United States Born Mexican Origin Women's Descriptions About Their Eating Patterns

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UNITED STATES BORN MEXICAN ORIGIN WOMEN’S DESCRIPTIONS
ABOUT THEIR EATING PATTERNS

by

Juanita Terrie Garcia, MEd, RN, PhD(c)

A Dissertation Submitted to the Faculty of the Graduate School,
Marquette University,
In Partial Fulfillment of the Requirements for
The Degree of Doctor of Philosophy

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ABSTRACT

UNITED STATES BORN MEXICAN ORIGIN WOMEN’S DESCRIPTIONS ABOUT THEIR EATING PATTERNS

Juanita Terrie Garcia, MEd, RN, PhD(c)

Marquette University, 2018

**Problem.** Mexican origin (MO) women comprise the largest Hispanic subgroup (nearly two-thirds) of Latinas in the US. This subgroup has high incidences of obesity and associated chronic diseases. Modifiable risk factors for obesity and chronic diseases include unhealthy diets and eating patterns. Efforts to understand eating patterns of Hispanics have focused on primarily first-generation Hispanics. To date, limited research has been conducted to explore underlying factors that contribute to eating patterns of US born MO women living in the US.

**Method.** The purpose of this qualitative exploratory-descriptive study, using a thematic analysis approach, was employed to explore 15 US born MO women’s narrative descriptions about their eating patterns during individual interviews. The participants were second to fourth generation and reported higher educational attainment, middle income socioeconomic brackets, and English proficiency compared to previous groups studied in the available literature reviewed, who primarily were first generation.

**Results and Conclusions.** The philosophical underpinning, Critical Social Theory with the Social Ecological Model as a theoretical framework was employed. Five themes were identified: (a) personal agency, (b) relationships with people about food, (c) cultural and familial influences, (d) environments, and (e) time and money. All themes were comprised of multiple factors that together classified the varied aspects of the women’s eating patterns. The women in this study did not fit common cultural assumptions derived from previous literature about impacts on Hispanic eating patterns. This study contributes to the body of knowledge by providing insights about descriptions of eating patterns from a subgroup, generational, and gender-specific perspective that extended beyond acculturative and homogeneous group viewpoints to a broader structural view. Social determinants of health may need to be explored with wider lenses to include women with better social, educational, and economic conditions who continue to experience high obesity rates, to promote better health outcomes and advocate for enhanced equity. A more comprehensive understanding of this heterogeneous group is crucial. Innovative approaches are needed for teaching, studying, and developing policies that encompass economic, social, and environmental factors that impact eating patterns to address them and associated dietary related health conditions that extend beyond current national categorizations.
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Juanita Terrie Garcia, MEd, RN, PhD(c)

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I have heard that truly great friends are hard to find, difficult to leave, and impossible to forget. Thank you, friends for supporting me throughout my studies. Lastly, thank you my family for your support. John, thank you for your patience during my countless evening spent studying and researching. Amanda and Braulio, thank you for your endless love and words of encouragement and support. I would not have been able to succeed without your support.
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LIST OF ACRONYMS USED

ARSMA = Acculturation Rating Scale for Mexican Americans
BAS = Bidimensional Acculturation Scale
BMI = Body Mass Index
CDC = Centers for Disease Control and Prevention
CHCFR = Colonia Household and Community Food Resource Assessment
CINAHL = Cumulative Index to Nursing & Allied Health Literature
CNNP = Center for Nutrition Policy and Promotion
CST = Critical Social Theory
FG = First Generation (immigrant)
FPL = Federal Poverty Level
HEI = Healthy Eating Index
HLQ = Health & Lifestyle Questionnaire
ICN = International Council of Nurses
LA-FANS-2 = Los Angeles Family & Neighborhood Survey
MB = Mexican Born
MO = Mexican origin
NCHS = National Center for Health Statistics
NHLBI = National Heart Lung Blood Institute
NIH = National Institutes of Health
NIS = New Immigrant Survey
SDH = Social Determinants of Health
SEM = Social Ecological Model
SES = Socioeconomic Status
SG = Second Generation (immigrant)
TG = Third Generation (immigrant)
US = United States
USDA = United States Department of Agriculture
USDHHS = United States Department of Health and Human Services
WHO = World Health Organization
In this study, I examined United States (US) born Mexican Origin (MO) women’s descriptions about their eating patterns. This is a population that has not been frequently studied, yet is a Hispanic subgroup with high incidences of obesity and associated chronic diseases. Preventable diet related chronic diseases are persistent and can lead to major health problems, such as type 2 diabetes, certain cancers, and cardiovascular diseases (Center for Disease Control and Prevention [CDC], 2016b). Modifiable risk factors for obesity and chronic diseases include unhealthy diets and eating behaviors (Blanco et al., 2016). However, other determinants, such as environmental, social, and economic influences that contribute to overall health and eating behaviors, are less modifiable (World Health Organization, 2016). For example, the complexities of socioeconomic status (SES), such as income, education, and occupation can have a positive or negative impact on access to resources among ethnic minority groups (APA, 2007). Furthermore, SES can have a significant influence on the quality of life for women and may directly affect eating habits and dietary behaviors (APA, 2007).

MO women comprise the largest Hispanic subgroup of Latinas (63.8%) in the US (US Census, 2013). In general, MO and Puerto Rican Hispanic subgroups fall within lower socioeconomic brackets compared to other Hispanic subgroups (Morales, 2002; DeNavas-Walt & Proctor, 2014). As the largest Hispanic subgroup, with high rates of obesity and chronic diseases and lower socioeconomic levels, it was important to learn directly from MO women their own descriptions about the many aspects that were related to their eating patterns.

In widely used US information sources on this topic, the 2015-2020 Dietary Guidelines for Americans define eating patterns as the “totality of what individuals habitually eat and drink, and these dietary components act synergistically in relation to health” (United States Department
of Health and Human Services [USDHHS] & US Department of Agriculture [USDA], 2015, p. 14). Thus, eating patterns are considered strong predictors of overall health and chronic diseases (USDHHS & USDA, 2015). For example, Willett et al. (2006) identified relationships between diet and conditions, such chronic diseases, cancer, and obesity. In the 2015-2020 Dietary Guidelines for Americans, the authors documented that “rates of obesity have increased and remained high for the past 25 years, while the Healthy Eating Index (HEI) scores, which measure how food choices align with the Dietary Guidelines have remained low” (USDHHS & USDA, 2015, p. 4).

The original HEI was developed by the Center for Nutrition Policy and Promotion (CNPP) in 1991 (Guenther et al., 2007). The HEI was updated for the 2005 Dietary Guidelines by the CNPP and the National Cancer Institute to reflect the 2010 Dietary Guidelines for Americans (Guenther et al., 2007). The HEI-2010 is a reliable and valid tool that is aligned with the Federal 2010 Dietary Guidelines for Americans (USDHHS & USDA, 2010). The HEI-2010 measures diet quality using a scoring metric for up to 12 components that total up to a score of 100. The scoring standards used in the HEI-2010 separate diet quality from quantity, with the exception of fatty acids which are expressed as a ratio of unsaturated fatty acids to saturated fatty acids. For example, a range of points, up to preset maximums, can be assigned to each component: (a) fruits, vegetables, total protein foods, seafood, plant proteins, and total protein are assigned 5 points; (b) whole grains, dairy, and fatty acids are assigned up to 10 points each; (c) foods that should be consumed in moderation include refined grains and sodium, which are assigned up to 10 points each; and (d) empty calories can total 20 points (Guenther et al., 2012). The first nine of the components listed are focused on increasing dietary intake, such as fruits and vegetables, while the latter three components focus on intake moderation and are reverse scored so that lower intakes of refined grains, empty calories, and salt receive higher scores (Guenther et al., 2012). The higher the overall score, the better the diet quality. The 12 components’ points are summed to yield a total score which can reach the value maximum value of 100 (Guenther et al.,
The HEI-2010 has remained at a poor rating, 59 out of a high of 100, for the total US population who are two years of age or older. A score of 100 indicates that the US population is meeting the Dietary Guidelines for Americans. As such a score of less than 51 is considered the result of a poor diet, while scores between 51-80 indicate a diet quality that needs improvement, and scores greater than 80 reflect a good diet (USDHHS & USDA, 2010).

Therefore, developing and sustaining healthy eating patterns has been shown to be problematic for many Americans; this could contribute to difficulties in maintaining ideal body weights, which is a contributing factor to obesity. This is a concern because obesity is associated with increased risks of health related problems, such as chronic diseases (CDC, 2016a).

Furthermore, the prevalence of obesity among Hispanic adults is startling. According to the CDC (2015d), between 2012-2014 there was no state in the US that had less than a 20% prevalence of self-reported obesity among Hispanic adults. Moreover, the Midwestern part of the nation had an obesity prevalence of 33% during that same time frame.

According to the Office of Minority Health (USDHHS, 2016), MO women have higher overweight and obesity rates (77%) compared to non-Hispanic White women (64%). Furthermore, frequencies of certain chronic diseases among MO Hispanics are higher compared to non-Hispanic whites. For example, MO Hispanics are two times more likely to die from complications of Type 2 diabetes when compared to whites (CDC, 2015b). Furthermore, compared to foreign born Hispanics, US born Hispanics have a higher likelihood of developing high blood pressure, high total cholesterol, cancer, and heart disease (CDC, 2015b).

Consequently, health care costs associated with treating obesity related diseases can be a significant burden among Hispanics. This is further complicated by the fact that about one in four Hispanics in the US live below the poverty line (CDC, 2016b). MO women are included in these statistics. Given the socioeconomic profile and increased risk for developing obesity related diseases among Hispanics, as well as the limited research on US born subgroup specific Hispanics, was essential to explore MO women’s descriptions using a gender-specific, subgroup
specific approach. As such, I was able to gain a broader understanding about the eating patterns of US born MO women.

**Organization of the Study**

In Chapter One, I present the background; the statement of the problem; an overview of the MO Hispanics in the US; the status of obesity in the US with a specific focus on MO females; the purpose and significance of the study to nursing education, practice, and research; as well as the definitions of terms that I used. In Chapter Two, I provide the philosophical underpinnings and theoretical framework that guided this study. Also, a comprehensive review of the literature, including identified gaps, is presented, as are my assumptions for the study. In Chapter Three, a delineation of the methods, instruments, procedures, the analysis planned for this study, and the limitations will be explained. In Chapter Four, the study results are presented. Lastly, Chapter Five contains the interpretation of the results from this study and a summary discussion.

**Background**

**Obesity**

The prevalence of obesity in the US has reached epidemic proportions (CDC, 2016a). The rise in obesity is multifaceted and complex. During 2011-2014, 73% of men and 66.2% of women 20 years of age and older in the US were overweight or obese, demonstrating the magnitude and seriousness of the problem (National Center for Health Statistics [NCHS]), 2016). Furthermore, the burden of obesity is disproportionately higher among racial and ethnic groups. For example, between 2011-2014, 82.7% of MO men and 80.3% of MO women who were 20 years of age and older in the US were overweight or obese, which represents rates that are about 10% greater than the overall US rate reported during the same time frame (NCHS, 2016). The difference in statistics for these groups are even more evident when comparing non-Hispanic white women to MO women, 63.5% to 80.3% respectively. Given the alarming and rising
obesity rates, specifically among MO women, it is essential to address this issue. It is imperative to increase the health and well-being of MO women and also reduce the risk of chronic diseases among this rapidly growing population in the US. Developing a greater understanding of the factors that contribute to eating patterns is needed to further elucidate this problem.

**Hispanics in the US**

Hispanics are the largest ethnic minority group in the US. According to the US Census Bureau (2014), 17% of the US population, or 54 million, are Hispanics who reside in the country. Hispanics, however, are not a homogenous group. This population is comprised of many subgroups, most notably 64% of Hispanics in 2012 were of MO, making this the largest Hispanic subgroup in the US. In 2011, the percentages of Mexican males and females were 53% and 47%, respectively (Gonzalez-Barrera & Lopez, 2013). Moreover, 59% of MO Hispanics in the US were between the ages of 18 to 39, with 26% aged 40 and older, and 15% under 18 years of age (Gonzalez-Barrera & Lopez, 2013).

In 1970, less than one million Mexican immigrants lived in the US (Gonzalez-Barrera & Lopez, 2013). After three decades, the numbers increased to 9.8 million by 2000 and then to 12.5 million by 2007. The US experienced the highest influx of Mexican immigrants from 1980-2000. This influx contributed to the increased numbers of Mexican immigrants in the US. However, between 2000-2010, US births of MO Hispanics surpassed immigration rates (Pew Hispanic Center, 2011). The influx of Mexicans to the US over the past decades has created tiered generations of Mexicans residing in the US. Those who were foreign born and moved to the US are considered to be first generation (Fry & Passel, 2009). Second generation include US born persons who have at least one US born parent and at least one immigrant parent, and third generation and higher are US born for whom both parents were also US born (Fry & Passel, 2009).
In 2009, 11% of Hispanic children living in the US were first generation, 52% were second generation, and 37% were third generation or higher (Fry & Passel, 2009). However, from 2009 to 2014, over 1 million Mexicans in the US returned to their home country of Mexico and the influx of Mexicans to the US markedly decreased (Gonzalez-Barrera & Lopez, 2013). The return of immigrants to Mexico and decline in migration rates could be due to stricter enforcement of immigration laws (Rosenblum, Meissner, Bergeron, & Hipsman, 2014). Others suggested the economic decline and loss of jobs among Mexican immigrants during 2007-2009 contributed to the decline in migration from Mexico to the US (Fix et al., 2009). These trends are noteworthy because social, economic, and academic characteristics vary by generation. Among the three generations, the greatest differences exist between first generation (foreign born residents) and second and third generation (US born) Hispanics.

**Social Determinants of Health and Hispanics**

More than three generations of Hispanics are living in the US. As of 2007, children less than 18 years of age were comprised of the following subgroups: first generation 11%, second generation 52%, and third generation 37% (Passel & Cohn, 2010), indicating that fewer are foreign born. Differences in characteristics are evident with each generation, such as legal status, socioeconomic level, educational attainment, and language spoken. One noteworthy difference between first generation Hispanics compared to second and third generation and higher Hispanics is their improving SES (Fry & Passel, 2009). Children of second and third generation Hispanics are living and growing in better conditions than their first generation counterparts. Improved conditions can positively impact overall health and well-being. The World Health Organization (2016) calls these conditions the social determinants of health (SDH). SDH are characteristics of the environments in which people live, are born into, work, grow, go to school, and age (Wilkinson & Marmot, 2003). Therefore, improving conditions among successive generations are having a marked impact on the growing US Hispanic population.
According to the Pew Hispanic Center/Kaiser Family Foundation’s 2002 National Survey of Latinos, second generation Latinos have higher rates of health coverage, greater high school completion, increased college enrollment and graduation, and higher household incomes when compared to those who are first generation. Likewise, second and third generation Latinos exhibit more similarities in health coverage, education, and income than those who were foreign-born. As a Hispanic subgroup, US born people of MO had more than double the rate of earning bachelor’s degrees (15%) compared to foreign-born Mexicans (6%) (Krogstad, Stepler, & Lopez, 2015).

Regarding SES among the Hispanic subgroups, MO people who are 16 years of age and older earned slightly lower annual incomes ($20,800) compared to all Hispanics ($21,900) and had higher poverty rates (26%) than the overall Hispanic population (25%) (Krogstad, Stepler, & Lopez, 2015). However, incomes among all third generation or higher Hispanic households are notably higher, at $75,000 (Wilkinson & Marmot, 2003).

Additionally, the most significant difference among all generations is language. From 1980 to 2000, there was a 47% increase in the number of Mexicans who spoke English, from over 1,900,000 to nearly 4,000,000 respectively (Pew Hispanic Center/Kaiser Family Foundation 2002). In 2002, 74% Hispanics were of MO, with 7% of first generation Hispanics being mainly English speakers, compared to 39% of the second generation, and 64% who were third generation (Pew Hispanic Center/Kaiser Family Foundation, 2002). However, by 2013, 68% of Hispanics five years of age and older spoke English proficiently compared to 59% in 1980, an increase of 9% over three decades (Krogstad, Stepler, & Lopez, 2015). English proficiency has a significant impact on educational attainment. Higher educational degrees also can lead to better jobs, higher wages, and improved social and economic conditions. Social class also contributes to access to sources of nutrients (Wilkinson & Marmot, 2003). The intersections of race, ethnicity, class, and gender can have more profound impacts than any one factor by itself (Choo & Ferree, 2010). Crenshaw (1991) coined the term intersectionality, which postulates patterns in society are
intertwined and influenced by factors such as race, ethnicity, class and gender. Therefore, those with lower incomes have less access to healthy and minimally processed foods, contributing to unhealthy eating patterns and leading to obesity and its associated risk factors. Studies have shown relationships with obesity and varied factors, such as SES, education, physical activity, and eating patterns; these will be critically analyzed based on the literature I present in Chapter Two.

**Hispanics and Dietary Influences**

Dietary influences on Hispanics’ eating patterns have been an area of interest among researchers. In numerous studies, authors have suggested that acculturation affects dietary intake, postulating that the longer Hispanics live in the US, the higher the likelihood of developing poor eating patterns that may contribute to negative health outcomes, such as obesity related diseases (Ayala, Baquero, & Klinger, 2008; Castellanos & Abrahamsen, 2014; Creighton, Goldman, Pebley, & Chung., 2012; Keller, Fleury, & Rivera, 2007; Sussner, Lindsay, Greaney, & Peterson, 2008; Yeh, Viladrich, Bruning, & Roye, 2009;). However, Martinez (2013) proposed that immigrants who moved to the US after the year 2000 were already introduced to processed foods in their native countries and had established negative eating patterns prior to migrating to the US. Other authors have indicated that socioenvironmental influences, such as income, education, and geographical location, also are contributory to eating patterns (Benavides-Vaello, 2005; Cason, Nieto-Montenegro, & Chavez-Martinez, 2006; Castellanos & Abrahamsen, 2014; Gray, Cossman, Dodson, & Byrd, 2005; Guarnaccia, Vivar, Bellows, & Alcaraz, 2012; Hoke, Timmerman, & Robbins 2006; Keller et al., 2007; Martinez, 2013; Ramirez, Chalela, Gallion, & Velez, 2007; Schlomann, Hesler, Fister, and Taft, 2012; Sussner et al., 2008). Furthermore, some studies have suggested that families shape eating patterns and diet preferences because of routine exposure to particular foods (Binns & Ariza, 2004; Patrick & Nicklas, 2005). I will compare and contrast these authors’ perspectives in detail in Chapter Two.
Various factors have been associated with influencing eating patterns that may contribute to obesity (CDC, 2016a; National Institutes of Health [NIH], 2011). For example, based on the 2015-2020 Dietary Guidelines for Americans, three-fourths of the US population under-consumes fruits, dairy, and oils, and over-consumes refined grains, sodium, added sugars, and saturated fats (USDHHS & USDA, 2015). Wilkinson & Marmot (2003) suggested that social class plays a role on the nutrients people consume, indicating that those who are poor tend to substitute healthier fresh foods with less expensive processed foods; although intake of foods high in fat occurs among all social groups.

Most studies to date have focused on recent immigrants, first generation, and second generation Hispanics. Additionally, many studies approach Hispanics as a homogenous group. However, the Hispanic population is comprised of numerous subgroups of which the largest is Mexican. MO people in the US share a common ancestral language and country, however, many differ on other aspects, such as eating patterns. While acculturation has been a contributing factor influencing dietary intake, less is known about the role generational status plays on food patterns among subgroup specific Hispanics who were born in the US.

A limited number of studies have compared eating patterns of US born Hispanics using a subgroup specific approach. Little is known about subgroup specific descriptions about eating patterns among women of MO whose obesity rates have increased at an alarming rate. The perspectives I directly gained from their viewpoints are important as the MO Hispanic population in the US continues to grow in numbers, while also aging, which will increase their risks of chronic problems.

**Statement of the Problem**

Body Mass Index (BMI) is an indicator of total body fat and is a commonly used measure calculated by dividing one’s weight in kilograms (kg) by the person’s height in meters squared (m$^2$) (CDC, 2015a; USDHHS & USDA, 2010). Obesity is defined as having a BMI of 25-29.9 for
adults in the overweight category and obese if the BMI is \( \geq 30 \) (CDC, 2012). In the US in 2011-2012, 17% of all 2- to 19-year-olds, and 35% of adults aged 20 years or older, were obese (Ogden, Carroll, Kit, & Flegal, 2014). To look more closely at the rates by ages of the adults, 39% percent of middle aged adults (40-59 years) had higher rates of obesity compared to adults who were either 60 years or older (35%) or those aged 20-39 (30%) (CDC, 2016a). BMI can be used as an indicator of body fat. However, other factors, such as age, muscle mass, gender, and ethnicity, can also affect BMI (Bhurosy and Jeewan, 2013). Therefore, BMI is generally used as a screening tool to identify weight status of individuals (CDC, 2015a) with the understanding that other factors also need to be considered.

Considering gender influences, overall obesity rates for females 20 years of age and older were higher than male obesity rates in 2015, 36.5% and 33.1% respectively (CDC, 2016c). Considering the intersection of gender and ethnicity, from 1976 to 2012, the obesity rates of MO females increased from 26% to 44% (Carroll, Kit, Lacher, & Yoon, 2013; USDHHS, 2016; Wang & Beydoun, 2007). From 2011-2014, compared to non-Hispanic white women who were 20 years of age and older, the subgroup of MO women had higher obesity rates than their counterparts, 35.3% and 49.6%, respectively (National Center for Health Statistics (NCHS), 2016). By 2015, MO women had higher combined overweight and obesity rates compared to non-Hispanic white women, 64% and 77% respectively (USDHHS, 2016). Therefore, from 1988 to 2014, the obesity rates for MO women increased by 14% from 35.2% in 1994 to 49.6% in 2014 (NCHS, 2016). These statistics among MO females are alarming. Despite efforts made to implement strategies and interventions to address this epidemic, rates of obesity continue to rise (USDHHS, 2016).

Nationwide, varied interventions have been implemented to address this critical problem in the Hispanic population, yet only slight decreases in weight have been reported to date (CDC, 2012). Because Hispanics have generally been categorized as a homogenous group, innovative efforts need to be made to develop ethnic subgroup and generation specific strategies to address
the growing obesity epidemic in women of MO. While efforts to understand eating patterns of Hispanics have been made, most have been focused on immigrants and first generation Hispanics. Thus, identifying and investigating relationships among multiple factors is needed to elucidate the complexities about what influences eating patterns from second and third generation perspectives. It is also critical to explore individual MO women’s viewpoints on, and experiences with, eating patterns. Multi-level factors experienced by MO women such as lack of health coverage, lower educational attainment, limited social networks, lower socioeconomic status, and language barriers are all aspects of marginalization that may have negative outcomes on access to healthy food and overall health.

Purpose of the Study

The purpose of this qualitative study was to explore US born MO women’s descriptions about eating patterns. To date, limited research has been conducted to explore the underlying factors that contribute to eating patterns from a Hispanic subgroup specific perspective. This is particularly of concern with the sizeable population group of US born MO women living in the US, given their higher rates of obesity. Thus, my intent was to contribute to the body of knowledge on addressing the unique needs of this population.

Significance to Nursing

As a registered nurse who supports nursing advocacy to eliminate health disparities as a professional component of contributing to social justice, the study I proposed is an important one. In the study, I interviewed MO women who are from a vulnerable population to provide their unique perspectives on their own eating patterns. Also, I will reviewed the research literature on second, third, or higher generations in the US which have not been studied extensively to date. Additionally, I examined and interpret the results using critical social theory and a model that integrates social ecological concepts. This particular approach is innovative and helped to
elucidate insights that can positively impact issues related to obesity in the population. In this way, I explained the significance of the proposed study to the profession of nursing, including practice, education, research, and policy.

**Nursing Practice**

The International Council of Nurses (ICN) (2009) understands the magnitude of the obesity epidemic and has taken a stance to address this problem. The ICN advocates for nurses to take strategic roles in addressing and supporting culturally sensitive approaches to weight maintenance, nutrition, exercise, and positive lifestyles. Furthermore, nurses are ideally positioned to make a positive impact and address societal factors that negatively impact health. Nurses can undertake a more tailored subgroup, gender-specific approach to address preventable diet related diseases among Hispanics that could contribute to a reduction in major health problems. Nurses also can take the lead to improve health outcomes by developing policies and strategies that focus on health inequities, as well as societal factors that impact eating patterns and obesity. It is imperative that nurses are leaders in health, collaborating with other disciplines in the movement toward wellness from a nutritional standpoint. Contributing to the body of nursing knowledge about MO women’s eating patterns will help inform nursing practice.

**Nursing Education**

Nursing faculty need to play an integral role in deeper understanding of eating patterns that could aid in addressing obesity by integrating courses in undergraduate nursing programs that focus on the many influences on these patterns, such as individual, societal, environmental, and social factors. Furthermore, the formation of population health perspectives could be enriched by offering specialty tracks for graduate nursing students tailored to address the SDH. Students who are well-educated nurses can promote awareness about various factors that impact eating patterns and will learn to implement individually focused nutritional interventions. Furthermore, faculty can inspire students to extend beyond these approaches and integrate strategies that help communities gain a greater understanding of the consequences that varied factors can have on
eating patterns. Implementation of these strategies can promote multi-level positive changes.

**Nursing Research**

Knowledge about factors that impact MO women’s eating patterns from subgroup and generational perspectives is important to researchers. Therefore, it is essential for a variety of researchers to further create, develop, and test instruments and innovative interventions that could address eating patterns that may be contributing to the growing obesity epidemic among Hispanics. The Hispanic population is complex, as are the multiple factors involved in obesity. Researchers can gain a more comprehensive understanding of eating patterns by examining variations such as migration, generational status, education, and socioeconomic level within each Hispanic subgroup, rather than studying the population as if it is homogenous. Also, it is critical to learn directly from more individuals in specific subgroups, particularly those who have been marginalized.

**Nursing Health Policy**

Nurses are in unique positions to significantly impact the development of policies that will positively impact MO women and members of other population subgroups facing major health disparities. Nurses’ roles in clinical settings, communities, academia, and research provide numerous opportunities to gain deeper, more critical understandings of the inequities, societal factors, and other multi-level components that impact eating patterns in the US. Moreover, nurses can play an instrumental role in influencing and shaping policies that impact vulnerable populations, such as MO women.

Overall, it is imperative that nurses develop a clear understanding of factors that contribute to eating patterns. Then, nurses can examine these phenomena systematically, test interventions, and advocate effectively by applying generational, subgroup specific approaches. These ideas may assist women to identify strategies that can target patterns that may lead to obesity and its associated risk factors, potentially enabling alterations in patterns as needed.
Definition of Terms

In this section, I delineate definitions to ensure uniformity of use and meaning of the terms throughout my dissertation. The definitions are listed in alphabetical order for ease of reference. In addition, terms that have special meaning in my study are also included in this section to provide a central location and aid in clarity.

**Body Mass Index (BMI)**

BMI is used as a measure of body fat based on the weight-to-height ratio of a person. The calculation for this measurement consists of dividing a person’s weight in kilograms by the height in meters squared (CDC, 2015a).

**Eating Patterns**

Eating patterns consist of the total food and beverages that individuals consume, and how these dietary components work together relative to one’s health. The patterns include individuals’ own descriptions about their eating behaviors (USDHHS & USDA, 2015).

**First Generation**

A first generation individual in the US is one who was not born in the US and is not a US citizen at birth (Fry & Passel, 2009). Therefore, these individuals are immigrants.

