not nearby; no car; store within walking distance has less selection and higher prices; cold weather makes walking to store difficult; preferred stores are not in walking distance or nearby; first and last mile from train; need more variety and ethnic products that reflect my background and culture; ethnic stores are a far drive away; no money to eat out; not enough options at restaurants; between work; rent; commuting; not enough time to cook; laziness; price of organic (n=18)

Factors Affecting Food Choice		
003	Research and learning about holistic and natural remedies; willingness of children to transition to veganism as well; very comfortable with cooking; Denver has a lot of more nutritional choices and a health-conscious environment; several store options in very close proximity with a lot of selection, great produce, and natural products; owns car; location/neighborhood of home; moving to Denver from Mississippi; knowledgeable about food (n=9)	Not much variety or selection of vegan restaurants; not many alternative products to wheat or dairy; at times difficult to find things that accommodate vegan diet; price (n=4)
004	More variety for eating out; very comfortable with cooking; knowledgeable about food; financial resources to try new things; social network of sharing recipes; open-mindedness in trying new things with child; local restaurant and small business options; membership in eating club; stores nearby with good selection and variety; organic options available; owns car; awareness of historical health risks of food; menu planning; self-motivation; social relationships (n=15)	Daughter has school activities; need to extra find time in busy schedule for grocery shopping; price; no artisan shops nearby to walk to; cost of gas; self-control; time balance can be a struggle; self-motivation; potentially limited restaurant choices when traveling (n=9)
005	Knowledge and influence from job and mom; relatively comfortable with cooking; dinner as time to connect as family; home support from mom; store close to home and on the way home from work with varying affordability and selection; owns car; menu planning; creating backyard growers; good support system (n=9)	Busy family schedule; work in food desert neighborhood; grocery store close to home doesn't have organic produce and less options than store in affluent neighborhood; inconsistency in the availability of healthy food; store close to home is walkable but requires crossing busy street; price point; challenge to make healthy meals for my kids that they'll enjoy and actually eat; can't menu plan; tight budget; lack of place to pick up healthy, affordable prepared meals; being a single parent; fast food restaurants; limited choices (n=12)
006	Awareness of different ways to prepare food; love cooking and learning more about ingredients; knowledgeable about food; open minded about food from other cultures with kids; many store options with variety; meal planning; owns car; drive to do "right"; sister and friends to carpool with and split Costco purchases; does not keep tempting foods in the house; keep high quality foods in the house; trusting daughter to make healthy choices; planning ahead; supportive social relationships (n=14)	Lack of restaurants with fresh food in neighborhood; need a new/newer car (n=2)
007	Very comfortable cooking; becoming more educated on food; structure at dinner time; family social support; comfortable having cultural food with kids; several stores to shop at with varying quality; deals and coupons at stores; time to grocery shop multiple times a week for fresh food; owns car; portion plates; family financial support; structured family schedules and time management; friends; money to treat myself (n=14)	History of colon cancer in family; can't afford to go out; there are a lot of things that I'm not educated about but I really don't know if it's good or not because of the words that they are; price; lack of farmers markets or pick-your-own-farms; lack of fresh fruit juice; lack of ice cream truck for kids; lack of consistent values around food in the community; poor quality of kids' lunches at school; house bills; transportation costs; friends (n=12)
008 (Present)	Very comfortable cooking; enjoying trying ethnic foods with kids; store options near work; stores with very good selection and quality; delivery service (Instacart, Royal Crest Dairy); stores within walking distance; owns car; compromising with kids over snacks; reads labels; breakfast programs at children's' schools; knowledgeable about food; attract same types of people who care about health similarly; being able to go to the store and buy stuff we like to eat that we want to eat; opportunities to enroll kids in cooking class; having a job because you can provide (n=15)	Limited store options near home; store near home is expensive; store near home is overwhelming and over-stimulating with options; limited locally sourced food; preservatives and corn syrup that goes into everything; lack of neighborhood-run farmers markets; lack of individuals growing and selling their own stuff; easy to pacify kids to get them to stop whining; have to pick things that are convenient and easy to cook (n=9)

Factors Affecting Food Choice		
(While using food bank)	Food banks (n=1)	High rents costing more than a whole paycheck; food banks with no fresh produce; store was far and unable to be walked to; store had smaller selection of fresh produce; limited expendable funds so had to choose cheaper snacks with higher sugar content; inability to control food choices; can't choose week's meals until you know what you got out of the food bank; food bank food wasn't that good (n=8)
010	Mom teaching how to cook; store is not too far (walkable and can take the bus); good selection of snacks; emotions (n=4)	Can't cook; price; family doesn't have a car; difficulty bringing food home from the store (waste money on taxi fare); more healthy and green food like at Whole Foods and Sprouts is inaccessible; snacking as opposed to eating real meals; stress related to raising a child alone, going to school, and finding a new job; not having more and closer bus stops; fast food nearby; not knowing how to cook cultural meals; unmotivated; unwise money spending; poor use of time; low self-esteem; emotions; little food knowledge (n=16)
011	Love cooking; knowledgeable about food; read labels; owns car (n=4)	Pressure and stress from son's father; being a single mom; working full-time; not having any support from my son's father; not having convenient places with grab-and-go options; not having time to cook or keep the kitchen clean in order to cook; son is so hungry by mealtime that I only have time to make mac and cheese; don't have time to prepare food; cultural clashes with son's father; emotional eating due to stress; fast-food restaurants nearby; healthy stores (Sprouts, Whole Foods) are inconvenient and inaccessible; not having healthy pre-made meals available at the stores I shop at; price of organic food; not enough food options on campus; limited kid-friendly food options around campus; no place to sit down and eat with all these food options that wouldn't require clean up; no convenient place with a salad bar; house is not close to many food options or shopping options; irregular eating schedule; no time (n=21)