**Hispanic/Latino**

The Office of Budget and Management (1997) defines a Hispanic/Latino as any person of Cuban, Mexican, Puerto Rican, South or Central American, or other Spanish culture or origin regardless of race. These countries of origin are known to have unique cultural aspects, although Spanish is the primary language in each.

**Second Generation**

A second generation individual is born in the US and is, therefore, a citizen (including those born in Puerto Rico or other US territories). These individuals have at least one parent born
Social Determinants of Health (SDH)

The SDH are the circumstances in which people are born into, grow up in, live, and work. These conditions impact their resources, education, employment, SES, food availability, safety, and overall quality of life (WHO, 2016).

Third or Higher Generation

A third generation or higher individual is born in the US and is a citizen. Both parents are second generation, in the US and, therefore, are citizens (Fry & Passel, 2009).

Weight

Using BMI as an indirect measure of body fat, when the calculated weight and height relationship is considered higher than normal weight, it is described as overweight or obese. BMIs in the range from 25.0 to <30 fall within the overweight range, while a BMI that is 30.0 or higher is within the obese range. In comparison, a BMI less than 18.5 is considered underweight, and a BMI from 18.5 to <25 is considered to be within the normal range (CDC, 2016a).

Chapter 1 Summary

In Chapter One, I presented a background of Hispanics in the US and the state of obesity, with specific focus on MO females in this population. An overview of the increase of Hispanics living in the US and changing trends among the succeeding generations was also provided. A brief overview of multiple possible influences on diet among this population, and the need to explore subgroup and gender-specific descriptions about eating patterns, was given. Lastly, I discussed my views on the significance of the study to nursing education, practice, research, and policy making. I then concluded with definitions of terms used. In Chapter Two, I provide the philosophical underpinnings and theoretical framework that guided this study. Also, I include a comprehensive review of the literature, identify gaps, and state my researcher assumptions for the study.
Chapter 2

REVIEW OF THE LITERATURE

The purpose of this qualitative study was to explore descriptions about eating patterns of US born Hispanic females of MO. Given the higher rates of obesity among MO females, this study was intended to contribute to the body of knowledge to address the needs of this population. To identify gaps, explore the literature, and gain a better understanding about factors that influence eating patterns among US born MO Women, an extensive review of the literature is provided.

The philosophical underpinning that will be used as the foundation for my study is Critical Social Theory. The Social Ecological Model, with an emphasis on relationships that exist between the individual and the environment, was used as a framework to gain a broad perspective about the participants in my study and their viewpoints.

**Philosophical Underpinning: Critical Social Theory**

The philosophical underpinning I used for this study was Critical Social Theory (CST). CST can be traced back to the early 1900s with the Frankfurt School in Germany (Bohman, 2016). CST is a synthesis of social theory, philosophy, sociology, psychology, cultural studies, and the political economy from the works of Marx, Kant, Hegel, and Weber that challenge the ideologies of positivism (Freeman & Vasconcelos, 2010). The stance of critical theorists is to seek to liberate humans from situations, conditions, and environments that bind them (Horkheimer, 1982). CST allows for an approach that views theory and practice as interrelated. It views the societal structures, and those within them, as affected in different ways and provides a basis for social inquiry aimed at decreasing domination and increasing freedom in all its forms (Habermas, 1970).
The development of CST has a multifaceted history that includes philosophical components of epistemology, ontology, and praxis. In CST, the epistemological approach maintains that knowledge, as reality, is socially constructed, and that the truths are relevant only in the lived experiences of persons (Campbell & Bunting, 1991). These ‘truths’ are shaped by social, political, cultural, and economic factors, that over time, begin to exist as realities (Polifroni & Welch, 1999; Reed & Crawford Shearer, 2009), which results in the perpetuation of knowledge and viewpoints that are dictated by those who control social and positional power (Cohen, Mansion, & Morrison, 2007). The ontological basis of CST contends that reality is influenced and defined by society and that social behavior is the result of “particular illegitimate, dominatory, and repressive factors, illegitimate in the sense that they do not operate in the general interest” (Cohen et al., 2007, p. 26). Therefore, in this case, the ontological perspective involves a thorough critique of the realities that shape eating patterns, and could bring change by addressing the relations of power that shape them (Browne, 2000; Reed & Crawford Shearer, 2009). This process includes negotiation and dialogue with others, as well as supporting individuals’ creations of meanings of self and of others. It is the identification of oppressive power influences than also can enable people to work together to move toward making social changes. Furthermore, exploring praxis from a CST viewpoint provides the opportunity for me to take a critical approach to examine and identify influences on eating patterns that social, political, cultural, and historical forces may have and to challenge them (Browne, 2000). Awareness of these forces and calling attention to them can enable the development of collaborative approaches that can be used to promote health, reduce inequities, and create social changes related to eating patterns.

In my study, I utilized a qualitative approach which is well aligned with CST. A qualitative methodology will facilitate a comprehensive understanding of descriptions about eating patterns among US born MO women. Further, it allowed the voices of this group of women to be heard, who are otherwise scarcely found represented in the literature. Using CST
facilitated a broader awareness of societal controls and the traditional assumptions used in the formation of knowledge, while highlighting connections with oppressive ideologies in society.

As a philosophical underpinning, CST aided me in identifying covert meanings and restrictive sociopolitical barriers that may impact eating patterns of an underrepresented ethnic group in the US (Wilson-Thomas, 1995). Fontana (2004) stressed the importance of contextualizing situations of interest by addressing the historical, economic, political and social forces working to sustain it and proposed a synthesis of seven foundational processes that ground themselves in the critical tradition. These processes consist of: (a) critique, exploring associations of power in society to identify inequality; (b) context, focusing on the experiences of the lives of individuals in their environments; (c) politics, identifying the impact political forces have on shaping individuals, (d) emancipatory intent, raising awareness so individuals can reflect and make informed decisions and take action; (e) democratic structure, in which the researcher creates a mutual relationship with the participants that promotes a shared building of meaning and knowledge; (f) dialectic analysis, examining inconsistencies about the way circumstances or conditions should be, compared to the way they are; and (g) reflectivity, which involves closely exploring the data to expose circumstances affecting them, such as historical and social factors, including researchers’ biases and assumptions (Fontana, 2004). I integrated these foundational processes throughout the study, as described below. In the examples provided, I used italics to assist in identifying the foundational processes of CST.

Historically, MO Hispanics have been a vulnerable group in the US and have often been marginalized by those in the dominant culture, who continue to try to maintain their privilege. Factors such as legal status, socioeconomic level, educational attainment, and language have impacted MO Hispanics’ health. For example, in a study by Telles & Ortiz (2008), they postulate that US born MO Hispanics continue to experience educational and socioeconomic disadvantages even to the fourth and fifth generation. Ortiz and Telles (2012) studied 758 intergenerational, US born MO Hispanics, comprised of one-third each second generation, third generation, and fourth
generation and higher. The authors found that participants in their study reported being passed over for promotions or obtaining employment, were treated as “less worthy” (p. 15) in educational settings, and MO participants with darker skin color reported experiencing more discrimination or were perceived as “being Mexican” (p. 14). Ortiz and Telles (2012) identified the racism Mexican Americans continued to experience even after being fourth generation and higher as Hispanics in the US. The role that race has played in the lives of the US born MO Hispanics based on their education, racial characteristics, and social interactions may have deeper rooted factors perpetuated by those in power (Cohen et al., 2007). Although Ortiz and Telles (2012) did not report that they had applied CST in their approach, having done so may have provided a broader viewpoint on racism in their study. Similar data can provide opportunities to apply CST to aid in a comprehensive analysis that includes individuals as well as larger societal power dynamics.

Analogous to the potential in the Telles and Ortiz (2008) study, application of the basic CST processes will help to broaden my analysis. For example, analysis through the use of critique will aid in identifying forces of injustice and oppression through an examination of the power relationships and imbalances involved within the historical and social structures in which MO women live. As such, having an awareness of the historical marginalization of MO Hispanics, as identified by Telles and Ortiz (2008), compounded by the continued marginalization of women in society generally, provided a deeper contextual understanding of US born MO women. Learning about the contexts of the lives of MO women, including the historical, economic, political, and social factors, provided deeper insights into the descriptions they had about their eating patterns. Being mindfully aware of the political forces involved and the impact they had on shaping the choices MO women made about eating patterns was important for me to maintain during all phases of the research. By applying CST as part of my rationale for interviewing MO women, I also be provided an emancipatory intent that served as a vehicle to facilitate a deeper understanding about eating patterns and supported participants’ voices and
reflection upon their descriptions during the interviews. Fostering a *democratic structure* was vital, therefore, establishing trust and a collaborative connection with the participants aided in forming the interview relationship and support participants’ willingness to share personal information. Lastly, I integrated the use of *dialectic* analysis and *reflectivity* to gain a deeper understanding of how historical and societal factors shaped the descriptions about eating patterns among MO women (Fontana, 2004).

**Theoretical Framework: Social Ecological Model**

I used the Social Ecological Model (SEM) to provide a theoretical framework for understanding the descriptions US born MO women provided about their eating patterns. While numerous variations of ecological models exist (Belsky, 1980; Teris, 1987; Blum, McNeely, & Nonnemaker, 2002; Bronfenbrenner, 1981; MacMahon & Pugh, 1970; McLeroy, Bibeau, Steckler, & Glanz, 1988; Sweat & Denison, 1995), the overarching emphasis among the models is to draw attention to relationships that exist between individuals and their environments.

The Social Ecological Model (SEM) is a multi-faceted framework that provides a comprehensive approach to the interrelated levels of influence that impact health behavior and outcomes (McLeroy et al., 1988). The range of personal, social, economic, and environmental factors that influence health status are known as determinants of health. The SEM model views an individual’s behavior as an outcome affected by the following interrelated factors of influence: intrapersonal, interpersonal, institutional, community, and public policy (McLeroy et al., 1988). In my view, the interrelated levels of influence that the SEM framework addresses are aligned with the viewpoint CST makes about the impact oppressive social, political, cultural, and historical forces have on individuals and society. These five levels of influence are illustrated as interconnected spheres that overlap and influence behavior at various points (Figure 1).
Using the SEM helped me explore interactions that occurred within an individual’s environment and how these multifaceted factors contributed to shaping descriptions about eating patterns. To gain a clear depiction of utilizing an ecological approach to gain an understanding of descriptions about eating patterns, each level of influence was described in my final analysis and discussion, based on the participants’ data and my subsequent interpretation of the findings.

The Intrapersonal level is at the core of the SEM. This level encompasses the characteristics of the individual. Characteristics are comprised of aspects such as language, education, skills, behaviors, traits, SES, gender, and ethnicity. In the context of eating patterns, the intrapersonal level can include knowledge about foods, such as preferences, preparation and cooking skills, and self-efficacy about dietary changes or habits. Gender can also impact the level
of knowledge about food. Ethnicity, such as having a MO background, may also influence the types of food consumed and prepared. Multiple interpersonal factors within this level in the SEM had significant influences on eating patterns. Therefore, gaining an understanding from participants about how individual characteristics influence eating patterns provided insights about healthy and unhealthy eating patterns.

The Interpersonal level is the next level expanding from the individual core and consists of social networks and support systems. Interpersonal relationships can range from informal connections, such as neighbors, to closer interactions with friends, or more intimate relationships with family members. These relationships may have direct impacts on eating patterns. For example, within a family household, members may have individual food preferences or unique dietary needs that could influence others within the family. The structure of the household, including who prepares the meals, work schedules, and food habits within the network and support system could all influence the dynamics leading to eating patterns. An individual who lives alone may spend more time with friends, who in turn, may have an influence on eating patterns.

The Institutional level is the third layer in the SEM and consists of social institutions and the organizational characteristics that exist within them. Organizational institutions are comprised of places such as restaurants, churches, grocery stores, community centers, clinics, schools, and work. Individuals spend time working, shopping, communing, and eating within organizations. McLeroy et al. (1988) stressed that organizational structures can have significant impacts and influences on their members. For example, Quintiliani, Poulsen, and Sorensen (2010) indicated that work schedules and stress in the workplace can affect food choices and risk of obesity. Furthermore, the amount of time spent at work versus home may also impact eating patterns. Long work hours may impact the amount of time left to prepare meals at home. Monsivais, Aggarwal, and Drewnowski (2014) found that the spending more time preparing meals at home was associated with healthy diets and increased intake of fruits and vegetables.
Other types of organizations, such as restaurants, can also have an impact on eating patterns. For example, Trapp et al. (2015) found that fewer healthy foods were consumed by regularly eating meals at restaurants and other eateries.

The *Community* level involves several structural layers. McLeroy et al. (1988) defined three levels: mediating structures, organizations within geographic regions, and power structures. Mediating structures can include family, informal social networks, churches, neighborhoods, and voluntary associations. Mediating structures influence connections, relationships, and ties within the community and beyond the immediate environment. Organizations include those within the geographical location that contribute to available resources for those residing in the community, such as clinics, schools, and resource/support agencies, among others. Lastly, power structures consist of entities that have the power to control allocation and approval of resources for the community, such as governmental bodies within cities, counties, and states. In addition, the community also encompasses cultural, physical and economic influences. All the aforementioned could influence food accessibility, availability, quality, and eating patterns.

The outermost layer of the SEM core is *public policy*. This level consists of local, state, and national laws and policies. All levels of government influence population health (McLeroy et al., 1988). Governmental entities have the power to influence laws and policies to promote and support healthy food, including limiting access to unhealthy food. One example at the federal level is the requirement that large scale food establishments openly display nutritional information (Patient and Affordable Care Act, 2010). Local and state agencies can also set and monitor food standards. For example, in 2009, the Healthy Food Retail Act bill was passed in Louisiana to attract healthy food retailers to underserved communities (Winterfeld, Shinkle, Morandi, & Pound, 2010).

Thus, the SEM provided a framework for exploring the descriptions about eating patterns among US born MO women through a wider lens. The model was used in the final analysis to
encompass the *intrapersonal, interpersonal, institutional, community, and public policy* factors, as outlined in the description of the SEM framework.

**Theoretical Framework related to Philosophical Underpinning**

The SEM, with its broad perspective on the individual and their environment, provided me with an appropriate framework to explore the multifaceted factors that shape US born MO women’s descriptions about eating patterns. CST, as the philosophical underpinning, offered me a critical lens to integrate historical, economic, political and social perspectives. Therefore, the application of the SEM grounded in CST allowed me to fully explore descriptions about eating patterns of US born MOH women.

**Review of the Literature**

The literature I reviewed on this topic is comprised of published articles from various disciplines about the eating patterns of US born MO Hispanic women. Analyzing multidisciplinary literature allowed for a broad array of articles to ensure inclusiveness of perspectives from members of other disciplines who also conduct research in related areas. Literature from the following disciplines beyond nursing were explored: medicine, psychology, sociology, nutrition, education, and public health. The following databases were accessed to search for articles addressing eating patterns of Hispanic women with an emphasis on MO: Cumulative Index to Nursing & Allied Health Literature (CINAHL), Medline/PubMed, PsyINFO, and Dissertations and Thesis: Full Text. My search spanned from 2000-2015 because the US began to experience a significant increase in the prevalence of obesity among adults aged 20 and over, from 30.5% in 2000 to 37.7% in 2014 (CDC, 2015c).

The key words used in my primary literature search were: Hispanic Americans, Mexican Americans, food habits, food preferences, diet, nutrition assessment, immigrants, first generation, second generation, and third generation. Additional surrogate terms were included and combined
with the primary key words: Latinos, diet, and nutrition assessment. Various search techniques were applied, such as combining the major concept terms and variations of the terms as subject headings and keywords. Concept terms were combined with the term ‘AND’. Synonyms and related terms were combined with the term ‘OR’. Other variations were used in the literature search, including tree structures which display subjects by hierarchy and relationship, subject headings, truncation which uses symbols such as * to replace endings in words, nesting which uses parentheses to group words, and limiting date range techniques, such as selecting a specific start and end date for the search.

I included criteria for the literature; they were to be articles written in English and published between the years 2000 and 2015 that addressed eating patterns and were not duplicate publications. Articles on eating patterns with the following characteristics that I identified were excluded, comprised of those that: (a) were not in English, (b) were published before the year 2000, (c) had all data gathered outside of the US, (d) did not have MO women representation in samples, (e) consisted of parental child feeding practices, (f) focused on child/adolescent nutrition and obesity, and/or (g) addressed genetics related to obesity. My final choices for the literature review included 22 articles, of which 13 used qualitative approaches, 6 had quantitative designs, and 3 were syntheses of published articles on this topic, including systematic reviews and a meta-synthesis. This provided a comprehensive set of publications on the topic, including representation from the disciplines of nutrition, education, nursing, medicine, social sciences, and public health. Study designs included focus groups, individual interviews, observations, photo elicitation, and use of a variety of instruments and publicly available databases. Information from the literature I reviewed will be included in the text and summarized in tables that will be introduced as applicable.

First, I read each article for clarity and understanding. Then all 22 articles were imported and saved to NVivo 11, a qualitative software that facilitates collection, organization, and analysis of data. I created sets of electronic folders in NVivo to separate and store articles
according to method type: qualitative, quantitative, and published articles synthesized by others’ research. The articles were carefully examined and re-read to facilitate organization of the literature as I began to identify patterns of themes in the findings. In my review and cross-examination of articles synthesized by others’ research, I found one additional qualitative article that did not identify in my literature search. I added this article to the ones I reviewed that fit my criteria, bringing the total to 22.

After completing this process, I identified additional patterns according to the primary research method to assist with further analysis. I provide summaries according to details about each study, such as authors, publication dates, sample sizes, and participants’ demographic characteristics, given the influence these factors could have on the interpretation of results. I also include a critical analysis of the studies by research design in the text. Next, I categorized the recurring themes identified as factors influencing eating patterns of Hispanic women. Lastly, I provide an integrated analysis of the articles that I reviewed across the varied study designs, identify gaps in the literature, and explain the foundation for my study.

In reviewing the literature, I noted several overarching similarities. For example, the studies were primarily conducted in the southern, eastern, and western parts of the United States with no indication of any studies conducted in the Midwest, as shown by the shaded states on the map (Figure 2). Other information provided in Figure 2 includes the number of published studies and the total sample sizes that occurred in each shaded state from the literature I reviewed. Although some authors only gave regional information, that is indicated in the explanation. Considering regional areas, there also were no published studies available from the Midwestern region about MO women’s eating patterns. Additionally, participants in the studies I reviewed were chiefly comprised of recent immigrants, first-generation Hispanics, low socioeconomic levels, and low educational attainment. Moreover, few studies separated Hispanics by subgroup and generational status.
To provide an overview, the predominant themes I identified in the literature were clustered according to the following characteristics and named: *acculturation*, *barriers*, and *facilitators*. These themes evolved as I reread the literature. I chose the three themes to characterize information that often reappeared in the literature.

The concept of *Acculturation* has been a highly recognized area of study (Berry, 1980; Berry, 2003; Berry, 2005; Berry, Phinney, Sam, & Vedder, 2006; Gibson, 2001; Tadmor, Tetlock, and Peng, 2009). Berry (2005) defines acculturation as “the dual process of cultural and psychological change that takes place as a result of contact between two or more cultural groups and their individual members” (p. 698). I used this definition for acculturation as one that guided
my thematic analysis of the literature. I particularly focused on the changes and descriptions that were identified at the individual level. In the *Acculturation* theme, I included content related to experiences of newly arrived Hispanic immigrants to the US, such as comments made relating to comparisons between their home country and the US, factors related to changes in dietary status after arrival, and the use of scales that measured acculturation as a proxy variable based on the proficiency of English and language from immigrants’ countries of origin.

I chose the theme *Barriers* to delineate any obstacles or challenges that impacted eating patterns as reported in the literature I reviewed. The *Barriers* theme categorizes factors that I found in my review that negatively impacted eating patterns, such as transportation, work and time demands, and financial constraints.

*Facilitators* were circumstances or conditions that promoted healthy eating patterns. I used the *Facilitators* theme to encompass components that participants in the studies viewed as promoting or supporting healthy eating patterns.

In summary, the literature I reviewed included studies focused on US born Mexican origin women’s eating patterns. I chose three predominant themes to organize the literature across the 22 studies I reviewed. The three themes can be used to assist in distinguishing among the impacts participants reported in the studies about adapting to a new culture, the frequent obstacles that impacted their eating patterns, and positive perspectives some expressed about situations that promoted healthier eating patterns. Some authors noted cultural influences, such as ethnicity, gender, customs, beliefs, immigration, and traditional foods as likely barriers, but in some instances I identified them as facilitators in particular articles. After offering a detailed description and characterization related to the three themes I identified, I will integrate the review of the literature by including concerns I have about how findings in the literature were interpreted and providing a critique of the gaps and missing perspectives about Hispanic women’s eating patterns.
Descriptions of the qualitative studies I reviewed, followed by the quantitative ones, and reviews done by other researchers, will be presented in separate tables, along with key details from each study. I created tables that summarized first authors, publication dates, disciplines, purposes, data collection methods, sample sizes, participants’ demographic characteristics, and geographical locations, because these may be influential factors when interpreting study results. I also separated the tables by primary method to summarize the results and facilitate comparisons within and among methods. The studies in each table are arranged chronologically and then alphabetically by author if there are common publication dates. Findings about factors that impacted eating patterns in studies I reviewed will also be categorized and summarized in tables by author and type of design.

**Qualitative Studies Reviewed**

I initially identified 12 qualitative studies in the literature as having factors influencing eating patterns of Hispanic women (Cason et al., 2006; Castellanos & Abrahamsen, 2014; Gray et al., 2005; Greaney, Lees, Lynch, Sebelia, & Greene, 2012; Guarnaccia et al., 2012; Hoke et al., 2006; Keller et al., 2007; Kerber, Kessler, Wallace, & Burns-Whitmore, 2014; Lindberg & Stevens, 2011; Martinez, 2013; Ramirez et al., 2007; Schlomann et al., 2012). I also identified one additional qualitative article (Hampl & Sass, 2001) during my cross-check and review of other authors’ synthesis of the literature, which are described in a latter section. The details of each are presented in Table 1 and the articles are summarized in the text. After the explanations are provided, Table 2 contains the categorized factors associated with eating patterns that I identified across the qualitative studies.

The *Acculturation* construct was one predominant theme that I noted in several of the qualitative studies. *Barriers* comprise another major theme and it was more prevalent throughout the articles reviewed. They consisted of economic constraints (i.e., cost of food, low paying jobs, budget limitations), work and time demands, social factors (i.e., social influences, social isolation), language, transportation, nutritional knowledge deficits, and family preferences,
among others. The third major theme I identified in several of the qualitative studies was

*Facilitators*; these related to improvements in health, prevention of disease and obesity, the need for access to nutrition education, and the availability of foodbanks and farmers’ markets; these were all cited as contributing factors to healthy eating patterns.
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<th>1&lt;sup&gt;st&lt;/sup&gt; Author (Year)</th>
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<td>Hampl (2001)&lt;sup&gt;a&lt;/sup&gt;</td>
<td>Dietetics</td>
<td>Explored consumption of fruits &amp; vegetables of Hispanic families</td>
<td>AZ</td>
<td>Focus groups</td>
<td>79</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>&lt;12 (49)</td>
<td>NI</td>
</tr>
<tr>
<td>Gray (2005)&lt;sup&gt;b&lt;/sup&gt;</td>
<td>Dietetics</td>
<td>Explore barriers to participation in community nutrition programs, healthy eating practices, &amp; dietary changes related to immigration to US</td>
<td>Scott County, MS</td>
<td>Interviews Focus groups</td>
<td>18</td>
<td>100</td>
<td>22</td>
<td>M=11.2 ± 8.6</td>
<td>M=12.1 ± 4.6</td>
<td>NI</td>
</tr>
<tr>
<td>Cason (2006)&lt;sup&gt;b&lt;/sup&gt;</td>
<td>Food Science &amp; Human Nutrition</td>
<td>Examined health, well-being, nutrition, food choices, &amp; food sufficiency practices of migrant farmworkers</td>
<td>PA</td>
<td>Focus groups</td>
<td>117</td>
<td>58.1</td>
<td>70.1</td>
<td>9.9</td>
<td>≤ 9</td>
<td>&lt;$15,000 (18.8)</td>
</tr>
<tr>
<td>Hoke (2006)&lt;sup&gt;c&lt;/sup&gt;</td>
<td>Nursing</td>
<td>Examined rural Mexican-American women’s perceptions of eating behaviors, weight, and health</td>
<td>Southwestern US</td>
<td>Interviews</td>
<td>15</td>
<td>100</td>
<td>NI</td>
<td>&lt;12 (40)</td>
<td>&lt;$20,000 (73)</td>
<td>&gt;$20,000 (27)</td>
</tr>
<tr>
<td>1st Author (Year)</td>
<td>Discipline</td>
<td>Purpose of Study</td>
<td>Geographic Location of Study</td>
<td>Data Collection Method(s)</td>
<td>Total N</td>
<td>% Female</td>
<td>% Mexican origin</td>
<td>Years in U.S.</td>
<td>Education Years (%)</td>
<td>Annual Income (%$)</td>
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<tr>
<td>Keller (2007)</td>
<td>Nursing</td>
<td>Explored understanding of gender, cultural, &amp; ethnic factors impacting dietary intake using visual methods</td>
<td>Southwestern US</td>
<td>Photography Interviews</td>
<td>7</td>
<td>100</td>
<td>100</td>
<td>NI</td>
<td>M= 9.7</td>
<td>$12,300 (29)</td>
</tr>
<tr>
<td>Ramirez (2007)</td>
<td>Public Health</td>
<td>Assessed knowledge, attitudes, &amp; behaviors about nutrition and exercise among Latinas</td>
<td>Houston, TX</td>
<td>Focus groups</td>
<td>74</td>
<td>100</td>
<td>93.2</td>
<td>NI</td>
<td>&lt;12 (64.3)</td>
<td>$&lt;20,000 (64.3)</td>
</tr>
<tr>
<td>Lindberg (2011)</td>
<td>Psychology Behavioral Medicine</td>
<td>Explored experiences, concerns, &amp; beliefs about diet, weight &amp; weight loss of Mexican-American immigrant women</td>
<td>Portland, OR</td>
<td>Focus groups</td>
<td>25</td>
<td>100</td>
<td>100</td>
<td>M= 7.5</td>
<td>M= 8</td>
<td>NI</td>
</tr>
<tr>
<td>Greaney (2012)</td>
<td>Nutrition</td>
<td>Explored impact of migration to US. on physical activity &amp; diet among Latino immigrants</td>
<td>Central Falls, RI</td>
<td>Focus groups</td>
<td>35</td>
<td>57</td>
<td>28.5</td>
<td>2.6</td>
<td>≤12 (55)</td>
<td>$&lt;10,000 (50)</td>
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<td>≥12 (45)</td>
<td>$10,000-$19,000 (7)</td>
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<td>$20,000+ (3)</td>
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<tr>
<td>1st Author (Year)</td>
<td>Discipline</td>
<td>Purpose of Study</td>
<td>Geographic Location of Study</td>
<td>Data Collection Method(s)</td>
<td>Total N</td>
<td>% Female</td>
<td>% Mexican origin</td>
<td>Years in U.S.</td>
<td>Education</td>
<td>Annual Income (%)</td>
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<tr>
<td>Guranaccia (2012)</td>
<td>Social Sciences in Agriculture</td>
<td>Explored perspectives and comparisons of changes in diet of Oaxacan migrants living in US &amp; those living in Oaxaca, Mexico</td>
<td>New Brunswick, NJ, &amp; Oaxaca, Mexico</td>
<td>Focus groups</td>
<td>23&lt;sup&gt;d&lt;/sup&gt;</td>
<td>73&lt;sup&gt;d&lt;/sup&gt;</td>
<td>100</td>
<td>M= 8</td>
<td>≤ 12 (78)</td>
<td>NI</td>
</tr>
<tr>
<td>Schlomann (2012)</td>
<td>Nursing</td>
<td>Explored perceptions of diet, physical activity, and impact on health of Mexican immigrants living in US</td>
<td>Southeastern US</td>
<td>Small group interviews</td>
<td>21</td>
<td>67</td>
<td>100</td>
<td>M= 2.7</td>
<td>NI</td>
<td>NI</td>
</tr>
<tr>
<td>Martinez (2013)</td>
<td>Public Health</td>
<td>Explored the inadequacies of assessing diets of Latino immigrants in acculturation driven research</td>
<td>San Francisco, CA</td>
<td>Interviews Field observation</td>
<td>15</td>
<td>100</td>
<td>46.6</td>
<td>M= 11.2</td>
<td>Primary (42.8)&lt;sup&gt;e&lt;/sup&gt;</td>
<td>NI</td>
</tr>
<tr>
<td>Castellanos (2014)</td>
<td>Nutrition</td>
<td>Assessed nutrition related issues in Hispanic population</td>
<td>Scranton, PA</td>
<td>Interviews Focus groups Researcher-developed</td>
<td>1,150&lt;sup&gt;f&lt;/sup&gt;</td>
<td>63.7</td>
<td>51</td>
<td>10.61</td>
<td>&lt;12(31)</td>
<td>&lt;$25,000(84)</td>
</tr>
</tbody>
</table>

<sup>a</sup> Total N includes all participants included in the study.

<sup>b</sup> Data on % Female and % Mexican origin are based on self-identification.

<sup>c</sup> Years in U.S. refers to the number of years participants have spent in the U.S.

<sup>d</sup> M= mean

<sup>e</sup> Education levels:
- Primary (42.8)
- Secondary (57)

<sup>f</sup> Annual Income ranges:
- <$25,000
- $25,000(84)
- >$25,000(16)
<table>
<thead>
<tr>
<th>1&lt;sup&gt;st&lt;/sup&gt; Author (Year)</th>
<th>Discipline</th>
<th>Purpose of Study</th>
<th>Geographic Location of Study</th>
<th>Data Collection Method(s)</th>
<th>Total N</th>
<th>% Female</th>
<th>% Mexican origin</th>
<th>Years in U.S.</th>
<th>Education Years (%)</th>
<th>Annual Income (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kerber (2014)</td>
<td>Agricultural Science</td>
<td>Explored dietary patterns of Latinos</td>
<td>Pomona, CA</td>
<td>Focus Groups</td>
<td>17</td>
<td>100</td>
<td>100</td>
<td>&gt;10</td>
<td>NI</td>
<td>NI</td>
</tr>
</tbody>
</table>

Note. MS = Mississippi; NI = Not Included; M = Mean; PA = Pennsylvania; US = United States; TX = Texas; OR = Oregon; RI = Rhode Island; NJ = New Jersey; CA = California.

<sup>a</sup>Referred to in Benavides-Vaello (2005) synthesis article.  
<sup>b</sup>Referred to in Ayala et al. (2008) and Gerchow et al. (2014) synthesis articles.  
<sup>c</sup>Referred to in Gerchow et al. (2014) synthesis article.  
<sup>d</sup>Total U.S. participants only.  
<sup>e</sup>Primary generally refers to elementary level education through grade 8 and secondary education to high school and college preparatory courses through grade 12.  
<sup>f</sup>Demographic and Psychosocial Questionnaire developed by researcher; n=50 were surveyed.  
<sup>g</sup>Fruit and Vegetable Screener, developed by Wakimoto et al. (2006).
<table>
<thead>
<tr>
<th>Author (Year)</th>
<th>Acculturation</th>
<th>Barriers</th>
<th>Facilitators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hampl (2001)</td>
<td>X</td>
<td>X</td>
<td>X</td>
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<tr>
<td>Gray (2005)</td>
<td>X</td>
<td>X</td>
<td>X X</td>
</tr>
</tbody>
</table>

Table 2: Summary of Qualitative Findings according to First Authors and Publication Dates: Factors Impacting Eating Patterns

<table>
<thead>
<tr>
<th></th>
<th>Acculturation</th>
<th>Barriers</th>
<th>Facilitators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Women primary food purchasers &amp; cooks; face new learning, &amp; often place family 1st</td>
<td>Family preferences in general; Adults prefer home-cooked &amp; culturally traditional foods &amp; or children prefer processed foods</td>
<td>Convenience, fewer home-prepared meals</td>
<td>Language challenges</td>
</tr>
<tr>
<td>Barriers</td>
<td>Cost of food, availability, limited income</td>
<td>Work and time demands</td>
<td>Transportation issues</td>
</tr>
<tr>
<td>Facilitators</td>
<td>Social influences (e.g., celebrations) &amp; multi-generational household challenges</td>
<td>Changes in food from Mexico to U.S. (e.g., more processed &amp; fast foods, less access to fresh produce, larger portions, new enjoyable tastes)</td>
<td>Lack of access to &amp; knowledge about healthy foods</td>
</tr>
<tr>
<td>Factors Impacting Eating Patterns</td>
<td>Increased consumption of food when stressed with more stressors in U.S.</td>
<td>Frequent junk food snacking, self-reward for working hard, self-comfort, convenience, lifestyle changes, social isolation, lack of extended family</td>
<td>Lack of self-control</td>
</tr>
<tr>
<td></td>
<td>Control by others to limit eating</td>
<td>Use of weight loss products</td>
<td>Equated overweight with being healthy</td>
</tr>
<tr>
<td></td>
<td>Identified nutritional knowledge deficits</td>
<td>Potential for disease prevention (e.g. obesity, diabetes)</td>
<td></td>
</tr>
<tr>
<td>Author (Year)</td>
<td>Barriers</td>
<td>Facilitators</td>
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<tr>
<td>Cason (2007)</td>
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<td>Ramirez (2007)</td>
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<tr>
<td>Keller (2006)</td>
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<td>Hoke (2006)</td>
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<tr>
<td>Lindberg (2011)</td>
<td>X</td>
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</tbody>
</table>

**Barriers**
- Women primary food purchasers & cooks; face new learning, & often place family 1st
- Family preferences in general: Adults prefer home-cooked & culturally traditional foods &/or children prefer processed foods
- Convenience, fewer home-prepared meals
- Language challenges
- Transportation issues
- Cost of food, availability, limited income
- Work and time demands
- Social influences (e.g., celebrations) & multi-generational household challenges
- Changes in food from Mexico to U.S. (e.g., more processed, & fast foods, less access to fresh produce, larger portions, new enjoyable tastes)
- Lack of access to & knowledge about healthy foods
- Lack of self-control
- Increased consumption of food when stressed with more stressors in U.S.
- Frequent junk food snacking, self-reward for working hard, self-comfort, convenience, lifestyle changes, social isolation, lack of extended family
- Attributed overeating to poor eating habits of childhood; poverty transitioned to adult affordability
- Control by others to limit eating
- Use of weight loss products
- Equated overweight with being healthy
- Access to food banks & farmers markets
- Identified nutritional knowledge deficits
- Potential for disease prevention (e.g., obesity, diabetes)

**Facilitators**

**Acculturation**
<table>
<thead>
<tr>
<th>Author (Year)</th>
<th>Facilitators</th>
<th>Barriers</th>
<th>Acculturation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greaney (2012)</td>
<td><em>Access to food banks &amp; farmers markets</em></td>
<td><em>Increased consumption of food when stressed with more stressors in U.S.</em></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>Frequent junk food snacking, self-reward for working hard, self-comfort, convenience, lifestyle changes, social isolation, lack of extended family</em></td>
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<td><em>Attributed overeating to poor eating habits of childhood; poverty transitioned to adult affordability</em></td>
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<td><em>Control by others to limit eating</em></td>
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<td><em>Use of weight loss products</em></td>
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<td><em>Equated overweight with being healthy</em></td>
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<td><em>Identified nutritional knowledge deficits</em></td>
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<td></td>
<td><em>Potential for disease prevention (e.g. obesity, diabetes)</em></td>
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<tr>
<td>Guarnaccia (2012)</td>
<td></td>
<td><em>Transportation issues</em></td>
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<td><em>Cost of food, availability, limited income</em></td>
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<td><em>Work and time demands</em></td>
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<td><em>Social influences (e.g., celebrations) &amp; multi-generational household challenges</em></td>
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<td></td>
<td></td>
<td><em>Changes in food from Mexico to U.S. (e.g., more processed, &amp; fast foods, less access to fresh produce, larger portions, new enjoyable tastes)</em></td>
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<td><em>Lack of access to &amp; knowledge about healthy foods</em></td>
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<tr>
<td>Schlomann (2012)</td>
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<tr>
<td>Martinez (2013)</td>
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<tr>
<td>Castellanos (2014)</td>
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</tbody>
</table>

- Women primary food purchasers & cooks; face new learning, & often place family 1st
- Family preferences in general: Adults prefer home-cooked & culturally traditional foods &/or children prefer processed foods
- Convenience, fewer home-prepared meals
- Language challenges
- Transportation issues
- Social influences (e.g., celebrations) & multi-generational household challenges
- Changes in food from Mexico to U.S. (e.g., more processed, & fast foods, less access to fresh produce, larger portions, new enjoyable tastes)
- Lack of access to & knowledge about healthy foods
- Lack of self-control
- Increased consumption of food when stressed with more stressors in U.S.
- Frequent junk food snacking, self-reward for working hard, self-comfort, convenience, lifestyle changes, social isolation, lack of extended family
- Attributed overeating to poor eating habits of childhood; poverty transitioned to adult affordability
- Control by others to limit eating
- Use of weight loss products
- Equated overweight with being healthy
- Access to food banks & farmers markets
- Identified nutritional knowledge deficits
- Potential for disease prevention (e.g. obesity, diabetes)
<table>
<thead>
<tr>
<th>Author (Year)</th>
<th>Acculturation</th>
<th>Barriers</th>
<th>Facilitators</th>
</tr>
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<tbody>
<tr>
<td>Kerber (2014)</td>
<td>Women primary food purchasers &amp; cooks; face new</td>
<td>Family preferences in general; Adults prefer home-cooked &amp; culturally</td>
<td>Increased consumption of food when stressed with more stressors in U.S.;</td>
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<td></td>
<td>learning, often place family 1st</td>
<td>traditional foods &amp;/or children prefer processed foods</td>
<td>Attributed overeating to poor eating habits of childhood;</td>
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<td></td>
<td>Conveniences, fewer home-prepared meals</td>
<td>Convenience, fewer home-prepared meals</td>
<td>Control by others to limit eating</td>
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<td>Language challenges</td>
<td>Language challenges</td>
<td>Use of weight loss products</td>
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<td></td>
<td>Transportation issues</td>
<td>Cost of food, availability, limited income</td>
<td>Equated overweight with being healthy</td>
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<td></td>
<td>Work and time demands</td>
<td>Social influences (e.g., celebrations) &amp; multi-generational household</td>
<td>Access to food banks &amp; farmers markets</td>
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<td></td>
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<td>challenges</td>
<td>Identified nutritional knowledge deficits</td>
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<td>Changes in food from Mexico to U.S. (e.g., more processed &amp; fast foods,</td>
<td>Potential for disease prevention (e.g., obesity, diabetes)</td>
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<td>less access to fresh produce, larger portions, new enjoyable tastes)</td>
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<td>Lack of self-control</td>
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<td>Increased consumption of food when stressed with more stressors in U.S.</td>
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<td>Frequently junk food snacking, self-reward for working hard, self-</td>
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<td>comfort, convenience, lifestyle changes, social isolation, lack of</td>
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<td></td>
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<td>extended family</td>
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*Note. X = factor identified in particular article.*

*aChanges actually began to occur before immigrating.*
Acculturation theme in qualitative studies reviewed. The Acculturation construct was attributed to dietary changes in eight of the qualitative studies (Cason et al., 2006; Castellanos & Abrahamsen, 2014; Gray et al., 2005; Guarnaccia et al., 2012; Hampl & Sass, 2001; Hoke et al., 2006; Kerber et al., 2014; Martinez, 2013). For example, in the qualitative study by Cason et al. (2006), the term dietary acculturation was used to describe dietary changes made between 2002-2003 by Hispanic migrant workers in Pennsylvania. Dietary acculturation is defined as a “process that occurs when members of a minority group adopt the eating patterns/food choices of the host country” (Satia-Abouta, Patterson, Neuhouser, & Elder, 2002, p. 1106). Twelve focus groups were conducted in the qualitative study, with 70% of the participants from MO backgrounds and 58% being female (Cason et al, 2006). Dietary acculturation was equated to an increase in junk and fast-food, decrease in fruit intake, increased meat and canned food consumption, and intake of fewer traditional foods consumed in their home country. The authors associated eating fewer fruits and vegetables, and a higher consumption of fast and junk food, with dietary acculturation. This was a limitation because the connection between dietary acculturation and barriers voiced by the participants to access health foods was not clearly drawn by the authors. Furthermore, I view the aforementioned as barriers more than the results of acculturation.

Gray et al. (2005) conducted six individual interviews with community representatives and one focus group with 18 Hispanic female immigrants from a rural area in Scott County, Mississippi in 2002. In this article, the term dietary acculturation was used by the authors to describe dietary changes of Hispanics who had immigrated to the US. Gray et al. (2005) found an increase in dietary intake of foods, such as pizza, hamburgers, and pasta, while use of foods like potatoes, fruits, and eggs remained the same post-immigration. A limitation of this study was that the term dietary acculturation was not clearly defined. Although associations of dietary intake to acculturation were made, additional factors were identified as separate contributing influences to changes in eating patterns post-immigration to the US, such as SES, poverty, and work and time
demands. However, I view these factors as going beyond the acculturation measures used by several authors.

Guarnaccia et al. (2012) provided a more explicit definition of dietary acculturation. In this qualitative study, the authors explored the perspectives of 23 Mexican men and women immigrants from Oaxaca, Mexico, who were living in central New Jersey, as well as 32 Oaxacans living in Mexico. Forty-eight of the 55 in the study sample were women. Four focus groups were conducted with participants living in New Jersey and three focus groups with participants from Oaxaca, Mexico. The authors concluded that dietary acculturation was only one component of a multifaceted process leading to changes in dietary patterns.

Hoke et al. (2006) explored perceptions of 15 obese, low-income, women about relationships between eating behaviors, weight, and health. The participants in this study had a mean BMI of 36.5 kg/m² and self-identified as MO. Twenty-six percent of the MO women indicated they were first generation, 7% second generation, and 67% third generation and higher. The authors of this study indicated they used the Acculturation Rating Scale for Mexican-Americans (ARSM-A-II), a thirty-item acculturation scale (Cuellar, Arnold, & Maldonado, 1995). However, the study was described as exploratory, qualitative, descriptive rather than a mixed-method study. Results from the ARSM-A-II suggested that 27% were “slightly Anglo-oriented bicultural”; 60% were “Mexican-oriented to approximately balanced bicultural; and 13% were “very Mexican-oriented” (p. 146). However, no further explanations were given about the ARSM-A-II results. The authors provided a weak connection of their findings from the acculturation scale and the perceived relationships the women made about eating behaviors, weight, and health.

Kerber et al. (2014) conducted three focus groups consisting of 17, low-income, Spanish-speaking, first-generation Hispanic women between the ages of 30-70 from the southern California area. The purpose of this study was to identify cultural and dietary factors influencing traditional Latino meal patterns. Eighty-eight percent of the women were of MO and lived in the
US for more than 10 years. The women in this study reported eating and preparing more
traditional foods, such as enchiladas, rice, and beans. However, they also reported that breakfast
meals consisted more of oatmeal and cereal. Other eating patterns included occasionally eating at
restaurants, but they voiced that cost and nutritional value were important factors when
purchasing food. The women also reported being the primary food purchasers and meal
preparers; however, their family had significant influence on the kinds of foods they purchased.
Work and school schedules impacted the eating patterns of participants as well, even though they
created schedules and all family members contributed to the preparing and cleaning up after
meals. Lastly, the authors found that most of the women expressed making healthier changes to
their diets, such as using fresh produce, incorporating frozen vegetables, and using less oils or
lard for the purpose of preventing obesity, staying healthy, or because family members had health
or weight issues. The Kerber et al. (2014) study was titled as a focus group study, however, the
authors also used the Short Acculturation Scale for Hispanics (SASH) (Marín & Gamba, 1996;
Marín, Sabogal, Marin, Otero-Sabogal, & Perez-Stable, 1987). As such, this study could have
been considered a mixed-method study because of the use of quantitative tools in their research.
The SASH defines levels of acculturation based on language and media preferences using a five-
point Likert scale ranging from “only Spanish” to “only English”. Responses are summed and
divided to obtain an overall average, which would then indicate the degree of acculturation. The
smaller the number, the lesser the degree of acculturation. Based on the SASH results, the scores
for women in this study indicated they were less acculturated to American culture. However, the
authors, did not clearly explain the connection of the SASH results and cultural and dietary
factors influencing traditional Latino meal patterns.

Conversely, Martinez (2013) provided an alternate view on acculturation. Between 2008-
2009, he conducted 27 interviews of 15 immigrant Latino families, including over 7 months of
field observations in San Francisco, California. Forty-one percent of the participants were of
MO. Additionally; transnational food company websites were reviewed to gain a better
understanding of the types of foods being marketed, as well as the geographic distribution of the marketing. Martinez (2013) suggested that many Latino immigrants had been exposed to, and were engaged in, negative dietary practices prior to immigrating to the US and proposed that other factors such as the “modernization of food production and consumption” (p. 2) and the “transnational transmission of nutrition” (p. 2) contributed to negative changes in dietary practices. Therefore, Martinez suggested that negative nutritional patterns were established prior to migrating to the US. Moreover, Martinez (2013) recommended that restricting dietary changes to specific variables, such as length of stay in the US, language spoken, or ethnic group affiliation, which are frequently attributed to the acculturation process, actually hinders identifying other confounding variables that may impact dietary practices.

In summary, my review of the 13 qualitative studies revealed various similarities in relation to acculturation. The experiences of recent and new immigrants as they acculturated to the US often contributed to negative influences on eating patterns. Despite the connections the authors made to changes in diet, primarily due to acculturation, it was evident in the responses from the participants in the studies that other variables, primarily socioeconomic, were major contributing influences impacting dietary patterns. Furthermore, findings from Martinez (2013) related to “modernization of food production and consumption” (p. 2) and the “transnational transmission of nutrition” (p. 2) provided an alternative perspective that challenged the common viewpoint of acculturation as a primary contributor to eating patterns among Hispanics.

Next, I will discuss the other variables identified in the qualitative literature I reviewed, beyond adjusting to the host country. I classified these in the themes of barriers and facilitators to eating patterns. First, I will describe the barriers identified in the literature I reviewed, then I will summarize the facilitators identified.

**Barriers theme in qualitative studies reviewed.** The Barriers I identified throughout the 13 qualitative studies were extensive and did not contribute to healthy eating patterns. Ten of the thirteen qualitative studies stated economic constraints were a barrier, reporting annual
incomes ranging from less than $15,000 to $25,000 (Cason et al. 2006; Castellanos & Abrahamsen, 2014; Gray et al., 2005; Greaney et al., 2012; Guarnaccia et al., 2012; Hampl & Sass, 2001; Keller et al., 2007; Martinez, 2013; Ramirez et al., 2007; Schlomann et al., 2012;). Factors such as cost of food, low paying jobs, nutritional knowledge deficits, and budget limitations were all cited as contributing barriers. As such, these barriers impacted the food choices made. The authors identified issues such as lack of transportation, language, and cost, as factors impacting food choices. The changes in dietary practices were primarily associated with differences in the taste of foods in the US compared to their home country, language barriers, lack of transportation, as well as cost of food. For example, Gray et al. (2005) found that 44% of the participants indicated that food was more expensive in the US and 28% stressed that salaries and cost of living affected the food choices made. Likewise, Greaney et al. (2012) found that even though participants perceived processed and frozen foods as not being the healthiest choices, they were limited due to their financial constraints. Similarly, Ramirez et al. (2007) noted that participants reported budget limitations as a barrier to purchasing healthy foods and opted for types of foods that gave them a sense of feeling full and were on sale. Consequently, participants were less inclined to purchase fruits and vegetables because of the high costs. Cason et al. (2006) used the term dietary acculturation to identify changes in eating patterns after migrating to the US. For example, lack of transportation, cost of food, and lack of fluent English speaking had a negative impact on accessing healthy food for participants (Cason et al., 2006). Similarly, Gray et al. (2005) associated factors such as SES, poverty, and work and time demands with dietary acculturation. More detail is provided about my critique of the limits of the reviewed studies in the literature integration section.

Castellanos & Abrahamsen (2014) conducted a dietary needs assessment of 50 low-income, first-generation Hispanics who emigrated from Mexico, Central America, Puerto Rico, Dominican Republic, and Ecuador. The researchers found that participants in the study identified a marked change in meal patterns, increase in meat intake, and decrease in fruits and vegetables
since migrating to the US. Furthermore, participants indicated their feelings of being uncomfortable navigating in a new food environment that required use of English, which posed to be a language barrier for some. Furthermore, Castellanos & Abrahamsen (2014) identified lack of knowledge about nutrition as a key issue for the participants in the study who had voiced concerns about not knowing about healthy foods and the impacts their choices had on their health.

In a descriptive exploratory qualitative study, 15 low-income, rural, Hispanic women were interviewed to explore their perspectives about eating behaviors, weights, and health (Hoke, et al., 2006). The women participants reported unhealthy behaviors like eating at night when family members were not present. The women also indicated eating unhealthy when feeling depressed, however, no explanation was provided about their feelings of depression.

Additionally, high fat foods, sweets, and fast-foods were all viewed as unhealthy. Furthermore, the women in this study indicated that cultural practices acted as barriers to maintaining a healthy diet, such as eating traditional foods like tortillas, beans, rice, and sweetened beverages; as well as eating to cope with stress; lack of self-control; limited effort and time to prepare meals; and perceived pressures at social events and family celebrations. Similarly, Hoke et al. (2006) identified the use of diet pills, limiting food intake, and sporadic eating patterns, such as late at night or when feeling depressed. The supplemental forms of reducing weight, such as using weight loss products and irregular eating patterns are barriers to healthy eating patterns. Some of the participants identified healthy foods as enchiladas but voiced less preference for salads, although participants also viewed foods with less fat, smaller portions, water, and fruits and vegetables as healthier options.

Guarnaccia et al. (2012) interviewed participants in Oaxaca, Mexico, and Oaxacans living in New Jersey, and found financial limitations to be a major barrier for those living in both Mexico and the US. The Oaxacans had a slight advantage in that they were able to grow some of their foods, such as fruits and vegetables; however, both groups indicated that the lack of money resulted in purchasing less healthy food. They reported that participants’ primary barrier to eating
healthy food was financial. Other factors included the increase in work and time demands to make ends meet. Economic limitations, distance from supermarkets, and lack of resources to store and prevent food from spoiling in their home countries were provided as primary drivers to migrate. However, while living in the US provided greater access to affordable food with a means to store it, such as refrigeration, the quality of the food options accessible and affordable were considered less healthy. Dietary adjustments from their traditional foods in Mexico due to lack of availability and cost included an increased consumption of calorie-dense foods such as milkshakes, ice cream, hot dogs, donuts, and soda. Cason et al. (2006) noted that newly arrived immigrants reported income as being a temporary barrier affecting food choices, yet then ate in abundance due to the low cost of processed and fast-foods.

Martinez (2013), however, found that Latino immigrants on or after the year 2000 were already practicing negative dietary habits prior to immigrating to the US. Participant demographics for this study were different compared to the other qualitative studies. For example, nine out of the 15 key informants lived in urban settings prior to immigrating to the US. Additionally, 50% were employed in their home countries in professional occupations prior to migrating. A commonality among those in high and low socioeconomic groups was that both groups practiced negative eating patterns, which then act as barriers to good health.

A common barrier among 11 of the 13 qualitative studies was work and time demands (Cason et al., 2006; Castellanos & Abrahamsen, 2014; Gray et al., 2005; Greaney et al., 2012; Guarnaccia et al., 2012; Hoke et al., 2006; Keller et al., 2007; Lindberg & Stevens, 2011; Martinez, 2013; Ramirez et al., 2007; Schlomann et al., 2012). The change in amount of time spent preparing home cooked meals since migrating to the US decreased, while the hours spent at work increased. As a result, participants spent less time preparing meals at home and more time purchasing quick and convenient foods, such as fast-foods, processed, and frozen items. For example, Gray et al. (2005) found that participants cited work demands as having the greatest influence on food choices since migrating. Similarly, Greaney et al. (2012) conducted focus
groups with 20 women (2% who were of MO) and 15 men. Results indicated that work schedules negatively affected meal times. Participants indicated they had long hours at work and inconsistent meal times that made it difficult to prepare meals. Cason et al. (2006) conducted 12 focus groups totaling 117 migrant farmworkers (70.1% were Mexican immigrants). The sample included men and women, of whom 58.1% were women. Results from this study found that long hours at work contributed to making less healthy choices due to the need for speed and convenience. As one participant indicated, “In Mexico, we did not have enough money to buy food, but we had a lot of time; and here, in the United States, we do have the money, but no time at all” (p. 154).

In another study, seven MO women were interviewed with the use of photo elicitation to assess their dietary intake (Keller et al., 2007). In the findings from this study, the authors noted that the demands of having to work, sometimes two jobs, decreased the time needed to plan and prepare healthy meals, while increasing the consumption of snacks, fast-foods, and convenient but caloric-dense foods. Furthermore, the photographs taken by the women reinforced the consumption of the aforementioned foods. Similarly, Ramirez et al. (2007) conducted ten focus groups consisting of 75 women (over 90% who were of MO). Participants also identified the barrier of time constraints due to long work hours, which resulted in inconsistent and skipped meals. Furthermore, other researchers (Guarnaccia, et al., 2012; Lindberg & Stevens, 2011; Martinez, 2013; and Schlomann et al., 2012) reported the negative impact hectic schedules, long work hours, and limited time to plan and prepare meals had on making healthy food choices.

Two social factors, as barriers, were identified in the literature: social isolation and social influences. According to Carpenito-Moyet (2006), social isolation is the perceived need or longing to be involved with others, however, being unable to make the connections. Social influence can result in changes in an individual’s behavior as a result of interactions with others (Friedkin, 1998). Keller et al. (2007) found that MO immigrant women attributed changes in their diet to social isolation. For women in this study, comfort foods became a way to help them cope
with being in a new country, away from family, along with the major adaptations to lifestyle changes that were needed. As such, the consumption of junk food, such as chips, served to comfort or soothe the women’s social isolation. Hoke et al. (2006) found that women ate due to stress or as a coping mechanism, and expressed a lack of self-control with foods such as cookies and chips.

Others attributed family and friends as contributing factors to eating patterns. For example, Lindberg & Stevens (2011) found that the challenges for women in the study were related to multiple generations living in one household. The women explained that any changes made in their own eating habits would negatively impact their families. Furthermore, the women expressed feeling pressured to eat similar foods as those in the same household, as well as partake in celebrations that often consisted of less healthy options. The women also expressed experiencing a lack of support, along with having made personal sacrifices for their families. Greaney et al. (2012) found that women in their study reported making decisions about food based on less healthy preferences and placing the needs of their children and spouses before their own. Martinez (2013) found the transnational dietary changes affecting Latin American countries, such as Mexico, also were having a negative impact on dietary factors. Results from this study indicated that less healthy selections, such as fast-foods and processed foods, were already being made by participants in this study prior to migrating to the US from Latin American Countries.