Discussion

These results, coupled with survey results, reveal that the relationship between food choice and self-esteem, for these 10 participants, is not correlated. Every interviewee described both positive and negative factors affecting their food choice, and the proportion varied widely between the single mothers. Participant 6 listed 14 positive factors and two negatives, while Participant 2 identified eight and 18, respectively. However, the results do not support the research hypothesis because the number of each factor does not adequately predict the level of self-esteem.

Participant 11 cited 21 unique factors negatively affecting food choice; the most of any interviewee. Participant 10 had the third most with 16 negative factors identified. Both tied for the fewest positive factors with just four. If the hypothesis were supported, we would be expected that Participant 11 would have more negative self-views than Participant 10 because she identified five more limitations, challenges, or barriers to food choice, but this is not the case. Examining the survey results of factors affecting self-esteem, Participant 10 is one of two single mothers who indicated that each of the 13 factors had a negative influence on her self-esteem to some degree. Conversely, Participant 11 had three factors that had no impact. On the Rosenberg Self-Esteem Scale, Participant 11 had positive assessments for every question while Participant 10 carried some of the lowest self-esteem results where on the whole, she felt dissatisfied with herself and agreed that at times she thought she was no good at all. This instance shows that number of limitations, challenges, or barriers to food choice does not indicate the level of self-esteem.

In another example, if the hypothesis were correct, it would be expected that participants who answered the Rosenberg Self-Esteem Scale the exact same would have either the same number or proportion of positive and negative factors affecting food choice. Again, this is not the case. Participants 4 and 7 shared identical responses but the former has 15 positive factors and nine negatives, while the latter has 14 and 12, respectively. While the results do not indicate a correlational relationship between food choice and self-esteem, they do provide insight into the complexities involved.

One potential explanation for the unsupported hypothesis could be that food choice is but one factor that affects the self-esteem of single mothers. Following the interviews, the participants were given a survey and asked to rate 13 factors for their negative influence on

self-esteem. No two women answered the same, suggesting that each interviewee has their own reality and their own way of internalizing the world around them. While food choice itself may be enabled or limited, its impact on self-esteem may be buffered or exacerbated by these other factors, or factors not identified, that might influence the women's self-perceptions on a whole.

Additionally, the attitude with which these women approach their realities may also explain the dissonance between experiencing numerous limitations, challenges, and barriers to food choice and having high self-esteem. Participant 2 had eight positive factors affecting food choice and 18 negatives, the second most. She was without a vehicle due to a car accident which reduced her food options by making her preferred grocery store inaccessible, "I'm limited because I don't have a car and most of the time you need a car to get to Costco because, you know, it's like shopping in bulk." She would walk or take the LightRail to get to her destination. At the time we met, it was winter and she expressed concern, "But now that it's really getting down in the temperature, I'm a little bit worried." Even if she takes the train, she has to think about the first and last mile of the journey. Participant 2 was also in between jobs, causing financial strain and tension between competing needs, but this has opened an opportunity for her to experiment with food:

> It's not less food, like not to say we're starving. But it's just really important to keep the rent going, for instance. So, definitely less trips to the grocery store and stretching meals and improvising. So, I've been being creative. It's caused me to be creative. So now we're making soup out of those [canned] beans. Like that's what I'm saying. We're not starving, but we're utilizing the stuff that we take for granted... And I never knew to make three bean soup before... and it actually came out good!

Participant 2 displayed self-efficacy in this example by demonstrating that external limitations are not internal limitations, and that there are positive ways to view and spin situations that may, on their face, not appear positive.

Participant 6 also had a unique attitude because she strongly promoted self-efficacy and self-responsibility. When asked about potential tradeoffs between being a provider and her food choices, Participant 6 did not hesitate to castoff my example of only being able to afford a cheap box of macaroni when a child really needs fruits or vegetables. She said:

> I guess I've learned that… you can still get good foods. You may have to do some work. Yea, I mean, ok, it may be bruised, but you're still getting those nutrients. I mean depends on, I really want to say that it's growth and knowledge and learning and seeing and talking and that kind of pulls it all together. Like you can still get fresh fruits. I mean, know that, "Ok, it may be apple that's bruised, but it's still edible." It's still fresh. It's out there. Yea, you have to… I don't even want to say challenging. I guess you really have to know that this is the best.