Hampl and Sass (2001) conducted eight focus groups consisting of 79 first generation Hispanic mothers ranging from 18-40 years of age, who were eligible for food stamps, and had the main responsibility for buying and preparing meals at home. Hampl & Sass (2001) found that family had a significant influence on the types of foods the women purchased. Furthermore, their limited budgets were used to purchase primarily meats and grains and few vegetables. The women also expressed the lack of knowledge about the numerous fruits and vegetables available in the US which contributed to purchasing fewer fruits and vegetables.
Other contributing factors impacting eating patterns identified in the qualitative literature included transportation and cultural influences. Cason et al. (2006) found that, for some recent immigrants, transportation to grocery stores and food markets was initially an issue upon arrival in the U.S. However, that was seen as a temporary barrier because others in the community provided transportation until employment was obtained. Then, the income gave them the means to purchase a vehicle (Cason et al., 2006). For others, women participants would have had to purchase more expensive foods if they chose to shop at specialty ethnic grocery stores where cashiers spoke Spanish and food prices were typically higher; however, larger chains offered cheaper, easily accessible, more processed, and less healthy food options (Cason et al., 2006; Gray et al., 2005; Schlomann et al., 2012).

Cultural food influences were evident in much of the literature. Many of the participants in the studies were either recent immigrants or first-generation Hispanics who had resided in the US less than 12 years. For example, numerous studies identified continued preparation of traditional foods of their native countries (Cason et al., 2006; Gray et al., 2005; Guarnaccia et al., 2012; Keller et al., 2007; Lindberg & Stevens, 2011; Ramirez et al., 2007; Schlomann et al., 2012;). Foods referred to as ‘traditional’ from the MO participants included “barbacoa (barbecue), beans, grilled steak, beef tacos, burritos, braised pork, stuffed peppers, fried pork skins, fried pork chops with adobo sauce, enchiladas, fried bananas, mole, sweet buns, heart hominy stew made with pork, salads, tamales, and tortillas” (Cason et al., 2006, p. 149). Gray et al. (2005) found that MO participants ate potatoes, eggs, beans, and rice both pre-and-post immigration to the US, while Keller et al. (2007) found that MO women prepared more traditional foods, such as tamales, on special occasions and holidays. Next, I will describe the facilitators identified in the qualitative studies I reviewed.

**Facilitators theme in qualitative studies reviewed.** Despite the extensive list of barriers to healthy eating, three facilitators were identified in the qualitative literature, derived from several authors (Castellanos & Abrahamsen, 2014; Greaney et al., 2012; Guarnaccia et al.,...
2012; Hoke et al., 2006; Lindberg & Stevens, 2011; Ramirez et al., 2007). These facilitators, shared by participants in the studies, were access to food banks and farmers’ markets; increasing knowledge about nutrition; and eating healthy for disease prevention (e.g., obesity, diabetes). The facilitators were provided as recommendations to help support efforts to improve healthy eating or evolved out of concerns about developing obesity related diseases, such as Type 2 diabetes.

For example, in one study, the authors explored the concerns, beliefs, and diets of 25 immigrated MO women in four focus groups and found that disease prevention was one of the main drivers to healthy eating (Lindberg & Stevens, 2011). Participants in this study were aware of the high incidence of obesity and Type 2 diabetes among the MO population. As such, the fear of developing diabetes was a facilitator to eat healthy and lose weight. According to the authors, weight gain since living in the US seemed to be the most consistent reason voiced by the women to promote healthy eating. Therefore, women in this study adopted healthy eating habits to prevent the onset of obesity related diseases. Ramirez et al. (2007) found that barriers to healthy eating were partly due to knowledge deficits related to nutritional values of foods, label reading, portion sizes, and ways to cook healthy on a limited budget. As such, participants expressed desires to attend small group cooking classes, learn how to read labels, and understand the connection between disease and diet. Hoke et al. (2006) found that the women in their study defined healthy eating as preparing meals at home because they were able to control the fat content and portion sizes, as well as increase the intake of fruits and vegetables. Castellanos and Abrahamsen (2014) found that participants expressed a need for fresh produces where they lived which resulted in development of a farmer’s market that also offered healthy cooking demonstrations.

In summary, I reviewed 13 qualitative articles and identified three overarching themes: acculturation, barriers, and facilitators. Multiple barriers were identified with few facilitators noted. I found the authors in the literature reviewed placed a high degree of emphasis on acculturation with little to no exploration about the SDH and how related factors, such as
educational attainment, socioeconomic status, age, and geographical locations that were identified in the studies, impacted eating patterns. I explore this critique further in the section on integration of the literature. As an example, the discussion sections in most of the studies focused on addressing identified factors by implementing interventions, such as nutrition education, and increasing cultural awareness about the Hispanic population among health professionals to better serve this population, rather than exploring ways to address the living conditions primarily related to the SDH that also negatively impact eating patterns.

**Quantitative Studies Reviewed**

I next provide my findings from the quantitative literature I reviewed. Six quantitative studies met my inclusion criteria and identified factors influencing eating patterns of Hispanic women (Akresh, 2007; Creighton et al., 2012; Gregory-Mercado et al., 2007; Montoya, Salinas, Barroso, Mitchell-Bennett, & Reininger, 2011; Sharkey, Johnson, & Dean, 2011; Suplee, Jerome-D’Emilia, & Burrell, 2015). The details of each are presented in Table 3 and the articles are summarized in the text. After the explanations are provided, Table 4 contains the factors associated with eating patterns that were identified across the quantitative studies.
Table 3. *Quantitative Studies Reviewed, according to First Authors: Research Information and Demographic Details*

<table>
<thead>
<tr>
<th>Author (Year)</th>
<th>Discipline of 1st author</th>
<th>Purpose of study</th>
<th>Geographic location of study</th>
<th>Data collection method(s)</th>
<th>Total N</th>
<th>% Female</th>
<th>% Mexican origin</th>
<th>Years in U.S.</th>
<th>Education years (%)</th>
<th>Annual income (%)</th>
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</thead>
<tbody>
<tr>
<td>Gregory-Mercado (2007)*</td>
<td>Public Health</td>
<td>Ethnicity and nutrient intake of older Mexican American women, 1998-2000</td>
<td>Tucson, AZ</td>
<td>HLQ</td>
<td>361</td>
<td>100</td>
<td>72</td>
<td>NI</td>
<td>7.8</td>
<td>$ 9,806</td>
</tr>
<tr>
<td>Montoya (2011)</td>
<td>Behavioral Sciences &amp; Public Health</td>
<td>Secondary analysis (<em>Tu Salud Si Cuenta</em> survey) for relationships between nativity &amp; nutritional behaviors of USB &amp; MB</td>
<td>South TX border region</td>
<td>Regression analyses conducted on food importance &amp; dietary self-efficacy on 24 of 76 questions related to</td>
<td>394</td>
<td>77.7</td>
<td>100</td>
<td>NI</td>
<td>26.5% of USB &amp; 73% MB &lt;9 years</td>
<td>64.9% of USB &amp; 79.8% MB &lt;$300/week</td>
</tr>
<tr>
<td>Author (Year)</td>
<td>Discipline of 1st author</td>
<td>Purpose of study</td>
<td>Geographic location of study</td>
<td>Data collection method(s)</td>
<td>Total N</td>
<td>% Female</td>
<td>% Mexican origin</td>
<td>Years in U.S.</td>
<td>Education years (%)</td>
<td>Annual income (%)</td>
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<tr>
<td>Sharkey (2011)</td>
<td>Social and Behavioral Health</td>
<td>Compared eating behaviors of U.S. born and Mexican born women living in two Texas border towns</td>
<td>Progreso &amp; La Ferla, TX</td>
<td>C-HCFRA</td>
<td>599</td>
<td>100</td>
<td>89.7</td>
<td>&lt; 7th grade (48.9)</td>
<td>76-100% FPL (9)</td>
<td>≤10,000 (60)</td>
</tr>
<tr>
<td>Creighton (2012)</td>
<td>Sociology</td>
<td>Examined role of acculturation on obesity patterns, diet, and exercise of MO Latinos living in US by duration &amp; generational status</td>
<td>Los Angeles, CA</td>
<td>LA-FANS-2 BAS</td>
<td>1,610</td>
<td>52.7</td>
<td>100</td>
<td>&lt;12 (53 FG to 20 SG-TG)</td>
<td>≤12 (82.7)</td>
<td>&lt;10,000 (60)</td>
</tr>
<tr>
<td>Suplee (2015)</td>
<td>Nursing</td>
<td>Explored obesity, eating patterns, &amp; access to food of Hispanic women</td>
<td>Northeastern US</td>
<td>24-item survey validated in other study</td>
<td>48</td>
<td>100</td>
<td>31.3</td>
<td>&lt;12 (82.7)</td>
<td>≥12 (17.4)</td>
<td>&lt;10,000 (60)</td>
</tr>
</tbody>
</table>
Note. US = United States; NIS = New Immigrant Survey 2003 Cohort Data Cross-Sectional Dataset; AZ = Arizona; HLQ = Health and Lifestyle Questionnaire; BMI = Body Mass Index; NI = Not Included; USB = US born; MB = Mexican born; TX = Texas; MO = Mexican origin; C-HCFRA = Colonia Household and Community Food Resource Assessment; FPL = Federal Poverty Level; CA = California; LA-FANS-2 = Los Angeles Family & Neighborhood Survey; BAS = Bidimensional Acculturation Scale; FG = first generation; SG = second generation; TG = third (or higher) generation.

a Referred to in Ayala et al. (2008) synthesis article. b USB but years in US unknown. c MB but years in US unknown. d 370 of 599 reported education level. e 585 of 599 reported household income. f Was calculated across several authors’ categories by researcher. g 46 of 48 reported educational level. h 40 of 48 reported annual income.
Table 4. *Summary of Quantitative Findings according to First Authors and Publication Dates: Factors Impacting Eating Patterns*

<table>
<thead>
<tr>
<th>Author (Year)</th>
<th>Acculturation impact</th>
<th>Barriers</th>
<th>Facilitators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Akresh (2007)</td>
<td>More dietary change if English spoken at work</td>
<td>SES, cost of food, low paying jobs, budget limitations, food insecurity</td>
<td>Limited use of fruits &amp; vegetables</td>
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<tr>
<td>Gregory-Mercado (2007)</td>
<td>More if 1&lt;sup&gt;st&lt;/sup&gt; generation</td>
<td>Less if 1&lt;sup&gt;st&lt;/sup&gt; Generation</td>
<td>Less if 1&lt;sup&gt;st&lt;/sup&gt; Generation</td>
</tr>
<tr>
<td>Montoya (2011)</td>
<td>US born with greater income had lower dietary self-efficacy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Author (Year)</td>
<td>Acculturation</td>
<td>Barriers</td>
<td>Facilitators</td>
</tr>
<tr>
<td>--------------</td>
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<td>--------------</td>
</tr>
<tr>
<td>Sharkey (2011)</td>
<td>Linguistic acculturation impact</td>
<td>SES, cost of food, low paying jobs, budget limitations, food insecurity</td>
<td>Work &amp; time &amp; family pressures</td>
</tr>
<tr>
<td>Creighton (2012)</td>
<td>If greater, had less use of fruits &amp; vegetables</td>
<td>If MB with low SES, less money for fast food</td>
<td>Less if MB</td>
</tr>
<tr>
<td>Suplee (2015)</td>
<td>Not able to eat healthier Half spent &lt;$100/week Lack funds to buy food at least 1-2 times/week</td>
<td>If higher income &amp; SES, less use of fruits &amp; vegetables</td>
<td>Less if higher SES</td>
</tr>
</tbody>
</table>

*Note. SES = socioeconomic status; USB = United States born; CHO = carbohydrates; Ca++ = calcium; MB = Mexican-born.*
I clearly identified the *Acculturation* theme in four of the six quantitative studies. Moreover, *Barriers* were evident in all six studies and consisted of economic constraints, work and time demands, and various nutritional knowledge deficits (e.g., intake of sugary beverages). The quantitative literature overwhelming focused on *barriers*, hence, I identified only a couple *facilitators*. Four of the six studies I reviewed were comprised of 100% women participants. As an overview, all the studies included MO women in their samples, ranging from 31% to 100%. The majority of the participants reported being from lower socioeconomic backgrounds with limited educational levels.

Data sets collected from national and state sources were used in five of the six quantitative studies (Akresh, 2007; Creighton et al., 2012; Gregory-Mercado et al., 2007; Montoya et al., 2011; Sharkey et al., 2011). For example, Akresh (2007) used the New Immigrant Survey (NIS) 2003-1 Data Cross-Sectional Dataset, which is a nationally representative, multi-cohort, prospective-retrospective longitudinal study of new legal immigrants in the U.S (Jasso et al., 2005). The NIS 2003-1 was an investigator-initiated, peer-reviewed project that was supported by the National Institutes of Health. The sample was drawn from the NIS Pilot of 1996 and the public-use immigrant records during 1996-2000. The sampling frame consisted of immigrants 18 years of age or older who had permanent resident cards and visas as principals (i.e., spouses of US citizens, refugees, and workers) or as accompanying spouses; immigrants with child-of-US-citizen visas who are 18 years of age and younger, and orphans adopted under the age of five. The sampling timeframe was from May to November of 2003 and two months in 2004 (Jasso, Massey, Rosenzweig, & Smith, 2005). The random sample consisted of both adults and children from 85 Metropolitan Statistical Areas and all top 38 counties. The Office of Budget and Management delineates the Metropolitan Statistical Areas, which are comprised of geographical locations with a population of about 50,000 and neighboring counties with close economic ties. (US Census Bureau, 2013a). Interviewers conducted 46% of the interviews in Spanish, 26% in English, and 28% in 17 other languages. The survey was originally pilot-tested
in 1996 and consisted of health measures (i.e., smoking, drinking, and hygienic behaviors) and demographic background (i.e., education, marital status, family, financial assistance, economics, and housing) (Jasso, Massey, Rosenzweig, & Smith, 2000; Jasso et al., 2005; Jasso, Massey, Rosenzweig, & Smith, 2006).

Sharkey et al. (2011) used data from the 2009 Colonia Household and Community Food Resource Assessment (C-HCFRA). Creighton et al. (2012) utilized the Los Angeles Family and Neighborhood Survey-2, a longitudinal study comprised of individuals, households, and neighborhoods. The sample sizes for the aforementioned studies ranged from 361 to over 2,000. Suplee (2015) did not use an existing dataset and rather recruited a relatively small convenience sample from a health fair in a primarily Hispanic community. Likewise, Gregory-Mercado et al. (2007) obtained sample data from a subset taken in an existing program designed to reduce cardiovascular disease risk among participants.

Montoya et al. (2011) conducted a secondary analysis of a survey in Brownsville and Laredo, Texas, from January 2005 to October 2006. The survey was conducted in Spanish and consisted of 394 randomly selected households. Participants were of MO between the ages of 20-65 who were either born in the US or living in the US but born in Mexico. The purpose of the study was to identify interactions between beliefs about nutrition, nativity, and behaviors. The authors found that, in a predominant Mexican cultural environment, dietary intake between the two groups did not differ. MO born Mexicans maintained their traditions and beliefs from Mexico similar to the MO Mexicans born in Mexico and living in the US. However, when the authors included SES, having a greater income predicted lower dietary self-efficacy while having a higher education predicted a higher dietary self-efficacy in the US born MO Hispanics. As such, the authors recommended separating income and education when exploring the impact SES has on nutritional beliefs. Montoya et al. (2011) indicated the use of a dietary self-efficacy measure, however, made reference to Sallis, Pinski, Grossman, Patterson, & Nader, (1988) for this measure, Sallis et al. (1988) developed a tool to assess the self-efficacy of adults’ dietary intake
of fat, salt and physical activity. The tool was called *Eating Habits Confidence Survey* which used a five-point Likert scale that measured the level of confidence people have about their eating habits.

**Acculturation theme in quantitative studies reviewed.** The *Acculturation* construct was measured using developed tools in two of the six quantitative studies (Creighton et al., 2012; Gregory-Mercado et al., 2007). The two studies reported that the length of time people lived in the US contributed to changes in their eating patterns. One study used the NIS which included acculturation measures but did not use separate acculturation tools (Akresh, 2007). One study discussed the acculturation construct, however, they did not use acculturation tools (Sharkey et al. 2011). One study did not use acculturation tools, however, indicated that acculturation was only partially supported as a factor that influenced nutritional behaviors (Montoya et al, 2011).

Gregory-Mercado et al. (2007) used a five-item Likert scale modified version of the *Acculturation Rating Scale for Mexican Americans* (ARSMA) (Cuellar, Harris, & Jasso, 1980). The original ARSMA was established with 222 respondents (88 were hospitalized psychotic Mexican Americans whose native language was Spanish and 134 were bilingual students and staff members of the San Antonio Hospital who had predominantly Mexican and Mexican-American backgrounds. Internal reliability of the ARSMA was reported as a Cronbach’s alpha of .88 among unhospitalized respondents and .81 for the hospitalized sample (Cuellar et al., 1980). A cross-validation to measure the ARSMA was conducted with a sample of 349 Mexican American and 101 Anglo college students in south Texas. Cuellar et al. (1980) described the generational status of the students as primarily second through fifth generation, as follows: first generation (9.6%), second generation (25.3%), third generation (15.8%), fourth generation (21.1%), and fifth generation (28.2%). Reliability for the 20-item scale was stated as a Cronbach’s alpha of .92 (Montgomery & Orozco, 1984). The coefficients of internal consistency from the cross-validation to measure the ARSMA (Montgomery & Orozco, 1984) corresponded with the results from the original validation (Cuellar et al., 1980).
Initially the ARSMA subscales, including the 13-item Anglo Orientation Subscale (AOS) and the 17-item Mexican Orientation Subscale (MOS), had internal reliabilities and Pearson correlation coefficients closely aligned with the original scale; they were .86 and .88, respectively (Cuellar et al., 1980). The modification of the ARSMA in this study by the researchers consisted of the creation of two acculturation categories (less acculturated and more acculturated). However, measures of validity and reliability for the creation of the two acculturation categories were not indicated. As such, based on the acculturation measures, Mexican-American women in this study were found to have significantly lower levels of Vitamin E and niacin compared to their non-Hispanic white counterparts. Similarly, Gregory-Mercado et al. (2006) found that the more acculturated women reportedly consumed fewer fruits and vegetables compared to non-Hispanic Whites.

The Bidimensional Acculturation Scale (BAS), a short instrument that was found to work well with Mexican Americans and Central Americans (Marin & Gamba, 1996), was used in the dataset selected by Creighton et al. (2012). The BAS scores have two domains, the Hispanic and non-Hispanic; each domain has 12 items to measure three areas related to language spoken. Marin and Gamba (1996) used a random sample of 254 Hispanics who were surveyed via telephone interviews in San Francisco, California, to develop the BAS scale. The average age of the respondents used to develop the BAS scale was 37.3 years, with 10.4 years of formal education, having lived in the US an average of 15 years. Twenty-four percent of the respondents were from Mexico, with 52.8% born in Central America. From a generational standpoint, the majority were first generation (79.9%) followed by second generation (17.3%) and third generation or higher (2.8%). The BAS scale showed high reliability and validity indexes with two specific subgroups: Mexican Americans and Central Americans (Marin & Gamba, 1996). Alpha coefficients were computed for each of the subscales for non-Hispanic and Hispanic domains (language use, linguistic proficiency, electronic media, language-related, celebrations, and overall scales) with internal consistency ranging from a Cronbach’s alpha of .60 to .97
In the quantitative study I reviewed by Creighton et al. (2012) using the BAS, no differences were found among first, second, and third or greater generation MO people, based on proxy measures, such as language, length in the US, and generational status. This is an important point Creighton et al. (2012) identified about the proxy measures. These findings suggest other factors beyond acculturation, which is often attributed to language, length in the US, and generational status, may have a greater influence on eating patterns.

Sharkey et al. (2011) surveyed 599 MO women living along the Texas-Mexico border, who were either born in Mexico and living in the US or born in the US, to explore consumption of sugary drinks and fast-food. The researchers used the 2009 Colonia Household and Community Food Resource Assessment (C-HCFRA). Sharkey et al. (2011) did not mention any use of acculturation tools, however, they alluded to similarities in findings from other studies that associated factors such as country of birth with being less acculturated (Ayala et al., 2008; Dixon, Sundquist, & Winkleby 2000). Results from this study suggest that US born MO women had a higher consumption of sugary beverages and fast-food meals when compared to those who were born in Mexico and lived in the US (Sharkey et al., 2011). Although Mexico-born women had a high consumption of fast-food, their consumption was lower than US born women. Moreover, factors associated with higher consumption of sugary beverages among Mexico-born women included having a child, the woman’s age, and being a single parent. In comparison, higher consumption of fast-food meals was associated only with having a fulltime job and being a single parent. Sharkey et al. (2011) suggested that less acculturated MO women had healthier diets compared to their US born counterparts. It is noteworthy to mention that US born MO women in this study had more education, were employed full-time, and were single parents at higher rates compared to their Mexican born counterparts (Sharkey et al., 2011). Furthermore, the authors suggested that place of birth may have limited their access to resources, such as transportation and food. Factors such as education and employment status may have been interrelated factors that influenced the dietary decisions and patterns of the women. Akresh (2007) included
assimilation and acculturation measures from the NIS-2003-1 data set, which measured numerous factors related to language spoken (Jasso, Massey, Rosenzweig, & Smith, 2005). This study explored dietary changes related to the use of English among immigrants and found no significant changes for women. However, having a US born spouse had a greater impact on dietary changes in women. As such, acculturation may not fully explain dietary changes. Rather the range of personal, social, economic, and environmental factors may have a more significant impact on eating patterns than acculturation. Furthermore, the marginalization of women and Hispanics in society merits a critical exploration and holistic analysis of the influence societal powers, situations, conditions, and environments impact eating patterns.

**Barriers theme in quantitative studies reviewed.** Barriers were identified in all six quantitative studies. Factors such as economic constraints (i.e., SES, cost of food, low paying jobs, budget limitations), work and time demands, nutritional knowledge deficits, and family pressures were prevalent throughout the literature. A notable characteristic among all studies was the level of income among sampling frames. More than 95% were at or below the federal poverty level, with fewer than 5% reporting their incomes at $40,000 or more (Akresh, 2007; Creighton et al., 2012; Gregory-Mercado et al., 2007; Montoya et al., 2011; Sharkey et al., 2011; Suplee et al., 2015).

Limited economic means could have contributed to less access to healthier food options. For example, in a relevant article about the impact social class has on diet quality, groups in lower income brackets were linked to consumption of lower quality foods compared to those in higher socioeconomic levels (Darmon & Drewnowski, 2008). Suplee (2015) found that women’s eating patterns were primarily influenced by budget constraints, which not only impacted the quality of food purchased, but also left them with insufficient funds on a monthly basis for some of their food purchases, which necessitated access to food banks. While food banks can be a reasonable option to supplement limited food supplies, the nature of the food is often highly processed with long shelf lives and is not necessarily considered health-promoting (Bazerghi,
McKay, & Dunn, 2016). Creighton et al. (2012) postulated that SES and income, rather than cultural factors, were associated with intake of lower cost, higher caloric foods. Similarly, Sharkey et al. (2011) suggested that SES may have been a contributing factor to consumption of high caloric foods, such as fast-food meals and sweetened sugary beverages, since these types of foods were more affordable. Conversely, Montoya et al. (2011) postulated that having a greater income predicted lower dietary self-efficiency while having a higher education predicted a higher dietary efficacy in the US born MO Hispanics.

**Facilitators theme in quantitative studies reviewed.** The *facilitators* in the quantitative studies were limited. Two studies reported that participants used a food assistance program (Sharkey et al., 2011; Suplee et al., 2015). One study found indicated that the women in the study wanted to eat healthier, however, they lacked the knowledge to choose healthier food options (Suplee et al., 2015).

In summary, I reviewed six quantitative articles and identified three overarching themes: *acculturation, barriers,* and *facilitators.* Multiple *barriers* were identified with minimal facilitators noted. Acculturation was a predominant theme, however, few studies used acculturation measures. Half the studies utilized secondary sources, such as existing data sets, and the other half conducted studies that necessitated recruitment of participants and collection of data. Overall, the studies focused on the impact of duration of time in the US, place of birth, and the impact assimilation had on diet for Hispanics living in the US. Following, I will provide findings from the authors who had published their syntheses of the literature, categorized according to the three themes I identified.

**Articles Synthesizing Others’ Research that I Reviewed**

I next identified three published articles on my topic in which the authors synthesized work by other researchers (Ayala et al., 2008; Benavides-Vaello, 2005; Gerchow et al., 2014). The authors of these articles synthesized the roles of acculturation, culture, and common eating patterns among Latino groups who were comprised of adults and children. I identified similarities
to the themes in my review, *acculturation, barriers, and facilitators*. I describe and categorize them here and identify any instances of publications that I reviewed that were also included in any one of the synthesis articles.

Ayala et al. (2008) conducted a systematic review to assess the relationships among diets of Latinos in the US, including their analysis of 34 articles that consisted of 24 that were quantitative, five qualitative, and five that used national data sets. The researchers in this systematic review examined the role acculturation has on diet. Factors included birth place, generational status, participant characteristics, years in the US, and language. Ayala et al. (2008) found that: (a) 71% of the studies were conducted in the Southwest region of the US; (b) 50% collected data on both men and women; (c) 35% of the studies were comprised of middle-aged adults; (d) all authors reported a predominance of poverty and low educational attainment in their samples; and (e) the Mexican subgroup was the most represented but never was the exclusive focus in any of the studies. Results of their review indicated they found no relationship between acculturation and fat intake. However, individuals who were less acculturated had a higher consumption of rice, beans, and fruit, and a lower intake of sugar and sugary beverages, compared to their more acculturated counterparts. Acculturation in these studies was measured using various methods. One study measured acculturation by using the ARSMA scale (Cuellar et al., 1995). Other studies used less formal measurements such as use of language spoken at home and place of birth to determine level of acculturation.

In Ayala et al. (2008), two of five qualitative studies and one of twenty-four quantitative studies they synthesized were also included in my review of the literature; (Cason et al., 2006; Gray et al., 2005; Gregory-Mercado et al., 2007); these three articles that I incorporated appear in Tables 1-4. The other articles that Ayala et al. (2008) synthesized did not meet my inclusion criteria for the review of the literature. Similar to my findings, Ayala et al. (2008) also found no association with acculturation and eating patterns. Findings from the authors’ systematic review of Gray et al. (2005) found that participants ate healthier in their home countries compared to in
the US, and Cason et al. (2006), identified increase in consumption of hamburger meat and vegetables, compared to their countries of origin. In terms of purchasing food, both studies identified participants reported purchasing fast-food more, once they lived in the US. Furthermore, in both studies (Cason et al., 2006; Gray et al., 2005), purchasing and consumption of fresh food depended on availability, income, and familiarity of the food. Overall, social influences, such as family members had major impact on eating patterns for both studies (Cason et al., 2006; Gray et al., 2005).

Benavides-Vaello (2005) conducted a synthesis of the literature to identify cultural influences on the dietary practices of MO Americans. The author included 11 articles, consisting of five quantitative, four qualitative, and two mixed-method studies that comprised the analysis. Eleven of the twelve articles in Benavides-Vaello (2005) did not meet my criteria for the review. However, the review by Benavides-Vaello (2005) included one article I did not find when I conducted my review of the literature (Hampl & Sass, 2001).

The participants in the Benavides-Vaello (2005) synthesis of the literature consisted of Hispanic adults and children, of which the majority were Mexican-American or Hispanic, however, there was no breakdown of specific subgroups. Additionally, characteristics such as income and education were not reported. Benavides-Vaello (2005) found that eating patterns for the participants in these studies were primarily impacted by traditional values, such as preparation of cultural foods like tortillas and mole, as well as attending cultural celebrations where food was a central focus. Additionally, social influences, such as family, peers, and dietary acculturation, indicated that less acculturated Mexican Americans and Hispanics had healthier eating patterns than their more acculturated counterparts. The term dietary acculturation, by the authors, was used to refer to assuming the eating patterns or food choices of the US. Benavides-Vaello (2005) also stressed the impact SES had on eating patterns, however, it was difficult to evaluate since the data was not reported in the review.
Gerchow et al. (2014) conducted a meta-synthesis of 15 qualitative articles to identify Latina food patterns in the US. A review across studies used the following themes: obesity, food patterns, population, migration, acculturation, and barriers and facilitators to healthy eating. A combined total of 457 participants were interviewed and more than 70% were of MO; participants consisted of men, women, and children. Gerchow et al. (2014) found that overall, immigrating to the US negatively impacted eating patterns for the participants. Additionally, other factors, such the stress associated with loss of social support in their home country, language barriers, and social isolation, also contributed to poor eating patterns due to overeating or an inability to read food labels in English. SES was also found to be a significant barrier due to budget constraints and lack of transportation. However, the authors of this review did not include specific demographic characteristics from the synthesized studies, such as income or educational levels. Participants also noted that deficits in dietary knowledge were impacting their eating patterns. However, the most prevalent finding that the author identified as both a barrier and a facilitator in the articles was the impact family had on eating patterns. Overall, family food preferences, the stress of living away from relatives, the challenge of multigenerational Latina women living in the same household, as well as the need for the women in the household to work outside the home, all impacted eating patterns negatively. Other facilitating factors the authors identified from participant data included changes in eating patterns due to the desire to lose weight, cope with illness, or receive nutritional education from organizations in the community.

Of the total 15 qualitative articles in the meta-synthesis by Gerchow et al. (2014), I also reviewed seven of them individually in my literature review (Cason et al., 2006; Gray et al., 2005; Greaney et al., 2012; Hoke et al., 2006; Keller et al., 2007; Lindberg & Stevens, 2011; Ramirez et al., 2007). The major themes identified in in the meta-synthesis were “effects of the immigrant experience” and barriers and facilitators to healthy behaviors” (p. 188). The major themes I identified in my review were acculturation, barriers, and facilitators. Similar findings from the seven articles I reviewed (Cason et al., 2006; Gray et al., 2005; Greaney et al., 2012;
Hoke et al., 2006; Keller et al., 2007; Lindberg & Stevens, 2011; Ramirez et al., 2007), were also identified in the meta-synthesis by the authors (Gerchow et al., 2014). For example, I identified social isolation in one of the articles (Keller et al., 2007). Language challenges was another factor identified (Cason et al., 2006). Socioeconomic status was a prevalent theme as well (Gray et al., 2005; Greaney et al., 2012; Ramirez et al., 2007). Other factors identified as barriers similar to my review included family preferences and social influences. Similar to my findings, few facilitators were identified in the meta-analysis. The authors of the meta-analysis identified facilitators in three of the same articles I reviewed (Hoke et al., 2006; Keller et al., 2007; Ramirez et al., 2007). The facilitators I identified in my review were nutritional knowledge deficits and potential for disease prevention. Gerchow et al. (2014) identified the issue of illness, self-awareness about weight loss, and learning to cook. The findings from the aforementioned studies and my review of the literature clearly illustrate other levels of influence impacting eating patterns. Systemic and oppressive forces in society may have a greater influence on eating patterns. As such, my approach using the CST lens with the SEM as a framework may shed new perspectives to contribute to the literature.

In summary, in my review of the literature, I also reviewed three articles in which the authors synthesized others’ research. My review of the articles synthesized by others revealed similar findings to those I identified during my own review of the literature. Many of the articles used by the authors of the synthesized reviews were not included in my literature review due to my exclusion criteria. However, a total of nine of the same articles I reviewed were included in the articles synthesized by other researchers (Cason et al., 2006; Gray et al., 2005; Greaney et al., 2012; Gregory-Mercado et al., 2007; Hampl & Sass, 2001; Hoke et al., 2006; Keller et al., 2007; Lindberg & Stevens, 2011; Ramirez et al., 2007). Overall, the findings from the articles synthesized by the other researchers (Ayala et al., 2008; Benavides-Vaello, 2005; Gerchow et al., 2014) reinforced my analysis of the literature. However, I plan to use my additional insights as well as CST and the SEM, to illustrate the complexities and factors that can positively and
negatively impact eating patterns. While there were some overlaps with articles in my own literature review, my specific focus for this study is unique, because I include exclusively MO adult women who were 18 years of age and older and born in the US.

Based on my synthesis, I found the majority of the authors emphasized and focused on acculturation measures related to eating patterns, with some identification of barriers and only a few facilitators noted. I viewed the overall messages I identified in the literature that I had reviewed to be inadequate because authors did not emphasize important determinants, such as social and economic conditions that can impact eating patterns. Furthermore, acculturation, among second and higher generation Hispanics matters less over time. Therefore, in my view, what is known about eating patterns from these studies is not sufficient.

Integration of the Literature

I reviewed a total of twenty-two qualitative and quantitative articles and identified three overarching themes in them: acculturation, barriers, and facilitators. Next, I explain how I have integrated the themes with my critique of the literature I reviewed.

Acculturation was widely mentioned in both the qualitative and quantitative literature. However, the inconsistencies among the use of this construct were evident throughout the articles. Acculturation is a created construct that is primarily based on proxy measures, such as language, place of birth, and length of stay in the US. The use of acculturation as a primary measure or focus minimized the attention the researchers gave to social factors. Although social factors were addressed, a deeper exploratory analysis of them was lacking. While the value of the construct of acculturation deserves consideration, there was a disconnect between the overuse of the construct without clear identification of social factors in much of the research I reviewed. As the first example, there was a lack of acknowledgement of the interplay between the level of acculturation and overlapping influences, such as educational attainment, socioeconomic status, geographical
location, age, ethnicity, and race. These intersections may have had influences on eating patterns, but they were not explored by the researchers.

Second, the acculturation measures did not take geographic regions into account. The communities, regions, and locations where the study participants lived may have also contributed to shaping their eating patterns. The majority of the studies were conducted in regions with high percentages of Hispanics. The locations where the participants lived may have had higher densities of immigrants, lower numbers of US born Hispanics, and fewer opportunities for interactions with other racial or ethnic groups. As such, the sample populations may have resided in culturally isolated communities that could have also contributed to shaping their eating patterns.

Third, the majority of the participants in the samples consisted of immigrants from Latin and Central American countries who migrated to the US and clearly fit the proxy measures for acculturation. However, in many of the studies, researchers classified Hispanics as if they were one ethnic group with similar traits, beliefs, and customary traditions. This resulted in limited identification of differences that might have been clearer if subgroup specific perspectives had been used.

The barriers identified in the literature were primarily due to the numerous socioeconomic disadvantages the sample populations faced. Barriers repeatedly reported in the studies were related to adapting to a new environment, financial constraints, low educational levels, limited social support, language differences, and work and time demands. These factors clearly operated throughout the qualitative and quantitative literature and could be considered social factors, particularly since the majority of the sample populations were immigrants. However, there was no mention of the role immigration and legal status had on these social influences that may have impacted eating patterns. It is noteworthy that immigration status was a missing variable in the literature I reviewed. According to the World Health Organization (2014a), millions of immigrants are negatively impacted by social, economic, and political
conditions in the countries to which they immigrate. Furthermore, Castañeda, et al. (2015) stressed the challenges individuals face prior to and after immigration. Such challenges require a complete readjustment of daily life, which can have a significant impact on health. Therefore, interconnecting the categories of immigration, acculturation, and social determinants of health could have provided a broader perspective and a greater understanding about the factors impacting eating patterns.

While most of the literature focused on barriers, there were factors I considered facilitators in the studies I reviewed. The facilitators were circumstances or conditions that promoted healthy eating patterns and encompassed components that participants in the studies had viewed as promoting or supporting healthy eating patterns. The facilitators noted in the literature consisted of accessibility to food, such as food banks and farmers’ markets, as well as an interest in gaining nutritional knowledge to prevent obesity and chronic diseases, like diabetes. While the aforementioned factors could be viewed as promoting healthy eating patterns, a deeper exploration about accessibility to healthy food options and concerns about prevention of obesity and related chronic diseases was lacking in the literature reviewed. However, these considerations could have been indicative of social and environmental factors limiting access to healthy foods. This in turn could have impacted the eating patterns studied.

In addition, while most of the articles I reviewed did not indicate a theoretical framework, the focus was primarily on individual behavior choices, such as those found in behavioral framework approaches, or were otherwise focused on acculturation often found in cultural framework approaches (Castañeda et al., 2015). However, these approaches fail to underscore the impact structural forces can have on individuals and communities. A broader approach is needed, one that includes examination of the SDH, including how factors such as race, ethnicity, class, and gender intersect (Crenshaw, 1991).
Similarly, the sample populations in the studies I reviewed primarily focused on first generation immigrants. However, the consequences of the social influences on eating patterns could extend well beyond the first-generation. Such possibilities need to be explored.

In summary, broad structural and social factors may have repercussions on future generations, specifically US born Hispanics. US born MO Hispanics are increasingly integrating in the US with each generation. Acculturation measures may not be an effective measure for those who are more fully integrated in the predominant culture. Focusing primarily on individual and cultural practices may not get to the core issues and may limit identification of the impacts that structural and social forces have on eating patterns. Therefore, implementing the perspectives in the SEM, that incorporates individuals and broad societal structures, while using narrative thematic analysis and with critique, such as in CST, will aid me in identifying forces of injustice, oppression, power relationships, and imbalances involved within the social structures in which MO women live that may affect their eating patterns. Next, I more fully explain the gaps in the literature.

**Gaps in the Literature**

I reviewed literature related to eating patterns among US born MO women from 2000 to 2015. In doing so, I identified five major gaps in the literature. First, I identified only three published studies consisting exclusively of samples with MO women (Keller et al., 2007; Lindberg & Stevens, 2011; Montoya et al., 2011); two of these author teams used qualitative designs and one author used a quantitative design. Most of the studies sampled various Hispanic subgroups and included both men and women.

Second, generational status reported in most of the studies focused on first generation Hispanics. Only two articles indicated second and third or higher generation Hispanics in the sample populations. Grouping Hispanic subgroups into one category limits identification of differences among subgroups. Exploring descriptions about US born Hispanics using subgroup
specific and gender-specific approaches may provide new insights about eating patterns among these subgroups.

Third, the literature was replete with studies on Hispanics from lower socioeconomic brackets, with few years of educational preparation and limited language proficiency. The experiences of MO women with higher educational backgrounds who generally fall into higher socioeconomic brackets and are proficient in English were not explored. The samples in the literature do not account for, nor reflect, the growing US born MO population. This view limits perspectives from the growing second, third, and higher generations of the Hispanic population, who are progressively improving their SES (Fry & Passel, 2009).

Fourth, acculturation was a predominant theme expressed by the authors throughout the literature I reviewed. Given the magnitude of factors addressed related to the SDH, the changes in eating patterns may not be adequately explained by primarily focusing on cultural factors. Other components such as economic, social, and environmental factors may play a more significant role in eating patterns. A broader approach is needed, one that includes examination of the SDH including how factors such as race, ethnicity, class, and gender intersect (Crenshaw, 1991). US born MO Hispanics are increasing in the US with each generation. According to the Migration Policy Institute, the children of immigrants generally tend to outperform their parents in educational level and SES and, by the third and higher generation, Hispanics generally are proficient in English (Jimenez, 2011). As such, acculturation measures may not be effective measures for US born Hispanics who are more fully integrated in the predominant culture. Furthermore, various acculturation measures used were developed during the 1980s and 1990s and are unlikely to reflect the demographic profile of Hispanics living in the US currently. Additionally, the data sets from national and state sources that were used by some of the authors in the articles I reviewed included immigrants, such as those with permanent resident cards and spouses of US citizens, and refugees, as in the NIS 2003-1 data set; or were comprised of Hispanics who lived along the Texas-Mexico border, as in the 2009 CHCFRA and the ARSMA.
The latter instrument was originally established with a sampling frame of hospitalized psychotic Mexican Americans, bilingual students, and predominantly Mexican and Mexican-American staff from a Hospital in San Antonio, Texas; although it was later cross validated with a sample of Mexican American and Anglo college students in south Texas, its origin appears problematic. Also, with most of the acculturation measures applied, their reflection of current Hispanics in the US is questionable. Similarly, while some of the larger data sets used in the quantitative studies reviewed did include US born Hispanics, they do not reflect the current growing demographic profile of second, third and higher generation Hispanics.

Fifth, sampling frames used in the quantitative and qualitative studies were from geographical locations in the eastern, western, and, southern parts of the US. Therefore, there is a need to conduct studies in the Midwest, a geographical area that has experienced major growth in the Hispanic population. For example, the Midwest was one of the regions that experienced the most significant growth in the Hispanic population during 2000-2010. The Hispanic population grew by 49%, which was more than 12 times the total growth rate of the general population in the Midwest (4%) (US Census, 2011.)

To summarize, the prominent gaps I identified in the literature relating to eating patterns are: (a) limited research on US born MO women; (b) few reports of experiences of women with higher educational backgrounds; (c) English proficiency; (d) little focus on generational, sub-group and gender-specific groups; (e) unclear connection between acculturation and SDH; and (f) number of studies done in the Midwestern region. The main focus of the studies I reviewed concentrated on the impact acculturation has on diet, without often examining the broader context of MO women’s lives; only a few studies took a subgroup, gender-specific approach. To date, studies about eating patterns among MO women have largely focused on blanket assumptions about Hispanic group characteristics. Approaches used to explore eating patterns have primarily taken acculturative and homogeneous approaches. My study provided insights about the descriptions that US born MO women reported about their own eating patterns. These insights
not only contributed to the body of knowledge in this area, but will increase awareness about MO women’s narrative descriptions about their eating patterns using a subgroup, gender-specific approach among Hispanics in the US. My study was needed because it provided insights that extended beyond acculturative and homogenous group viewpoints to a broader structural approach that included SDH that can impact eating patterns. Nurse researchers, educators, policy makers, and nurses in practice may benefit from the findings by being able to provide more tailored approaches to caring for, teaching, studying, and developing policies about preventable dietary related diseases among Hispanics.

**Assumptions of the Study**

The gaps in the literature help to frame my study. Additionally, I have identified five supporting assumptions that I used to more fully identify my approach to this study. They are as follows.

1. Eating patterns are complex and influenced by individuals and their environments.
2. The voices of US born MO women have been limited in the literature, including their views on the topic of eating patterns, and these need to be heard.
3. More research focus is needed on the descriptions of 3rd generation or higher MO women’s eating patterns.
4. US born MO women will be willing to share their descriptions about eating patterns with a nurse researcher who is also a US born MO woman.
5. As a bilingual MO woman researcher, I will be aware of various idioms and Spanish language terms that may be spontaneously used by the interviewees, to promote accurate translation whenever needed in the process.
Research Question

Based on the identified gaps in the literature and my researcher assumptions, the central research question of this study is “What are US MO women’s descriptions about eating patterns?” I addressed this question by using an open-ended interview approach (described in Chapter 2) to allow maximal freedom for each participant to shape her own descriptions in any way she wishes to do so. Furthermore, Hall (2013) suggests that using an open-ended approach with marginalized groups may provide a venue for the participants who otherwise may not be typically listened to or asked to share their stories. I remained open to any inclusions of a participant’s life experiences that she identified as relevant to her eating patterns by sharing them during the interview.

Chapter 2 Summary

To summarize, several points can be drawn from this chapter and literature review. My approach included the application of CST and the SEM to the data analysis. Additionally, the themes I identified in the literature informed my development of the research question. For example, there was an overarching theme associated with the social determinants of health that contributed to shaping eating patterns that was noted across the literature. Second, the number of barriers exceeded the facilitators. Third, the lack of research focused on US born MO Hispanics; therefore it is difficult to draw conclusions about the descriptions of eating patterns about US born Hispanics in general, and in particular among MO women. Lastly, Hispanics have historically been a vulnerable group with higher rates of poverty, discrimination, lack of access to health care, and disparities, and less access to education (National Research Council, 2002; CDC, 2015b); this situation deserves systematic attention. My study will take an approach grounded in CST to provide the opportunity to take a critical approach by examining social, political, cultural, and historical forces that can impact eating patterns (Browne, 2000). Furthermore, the use of the
Social Ecological Model (SEM) as a theoretical framework served as a guide to explore how the interrelation among personal, social, economic, and environmental factors may have influenced eating patterns of MO women who are second or third generation and higher in the US (McLeroy et al., 1988).
Chapter 3

RESEARCH DESIGN AND METHODS

The purpose of this qualitative study was to explore US born MO women’s descriptions about eating patterns that may or may not contribute to obesity. In this chapter, I provide a description of the research design and methods, data collection, assurance of scientific rigor, data analysis, provisions for the protection of human rights, and study limitations.

Methods

Design

A qualitative exploratory-descriptive, narrative, research method was employed to explore US born MO women’s descriptions about eating patterns. An exploratory design facilitates a view of the world from the participants’ perspectives and lends itself to researcher flexibility and openness, to enable development of a deeper understanding of the phenomenon being studied (Brink & Wood, 1998). The descriptive component design allowed me to provide an organized portrayal of what the participants shared as a comprehensive summary that demonstrated explanatory and interpretive validity (Sandelowski, 2000). As such, the exploratory-descriptive approach served as a vehicle to facilitate investigation of an understudied population, utilizing an in-depth approach, to learn directly from US born MO women about their descriptions on eating patterns.

The study consisted of in-depth open-ended individual interviews using an open-ended research question. The use of this format allowed me, the researcher, to initiate prompts and request clarifications while providing participants with the flexibility, time, and space to convey information of importance to them (Green & Thorogood, 2009). This open approach is needed when applying philosophic processes used in CST, e.g., establishing a democratic structure for
the interview, facilitating emancipatory intent, and eliciting contextual data from the participants. It is also critical to remain open and allow participants to use their own voices and words when they are members of a group that has been marginalized by the dominant culture (Hall, 2013). Thus, the MO women participants were able to explore multiple and complex realities that surfaced from telling their own narratives (Cohen et al., 2007) about eating patterns.

Additionally, the heights and weights of participants were measured to obtain BMIs after completion of the interview and a brief questionnaire, to provide a multifaceted understanding and contribute to the depth of qualitative inquiry and analysis (Patton, 2002). Hispanics have typically been a vulnerable ethnic minority group, with disparities in health, poverty, and educational attainment (National Research Council, 2002; National Research Council, 2006). Therefore, I used CST as a lens to examine the roles that historical, economic, political and social forces may have on the perspectives about eating patterns during the analysis of the interviews of the MO women in my study. A SEM was also applied as the theoretical framework for this study (McLeroy et al., 1988). The SEM facilitated integration of any multi-level influences on behavior, including intrapersonal, interpersonal, organizational, community, and public policy factors shared by the study participants during their interviews. As the researcher, I remained open to these broader perspectives, but I bracketed my awareness of them during interviewing, early coding, and initial theme identification to allow the women’s voice to be the primary data sources. I applied the SEM periodically when creating an audit trail to enable more depth in my analysis and the CST precepts informed me through the final theme identification, analysis, and discussion. I bracketed the aspects I applied from CST and the SEM by writing memos as part of the audit trail, while I collected and analyzed the data, to facilitate reflection upon and examination of the multi-level influences that may have impacted eating patterns (Creswell & Miller, 2000; Cutcliffe, 2003).
Sample Size

The sampling consisted of purposive and snowball sampling. Purposive sampling consists of intentionally selecting a sample using specific criteria (Munhall, 2007). Snowball sampling consists of recruitment of other potential participants by seeking assistance from those who have participated in the study and asking others for ideas in settings where recruitment is occurring (Munhall, 2007). Maykut and Morehouse (1994) suggest that snowball sampling will enhance variation and aid in identifying future participants.

To determine sample size in qualitative research, “the validity, meaningfulness, and insights generated from qualitative inquiry have more to do with the information of the cases selected and observations/analytical capabilities of the researcher than the sample size” (Patton, 2002, p. 245). One of the purposes of using a qualitative research method is to maximize participant information by using open-ended interviewing and including commonalities and outliers in the analysis, rather than simply generalizing from numeric data.

A sample of 15 participants were recruited to support diversity in responses. I employed the following approaches: (a) contacted various Hispanic serving organizations by email (Appendix A), (b) distributed the study flyer (Appendix B), and (c) attended events to explain the study in person so that others introduced to the study may aid in recruitment by the snowball technique and word of mouth. Because my approach to analysis consisted of iterative reexaminations of data and coding using a reflexive process, I terminated sampling when redundancies were consistently emerging in the data (Lincoln & Guba, 1985).

Recruitment Procedure

The sample for this study was recruited from urban, suburban, and rural areas around northern Midwestern cities in the US. Participants for this study were initially recruited from places where I have established relationships, including parishes with large Hispanic congregations, ethnically focused community centers, and local Hispanic organizations that serve
nurses and other professionals in the area. Membership in those groups are drawn from the surrounding urban, major city locations; suburban, smaller cities on the outskirts of major cities; and rural, locales that are not as densely populated as urban and suburban areas. Initial recruitment of potential participants began with an introductory email message (Appendix A) that I sent to the various organizations explained above. I requested to be notified of upcoming events so that I could attend, explain the study, and distribute an informational flyer (Appendix B). Both the email and flyer included study eligibility criteria. Inclusion criteria consisted of the participant’s self-identification of the following characteristics, being: (a) a Hispanic woman of MO; (b) US born; and (c) 18 years of age or older.

First, I sent emails with an explanation of my research and the informational flyer to the various locations (parishes, community centers, Hispanic nursing association, and Hispanic professionals organization) from which I planned to recruit participants. Additionally, in my email, I offered to attend any sessions or meetings they had to explain my study. I also enlisted the support of other individuals who may know US born MO women to provide assistance by distributing the informational flyer which contained my contact information and details about the study, in the rural and urban areas from which I recruited.

The email (Appendix A), informational flyer (Appendix B), and my attendance at various Hispanic organizations’ events, all contributed to describing the study, generating interest among MO women, and providing my contact information. I also asked that those receiving the study information help by distributing it to anyone who was eligible to participate and potentially interested in the study, including friends, family, coworkers and organizational members who missed my explanation. These sources were employed to ensure an adequate and diverse sample of US MO women that was enhanced through snowball sampling and word of mouth. Exclusion criteria consisted of women who were: (a) Hispanics from non-MO subgroups, (b) foreign-born Hispanics, or (c) younger than 18 years of age.
Because I considered various subsets within the sample as part of my analysis, such as second, third, and higher generations of MO women, this information may aid me to identify differences or similarities among US born MO subgroups (Patton, 2002). My recruitment approach allowed me to cast a wide net to capture intricacies within a subgroup specific sample of participants (Patton, 2002). The distinction of generational status aided in examining for characteristics and variations that occurred due to generations and time spent living in the US.

Also, as a bilingual MO woman, I have cultural knowledge and am proficient in Spanish, which was an asset when idioms or terms that were difficult to readily translate into English and used by some participants. Additionally, I translated the consent and any other documents used with the participants into both English and Spanish. To do so, I followed the guidelines from the World Health Organization (2014b) which consist of forward translation, expert back translation, and pre-testing consent forms and questions on a minimum of 10 individuals who were representative of the participants interviewed. Martinez, McClure, Eddy, Ruth, and Hyers (2012) also recommended flexible schedules and sensitivity to language; literacy levels such as proficiency and ability to speak, write, and read English; and collectivism to build trust and demonstrate respect when working with the Hispanic population. I integrated these suggestions throughout recruitment, consenting, and interviewing.

**Data Collection**

Data collection began after receiving human subjects approval from Marquette University’s Institutional Review Board. The informed consent used had both an English and Spanish translation (Appendix C) so each participant could choose her preferred language for reading. I implemented strategies that take MO culture and language into account to improve recruitment.

**Provisions for the Protection of Human Rights**

Various measures were taken to ensure protection of the participants’ human rights. After obtaining IRB approval from Marquette University, I ensured confidentiality. All signed
consent forms and identifiable data were kept in a separate locked storage cabinet to which only I have access in an office at my residence. Audio recordings were transcribed by a professional transcriptionist who is also a registered nurse, bilingual in English and Spanish, including hearing, translating, and typing skills in both languages. I then conducted a thorough review of the transcribed recordings by comparing the recordings while reviewing the transcriptions for accuracy and removing all personal identifiers, such as names and locations. All audio recordings were deleted from the recorders after transcriptions are verified and complete. If the research is terminated for any reason, all data will be destroyed. Reviewed transcriptions were uploaded and saved in NVivo, a qualitative software program that was used to facilitate my iterative analysis. Any documents containing identifiable participant information were all password protected. I made every effort to ensure confidentiality and anonymity. All raw data will be kept indefinitely after I have published the results. The records may be used for future research purposes, such as further analysis for publication.

**Study Procedures**

Potential participants contacted me via the phone number I provided on the information flyer. I also made initial contacts of any names, telephone numbers, and/or email addresses provided to me from the snowballing method. Upon contact, whether by the potential participant or me initiating the contact, I introduced myself, explained how I obtained their contact information (if I made the initial contact), and explained my interest in descriptions about eating patterns among US born MO women. I then explained the purpose of my study and offered to schedule an individual time and place for each participant interested to learn more about my study and be interviewed. I also informed them in advance that the interview would be audiotaped and after I would provide a brief questionnaire and take measurements of their height and weight. All the women I asked to participate in the study agreed to be interviewed. The location of the interview was decided with each participant. The location was at a mutually convenient place that facilitated privacy and promoted the ability to accurately hear and record the interview. The
majority of the participants, 11 (73%). requested to be interviewed in their homes with the
exception of 4 (27%) of the women who asked to be interviewed in conferences rooms where
they worked or in the local library. The conference rooms provided adequate privacy. None of the
participants chose to meet at coffee shops, which had been offered.

When meeting with potential participants, I first provided a thorough overview of the
study, read the informed consent in the preferred language (English or Spanish) for the participant
being interviewed (Appendix C) which included an explanation of the research, participant
expectations, risks, benefits, and a statement about permission to withdraw from the study
without penalty; then I also offered to answer any questions that arose. I also reminded the
participants that each interview would be audio recorded for the purpose of capturing the
interview content for later transcription and analysis. Each participant was informed that she
would also be asked to complete a demographic questionnaire (Appendix D) and height and
weight measurements to calculate Body Mass Index (BMI) for comparison purposes.

The height was measured using a SECA 213 portable stadiometer (Appendix E) and the
weight was measured with a HealthOMeter 844KLS Professional Portable Digital Scale. A
stadiometer is a device that is used to measure height and is comprised of an upright ruler with a
sliding parallel rod that can be adjusted to rest on the top of the head (Merriam-Webster, n.d.).
The stadiometer does not require calibration, however, the portable digital scale (Appendix E)
was calibrated according to the manufacturer’s instructions. I asked participants to select
locations that would allow privacy for measuring their heights and weights.

I used the National Heart, Lung, and Blood Institute (NHLBI) (2016) BMI calculator to
determine their BMIs. I offered to share the BMI calculation with each participant, and provide
an explanation with interpretation of the BMI results, to the women who were interested in
knowing the results. I was able to obtain the BMI calculator during my interviews. However, I
was prepared to calculate the BMI manually in the event I was not able to access the web
application. To obtain the height in meters, I (a) divided one kilogram by 2.2 pounds and
multiplied that number by the value in pounds of weight I needed to convert, (b) then I divided the height in centimeters by 100 to obtain height in meters, and (c) lastly, I divided the weight in kilograms by the height in meters squared to obtain the BMI (CDC, 2015a).