For Participant 6, her outlook appears to be that the individual has a responsibility to do for themselves so that they have the skills and abilities to make the decisions that fulfill their role. She places the onus on the individual to navigate within the urban context and not allow the environment to narrow their reach. This attitude could be an explanation for why this interviewee had the least number of limitations, challenges, or barriers to her food choices; she just does not see them that way.

CHAPTER V

CONCLUSION

Recommendations for Research

This research study was an exploratory topic, and the findings warrant further study. With larger sample populations, research question one could be studied more in-depth to confirm or refute if limitations, challenges, and barriers to food choice and food access do in fact have a negative effect on self-esteem. Studies could further delve into the consequences. Research question two could follow individuals longitudinally to investigate how the relationship between food choice and self-esteem changes over time, or the focus of this question could narrow down to explore if and how perceived judgments by others affect self-esteem. Potential research questions could include: (1) Does the power of food choice have an impact on the greater community?; or (2) Does urban planning have an impact on the self-esteem of residents? Hypothesis one under research question three has potential for a partnership between a local government, a community, and researchers to determine the outcomes of food choice in the community, especially in a low-income area. The investigation could be repeated on the target population of single mothers, replicated in a different group, or a different location entirely.

Recommendations for Practice

Although the findings from this study cannot be generalized to any population, the data produced provides a case for the need to evaluate and study urban planning policies within the framework of self-esteem and urban psychology. The ways in which we develop our cities and towns have influence over the behaviors, attitudes, norms, and beliefs of our residents. If these can promote positive self-esteem, cities can lead to the direct and indirect

benefits identified with positive self-esteem, as noted above; psychological coherence, reduced anxiety, improved health, harmony of social interactions, improved quality of relationships, and trust. If it is not possible to research the potential outcomes of a policy, then inviting the community and especially those who will be affected by the policy to participate in the planning process is the next best thing. Urban planners should continuously engage their communities, create opportunities for local leaders to emerge, and view residents as local experts with knowledge to contribute.

Additionally, while interviewing and collecting stories of their lived experiences, every single mother had an idea or two, something on her "wish list," on how food in Denver could be better. What these women wanted from the local food system was not absurd or particularly lofty. Rather, these ideas were smart, reasonable, and attainable. Their recommendations provide meaningful solutions to the real problems, and not only would these planning responses improve the lives of these single mothers, but it would make the city better and healthier in general.

Recommendations to improve food selection included: year-round farmers' markets or neighborhood-run farmers' markets for fresh, locally-sourced food that supported the physical and economic health of the community; honor culture and diversity and implement that; encourage and incentivize local urban farming which will increase the supply of organic produce; partner with landowners and apartment complexes to create more urban or community gardens; more artisan and specialty stores, like spice shops or bakeries; and improve the nutritional quality of food at food banks, including produce.

Recommendations to increase food access included: more stores consistently across Denver that specialize in healthy and organic foods, even if it is just mom and pop shops, to

reduce food deserts and reduce inequities; partner with local nonprofits focusing on food access; improve first and last mile journeys with consideration for different experiences at various times of the year; find strategies to reduce the cost of nutritious foods; explore traffic-calming measures around intersections leading to grocery stores to increase walkability and reduce environmental impact; work with food distributors to ensure more consistent options across the city which would improve issues of inequity; provide opportunities for urban residents to visit farms so they can pick their own food and learn; and more bus stops in neighborhoods along the edge of the county.

Recommendations to improve family life through food included: more schools growing food so children can become informed and involved in the food cycle; offer more cooking classes for children, adults, and families; improve school lunches, both in quality and taste; and create more breakfast programs at schools.

Conclusion

Policies are not perfect, and they become less straightforward the more we really learn about the people who engage with them. Although it is impossible to create a city that satisfies everyone, we, as urban planners, should certainly try. One way to find innovative solutions to our problems is to look at the problem differently, perhaps through the lens of self-esteem. Understanding self-esteem can inform planners about how attitudes, beliefs, norms, and other psycho-social factors influence the public, and how that in turn influences our work. Cities are filled with local experts that can teach us a thing or two about how to *truly* make our communities better; we just have to remember to tap into them. Our residents have a lot to teach, and we have a lot to learn.

REFERENCES

Alshenqueeti, H. (2014). Interviewing as a Data Collection Method: A Critical Review. *Sciedu Press, 3*(1), 39-45. doi: 10.5430/elr.v3n1p39

American Psychological Association. (2005). *Report of the APA Task Force on Urban Psychology Toward an urban psychology: Research, action, and policy*. Retrieved from https://www.apa.org/pi/ses/resources/publications/urban-taskforce.pdf

Angelo, B. (2016). *New & Next: Developing Denver's Food System Infrastructure*. Retrieved from http://www.confluence-denver.com/featuredposts/new_and_next_angelo_010616.aspx?utm_source=Vertical Response&utm_medium=Email&utm_term=New+&+Next%3A+Developing+Denver%27s+Food+System+Infrastructure&utm_content=%7BEmail_Address%7D&utm_campaign=Composting%2C+Affordable+Housing+in+LoDo+and+Developing+Food+Systems