Upon completion of each interview, the demographic questionnaire (Appendix D), and the measurements, I thanked the participant. Then I gave the participants a $25.00 gift card to express my appreciation for the time each contributed to the study.

**Interview Method**

The interviews consisted of an initial broad open-ended statement about what I would like to learn from their personal experiences and descriptions about eating patterns. The use of this method gave me the flexibility to adapt and alter my responses according to the participant’s responses. Patton (2002) indicates that unstructured interviews provide maximum flexibility and allow questions to flow from the conversation occurring with participants. Furthermore, unstructured interviews provide a venue for participants to freely share their descriptions. This format helped me develop a greater understanding of each participant’s descriptions and allowed me to request clarifications and initiate probing questions (Green & Thorogood, 2009). The purpose of probing was to gain a richer, deeper response about the central question being asked, while also acknowledging their responses (Patton, 2002). Furthermore, making requests for clarifications during the interview, instead of asking a set of pre-determined questions, allowed the participants time to reflect and process before responding.

I began each interview by introducing myself to establish rapport and help the participant being interviewed feel at ease. I provided a clear explanation of my interest in US MO women’s descriptions about eating patterns. I then explained the study, reviewed the consent, and informed the participant that the interview would be audio recorded, followed by a brief questionnaire and two quick measurements. I offered time for the participants to ask questions or clarifications about the consent or any aspects of what I explained. Then I gave the participants time to review and sign the consent. We repeated the signing twice, so I could provide a signed copy of the
consent to the participant and kept one myself. I then assured the participants that the information they provided is confidential and their names would not be associated with their responses in any way. I informed them to feel free to respond in any way they wished to avoid imposing any restrictions. After the interview was completed, I explained the demographic questionnaire and the process for measuring their height and weight and then obtained these data.

The central research question was “What are US MO women’s descriptions about eating patterns?” After introducing myself, my background, and my interest in the topic; I obtained the signed consent. This allowed time to establish rapport and create a friendly environment to engage in unstructured conversation. Then I invited each woman to participate freely by asking her to “Describe your eating patterns. This description of your eating patterns can include your feelings, thoughts, opinions, perceptions, experiences, memories, images, influences, and anything else you wish to share about your eating patterns.” This request also appeared in the consent form in bold print, to provide a handy reminder of the range of information that could be shared. I also used encouraging phrases, which was a technique suggested by Patton (2002). They were similar to the following: (a) “can you tell me more about that”; (b) “what else would you like to share”; (c) “that comment was helpful, can you say more”; (d) “you said this about [a topic], what did you mean by that”; and (e) “I would like to make sure I understand what you said, and it would help me if you could expand on that”. Also, I provided nods with my head and eye contact; as well as verbal cues indicating that I was listening, such as “yes”, “go on”, “uh-huh”; with sufficient pauses to allow time for the participant to think and respond (Patton, 1987). I also occasionally used “summarizing transitions” (p. 371), such as provided a brief acknowledgement of my understanding, to let the participant know that I was actively listening, while opening the opportunity for each to add to, correct, or clarify my statement (Patton, 2002).

Immediately upon finishing with each participant, I made field notes of my recollections of the interview, my thoughts, and impressions. I also included my observations about whether
there were emotions or a sense of holding back that may have been expressed by the participant that would not likely appear in the verbatim transcriptions.

**Ensuring Scientific Rigor**

A systematic and iterative process was applied to ensure methodological rigor and support the reliability, credibility, and validity of my analysis. Lincoln & Guba (1985) postulate that trustworthiness in research is key to evaluate the worth of qualitative studies. The four key components to ensure trustworthiness include establishment of **credibility, dependability, transferability, and confirmability**. **Credibility**, which established confidence in my findings, was conducted through application of techniques, described below, such as **prolonged engagement**, **persistent observation, peer debriefing, referential adequacy**, and **triangulation** (Lincoln & Guba, 1985). **Prolonged engagement** consisted of gaining an understanding of the culture, the areas where the participants live, and by establishing trust. I am a US born, bilingual Hispanic of MO, who has lived and worked in the communities where I recruited participants, thus sharing these aspects about myself facilitated in establishing trust. I also remained open to those participants who expressed viewpoints different from my own to learn directly from them. **Persistent observation** involved ensuring that I was keenly aware of the characteristics that were most relevant and the impact they had on descriptions about eating patterns for the participants I interviewed. **Peer debriefing** consisted of sharing my findings with at least one colleague not familiar with my topic, to help me identify any biases and preconceived assumptions that may be inadvertently expressed in the analysis. **Referential adequacy** consisted of saving some of the data for later analysis and analyzing the remaining data to draw conclusions, then returning to the saved data to analyze it. This approach provided a way to test the validity of my initial findings, along with periodic re-examination of my field notes and audit trail. Lastly, **triangulation** involved using varied data collection methods, in addition to individual interviews, such as obtaining heights, weights, BMIs, and demographic data, as well as use of a broad sample by including participants who were from rural, suburban, and urban areas. I also applied a CST
perspective with the SEM framework as a guide to critically examine and interpret the data I analyzed. However, during the interviews, I initially bracketed data that could be categorized as SEM components, such as intrapersonal, interpersonal, institutional, community, and public policy related statements (McLeroy et al., 1988); this allowed me to focus on everything each participant was saying at the time without imposing any preset categorizations. However, I made note of any of these connections in my field notes, as I became aware of them and reflected on them throughout the analysis process.

The other components to ensure trustworthiness consisted of dependability, which demonstrated consistency in the findings and process for future replication. To accomplish this, I kept detailed notes throughout the data collection process and noted any changes that may affect the research process. Transferability was established by applying a ‘thick transcription’ technique, which consisted of a detailed description based on the interviews about the MO women participants’ descriptions about eating patterns (Holloway, 1997; Lincoln & Guba, 1985). My detailed account of interviews used my field notes and audit trail and later expanded the analysis process to include mindfulness to the CST underpinning and SEM framework I selected for my study. Lastly, confirmability was established by integrating reflexive thoughts in my journal throughout the research process. This journaling helped me keep track of decisions and rationale for those decisions and to facilitate reflection upon, and be cognizant of, my possible biases (Lincoln & Guba, 1985). I am a US born bilingual Hispanic woman of MO, who has lived and worked in the communities where I recruited participants. This served to establish trust, but also impacted interpretation. Establishing trust increased recruitment, however, I also had preconceptions as a result of living and working in the communities where recruitment occurred. The journaling aided in identifying any preconceptions I had, because of my similar background and familiarity with the communities, which could have potentially influenced my research. Furthermore, growing up with first-generation MO parents, and the cultural influences they had on my eating patterns, could have also impacted interpretation. However, I avoided possible
embedded preconceptions, perspectives, and beliefs that could impact the interpretation during the research process, because I reflected and reviewed my journaling to ensure my experiences were put to the side. Therefore, reflexive journaling throughout the process as part of the audit trail aided in revealing my own experiences to better make informed and objective decisions about the data throughout the analysis process.

**Data Analyses**

The data analyses consisted of examining the transcribed narratives repeatedly using qualitative software and a step-by-step method of theme development approach (Figure 3, p. 86). Green and Thorogood (2009) recommended a methodological and transparent analysis of the data to ensure rigor. I used a thematic analysis approach to analyze the narratives (Vaismoradi, Turunen, & Bondas, 2013). A thematic analysis approach derives categories from the data through the examination of trends, word patterns, and relationships (Vaismoradi, et al., 2013). This approach lent itself to “both inductive and deductive emphasis on context, integration of manifest and latent contents, drawing thematic map, and nonlinear analysis process” (p.399). A ‘theoretical’ thematic analysis, at a “latent level to identify ‘underlying ideas, assumptions, conceptualizations, and ideologies’, within a constructionist framework, proposed by Braun & Clark (2006), was used to focus on the “socio-cultural context and structural conditions” (p.13).

First, all interviews were confidentially transcribed by a paid, professional, bilingual professional transcriptionist who is also a registered nurse. I checked the completed transcriptions to assure accuracy and ensure any identifying data was removed. Then, I imported the de-identified interviews into NVivo, a qualitative software that facilitates a researcher’s collection, organization, and analysis of data, to assist with the development of robust themes and patterns.

The use of NVivo allowed me the flexibility and extensive ability to electronically move data between thematic codes, insert numbering, search for phrases and key words, color code, and retrieve defined codes. Thus, I had the ability to thoroughly and systematically organize and manage the data from the transcriptions. The step-by-step process used for organization in NVivo
is as follows: (a) create an electronic folder in NVivo; (b) upload de-identified, transcribed interviews to the newly created folder; (c) save documents and password protect them; and (d) enter ongoing comparisons that aided in developing and revisiting my themes and categories as needed to maximize the explanatory power of the analysis.

For the thematic analysis in NVivo, I utilized a step-by-step method of theme development proposed by Vaismoradi, et al. (2016) (Figure 3). The authors proposed four phases of theme development: *initialization*, *construction*, *rectification*, and *finalization* (p. 103). The authors derived the four phases of theme development using the works of numerous authors, including Braun & Clarke (2006), Constas (1992), Denzin and Lincoln (2000), Green and Thorogood (2004), Holloway and Todres (2003), Morse (2008), Polit and Beck (2010), Sandelowski and Barroso (2003), and Sandelowski and Barroso (2007).

**Figure 3. Representation of a Step-By-Step Method of Theme Development**
In the *initialization* phase, I read the transcriptions, used “text search” in NVivo to explore word frequencies, stemmed words, and highlighted meaning units. I also looked for abstractions in participants’ accounts throughout the initialization phase and wrote reflexive notes. Then I created nodes, which represented themes. I initially coded thirty themes. I explored the nodes using cluster analysis by running a group query to explore coding similarities. I organized the meaning units and clustered them according to coding similarity. The results produced cluster analysis diagrams which provided visualization of similarities. I continued to explore and cluster the nodes and further narrowed the nodes to create broader themes (called Parent Nodes) and subthemes (child nodes). At this stage, I narrowed down the nodes to eleven broader themes. I continued to explore cluster analysis and further narrowed nodes to create five broader themes (Parent Nodes) and eleven subthemes (child nodes) (Vaismoradi, et al., 2013).

*Note.* Adapted by the author from Vaismoradi, Jones, Turunen, & Snelgrove (2016). SEM = Social Ecological Model; CST = Critical Social Theory.

The *construction* phase entailed reflecting on the process of organizing the codes and identifying connections and variances relative to my research question. During the construction phase, I engaged in classification, comparison, labeling, translating, transliterating, paraphrasing, defining, and describing to explain how each theme was developed (Vaismoradi et al., 2013).

In *classification*, I reviewed the basic grouping of similarities among the text to unify ideas (Vaismoradi, et al, 2013). I examined the content of the subthemes and further reflected on the connections and variances among them. As a result, I identified connections with some of the subthemes and combined them as major themes.

Next, in *comparison*, I employed an iterative process using my judgment as the researcher and continued analyzing the data by implementing thought provoking abstraction to reveal links in the codes (Vaismoradi et al., 2013). I created a visual diagram of the themes and subthemes and continued to review the diagrams, compared them to the transcriptions, and
further reflected on the themes to look for connections and similarities. As a result, I eventually had seven major themes, fourteen subthemes, four categories, and four sub-categories. Throughout this step and the next step (labeling), I debriefed with two colleagues, a professional MO Hispanic woman and a MO woman who was also a registered nurse.

The purpose of debriefing with two other career women throughout the analysis process was to help identify any biases and assumptions that may have been inadvertently expressed in my analysis. Debriefing with a MO registered nurse and a MO business woman, who was not a nurse, aided in providing two additional viewpoints. The two women who provided debriefing were familiar with me personally and with my topic, because they were both second generation professional MO women who could relate with the women’s descriptions about eating patterns because of their own personal lives and experiences. Because each was either a registered nurse or a business woman, they could also relate to the career orientation of most of the interviewees. As such, their MO backgrounds, generational status, incomes, and educational levels provided the foundation to help me identify my biases and assumptions. For example, my colleagues both identified that I made references about commonalities between the eating patterns of the women in my study and my own eating patterns on two occasions, when we were discussing the transcriptions. This was very constructive as it made me aware of my own biases, as well as ensuring I kept my own experiences in check. Furthermore, my colleagues also provided feedback during the theme development process which aided me in making decisions about themes and sub-themes that connected the women’s descriptions and enabled me to incorporate more comprehensively the explanations that the women had made about their eating patterns.

Next, I initiated the labeling step, which consisted of assigning my meanings to words or phrases with similar codes (Vaismoradi et al., 2013). Since some of the women who I interviewed were bilingual, there were occasions when they interjected words in Spanish. The transcriptionist, who was bilingual, transcribed the words in Spanish. During my review of the transcriptions with the audio recordings, I verified the words transcribed in Spanish, as I am also
bilingual. I then translated and transliterated the Spanish words to English. Primarily, the words spoken in Spanish by the women were names of Mexican foods and words to describe themselves. I then consulted with the transcriptionist for verification. As indicated, both the transcriptionist and I are fluent, bilingual Spanish and English speakers. The last step involved paraphrasing, defining, and describing each theme and sub-theme (Vaismoradi et al., 2013). Each is explained in Chapter 4.

The third, or rectification, phase consisted of both immersion in and distancing from the data, which included relating themes to established knowledge, such as the philosophical underpinning, CST, and theoretical framework, SEM. This also included stabilizing, which aided in identifying descriptions of the themes, subthemes, categories, and sub-categories, including any variations found, and notes about how they related to, or connected, with each other.

During the iterative data analysis of the transcriptions, I intentionally made notes of possible alignments and relationships that I saw between participants’ comments, through the lens of the SEM grounded in CST, to allow me to critically explore their meanings. I documented these connections, as I became aware of them in the later phases of analysis. This documentation, assisted me in finding more patterns among the participants’ data and any links to social, cultural, historical, economic, political, and other forces. Some of the forces I identified in the group of women I interviewed related to social and cultural experiences the women reported. For example, the women continued to live in a bicultural world with both their Mexican and American cultures, which impacted their eating patterns. The insights from my extended field notes were added to the audit trail and the overall analysis that I documented, which allowed for a deeper review and greater clarity in addressing the research question.

The fourth phase, finalization, consisted of developing “the storyline” (p. 107) about the eating patterns of MO women, by making connections, developing the interpretative narrative, and answering the research question. This narrative evolved from the women’s accounts of their descriptions about eating patterns that developed from an analysis of individual interviews and
interconnections among them to classify relationships across the women’s stories, leading to a thematic identification that enabled a heightened understanding of the meanings to address the central research question I had proposed. The storyline, along with the other phases of analysis, enabled me to discuss the interpretations I have made and show relationships and/or distinctions among the data, the analysis, and other relevant literature.

Several ideas from SEM were integrated later in my analysis and interpretation. These included (a) participants’ personal views about eating; (b) social influences on their eating patterns (i.e., family, friends, work); (c) economic influences on their eating patterns (i.e., cost, income); (d) viewpoints about their environments and eating (i.e., where you live, work); and (e) other powerful influences on food selection and consumption (i.e., media and marketing).

**Researcher Biases**

My intent was to provide the most accurate, true, unbiased account, without misrepresentation or distortion of the MO women’s narratives on eating patterns. Therefore, I identified my own personal biases, remained cognizant of them, and reported how they may have been challenged during the research process. This information about my researcher biases is intended to allow others to evaluate the study more fully than if they were not presented.

My biases may include the following preconceived notions about eating patterns that could be influential. First, lower socioeconomic levels are associated with less access to healthy food, while those in higher socioeconomic levels would work longer hours and therefore have less time to prepare healthy foods. Second, living in colder climates may result in higher consumption of foods during northern Midwest winters that contain higher carbohydrates, such as breads and sweets, which may contribute to weight gain. Third, living in predominately Hispanic communities may result in selecting more traditional Mexican foods. Fourth, traditional Hispanic ethnic foods may not be as healthy as possible, given the amount of carbohydrates and fats, unless fresh produce also is readily available and used. Fifth, those who utilize food pantries may not
have access to the healthiest options due to the use of mainly processed foods, with less access to fruits and vegetables which have shorter shelf lives. Sixth, media and marketing have a huge influence on food selection and consumption. And, seventh, Hispanic women are primarily responsible for cooking and preparing meals for their families. In addition to identifying my personal biases, it was also important to acknowledge potential limitations of the study.

**Limitations**

Acknowledging conceivable limitations in my study ensured that I provide an accurate account of my findings and avoided dismissing possible weaknesses. First, results may have been influenced by researcher’s personal biases. However, I was aware of my biases to avoid influencing the results of the study by steering participants in particular directions and instead allowing them to tell their personal views. I also bracketed my biases throughout the course of each interview by maintaining a reflexive journal as a way to enhance and maintain the integrity of the research process. Furthermore, bracketing aided in setting aside my own experiences of being a US born MO Hispanic woman. While these experiences may have added richness and a deeper level of understanding, they could also have influenced my interpretation of the data rather than the descriptions of the women I interviewed. Tufford and Newman (2010) indicate that bracketing provides the researcher a way to aid in maintaining a focus on the research questions while also facilitating cues from the researcher’s own experience to enhance questions leading to more expansive data collection. I also was able to identify any biased reactions in the field notes I made after each interview. Second, recruiting women from parishes with large Hispanic congregations, ethnically focused community centers, and local Hispanic organizations that serve nurses and other professionals in the area resulted in minimal needs for recruitment. The most effective recruitment was snowball sampling, but it may have limited some potential diversity.

**Chapter 3 Summary**
In summary, in Chapter 3 I provided a detailed description of the research design and methods. I outlined a step-by-step account of how I collected the data for my study, with provisions for the protection of human rights and a detailed explanation of the assurance of scientific rigor. Furthermore, I delineated the thorough data analysis procedures I used. Lastly, I discussed my personal biases and provided possible limitations. In Chapter 4, I present my results with respect to the central research question, “What are US MO women’s descriptions about eating patterns?”
Chapter 4
RESULTS

In the previous chapter, I delineated the research design and methods. In Chapter 4, I explained the results from interviews of 15 women who provided descriptions about their eating patterns. The participants generally began their interviews by sharing types of foods they typically ate. Then, their accounts became thoughtful and expressive in their descriptions as they integrated their feelings, thoughts, experiences, influences, and perceptions about their eating patterns. All the women were open, willingly shared their descriptions, and evidenced their thoroughness by indicating when they were done providing their explanations to me.

I organized the data in Chapter 4 beginning with the sample demographics of the participants in my study. This was followed with the details and explanations about the five themes I identified, each with 2-3 sub-themes and illustrative quotations from the women to represent them. The themes are ordered according to those with the most robust findings. This determination was made by considering the total participant remarks within each theme and its subthemes. The themes are ordered from highest to lowest number of women’s remarks. I provided an overview of how I coded the 15 women’s interviews in Table 6. In this table, each woman (de-identified and named in the text with a pseudonym) is represented by a row with Xs in it, after each of the coded themes and sub-theme classifications in the findings appeared as column heads in the first and second rows, respectively. I classified a total of 134 women’s comments, which averaged 9.3 comments per interviewee used to explain my analysis, with a range of 6-12 comments coded per woman. All participants have been well-represented in the quotations I selected as exemplars within the findings.
As shown in Table 6 as column heads, and visually represented in a linear format in Figure 4, are the five themes I developed by analyzing the collective remarks from the women. Within each theme, the women’s coded comments I identified were totaled: (a) Personal Agency, 36 remarks, (b) Relationships with People about Food, 32 remarks, (c) Cultural and Familial Influences, 34 remarks, (d) Environments, 31 remarks, and (e) Time & Money, 30 remarks. 

Table 6. Women’s Coded Remarks according to Classifications

<table>
<thead>
<tr>
<th>Personal Agency</th>
<th>Relationships with People about Food</th>
<th>Cultural &amp; Familial Influences</th>
<th>Environments</th>
<th>Time &amp; Money</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conscientious efforts to make healthier food choices</td>
<td>Responding to eating triggers</td>
<td>Perceived self-images</td>
<td>Early formative years</td>
<td>Major life changes</td>
</tr>
</tbody>
</table>
| x | x | x | x | x | x | x | x | x | x | x | x | x
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| x | x | x | x | x | x | x | x | x | x | x | x | x
| x | x | x | x | x | x | x | x | x | x | x | x | x

Note. Each participant is represented on a separate row and the letter ‘X’ indicates the categorical classifications in which her comments were coded.
Influences, 30 remarks, (d) Environments, 18 remarks and (e) Time and Money, 18 remarks. These representations can assist with tracking while reading this chapter by serving as an overview.
Figure 4. Themes and Sub-Themes

**Themes**

- Personal Agency
  - What the women liked about themselves: conscientious efforts to make healthier food choices
  - What the women did not like about themselves:
    - responding to eating triggers
    - perceived self-images

- Relationships with People about Food
  - Early formative years
  - Major life changes
  - Taught others about healthy eating

- Cultural & Familial Influences
  - Mexican & American influences
  - Health challenges in families

- Environments
  - Work related & work environments
  - Availability & ease of accessing restaurants

- Time & Money
  - Impact of time
  - Impact of money

*Note: Visual representation in a linear format of five themes and eleven subthemes.*
The first major theme, *Personal Agency*, is further explained by two sub-themes: *what the women liked about themselves*: their conscientious efforts to make healthier food choices and *what the women did not like about themselves* that included responding to eating triggers and their perceived self-images. The second major theme, *Relationships with People about Food*, consists of three sub-themes: *early formative years*, *major life changes*, and *taught others about healthy eating*. The third theme, *Cultural and Familial Influences*, consists of two sub-themes: *Mexican and American influences* and *health challenges in families*. The fourth theme, *Environments*, consists of two sub-themes: *work related or work environments* and the *availability and ease of accessing restaurants*. Lastly, the fifth theme is *Time and Money*, consisting of two sub-themes: *impact of money* and *impact of time*. Descriptions of the themes and sub-themes are provided with exemplar quotes from each of the women who participated in my study that I selected as representative of the concepts. Furthermore, the women are given pseudonyms to maintain the women’s confidentiality.

Within Chapter 4, I presented the demographic data of the fifteen women in my study. From their interviews, I also described the five major themes I identified, along with the eleven sub-themes that reflected the descriptions the women provided about their eating patterns.

**Sample Demographics**

The demographic information of the women who participated in the study are described according to 4 major topics. Those are: (a) age, generational status, and primary language spoken; (b) education, income, and hours worked per week; (c) living location and number living in household; and (d) BMI. These data are all summarized in Table 5.
Table 5. *Sample Demographics*

<table>
<thead>
<tr>
<th>Demographic Characteristic</th>
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<tr>
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<td>18-24</td>
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<tr>
<td>25-34</td>
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<td>55-64</td>
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</tr>
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<td>3\textsuperscript{rd}</td>
<td>2 (13)</td>
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<td>4\textsuperscript{th}</td>
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</tr>
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<tr>
<td>Part-time\textsuperscript{c}</td>
<td>6 (40)</td>
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<tr>
<td><strong>Location</strong></td>
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<tr>
<td>Suburban</td>
<td>4 (27)</td>
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<td>Rural</td>
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<tr>
<td><strong>Number living in household\textsuperscript{a}</strong></td>
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<tr>
<td>6</td>
<td>1 ( 6)</td>
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<td><strong>Body Mass Index (BMI)</strong></td>
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<tr>
<td>25-29.9 (overweight)</td>
<td>4 (27)</td>
</tr>
<tr>
<td>&gt;30 (obese)</td>
<td>7 (46)</td>
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</table>

*Note.* \textsuperscript{a}Rounding error in category. \textsuperscript{b}Full-time 35 or more hours/week. \textsuperscript{c}Part-time less than 35 hours/week.
Age, Generational Status, and Primary Language Spoken

The age of the women in my study ranged from 18 to 64 years. Two-thirds of the women were second generation and the rest were third or fourth generation US born MO women. Over one-half (60%) of the women spoke only English, while the remaining participants were bilingual.

Education, Income, and Hours Worked per Week

Overall, the women were well educated. All indicated they were high school graduates or had the equivalent and, beyond that, the remainder had varying amounts of college, up to 20% who held master’s degrees. The majority of annual incomes reported were above the federal poverty level, even when considering the number living in the household (USDHHS, 2017). The majority 8 (53%) reported annual incomes between $50,000 and $150,000, and 6 (40%) reported annual income ranging from $25,000-$49,000. Only 1 (6%) had an annual income less than $25,000 while in college, which would have been close to the federal poverty level, although she reported only her own income while she was living with her family, who also provided her with resource support. All of the women reported working outside the home. Over one-half of the women worked full-time (35 hours per week or more) and the remainder worked part-time. (See Table 5).

Location and Number in Household

As shown in Table 5, two-thirds (67%) of the participants lived in urban areas, with only one woman in a rural community and the rest in the suburbs. The total number living with the participants in their households ranged from 1 to 6 persons, with a mean of 3.4 per interviewee’s living situation.

Body Mass Index

Body Mass Index (BMI) is an indicator of total body fat and is a commonly used measure calculated by dividing one’s weight in kilograms (kg) by the person’s height in meters squared (m$^2$) (CDC, 2015a; USDHHS & USDA, 2010). Normal weight is defined as <25.0. The
overweight category is defined as having a BMI of 25-29.9 for adults and obesity means the BMI is ≥30 (CDC, 2012). In my study, approximately one-fourth of the women were in the normal range, about another one-fourth of the women had BMIs considered overweight, and just under one-half (46%) were in the obese category. This means that, overall, nearly three-fourths of the study participants were above the normal range, consistent with higher BMIs rates reported among Latinas.

In summary, demographics, including BMIs, for the women in my study were explained. Next, I provided detailed explanations of the themes and sub-themes I developed and included exemplar quotes from each of the women who participated in my study.

**Theme 1: Personal Agency**

The first major theme, *Personal Agency*, focuses on the women’s descriptions of factors that contributed to their eating patterns on an intrapersonal level. Their descriptions consisted of comments that reflected a sense of ownership for their eating patterns. They were aware of the factors that impacted their eating patterns and acknowledged responsibility and belief in having the capacity to be in control of their eating patterns. However, they also verbalized their personal challenges with consistently maintaining this sense of control.

During their interviews, the women described their ability to make decisions about their eating patterns. They shared the emotions, motivations, and challenges that played a role in their decision making. Thus, I identified two sub-themes: (a) what the women liked about themselves; conscientious efforts to make healthier food choices and (b) what the women did not like about themselves; responding to eating triggers and perceived self-images. Examples of the women’s statements that supported the two sub-themes are included.

**Sub-Theme 1: What the Women Liked about Themselves**
I named the first sub-theme in *Personal Agency, what the women liked about themselves.*

This included the women’s descriptions about knowledge they had gained about nutrition when selecting foods, mindful efforts they made to choose and prepare healthier food options, and descriptions of various resources they accessed to educate themselves about healthy eating. Their descriptions of *conscientious efforts to make healthier food choices* included an increased awareness of the quality of food they purchased. They discussed how their educational backgrounds influenced their knowledge and helped them gain a greater understanding about food, the environments where the food they purchased was grown, and the care that went into preparing their foods. They described the intentional efforts they made to choose healthier options when they were preparing meals and exploring healthier food choices.

Fourteen women described *conscientious efforts to make healthier food choices.* Following are seven exemplars about the women’s increased knowledge about nutrition, organic foods, and processed food descriptions from Sofia, Anna, Carmen, Isabel, Delia, Elena, and Petra.

Sofia reported how obtaining a degree in nutrition helped her increase her knowledge about eating healthier. She referred to food by using terms, such as “nutrients” and “macronutrients”:

> I try to have macronutrients, I try to have some protein, a little bit of healthy fat, and some whole grains…. I find that if I don't have fruit, I crave other sugars and things. I feel like a lot of it is education and knowledge… that there's always new things in learning…I also don't agree with how the FDA regulates our food. I was able to obtain an education and I also have a husband in the [health] field; this allows me to be even more knowledgeable about other aspects of health and wellness…I think it's even impacted the friendships I have, like being friends with people who value health and wellness and have that education background. I do understand how it can be difficult and I feel fortunate that I was able to get an education.

Sofia also explained how she made it a point to ensure her meals were nutritionally balanced.

Anna talked about how being in college increased her knowledge about nutrition through her course work:

> In college… I'm in a nutrition course… and so [I learn] because of some of the things we talk about or some of the things I read… like when I eat lunch today, because I'm done
with classes, so I won't be in a rush, I'll take the time to grab a salad instead or grab an apple and take the time to cut it up at home. But I am trying to change things [that I eat].

Anna applied what she learned in her class to make changes in her eating habits.

Carmen talked about her decision to replace processed foods with organic. She expressed concerns with the cost of organic foods and talked about how she made decisions regarding which foods she thought were better to replace with organic options:

I went back to getting [organic] eggs…the other ones are maybe $2 cheaper, but then again, in my mind, what I saw was the chickens in their coups, being pumped with who knows what…it just makes me sick to think these animals are in these cages and their eggs are dropping constantly. I try to get organic ground beef. Before I would be "oh we can't," but I mean what am I putting my money into. Things that are important. Health is important, so I have to sometimes say, “Fine, I'll pay the extra $3.00.”

Carmen indicated her judgment that her health and her family’s health were well worth the added cost.

Isabel was concerned about nitrates and processed foods. She was careful to select deli meat and hot dogs that did not have nitrates:

I buy organic when I can. If we have hot dogs, I like to go the organic route with those because I know there can be nitrates. I try to stay away from the processed foods, like even the deli meats, like if we do ham or turkey, I try to get the organic kind of the non-GMO products, things like that.

Delia also expressed strong feelings about eating healthy and made it a point not to purchase processed foods:

I feel strongly about water, non-processed food, and being independent. One of my favorite dishes is green mole [a traditional chicken dish]. I kind of tweaked it, instead of using iceberg lettuce, I'll use half spinach or all spinach with romaine and it is just green pepper, jalapenos, nuts, and seeds and it's all good stuff, and that’s the kind of stuff that I would like to make if I take the time to do it and everybody likes it. That's my ideal. And it tastes good, it's delicious, and it's healthy.

Both Isabel and Delia worked to avoid processed foods.

Elena described her thoughtful planning in relation to the beverages she consumed, times she ate, and the types of foods she selected:

Thinking of my health…I have been trying to adjust adding more water to my diet…[and] not necessarily stop eating one particular thing or another, but just portioning it,
trying to watch the times of the day that I eat. I tried to stop eating by 6:00 or 7:00 at night… I like to eat, I try not to deprive myself from anything, but more so the portions and the balancing it off with water… my goal is just to portion more so and watch the times of it… I go to work out…then when I come home from [exercising], I usually try to take in some protein. I have either a chicken breast or hard-boiled eggs, or a bag of nuts… So that's two days out of the week. The other three days I might grab something… like Greek yogurt with walnuts or berries.

Elena included many details about her eating patterns.

Similarly, Petra described the many changes she made to her diet:

I would just eat whatever I wanted I didn't care, but now I make choices. …And then one day, my friend, she goes to [weight management program] asked me to come with her. So I went and I did it for like 5 years and I dropped a lot of weight. So that's when I started becoming healthy… I've been working out a lot, so that kind of goes with healthy eating because why should I work out and not eat good, so it kind of counter balances itself. Because everybody says it's a diet, it's not a diet. It's a life change, and I don't go on [weight management program] anymore, but I keep those habits with me, and they're healthy habits. You have to figure out what you want to eat and you don't want to eat too much, and if you're going to eat something really, like ice cream and candy and all that, well then you have to lighten up on what you're going to eat for dinner or lunch. If I'm going to eat all this junk, well then dinner, I get a salad or fish.

Petra’s involvement in a weight management program resulted in her making life changes in her habits.

Related to the sub-theme, conscientious efforts to make healthier food choices in the Personal Agency theme, five women provided specific descriptions about how they searched websites for healthy food recipes: Carmen, Teresa, Isabel, Delia, and Petra. The women talked about healthier options when they were preparing meals and exploring healthier food choices using online sources such as Pinterest, which is an online social network that provides a venue for sharing a multitude of ideas, recipes, crafts, images, instructional videos, and other items. Following are exemplar descriptions of the use of Pinterest from four of the women’s descriptions.

The first account is from Carmen, who earlier talked about her decision to replace processed foods with organic, and who shared her sorting system for different categories of foods on Pinterest:
My whole Pinterest is food oriented, and so I have the vegetarian meals, I have gluten free meals, I have meaty meals, and everything is still incredibly healthy, increased consumption of fresh fruits and vegetables, and less consumption of processed foods.

Teresa also, acknowledged her use of Pinterest and her efforts to supplement healthier food selections:

I go on Pinterest and I look up recipes and I try to look up easy stuff. I do like zucchini. I've tried to make a zucchini lasagna and that was okay or zucchini with turkey, you know, I try to do new things.

Isabel, was the same one who was concerned about the nitrates in processed foods. She provided a detailed explanation on the process of preparing garbanzo bean burgers that she had found on Pinterest:

I was on Pinterest and I searched garbanzo bean burgers… made with cannellini, white beans, and a baked sweet potato… I put in flax seed…with just the full fat yogurt from [health food store]. It tastes just like sour cream, but it's not, and its protein.

Delia, who earlier expressed strong feelings about eating healthy, also shared her interest in using online sources to learn new recipes.

I'm always looking on Pinterest or finding recipes because I always like to learn new ways to make things and it's a trial and error process…I’m always looking for stuff like [healthy] tacos.

The women’s use of online sources for expanding their nutritional horizons was clear.

Petra had reported on her dieting journey. She talked about starting a plan recommended by her friend and her experience with losing weight. She shared the challenges she had and her perspective about the diet plan:

I bring my lunch to work. Sometimes I make dinner. Sometimes I bring frozen entrees, but healthy ones, and I bring fruits and vegetables and I drink lots of water. I don't drink any soda during the week at work, I don't because that’s [how and] where I lost most of my weight was from [giving up] soda. I drank soda at work all the time and then when I went to [weight management program], they said you’re going to lose half your weight when you stop drinking soda because all that sugar turns to fat... I drink water and I put [artificial sugar drink] flavoring in it or I drink iced tea.

Petra detailed her many changes made to improve and maintain her health.
Overall, the women made conscientious efforts to make healthier food choices. Their preference for organic foods was evident, and they were knowledgeable in identifying resources that provided healthy food options. They frequently explained making healthier choices and/or actively sought additional information about the foods they were eating. The women also continued to prepare Mexican foods, however, they searched for healthier alternatives when preparing these foods, as well as being aware of portion sizes. They also broadened their palates by trying foods from other cultures and increased their intake of vegetables.

**Sub-Theme 2. What the Women Did Not Like about Themselves**

In contrast, the second sub-theme within the major theme, *Personal Agency*, consisted of what the women did not like about themselves. This sub-theme included experiences about two aspects of women’s descriptions: responding to eating triggers and perceived self-images that were evident as I analyzed what they said about their eating patterns. The women shared how, at times, they rationalized to eat less healthy food options, experienced a lack of self-control to resist food temptations, had difficulties adhering to their diet plans, and turned to food to cope with stress, depression, boredom, anxiety, and loneliness. A total of 12 (80%) women described what they did not like about themselves. Examples of statements from the women are included to support the two aspects in the sub-theme, what the women did not like about themselves.

Ten women reported on the aspect, responding to eating triggers, despite their awareness of the potential consequences of not always choosing healthier options. Following are exemplary accounts by Feliz, Nina, and Carmen.

Feliz reported her preference for deep fried foods and provided her rationale for continuing to eat them:

> I can honestly say that I try not to eat deep fried foods anymore, but I'm not going to lie, I love my deep-fried chicken… it's not, greasy, but it's deep fried. I'm not going to start eating stuff that I don't like because that defeats the purpose. My dad used to say before he died…, "I'm 77 years old and when I die, I'm going to die happy, doing what I want," and that's how basically I live my life too.
Feliz echoed her father’s philosophy about doing what a person wants to be happy.

Nina, reported how she rewarded herself for exercising and admitted to not always eating healthy because “it was part of life”:

I'm aware of my excuses or compensating. Because I exercise, I can have this extra treat, which I shouldn't,... It defeats the whole purpose, but I still do it anyway. And shopping, I try not to, like they say, “don't go when you're hungry” because it does affect what I purchase. And then again, I try to fill my cart with more of the fruits and vegetables than I do anything else. I think I do pretty good with that, but I don't always eat them. Carrots are one, I love carrots, but...I don't eat them. I like spinach salads, I don't always eat it. I buy it with good intention of eating it... Sometimes I get mad at myself because I don't have as much self-control as I wished I did. I'll say, well I'm going to start my diet today or stop eating this and be on the wagon for so long, and then you fall off. That's a constant pattern for me. I do get angry with myself.

Nina reported her displeasure with herself for making excuses for her decisions that she characterized as not being consistently healthy.

Carmen, who earlier talked about her decision to replace processed foods with organic, reported being upset with herself at the thought of having such a lack of self-control. During our interview, she made angry facial gestures and pointed her index finger upward as though she was scolding:

I scolded my husband for bringing Doritos up. I'm like, “no get that out of here! If you're going to do it, you eat it downstairs in the basement where I don't see it.” He was like, “you don't have the will power?” “I don't. I'm telling you right now and I will admit and I'm not proud, but yes, I don't have the will power!” As long as I don't keep anything here in the house that's dangerous, I'm safe and I'm okay.

Carmen decried her lack of will power.

Overall, Feliz, Nina, and Carmen shared various reasons for not changing their eating patterns. They continued to eat the foods they liked but that were not likely to be as healthy for them as other choices they could have made.

Another aspect identified within the second sub-theme, what the women did not like about themselves, related to the women’s perceived self-images. For some women, food was used
as a coping mechanism when they were stressed, depressed, bored, anxious, or lonely. Following are four exemplary descriptions from Maria, Sofia, Nina, and, Olga.

Maria, reported about her experience with her mother’s death. She became tearful during our interview as she talked about how her mother’s death and how that impacted her eating patterns. In her account, she reflected on the emotional struggle she had coping with her mother’s death, which in turn brought up memories about her own divorce:

My mother passed away in November, so since then, my eating pattern has gotten bad because of her loss. I became very emotional, very depressed about it, so I was just eating for comfort. And that helped. I'm okay with her, that she's gone, but now I'm just now trying to watch what I'm eating because now I'm depressed because I put on weight. I love to eat, I enjoy eating, but putting on weight is not good. Not healthy, you know.

Maria explained how she would eat to comfort herself.

Sofia, who battled an eating disorder, reported on the depression she experienced when she was younger, the negative emotions food provoked, and the struggle with adjusting to her body changes during her current postpartum period. After our interview, when I asked to take her height and weight, she requested to be weighed with her back facing the scale to prevent her from seeing how much she weighed:

The majority of my life… from adolescence on, is anxiety-provoking. It's kind of a mix between when I'm going through depression and it's kind of like my control. Foods, always usually a negative emotion for me. I don't emotionally eat, it just provokes from in the past now dealing with the eating disorder, it's just harder, and you know right now being postpartum, it's kind of hard because it's the triggering of the changes in my body, it's always like a fight of knowing I need to eat because I'm also breast feeding, so I should have nutrients. I mean now just trying to find that balance of not feeling too guilty about when I eat or what I eat …. I don't even know how or why I developed that obsession with food because I don’t feel like my parents ever put emphasis on body image or strict dieting. I realize that I might have to wait to lose some of that extra weight or just wait until she's [baby] a little bit bigger and I'm more comfortable leaving her, so that I can do more exercise, but right now my eating patterns are mostly influenced by the fact that I'm nursing her and I know I need to have energy for her. I know she needs nutrients from me.

Sofia was committed to breastfeeding her daughter and stated she was working to provide her baby with nutrients, which allowed her to delay her own weight loss for a time.
Nina reported on how multiple emotions triggered her eating patterns:

I know I eat when I'm stressed or I'm bored, more so bored than stressed. I found with menopause, it's just crazy, I don't like it. I find I have different cravings. Again, I'm bored, I use it as a fill in, not knowing what to do with myself, so I'll eat out of boredom or just to do something.

Nina was dealing with menopausal changes in her eating patterns.

Olga reported how multiple emotions triggered her eating patterns and shared how she went through her kitchen cabinets in search for food to eat and made special trips to the store to purchase food during times of stress and depression:

Probably about two years ago, I know I tried to get in the motivation of losing weight because I know obesity is very bad and once you get older it gets harder to lose weight. And I'm trying, but it's just like the depression, the anxiety, the stress, and everything just bottles up and I just don't get motivated. Then I just eat to cover all that up, so that's a big problem. I noticed it's gotten worse. Before it was months between where I would either get depressed or get stressed about something. But now I've noticed it's like every other day or every day…I just get depressed, and then I'll just start finding stuff to eat or I'm just at home, and my mind will start going, and I'll just be in the refrigerator [and] the cabinets looking for stuff. And if there's nothing, I'm seriously driving somewhere to go find something, and I know that's wrong, and I know that's where I've gained a lot of my weight is because the way I've been eating… Instead of turning to something healthy like a carrot, I turn to candy instead or junk food. I think all my stress is over finances because it's me worried about everything.

Olga attributed her reported stress and depression to financial concerns and worries, which resulted in making less healthy food choices for herself.

The other aspect of the second sub-theme, what the women did not like about themselves, in the theme, Personal Agency, was often expressed as strong emotions about the women’s self-images. Their emotions were connected to their perceptions of their own physical appearance. Twelve women (80%) reported on their views about their own self-images, including being overweight or obese related to their eating patterns and criticisms they had received from others. Following are exemplar descriptions about the women’s perceived self-images.

Nina, Carmen, and Feliz shared their frustrations with their weight and eating patterns. Their reflections included comments their families made about their weight.
Nina reflected how her family called her overweight-related names as a child following is her account:

I'm not happy with it [weight gain], so I'm trying to change. I've been called panzona [fat] and gordita [chubby girl] and you know pinching my cheeks because I have a round face, and I've never cared for that…I just had to accept it, and so I never did that to my children.

Nina commented on her dislike, but acceptance, of the name-calling she received from her family, although she would not repeat the same with her own children.

Carmen, who earlier talked about her decision to replace processed foods with organics, compared her weight and eating patterns when she was younger to her current weight and eating patterns. She blamed herself for the weight gain and attributed this to the absence of being blessed with another child by God. Following is her reflection:

When I was younger, my metabolism was wonderful. I could eat and eat, and never gain anything. But after having my kids, I was all the way up to 202 pounds and I looked at myself in a picture of my husband's birthday party, and I said, "who is that fat girl, oh my goodness that's me." It was a huge wakeup call and a reality check…. So, the scale can say whatever it wants, I'm over it already, a little relieved. Not relieved; I didn't want gestational diabetes, but I needed something to wake me up and slap me and be like “[her own Name], okay, you're not going to listen to yourself or life, then I'm going to give you diabetes so that you do listen to making healthy and right choices.” I was upset that it happened, but I was grateful that I had something to kind of slap me and wake me up. I wanted to get pregnant, and I was like, "God's not going to bless a fat girl to get pregnant," I have to lose weight. Sure enough…, I think it was like maybe 3 weeks later, I got pregnant. I had to drop all those pounds. I had to make a safe environment within me for a child. So that was just a huge wakeup call and you feel shameful when you go outside. I don't like having to get ready for church on Sunday and pulled out three dresses, and I can't wear that one because I'm too big and you know, that doesn't feel good, and again, people at church would be like, "oh [Name] you look so great," I said, well, and I always tell on myself, especially to the ladies so they're all my friends, but I'm like, "once the girdle comes off then I will be successful, but until the girdle is on, thank you for your compliments, but it's all in the girdle."

Carmen voiced both self-condemnation and a sense of gratefulness for being diagnosed with gestational diabetes in a subsequent pregnancy to cause her to make healthier food choices.

Feliz, who reported her preference for deep fried foods, talked about her experience with depression after realizing the amount of weight she gained after pregnancy and increasing the
amount of food she was eating. As we sat in her living room talking, she looked around the room and pointed to all the mirrors she had hanging. She purposefully hung the mirrors so all she could see was her face.

I think I was 130 pounds, but then shortly after I got married and got pregnant is when I started to notice a lot of the weight gain. And then I lost my first child back in 1988, and so when I became pregnant again in 1989, I was bedridden after my third month…. so I ate a lot then because there was nothing to do but eat. I guess in my mind I didn't notice I was gaining weight back then because I was still married, and I guess you just don't think about it. I would just eat all the time, but then I remember my husband saying, “you're starting to gain weight” and you just shrug it off, it's like “shut up”, you know. And you don't think about it, but then I realized I don't look at mirrors to see myself because I'm not one of those that look in the mirror to really notice. I think I was trying clothes on, and nothing was fitting, and I got so depressed, really depressed because I was looking at the mirror and seeing how much weight I had gained and by that time to me it was too late to really do anything about it. My train of thought was, “I'm not trying to impress anybody, so who cares. Yeah, I can say I'm not a healthy eater like most people and it's because I don't focus on food. How do I put it, back in the days, when I started to have trouble with my marriage? I guess I did eat because I was depressed; not so much depressed as my husband would you know verbally abuse me and knock me down. I used to be a very self-confident woman back in the day, a strong woman, and then after being with this man for so many years, you know how they just start to knock you down, piece by piece, before you know it… I didn't care how I looked because to him, who would want me anyway, so you don't think about it. I wasn't thinking about it, so I would just eat, and then before you know it, it's too late….I have these mirrors here, but I don't really look at them because I don’t want to see what's on the other side. Because as you can see they're [mirrors] higher so I can't see my stomach, just the face. I can see that, I don't like to see in the mirror. I guess I do need a reality check. I should get a long mirror to make it more reality for me on where it's going [food and weight] and where I'm at.

Feliz provided a detailed description that reflected her sense of hopelessness and diminishing self-confidence and self-esteem as she endured years if verbal abuse and a troubled marriage.

Also related to perceived self-images in the sub-theme, what the women did not like about themselves, four women, Anna, Sofia, Feliz, and Juana, reported depriving themselves of food or going on various diets because they were concerned about the way they looked and were gaining weight. They talked about how they skipped meals, avoided certain foods, completely restricted their eating by eliminating specific foods, or followed particular diets.

Anna reflected about her experiences in middle school and how she deprived herself of eating because of her desire to “look a certain way”: 
In middle school was when I first had my first nutrition class in health class. So, all the girls were getting boyfriends. And I wasn't allowed to date, and I never had guys' attention, but I was like, that looks really nice...they look really happy...I wonder what that feels like. I always thought that if I had the right body or if my hair was pretty or something like that, that maybe a guy would talk to me. Obviously, it never worked, but, well not obviously, sorry, I have a boyfriend now so it's okay, but, at the time, I know, looking back, I know that was a really an unhealthy state of mind. and a lot of times my friends, were really comforting too. They were like, "[Name], yeah we have boyfriends, but that doesn't mean that you're any less of person, you're going to find someone someday," and they always encouraged me in that way, and you know, we would have sleepovers sometimes, and they would pull out chips and brownies and stuff. I would try to avoid it some nights, and my friends and my friend's mom, she would be like, "[Name] haven't seen you eat, are you okay?" "I'm just not hungry," I would make excuses, but then my friend confronted me and she's said, "[Name] what's wrong," and I'm like, "I'm just not hungry." I built up a wall because I think internally I knew what I was doing was wrong, but I was trying to justify it with the fact that I wanted, I felt like I needed to look a certain way to get in what I thought I wanted.

Anna explained her motivation as a middle school student to avoid eating was to look appealing to boys.

Sofia disclosed her battle with an eating disorder in her youth and the ongoing awareness of this as an adult to maintain a healthy balance with her own eating patterns. She talked about breastfeeding her infant and was concerned about ensuring she had adequate nutrients. However, her body language and comments reflected a heightened self-consciousness about her weight.

Sofia also was quoted earlier about having an increased knowledge of nutrition which she attributed to her educational background and had asked to face away from the scale, so she would not see her weight when I weighed her:

I went through a period when I know I was really little. I was picky but eventually became non-picky and then actually from probably sixth grade until the eleventh I developed an eating disorder and developed anorexia, so my eating patterns during that time were very restrictive, only fruit and vegetables, no grains, no meats, extensive exercising. I mean after treatment I would always become more normal and you know not obsessing, that's why I personally don't like knowing my weight and things like that because it's like a trigger for me and I prefer to just not go back there... Right now, my eating patterns are mostly influenced by the fact that I'm nursing [my baby] and I know I need to have energy for her. I still can't figure out what really like made me have all those ideas of food and body image because, again, in all honesty my parents never gave me a hard time. And I was never an overweight child either. I was healthy, average, you know. I think sometimes it was hard because I am so short, so you see taller and slender,
and I always felt shorter and in a way stockier just because of the way weight looks... I just think it's hard for anybody to try and find sometimes that balance of I want to be healthy, I want to be fit, but I don't want to fuel into developing an eating disorder.

Sofia expressed her inability to identify factors that had resulted in anorexia during her middle and high school years that contributed to her altered body image.

Feliz, who reported her preference for deep fried foods earlier, also reported an experience she had in a nutrition program. She expressed the challenges she faced and what she would have preferred to learn in the program to help her gain a better understanding about food to make informed food choices:

When I was working at [place of employment], being on the borderline [diabetic], I qualified for a program about eating habits and how to eat…. they were talking about the calories and the counts, and read your labels, I can't do that because I don't understand that, so even though I was taking this class and they were telling me what to watch for, to read your labels more, if I don't understand that label, it did me no good. So I didn't really come out of the class feeling that I learned much, but I did learn what certain foods do for you, what you should be eating, even a little bit better or that are better for you… I would prefer a class that actually taught you about the labels, you know what that all means instead of just going there and saying read your labels. If you don't know what they mean, what good is it? I like seasonings in my food and I don't like to eat bland foods and to me a lot of that was bland foods, and so I also notice I use a lot of salt in my meals just because, but to me, the way I see it is if I have a lot of salt, then I'll have to eat sweets to even it out.

Feliz expressed her need to understand what food labels meant, but did not learn that in the nutrition program she attended.

Juana, provided detailed descriptions about the foods she ate during her diets to lose weight. During our interview, she continued to express how difficult it was to maintain a healthy diet. She shared her concerns with her slowing metabolism and wanting to make dietary changes, to avoid gaining weight. Juana also talked about starting a detox diet which she indicated strict diet which consisted primarily of teas, smoothies, and fruit

When I did the detox… it was 16 days and basically what it was that you would drink this tea every morning with your breakfast. Your breakfast was a smoothie or things that had a lot of fruit in them or a lot of protein, and you would have another cup of tea after dinner. And it sort of was a fat burning tea. They have a strict meal plan, where it told you what to eat for breakfast, lunch and dinner... I really wanted to commit to it, so I was
baking chicken, I was baking vegetables, steaming them. I would kind of prep my meals. I would go out on the weekend to eat, I would try to order a salad instead of ordering anything on the menu. I did really try with that. I did see some results, but not the ones that I wanted. Since I do have a hard time kind of losing weight, I have been trying to find alternatives as to why I don’t see the results that I want, so I’ve recently started to buy organic food to see if that helps a little to see what works and what doesn’t.

Juana did not experience success with the detox diet, so she was exploring alternatives that would work for her to lose weight.

Additionally, one of the questions I asked on the demographic information form was “Please write in briefly how you would describe your body.” The answers received were related to the aspect of perceived self-images that was part of the sub-theme, what the women did not like about themselves within the theme, Personal Agency. Six of the 15 women simply wrote in “obese”. Following are three more descriptive quotes made by participants in response to the question noted above: “I would say on the outside others say I’m skinny, but sometimes I second guess that;” “Obese is how I would see myself, sad but true;” and “Overweight and not happy with my body.” The women’s written comments were brief, but they expressed their views about their body images. The women’s self-perceptions about their weight were overall accurate, according to the CDC (2012) definitions. Normal range is defined as an adult with a BMI < 25, overweight as having a BMI of 25-29.9, and obese if the BMI is ≥30 (CDC, 2012). In my study, approximately one-fourth of the women were in the normal range, about another one-fourth of the women had BMIs considered overweight, and just under one-half (46%) were in the obese category. Overall, nearly three-fourths of the study participants were above the normal BMI range, consistent with their self-expressions and the higher than average BMIs rates reported among Latinas.

In summary, I encompassed the major theme, Personal Agency, within the two sub-themes, according to what the women liked and what they did not like about themselves. The women’s descriptions were rich with emotions, motivations, challenges, and awareness of the factors that reflected their eating patterns. As such, the Personal Agency theme clearly described
women’s experiences in detail with much complexity on a personal level. This theme included the sub-themes and the embedded aspects, from liking their conscientious efforts to make healthier food choices to not liking responding to eating triggers or their perceived self-images.

**Theme 2: Relationships with People about Food**

The second major theme, *Relationships with People about Food*, consisted of relational experiences the women had with others and the impact these relationships had on their own eating patterns. I identified three sub-themes that I developed by analyzing the women’s descriptions: *early formative years; major life changes, and taught others about healthy eating.* The women shared memories of major events in their lives when they were younger, primary figures and life events that significantly influenced their eating patterns, and compromises they made with their own eating patterns to ensure their families ate healthier. Examples of statements made by the women are included to support the three sub-themes within Theme 2, *Relationships with People about Food.*

**Sub-Theme 1: Early Formative Years**

The sub-theme, *early formative years*, captures the women’s descriptions of people who made significant and lasting impacts on their eating patterns in their childhood and adolescent years. All 15 women talked about people in their lives who influenced their eating patterns. The women primarily reported learning their eating patterns at young ages. They also explained that they adjusted some of these patterns as they learned about healthy eating as adults. Overwhelmingly, the women indicated their mothers had the major impact on their eating patterns during their formative years. Following are exemplary descriptions from Isabel, Ramona, Maria, Lola, and Juana.

Isabel, the same woman who was described earlier as being concerned about nitrates, described her memories about the impact her mother had during her childhood, adolescence and college year:
I would have to say my eating patterns were completely and 100% influenced by my mother, and my mom was one of those “granola girls” before it was cool, with the hand full of vitamins and making sure you've got your greens and your dark greens. Even though she was raised with traditional Mexican food, with the pig’s feet and the lard, somewhere along the way, I don't know where, by the time I was growing up and in grade school, I was taking vitamin D and primrose oil. I'm not kidding, handfuls. Every Sunday, we would make vitamin packets in chunks of tinfoil, and every morning we took our tinfoil with a green shake that tasted terrible. I make them very good now… That's what I mean; she was “granola” before it was cool.

Isabel learned from her “granola girl” mother about multi-vitamins and healthy foods.

Ramona, who was quoted as using Pinterest to search for healthy recipes, reported on her mother’s cooking and the use of few vegetables by her mother when preparing meals:

I think growing up I don't ever remember my mom teaching us to eat vegetables. Honestly, in the Mexican foods that she made was really nothing that I can think of that came with vegetables. There were things like guacamole, which had hidden vegetables, and you wouldn't know. Probably the thing that had the most vegetables was pico de gallo [Mexican salsa], but other than that were tamales she made and tacos that would consist of a lot of oil. Now, my mom eats a bowl of vegetables every day. She never misses a day and she'll eat very little Mexican food, but I feel like the reason why my siblings and I don't make a better effort at eating healthier is because we were never taught that as children.