Badger, E. (2014). *The unbelievable rise of single motherhood in America over the last 50 years.* Retrieved from https://www.washingtonpost.com/news/wonk/wp/2014/12/18/the-unbelievable-rise-of-single-motherhood-in-america-over-the-last-50-years/

Bandura, A. (1977). Self-efficacy: Toward a Unifying Theory of Behavioral Change. *Psychological Review, 84*(2), 191-215. Retrieved from https://www.uky.edu/~eushe2/Bandura/Bandura1977PR.pdf

Bandura, A. (1994). Self-efficacy. In V. S. Ramachaudran (Ed.), *Encyclopedia of human behavior* (pp. 71-81). New York: Academic Press.

Brady, D., & Burroway, R. (2012). Targeting, Universalism, and Single-Mother Poverty: A Multilevel Analysis Across 18 Affluent Democracies. *Demography, 49*(2), 719-746. doi: 10.1007/s 13524-012-0094-z

Broussard, C. A., Joseph, A. L., & Thompson, M. (2012). Stressors and Coping Strategies Used by Single Mothers Living in Poverty. *Journal of Women and Social Work, 27*(2), 190-204. doi: 10.1177/0886109912443884

Burke, P. J., & Stets, J. E. (2009). *Identity Theory*. New York: Oxford University Press.

Buss, S. (2014). Personal Autonomy. In *The Stanford Encyclopedia of Philosophy*. Retrieved from http://plato.stanford.edu/entries/agency/

Cairney, J., Boyle, M., Offord, D. R., & Racine, Y. (2003). Stress, social support and depression in single mothers and married mothers. *Social Psychiatry and Psychiatric Epidemiology, 38*(8), 442-449. doi: 10.1007/s00127-003-0661-0

Campbell-Grossman, C., Hudson, D. B., Keating-Lefler, R., & Fleck, M. O. (2005). Community Leaders' Perceptions of single Low-Income Mothers' Needs and Concerns for Social Support. *Journal of Community Health and Nursing, 22*(4), 241-257. Retrieved from http://www.jstor.org/stable/3427849

Cao, X. J. (2016). How does neighborhood design affect life satisfaction? Evidence from Twin Cities. *Travel Behaviour and Society*, *5*, 68-76. doi: 10.1016/j.tbs.2015.07.001

Cast, A. D., & Burke, P. J. (2002). A Theory of Self-Esteem. *Social Forces, 80*(3), 1041–1068. Retrieved from http://www.jstor.org/stable/3086465

Chen, S., English, T., & Peng, K. (2006). Self-Verification and Contextualized Self-Views. *Personality and Social Psychology Bulletin, 32*(7), 930-942. doi: 10.1177/0146167206287539

Davis, J. A. (2012). Methodological coherence: Establishing a unified research frame. *Canadian Journal of Occupational Therapy, 79*(3), 131-133. doi: 10.2182/cjot.2012.79.3.1

DeNavus-Walt, C., & Proctor, B. D. (2015). Income and Poverty in the United States: 2014. *U.S. Census Bureau,* 16. Retrieved from https://www.census.gov/content/dam/Census/library/publications/2015/demo/p60-252.pdf

Denver Sustainable Food Policy Council. (n.d.). *Policy Issues.* Retrieved from http://denversfpc.com/policy-issues/

Devine, C. M., Jastran, M., Jabs, J., Wethington, E., Farell, T. J., & Bisogni, C. A. (2006). "A lot of sacrifices:" Work-family spillover and the food choice coping strategies of low-wage employed parents. *Social Science & Medicine, 63*(2006), 2591-2603. doi: 10.1016/j.socscimed.2006.06.029

De Vos, J., Schwanen, T., Van Acker, V., & Witlox, F. (2013). Travel and subjective well-being: a focus on findings, methods and future research needs. *Transport Reviews, 33*(4), 421-442. doi: 10.1080/01441647.2013.815665

Diener, E., & Suh, E. (1997). Measuring quality of life: Economic, social, and subjective indicators. *Social Indicators Research, 40*(1), 189-216. doi: 10.1023/A:1006859511756

Ettema, D., Gärling, T., Eriksson, L., Friman, M., Olsson, L., & Fujii, S. (2011). Satisfaction with travel and subjective well-being: Development and test of a measurement tool. *Transportation Research Part F, 14*(3), 167-175. doi: 10.1016/j.trf.2010.11.002

Fiese, B. H., & Schwartz, M. (2008). *Reclaiming the Family Table: Mealtimes and Child Health and Wellbeing*. Retrieved from http://files.eric.ed.gov/fulltext/ED521697.pdf

Hopkins, K. (2004). Food for life, love and hope: an exemplar of the philosophy of palliative care in action. *Proceedings of the Nutrition Society, 63*(2004), 427-429. doi: 10.1079/PNS2004372

Huddleson-Casas, C., Charnigo, R., & Simmons, L (2008). Food insecurity and maternal depression in rural, low-income families: a longitudinal investigation. *Public Health Nutrition, 12*(8), 1133-1140. doi: 10.1017/S1368980008003650

Jabs, J., & Devine, C. M. (2006). Time scarcity and food choices: An overview. *Appetite, 47*(2006), 196-204. doi: 10.1016/j.appet.2006.02.014

Kalil, A., & Ryan, R. M. (2010). Mothers' Economic Conditions and Sources of Support in Fragile Families. *The Brookings Institution, 20*(2), 39-61. Retrieved from http://files.eric.ed.gov/fulltext/EJ901822.pdf

Krumer-Nevo, M. (2008). From noise to voice. *International Social Work, (51)*4, 556-565. doi: 10.1177/0020872808090248

Layne, L. L. (2015). "I Have a Fear of Really Screwing It Up": The Fears, Doubts, Anxieties and Judgments of One American Single Mother by Choice. *Journal of Family Issues, 36*(9), 1154-1170. doi: 10.1177/0192513X14533545

Leary, M. R. (1999). Making Sense of Self-Esteem. *Current Directions in Psychological Science, (8)*1, 32-35. Retrieved from http://www.jstor.org/stable/20182550

Locher, J. L., Yoels, W. C., Maurer, D., & van Ells, J. (2006). Comfort Foods: An Exploratory Journey Into The Social and Emotional Significance of Food. *Food and Food Ways, 13*(4), 273-297. doi: 10.1080/07409710500334509

Lutenbacher, M., & Hall, L. A. (1998). The Effects of Maternal Psychosocial Factors on Parenting Attitudes of Low-Income, Single Mothers With Young Children. *Nursing Research, 47*(1), 25-34. Retrieved from http://ovidsp.tx.ovid.com/sp-3.18.0b/ovidweb.cgi

Madden, H., & Chamberlain, K. (2010). Nutritional health, subjectivity and resistance: Women's accounts of dietary practices. *Health, 14*(3), 292-309. doi: 10.1177/1363459309356073

McFalls, J. A., Jr. (2003). *What's a Household? What's a Family?* Retrieved from http://www.prb.org/Publications/Articles/2003/WhatsaHouseholdWhatsaFamily.aspx

McIntyre, L., Officer, S., & Robinson, L. M. (2003). Feeling Poor: The Felt Experience of Low-Income Lone Mother. *Affilia, 18*(3), 316-331. doi: 10.1177/0886109903254581

McLanahan, S. S. (1984). *Single Mothers and Psychological Well-Being: A Test of the Stress and Vulnerability Hypothesis*. Center for Demography and Ecology, University of Wisconsin-Madison.

North, R. J., & Swann, W. B. (2009). Self-verification 360°: Illuminating the Light and Dark Sides. *Psychology Press, 8*, 131-146. doi: 10.1080/15298860802501516

Olivera, G., & Wardlea, J. (1999). Perceived Effects of Stress on Food Choice [Abstract]. *Physiology & Behavior, 66*(3), 511-515

Ozbay, F., Johnson, D. C., Dimoulas, E., Morgan, C. A., III, Charney, D., & Southwick, S. (2007). Social Support and Resilience to Stress: From Neurobiology to Clinical Practice. *Psychiatry (Edgmont), 4*(5), 35-40. Retrieved from http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2921311/#!po=58.0000

Peden, A. R., Rayens, M. K., & Hall, L. A. (2005). A Community-Based Depression Prevention Intervention With Low-Income Single Mothers. *Journal of the American Psychiatric Nurses Association, 11*(1), 18-25. doi: 10.1177/1078390305275004

Pew Research Center. (2010). *The Decline of Marriage And Rise of New Families*. Washington, DC: Paul Taylor (Ed.).

Pfeiffer, D., & Cloutier, S. (2016) Planning for Happy Neighborhoods. *Journal of the American Planning Association, 82*(3), 267-279. doi: 10.1080/01944363.2016.1166347

Population Reference Bureau. (2012). *Household Changes in the United States*. Washington DC: L. A. Jacobsen, M. Mather, & G. Dupuis.

Rosenberg, M. (1965). *Society and the adolescent self-image.* Princeton, NJ: Princeton University Press.

Rozin, R. (1996). The socio-cultural context of eating and food choice. In H. L. Meiselman and H. J. H. MacFie (Eds.), *Food Choice, Acceptance, and Consumption*. Retrieved from http://link.springer.com/chapter/10.1007/978-1-4613-1221-5_2#

Sánchez, E. L. (2015). Single mothers need solutions, not shaming. *Al Jazeera America, LLC*. Retrieved from http://america.aljazeera.com/opinions/2015/8/single-mothers-need-solutions-not-shaming.html

Sherwood, J. J. (1967). Increased Self-Evaluation as a Function of Ambiguous Evaluations by Referent Others. *American Sociological Association, 30*(4), 404-409. Retrieved from http://www.jstor.org/stable/2786185

Sobal, J. (2001). Sample Extensiveness in Qualitative Nutrition Education Research. *Journal of Nutrition Education, 33*(4), 184-192. Retrieved from http://www.sciencedirect.com/science/article/pii/S1499404606600304

Stets, J. E., & Burke, P. J. (2014). Self-Esteem and Identities. *Sociological Perspectives, 57*(4), 409-433. doi: 10.1177/0731121414536141

Swann, W. B., Jr. & Bosson, J. K. (2010). Self and identity. In D. T. Gilbert, S. T. Fiske, & G. Lindzey (Eds.), *Handbook of social psychology* (p. 589-628). Hoboken, NJ: John Wiley & Sons.

Swann, W. B., Jr., Rentfrow, P. J., & Guinn, J. S. (2002). Self-Verification: The Search for Coherence. In M. Leary and J. Tagney, *Handbook of self and identity* (p. 367-383). Guilford, NY.

Takooshian, H. (2005). Urban psychology: Its history and current status. *Journal of Social Distress and the Homeless, 14*(1-2), 3-11. doi: 10.1179/105307805807066310

Teddlie, C., & Yu, F. (2007). Mixed Methods Sampling: A Typology With Examples. *Journal of Mixed Methods Research, 1*(1), 77-100. doi: 10.1177/2345678906292430

Tran, T. V., & McInnis-Dittrich, K. (2000). Social Support, Stress, and Psychological Distress Among Single Mothers. *Race, Gender & Class, 7*(4), 121-138. Retrieved from http://www.jstor.org/stable/41955730

Trommsdorff, G. (1994). Future Time Perspective and Control Orientation: Social Conditions and Consequences. In Zaleski, Z. (Eds), *Psychology of future orientation* (pp. 39-62). Retrieved from http://kops.uni-konstanz.de/handle/123456789/10447

Turner, R. H., & Schutte, J. (1981). The True Self Method for Studying the Self-Conception. *Symbolic Interaction, 4*(1), 1-20. Retrieved from http://www.jstor.org/stable/10.1525/si.1981.4.1.1

U.S. Census Bureau. (2016A). *Table F2. Family Household, By Type, Age Of Own Children, And Educational Attainment of Householder: 2016* [Data file]. Retrieved from https://www.census.gov/data/tables/2016/demo/families/cps-2016.html

U.S. Census Bureau. (2016B). *Table FG1. Married Couple Family Groups, By Labor Force Status Of Both Spouses: 2016* [Data file]. Retrieved from https://www.census.gov/data/tables/2016/demo/families/cps-2016.html

U.S. Census Bureau. (2016C). *Table FG5. One-parent Unmarried Family Groups With Own Children Under 18, By Labor Force Status Of The Reference Person: 2016* [Data file]. Retrieved from https://www.census.gov/data/tables/2016/demo/families/cps-2016.html

U.S. Census Bureau. (2016D). *Table FG6. One-parent Unmarried Family Groups With Own Children Under 18, By Marital Status Of The Reference Person: 2016* [Data file]. Retrieved from https://www.census.gov/data/tables/2016/demo/families/cps-2016.html

U.S. Census Bureau. (2016E). *Table FG10. Family Groups: 2016* [Data file]. Retrieved from https://www.census.gov/data/tables/2016/demo/families/cps-2016.html

U.S. Census Bureau. (2016F). *Table FM-2. All Parent/Child Situations, by Type, Race, and Hispanic Origin of Householder or Reference Person: 1970 to Present* [Data file]. Retrieved from https://www.census.gov/data/tables/time-series/demo/families/families.html

U.S. Census Bureau. (2016G). *Table HH-1. Households, by Type: 1940 to Present* [Data file]. Retrieved from https://www.census.gov/data/tables/time-series/demo/families/households.html

U.S. Department of Agriculture. (2015). *Trends in U.S. Local and Regional Food Systems*. Washington, DC: Low, S. A., Adalja, A., Beaulieu, E., Key, N., Martinez, A., Perez, A., Jablonski, B. B. R.

University of Southern California Libraries. (2017). *Organizing Your Social Sciences Research Paper: Limitations of the Study*. Retrieved from http://libguides.usc.edu/writingguide/limitations

Varga, S. & Guignon, C. (2014). Authenticity. In *The Stanford Encyclopedia of Philosophy*. Retrieved from http://plato.stanford.edu/entries/authenticity/

Vandsburger, E., Harrigan, M., & Biggerstaff, M. (2008). In Spite of All, We Made It: Themes of Stress and Resilency as Told by Women in Families Living in Poverty. *Journal of Family Social Work, 11*(1), 17-35. doi: 10.1080/10522150802007303

World Health Organization. (2017). *Urban population growth.* Retrieved from http://www.who.int/gho/urban_health/situation_trends/urban_population_growt

FULL INTERVIEW SCRIPT AND SURVEY

Hello, my name is Cindy Vong and I am a graduate student at the University of Colorado Denver. I am studying the relationship between food choice and the self-esteem of single mothers with the hope of understanding how urban planning affects how we feel about ourselves and get ideas for improvement.

One-on-one: This interview has two parts. The first portion of the interview is a conversation and an opportunity for me to understand your experiences with food and the other things in your life that may affect your food choices and self-esteem. I will ask both general and specific questions. Some may require longer answers and others will be brief. The second portion of the interview is a survey about your background and your personal feelings and thoughts related to food.

Small group: This interview has been arranged using a small group approach and has two parts. The first portion of the interview will be an open discussion where the floor is open to anyone who wishes to offer their opinion or insight. The purpose of our conversation is to learn about your experiences with food and the other things in your life that may affect your food choices and self-esteem. I will ask both general and specific questions. Some may require longer answers and others will be brief. The second portion of the interview is a survey about your background and your personal feelings and thoughts related to food.

During the conversation or survey, you are all welcome to skip or refrain from any questions you do not feel comfortable answering. The interview will last approximately 30 minutes to 1 hour.

Small group: Please look around at the those who are here with us. During this process, I will make every effort to ensure the information that is exchanged will remain confidential and that no personal information will be made public. I request that each of you respect your fellow participants and keep our discussion from leaving this small group. If anyone is uncomfortable with a question or topic, please feel free to excuse yourself and I will let you know when we have moved on to the next question. Also, this is a space of respect. Should you have a disagreeing belief about a topic, please feel free to bring up your side of the issue in a manner that is respectful.

Before we begin I'd like to give you the **Research Participant Information and Consent Form.** Please read, sign, and check the bottom which indicates that you have read the form, agree to participate, and agree to maintain the confidentiality of the other participants, if applicable.

[*Wait until completed.*]

Does you/anyone have any questions for me? Any questions regarding my research or the interview process?

[*Answer and clarify any questions or comments.*]

Great, let's get started.

*****

Section A: Learn about participant. Build background.

1. What kinds of foods did you grow up with?
>   (*Prompt: For instance, were there certain foods that were always in the house, or special meals that were often made?*)

2. Do you and your family still eat those types of foods that you grew up with?

3. How comfortable are you with cooking and working with new types of ingredients?

4. In a week, how often would you say you eat your meals at home?

5. Are these meals typically eaten together as a family?

6. What about eating away from home? How often does your family eat at a restaurant or at a friend or family member's house?

7. Do you think the food you and your family have around the house or the meals that are prepared reflect your cultural background?
>   (*Prompt: By that I mean, are your family's groceries and meals something that you might commonly find in your culture?*)

>   7a. (*If yes*) Is it important to you to have your culture influence your meals and grocery choices?

>   7b. (*If no*) For you, does food perhaps reflect something else?
>>   (*Prompt: For instance, maybe food reflects something you're interested in at the time, or what you're able to afford at the moment. It doesn't really have to do with your culture.*)

Section B: Food access. Barriers to food.

8. What are the names of some food or grocery stores you commonly visit?

9. What is the food selection and quality of food like at the grocery stores or food stores you normally go to?

10. In a week, how often do you go grocery shopping?

11. If you had to estimate, how far are these stores from where you live? How long does it take you to get there?

12. How do you typically get to the store or get around Denver in general?
>   (*Prompt: Do you use a car, ride with someone else, take the bus or Light Rail, bike, or walk?*)

13. Are there any particular things you think about or are concerned about when you're buying food?
> (*Prompt: For instance, does quality, price, nutritional facts, etc. influence your thinking when it comes to food?*)

Section C: Real situation versus ideal

14. If you had a wish list for the things you want regarding food – food accessibility or options, like stores, restaurants, actual food items, etc. – what would be on that wish list?
> (*Prompt or input: Personally, I wish that I knew how to cook and I wish that fresh fruits and vegetables were not as expensive.*)

15. Can you tell me a little about why you're wishing for these things and why they're important?

16. In your opinion, what do you feel needs to be changed in order to have more food choices and to make food more accessible?

17. And if all these things happened, how do you think that would influence you and your family's lives?

Section D: Thoughts and feelings. Connect food choice and self-esteem.

We've reach the last set of questions for the interview and these questions are a little more personal. Again, you can choose to skip any question you wish. These questions will focus on your thoughts and feelings.

18. What does being a mother mean to you?

19. Next, what does self-esteem mean to you?

20. How do you feel about your food choices for you and your children?

21. Generally speaking, do you agree or disagree with this statement: "I think that food is a reflection of a person and their values"?

22. Do you think that the food you buy, prepare, or eat accurately reflects your values?

Next, I'm going to list a few things, and I would like you to think about whether or not there is any sort of tradeoff between that thing and your ability (or inability) to make the food choices you want or need. For example, going and buying a nice steak for dinner takes away from your budget to save for a car. Or findings the ingredients you need for a recipe allows you to bake your famous treats for a fundraiser. [If yes, ask how so].

A. With food and housing, do you think either one affects the other?

B. What about transportation and food?

C. Food and physical health?

D. Sense of control of the things in your life and food choice?

E. Participation in your children's schooling?

F. Time balance

G. Self-esteem?

H. Social relationships?

I. Sense of happiness?

J. Sense that you are capable of providing for yourself and your children?

K. Education and/or food knowledge

This concludes our discussion. Thank you for the fruitful conversation and for sharing insightful stories and experiences. The information you have provided will be a meaningful addition to my research.

The last part of the interview involves a survey that will ask information about yourselves.

[*Distribute surveys and pens*]

Does anyone have any questions?

[*Answer and clarify any questions or comments.*]

Please start the survey when you are ready. You may choose to skip any question you wish. When you have completed the survey, please hand it back to me.

Section A: About You

Instructions: Please fill in the blanks or check the option that best answers the questions. You may choose to skip any questions.

1. How would you describe yourself?

_____ White, not Hispanic or Latino

_____ Hispanic or Latino

_____ Black or African American

_____ American Indian or Alaska Native

_____ Native Hawaiian / Pacific Islander

_____ Asian

_____ Two or more races

_____ Other (please specify) _____

2. What is your level of educational attainment?

_____ Less than high school

_____ High school graduate or equivalent

_____ Some college or associate's degree

_____ Bachelor's degree

_____ Graduate or professional degree

3. What is your current employment status?

_____ Not employed

_____ Employed, part-time

_____ Employed, full-time

_____ Other (please specify)

4. What is your **annual** income level?

    _____ $1 to $9,999

    _____ $10,000 to $14,999

    _____ $15,000 to $24,999

    _____ $25,000 to $34,999

    _____ $35,000 to $49,999

    _____ $50,000 to $74,999

    _____ $75,000 or more

5. How much do you spend a **month** on the following?

    $_____ Rent

    $_____ Transportation (personal vehicle, bus fare, etc.)

    $_____ Medical insurance

    $_____ Food (groceries, restaurants, etc.)

    $_____ Other major expenses (please specify) _____

6. What are your sources of income or income support? (check all that apply)

    _____ Paid work

    _____ SSI

    _____ Disability

    _____ TANF (child support)

    _____ Rental income

    _____ Investments

    _____ SNAP (food stamps)

    _____ Business income (owner or part owner)

    _____ Reduced or free school lunches

    _____ WIC

    _____ Self-employed (artist, distributor, etc.)

    _____ Gift or loans from family or friends

    _____ Other (please specify) _____

Section B: Factors Affecting Self-Esteem

Instructions: Please indicate how much the following factors __negatively__ impact your self-esteem. You may choose to skip any questions.

1. Disabilities (physical or mental)

Not at all				A lot
1	2	3	4	5

2. Food choices, food accessibility, diet

A lot				Not at all
5	4	3	2	1

3. Income

Not at all				A lot
1	2	3	4	5

4. Transportation method

A lot				Not at all
5	4	3	2	1

5. Family relationships

Not at all				A lot
1	2	3	4	5

6. Stress, depression, or any mental condition

A lot				Not at all
5	4	3	2	1

7. Relationship with boyfriend / girlfriend

Not at all				A lot
1	2	3	4	5

8. Education level

A lot				Not at all
5	4	3	2	1

9. Culture or heritage

Not at all				A lot
1	2	3	4	5

10. Friends

A lot				Not at all
5	4	3	2	1

11. Where you live (house, neighborhood, city)

Not at all				A lot
1	2	3	4	5

12. Job or career

A lot				Not at all
5	4	3	2	1

13. Physical appearance

Not at all				A lot
1	2	3	4	5

Section C: Self-Esteem Scale

Instructions: Please read each statement fully and indicate how strongly you agree or disagree with each statement below. You may choose to skip any questions.

1. On the whole, I am satisfied with myself.

      Strongly Agree   Agree   Disagree   Strongly Disagree

2. At times I think I am no good at all.

      Strongly Agree   Agree   Disagree   Strongly Disagree

3. I feel that I have a number of good qualities.

      Strongly Agree   Agree   Disagree   Strongly Disagree

4. I am able to do thing as well as most other people.

      Strongly Agree   Agree   Disagree   Strongly Disagree

5. I feel I do not have much to be proud of.

      Strongly Agree   Agree   Disagree   Strongly Disagree

6. I certainly feel useless at times.

      Strongly Agree   Agree   Disagree   Strongly Disagree

7. I feel that I'm a person of worth, at least on an equal plane with others.

      Strongly Agree   Agree   Disagree   Strongly Disagree

8. I wish I could have more respect for myself.

      Strongly Agree   Agree   Disagree   Strongly Disagree

9. All in all, I am inclined to feel that I am a failure.

      Strongly Agree   Agree   Disagree   Strongly Disagree

10. I take a positive attitude towards myself.

      Strongly Agree   Agree   Disagree   Strongly Disagree

I sincerely appreciate your help in this research project. Your answers, insight and cooperation are incredibly helpful and I thank you for offering your time and effort and allowing me to learn more about you and your family.

Small group: Again, I'd like to remind you all that the information discussed here today must remain with the focus group and not discussed outside. Please respect the other participants.

I have a gift card(s) for you as compensation for your participation. If you have any questions later, please feel free to contact me. Thank you all again for your participation.

*****