After reporting on the limited number of vegetables her mother introduced her to as a child, Ramona considered her mother responsible for her own unhealthy eating patterns as an adult.

Maria, who was mentioned earlier as becoming tearful when she talked about the memories she had of her mother’s death, also reported she had similar habits to her mother:

My mother was a salt-oholic…[similarly] I used to put salt in my mouth before I put salt in my food; that's how bad salt was for me. And I didn't realize that until I was out on a dinner date and I'm putting salt in my mouth. And the guy asks, “What are you doing?” And like, oh gosh, did I really do that? I got embarrassed. I've cut down on that.

Maria then shared other memories about her younger years and the impact her mother had on her eating patterns:

I'd go to my mom's house, and she [would say], “Oh miña [my daughter], I got you some chocolate candy.” “[But] Mom, you tell me not to eat so much,” or I'd go over to her house and she [would say], “Oh miña [my daughter], you need to watch yourself because you're eating too much,” and I’d say “but I can't finish my plate” [and she would say] “Here have some more. You know, you don't want to tell your mom no”... I used to live
upstairs from her house and I would try to sleep in, and as soon as you smelled the beans or whatever, tortillas… I'm awake and that was kind of my alarm clock… Good memories, I miss my mommy. A good woman, she taught me a lot, you know…She was like, “Mija [my daughter], always take care of yourself, take care of people, don't be sad for me”… She was very Christ-like too. You know, “always bless your food, be thankful for what you have in front of you.”

About eating, Maria reported inconsistent messages from her mother, but also identified learning to be thankful for what she had.

Lola shared her awareness of the importance of eating a healthy diet because of the knowledge she learned as a health professional. However, as a child she learned from her mother to use more boxed meals, pizza, macaroni and cheese, and sandwiches, because of the ease and convenience to prepare:

Even though I know if I could just change the foods that I'm eating to be healthier and increase my fluid intake, I think also with my [health professional] background, which my mom didn't have, I know that I would have less weight and be healthier, but it's almost easier for me to think of exercise and diet like my mom did when I was younger, to lose weight, even though I think it's not the healthier option, it seems like the easier option.

As an adult, Lola reported reverting to making easy, convenient, packaged foods that she had as a child, rather than the healthier options she knew about as a health professional.

Juana, who had tried a detox diet, provided a generational perspective and equated food to relationship supports. She explained how food for her is a more reliable support mechanism than people:

Food is very much like a support which I feel that this generation especially tries to kind of make an excuse to eat badly even though we know that we shouldn't, so I think that happens a lot more in this generation than in older ones. I think using the food as support is more psychological because I’ve seen it more with people who feel like they're lonely, like they kind of resort to food because I think it's something they can control, so they rely on it because you know you can't really rely on a person like that. I don't know how to explain it; like having a boyfriend or having a girlfriend, you kind of have this sort of trust, but if you don't have anybody, you just don't have anybody, so I feel like a lot of people in my generation try to use food as that support. I feel like that happens a lot… I’ve definitely done that for sure. Like I'll have a really, really bad day, and I'll feel like I deserve something, that's going to make me happy. I'll go home, and I'll be like, “I really want some ice cream or something”, and I'll go get ice cream. You know, just to kind of make myself feel better even though I know it's not going to help. I have friends that do
that all the time as well, so, I just think it's a very common thing. I don't see it as much in older people. Because I know my mom doesn't do that at all, my tias [aunts] don't do that.

Juana distinguished her reports about finding comfort in food as part of her current generation, including other friends, but did not see the pattern in her mothers or aunts. She represented an outlier view expressed about her early formative years, in which she noted a difference between members of her generation, compared to her older relatives.

Overall, the women reported how other people in their lives impacted their eating patterns during their early formative years. While some women mentioned friends and family members in this sub-theme, most women reported their mothers as the primary influences on their personal eating patterns.

Sub-Theme 2: Major Life Changes

The second sub-theme I identified in the theme, Relationships with People about Food, was major life changes. The women’s words included key events in their lives that impacted their eating patterns. Eight women shared experiencing major life changes that impacted their eating patterns, such as divorce and college. Following are selected exemplar descriptions.

Two women, Anna and Feliz, reported on their experiences with divorces in their families and how that impacted their eating patterns. Divorce was a major life changing event for both.

Anna, who was described skipping meals in middle school and depriving herself of food to “look a certain way”, explained her childhood years and how the divorce of her parents affected her eating patterns in her formative years:

They [parents] got divorced when I was two. When they got divorced…we were homeless for about two years and my mom fell into a depressive state, obviously because she couldn't provide for me and so that is when I would eat at school, but then I would come home, and I wouldn't be hungry… And then, sophomore year we got our own apartment and she found a job; a steady income…it was barely enough to make sure we met rent and then when I was 17, I took it upon myself to get a job aside from school, to help her pay for rent…. my mom would always try to make sure that the kids were well fed…but with five kids in the house and a limited income and limited food stamps, it was
hard to make sure that we all ate okay, but she would try to have home cooked meals, but it was hard, because portioning wise, she would try her best to make sure everyone had enough… I respect her for sacrificing herself like that for us, but at the same time, I know she had to do that because she didn't have the means to make sure she had to buy extra to ensure that everyone had enough because it was limited food stamps or limited income. I guess you could say that from my experiences from growing up and not only just the eating patterns but with like everything else, ever since I was little, I made it a goal to, when I get married, I'm married for life. I don't want a divorce because I don't want my kids to go through that… like now I know how to take care of it, and now I know that a little bowl of salad every night with their dinner is going to be good for them…, but then like cheesecake after dinner would be okay once in a while too. To just teach them from little that it's okay to over indulge sometimes but you have to even it out with having a salad or having pasta for your carbohydrates or something like that.

Anna reported changes she made to assure her children had different experiences than she had had.

Feliz, who shared having a lack of knowledge about healthy eating and food labels, also talked about her experience with depression after realizing the amount of weight she gained after pregnancy and increasing the amount of food she was eating. She also commented on her divorce and how that impacted the connections her family had developed around meal time. She cried as she reflected on this memory:

I was married for almost 25 years and we used to sit down as a family and eat. I would cook our meals, we would have three meals a day then because I would sit down with the kids while my husband went to work. Right when I first got there, I didn't have a job and so my job was to work at the school with the kids, so we would come home and I would make meals and we'd eat as a family, but then after a while, after the divorce…I should say, we were separated for about a good year before we got the actual divorce, so me and the children lived alone, so my income was less. I was put on food stamps and, so I had to watch what we were eating then…So, we couldn't afford the luxury desserts and things like that either, and then we had to settle for the government food that they gave us, or we'd go to the pantry and get food from the pantry... So if I could save money on groceries, then I'd have money for other bills or other necessities that I might need... I was living at a women's shelter for almost 3 months with my kids up in [location] and so money was tight. I didn't have a car. My friend, who came up to with us lent me her truck. They had an extra car, so she lent me her truck. But I always made sure that my kids got fed and clothed and that they made it to school…. How do I put it, back in the days, when I started to have trouble with my marriage, I guess I did eat because I was depressed; not so much depressed… I used to be a very self-confident woman back in the day, a strong woman, and then after being with this man for so many years, you know how they just start to knock you down, piece by piece, before you know it. You know I was alone up there with just my kids, so my world always revolved around my kids. I
didn't really have too many friends because I couldn't go out much. So other than work and my kids, that's all I had, so then I would eat and watch TV and that's all I did. But I guess with that being said, I didn't care how I looked because to him, who would want me anyway, so you don't think about it. But now I don't have anybody telling me that right now and now I'm more centering myself and like I said this is my first apartment ever by myself because I went from being single and living with my parents to being married all those years, then my daughter and I living together for so many years, then I lived with my sister, then my sister-in-law, and now I'm finally here, and so now I've been thinking to myself, it's okay, now I got my place, now it's time…[to] get healthy.

After reporting many hardships, Feliz was now focusing on herself and her health.

Another factor in the sub-theme, major life changes, was the impacts of college attendance. Following are two examples of descriptions from Isabel and Nina who reported their experiences about how college altered their eating patterns. They shared the significant changes in their eating because of either starting college and having one of their family members do so.

Isabel had also voiced concerns about nitrates in the foods and described her mother as a “granola girl”. She reported on her college years and talked about how her eating patterns changed when she started college:

I was in my early 20s, when I moved out [to go to college]. After I left home and I stopped taking the vitamins and I started to eat ramen noodles because they were cheap and they were fast, you could get it all done in the microwave… I'm going to school and… going out drinking with your friends on a Friday night and then eating the pizza after, and then eating the leftover pizza the next morning, and going for…chili the next day for lunch, and it was just kind of bad choices when it came to food… I started to cook on my own and I knew it wasn't cooking. I was eating [cereal] and packaged noodles, and my hair started to not be shiny and I was breaking out in my skin all the time. My mom asked me to come for dinner and when she saw me she was like “you have to move back home, just while you're doing school.” She said, “you don't have to pay rent or anything.” I was, yeah that's probably a good idea, then I could save money. I moved back in and that was... I'd go to work with my little lunch and my vitamins… I saw and felt the difference… It took me 4 years to graduate and I stayed at home for 4 years… My mom was healthy, and she ended up having a stroke…Every woman on my mother’s side of the family passed away before they were 65 or by the time they were 65… I'm going to keep eating even better because it just felt like, in my 40s things started to slow down and I was still eating pretty good but now that I'm going into my 50s I was just like you know, I want to be running around with grandchildren sometime, I want to be able to babysit and go for hikes and stuff like that. I don't want to be like my parents, were old before they were old, but that could be a generation thing too.
While in college, Isabel’s mother helped her stay healthy. Isabel now expressed wanting to enjoy life longer than her female family members were able to do.

Nina explained how becoming an empty nester when her son started college impacted her eating patterns. Nina was also mentioned earlier as being called names by her family as a child:

When my son's in college he comes home for lunch, so there's some family time even though he is an adult now; I still value that. Dinnertime used to be a lot of family time, but now it's kind of empty nesting and we don't get that family dinnertime, but it used to be very important. We still do eat together as a family on the weekends, but now that everyone is older, it's not as easy. My son being in college, coming and going. He doesn't sit and eat with us. He doesn't even often have the same meals as I would and I kind of miss that, that we can have that time to talk. [My] Husband works goofy hours too, and I didn't have dinner on the table when they were younger, so I just got accustomed to eating without him. I eat by myself a lot of times now.

Nina reported that she often ate alone, based on her long established patterns.

Overall, in this sub-theme, the four women recently quoted reported the impacts of significant events in their lives affecting their eating patterns. These major life changes as adults included divorce and college, which also affected changes in their relationships and the number of people living in their households.

**Sub-Theme 3: Taught Others about Healthy Eating**

I developed the third sub-theme in theme 2, *Relationships with People about Food*, from the women’s words, taught others about healthy eating. This sub-theme reflected the concerns women had about the health of their families and friends. Their descriptions portrayed their efforts to ensure their family members, in particular, ate in a healthy manner. From their concerns for the health of others, the women reported they learned about eating healthy and taught that to others. Nine women talked about sharing their knowledge of healthy eating with their children, parents, and friends. Following are exemplar descriptions from Anna, Nina, Isabel, Carmen, and Maria.
Anna, who reported about her experiences in middle school and her intentional food deprivation to “look a certain way,” shared the knowledge she was learning in college:

My mom's a little bit older, she had me when she was in her 40s. So, as she was getting older, I would say, "Mom we should take care of ourselves, we have to make sure we're eating good." I was bringing that stuff [nutrition information] back from school…I [also] keep telling my nephew, “just watch what you eat…. Get into the habit of eating good, so that when you go to college, and you're unleashed with all this freedom, you don’t go crazy.”

Anna taught her mother and nephew about the importance of eating healthy foods.

Nina and Isabel talked about the experiences they had with teaching their children to make healthier food choices. Nina, who was called names by her family as a child, reported on her efforts to ensure her children learned to make healthy food choices when they were young:

I've tried to be conscious in helping my kids, as well, in making better choices than I was brought up with in the past. The kids at first didn't like it, but now if I use regular noodles, they don’t like the regular noodles anymore. I showed them there are different tastes and textures, so I've help expose them. I've told them, it is choice, it's all in moderation and it's easier to stay fit when you're younger than when you're older, and it doesn't come off as easy. I try to, again, not make them feel bad about their weight but making them aware that it is less than a task when you're younger. My parents never spoke to us about that. I tried exposing them to a lot of different things and that helped me too because it exposed me to some things that I normally might not have eaten.

Similarly, Isabel, who referred to her mom as “granola girl”, reported on the care she took to ensure her own daughter was getting nutritious meals:

I would make her [daughter] the salads and I'd send them in little containers [to college with her], so they fit in her little refrigerator and we'd go shopping and I'd get her those little apples at [health food store] so that they don't take up a lot of room. She said to me, “I think I'm leaps and bounds ahead of everyone else in this nutrition class because I have you, and you've been eating so good these years.”

Isabel passed on the knowledge she learned from her mother to her daughter, who expressed appreciation for the wisdom.

Carmen, who reported spending extra money on organic eggs, talked about the compromises she made with her own eating patterns to ensure that the quality of food for her children was better. She reflected on the importance of her own health, however, her views about
health were also related to putting her daughter’s needs before her own. As a result, she was willing to make sacrifices for her family even though she acknowledged the concessions she was making about her own health:

I try to get things too, well not for me, more for my kids. I bought a bag of salmon for [daughter] because she loves salmon, and I told my husband, this is [daughter’s], it's wild caught, so it's a little bit more expensive, but for me, it's important that she has the good fish…. I bought the farm raised one [for husband and me] because it was cheaper and there was more in it. But I need to also care and think about my health too because I need to be around for my girls. But, I figured, I did it for so long, not getting the wild caught one all the time; for her I wanted wild caught, for me I'll do the farm raised.

Carmen also talked about her decision to replace processed foods with organic, while reporting the compromises she made with her own eating patterns to ensure that the quality of food for her children was better. She reflected on the importance of her own health, however, her views about health were also related to putting her daughter’s needs before her own. As a result, Carmen willingly made sacrifices for her family, although she acknowledged the concessions she was making about her own health.

Maria, who reported earlier on memories about her mother’s death, also expressed her concern for others and shared how she would make exceptions to eating although she was already full, to be able to comfort friends who were having personal problems:

Somebody would call me and say, “hey let's go get something to eat.” Even though I ate already, but not only because I'm eating but do I want to join them, it was to comfort them, be there for them. I already ate but I’d have a little something, you know, to comfort them while they're depressed about family situations or what not.

Maria put comforting others as a high priority in her life, although it at times involved eating more than she had planned.

It was evident, by the women’s reports, that their families’ personal health was their primary focus. In their statements, they expressed that they were willing to compromise their personal eating patterns so their families and friends would eat healthier and feel supported.

In summary, the major theme, *Relationships with People about Food*, encompassed the sub-themes of the women’s early formative years and their major life changes, and included how
they taught others about healthy eating. Within theme 2, the women elucidated the impacts of their relationships with family and friends on their eating patterns throughout their lives.

**Theme 3: Cultural and Familial Influences**

In the third major theme, *Cultural and Familial Influences*, I identified two sub-themes that described the women’s expressed views about the impacts of Mexican and American factors and their families that impacted their eating patterns and health. I developed the theme from comments the women made about their Mexican roots, those of the American culture, and how these cultures influenced them through foods, celebrations, and other means. Thus, the first sub-theme within this major theme reflected the women’s perspectives on *Mexican and American influences* and the second subtheme included impacts of the *health challenges in families*. Each sub-theme will be described with supporting passages from the women’s descriptions.

**Sub-Theme 1: Mexican and American Influences**

All 15 women reported on the influence Mexican and American cultures had on their eating patterns. The women reported on their experiences of growing up eating foods from both cultures and traditional Mexican foods at family gatherings and celebrations. Exemplar descriptions are included from five of the participants: Anna, Lola, Juana, Ramona, and Sofia.

Anna, who also reported on her desire to “look a certain way” in middle school, reflected on the impact of varied cultural food habits that manifested after her parents’ divorce during her childhood years. She offered the following account:

My mom is from Mexico and my dad was born here [U.S.], so I grew up with two very different kinds of eating patterns. If I was with my dad, he'd say, "Let's go to [name of popular fast food chain]" but if I was with my mom, she'd say, "No, I'm going to make you some rice at home," "I have some enchiladas here for you." So, it was very different, but I also liked it. When I was out with my dad, I knew that I could get spoiled, I knew I could say, dad I want [food from popular fast food chain]. But when I was with my mom, I knew that she would watch what I was eating. When I was younger, elementary school years, I would come home and she would have enchiladas or tamales, because they took forever to make, but she would make them occasionally, and then rice and beans a lot of times. Sometimes salad when she started getting more “Americanized” in the American
culture. There were times where I would come home and I would have a pork chop with salad or something [American style], but when I was younger, she was good about going back and forth between the Mexican and the American food, but then as I got older, it was a lot of American food…. Or she would make stir fry sometimes.

Anna experienced two cultures and accommodated to them as they further changed over time.

Lola, who reverted to the eating patterns she learned early from her mom, also shared memories of being a child of divorced parents and its impact on foods served in the homes of both parents:

I was mostly with my mom, and so she is American, but on weekends and summers, I would be with my dad's sisters, and they're born in Mexico as my dad [is] as well. When I was with them, they would cook traditional Mexican type foods. It would be a lot of rice, beans with tortillas, scrambled eggs for breakfast, pork, tacos, and just a lot of different traditional Mexican type foods. When I was with my mom growing up, she did some cooking, but she did a lot more of the boxed kind of meals; so, pasta and a lot of ring bolognna, chicken breasts, things in the oven, a lot of pizza, macaroni and cheese, and for lunches almost always had salami sandwiches or pepperoni and occasionally peanut butter and jelly. However, most of my background with the Mexican culture of eating is with my aunts because they don't know how to cook American food. I didn't get to eat as much of the Mexican food that I liked. A lot of my dad's family cooked spicy food, and so I just couldn't eat that food as much. So those were big factors that also influenced what I could eat and still now what I eat.

Lola reported the different experiences of living in two households and the exposure she had to Mexican and American foods as a result.

Juana, who shared her experience with detox diets, reported how the Mexican diet to which she was accustomed, which she later described as “just not too healthy”, made it difficult for her to keep up with a “good diet”.

I don't necessarily keep up with a good diet. I try, but it's a little hard. Coming from a Mexican household, there's a lot of fried things and there's a lot of things that use butter or a lot of carbs, so it's a little hard to stay eating a good diet. At my house, we ate a lot of fried meat, like in tacos or in tortas [sandwiches], pretty much everything. We ate a lot of bread too, so that's not very good either…We try to make the best dishes, you know we may bring out pozole [pork and hominy stew], the heavy dishes that require a lot. A lot of the time we fry the food, like taquitos [small fried tacos], if we have a carne asada [grilled meat] and the carne con mas grasa [meat with more grease]. The chicken is drenched in barbecue. I mean it's very good, just not too healthy.
Juana was challenged by the food preparation methods for the Mexican foods to which she was exposed, which she did not consider healthy.

Ramona, who reported on her mother’s cooking and the use of few vegetables, explained the traditional Mexican foods she ate:

We ate a lot of the typical Mexican food like refried beans and rice and tacos that can be greasy. I think with the Hispanic culture I think it's very hard to try to eat healthy just because my mom used to cook with lard and now she doesn't because she uses corn oil… sometimes when we'd go visit my grandma she is using a cup of oil to just make refried beans. I have a lot of cousins that are really into salt, they'll add handfuls of salt to their food and I just like a touch of salt on my food… My parents’ house is a block away from my aunt and uncles house and another block away is another aunt and uncle, so all the cousins have always been close. We all grew up together, we all still hang out together. With one of the families we shared meals, the other one, my uncle’s married to a Caucasian woman so she didn't really, I mean during Thanksgiving she'll make the American food, and then she'll share the American food, but we'll share the tamales [steamed shredded meat and corn meal dough wrapped in corn husk] or the buñuelos [fried tortilla with cinnamon sugar] or whatever desserts we're having. The one thing that always sticks with me is that I feel the Hispanic culture can do a better job of incorporating vegetables and stuff like that into diets because, even now I have little cousins who are still young that you could incorporate that in their diets and it's not something that they [family] do. They [family] don't teach my little cousins or ever told us to, “hey you need to eat your vegetables, we're going to make you a plate of broccoli and you're going to eat it”, you know. I have my boyfriend's family, his sister has two little kids and she makes them their plate of vegetables and I'm not saying every Hispanic family doesn't, but just for my cousins and people that I see even at the restaurant that I work at, a lot of the Hispanic people there don't make healthy choices either.

Ramona shared concerns about her view that her family and other “Hispanics” continued to make “less healthy choices” than she considered optimal.

Sofia, who reported she had developed an eating disorder, referred to food by using terms such as “macronutrients” and reported being very conscientious about the foods she ate. She also explained the retention of Mexican and American cultural influences:

Being Mexican American, I had a lot of influence of Mexican foods growing up. I can remember we had tacos, enchiladas, white rice, beans, but we also had lots of fruit, vegetables. My mom used to work at [place], so she had a lot of Mexican friends or other people of different Hispanic backgrounds and they brought their culture here. It's hard to change the ways. I mean even here in America you think of all the things that are traditional like 4th of July, hot dogs, brats, you know things like that, you know it’s the
same with anybody who comes here as an immigrant, food is a safe way to bring a piece of home with you and keep it with you.

Sofia concluded that established food habits are present in both cultures and can contribute to less healthy eating habits that people continue to associate with safety, homes, and their families.

Elena, reported on the joy that came with sharing traditional Mexican meals with her family. She gave a distinct perspective about food and people. To her, food was a way to connect with others and create unity. She provided a rich description of food on a “spiritual level” and as a “connector”:

Traditional Mexican meals, when I think of those, then I usually picture my family, you know everybody around the table. My meal at my wedding was chicken mole [Mexican chicken dish with a rich sauce], fideo [Mexican pasta dish], rice and beans, and homemade tortillas. Anytime I think of food like that, I can picture everybody in the kitchen, the girls and I helping mom prepare the meals. The men hanging out, the kids running around. I go back to weddings and I think of the joyous times that we're all together. I think of the family reunions when there is 300 of us all together just eating, and not necessarily over-eating, it's just pretty much time together with my family... I think of food more on a spiritual level; it's a necessity. it's a connector. We need food to function; it's our fuel. Whether you're using the fuel that's just been poured into the tanks and it's got all the grime and junk that's floating around in it because it's been mixed up or if you get the high super grade depending on you, or what you're eating. You're either getting the crusty stuff or you're getting the good stuff that's going to fuel you the best, so it's fuel. It's a blessing. Some have it, most have it, and some don't. It's such a major piece of your life. Eating is such a social thing to me. I think of communion. You break bread together and you either have relationship or you're establishing a relationship with somebody and I think that's just what you do. I don't know how that is for others, but I always look at someone and I'm like, we've broken bread together. We've got a connection now.

Elena also used fuel as an pragmatic analogy to describe what is gained from food, beyond its spiritual and familial connections.

Overall, the women reported bicultural connections within their eating patterns. For all of the women interviewed, these connections began during childhood and carried into adulthood.

Sub-Theme 2: Health Challenges in Families

The second final sub-theme within the major theme, Cultural and Familial Influences, was developed from the women’s descriptions about the concerns and health challenges in
All fifteen women reported about their families eating patterns and histories of various chronic diseases in their families. The women shared concerns they had about their eating patterns and, for some, they expressed wanting to make changes to prevent the onset of chronic diseases that ran in their families. Some women reported multiple conditions that occurred in their families: nine women indicated there was a history of diabetes, three talked about family members having high cholesterol; two mentioned family members having strokes; and one talked about heart disease in her family. Some of the women shared other conditions they or their families had such as anemia, eczema, gastrointestinal problems, lactose intolerance, and gluten sensitivities, and talked about the modifications they had to make to their diets as a result.

Following are examples of these accounts from Anna, Ramona, and Lola.

Anna, who earlier shared her experiences in middle school and her intentional food deprivation to “look a certain way,” reported concerns about becoming diabetic since there were family members with diabetes:

Obesity runs in my dad's side of my family and diabetes. When I found out that diabetes and obesity are genetically inherited, I automatically thought, "I don't want to end up like that." I love my dad and I love my dad's side of the family, but I also know they experience a lot of health complications…I told her [my Mom] one day, "I just don't want to grow up and be obese, I want to make sure I have a good lifestyle ahead of me."

Anna worked to avoid obesity and diabetes.

Ramona, who reported that her mother’s cooking included a limited number of vegetables during her childhood, also expressed her fear of becoming diagnosed with diabetes and described her efforts to lose weight:

I try to have less carbs and more protein because my family is diabetic, so I keep that in mind. I have no soda, no juice. Just water, tea, and coffee in my house. No sweet drinks. I was pre-diabetic one time and they started with the medication Metformin, so then I told the doctor, I don't want to start taking pills for the rest of my life. He said, "well it's on you now, do you want to eat better, or do you want to take these pills and continue the way you're eating?" No, no, I'm going to try to lose weight and start eating better because it runs in my family, my mom, dad, grandparents, aunts, everyone is diabetic. It's on me now, I have to lose weight and eat better. I think I started after the doctor told me that “you know, you are pre-diabetic” and that's what scared me. I didn't
really care what I ate until that happened because I don't want to start taking pills at a young age for the rest of my life because there will be side effects later.

Ramona’s experience of receiving a pre-diabetes diagnosis made an impact and scared her.

Similarly, Lola who reverted to the eating patterns she learned as a child, such as eating more processed and packaged foods, explained her struggle with gastrointestinal issues and the changes she had to make in her eating patterns:

I've had some issues when I was younger with different health things. So, we [my family] struggled with me having GI issues and we figured out I had lactose intolerance, which I still have but not as great as I did when I was younger. I did have to avoid milk products mostly and did a lot of lactate and soy milk. Another thing is my stepson has celiac disease and so with his celiac disease we have to change what we're eating for dinner. So, we can't have gluten when he's here or I have to cook two separate meals. A lot of times I'll try to make things that are easier to do like tacos or use like gluten free spaghetti for everyone or gluten free lasagna for everyone, so that's changing how we're eating, and the different kinds of snacks that we buy.

Additionally, Lola shared the adjustments her entire family made in their eating patterns due to her stepson’s celiac disease.

In summary, the major theme, Cultural and Familial Influences, encompassed thoughtful explanations about the women’s Mexican cultural backgrounds and integration of the American culture through their eating patterns. Both cultures were also evident in their reflections about celebrating and sharing meals together with family and friends, and the impact eating patterns had on health. In the two sub-themes, Mexican and American influences and the health challenges in families, the women explained the lasting impacts of these factors in their lives.

**Theme 4: Environments**

The fourth major theme, Environments, emerged when analyzing the women’s descriptions on how settings, such as work and eating establishments impacted their eating patterns. The two sub-themes within this major theme include: work related or work environments and availability and ease of accessing restaurants. Thirteen (87%) of the women I interviewed reported on environments. Following are selected excerpts from their reflections.
Sub-Theme 1: Work Related or Work Environment

Nine (60%) women referred to how their work or work environment impacted their eating patterns. The women talked about work shifts, working in the food industry, and being in work environments where food was brought by co-workers for all to share. Following are selected examples from Juana, Anna, and Feliz.

Following is an example of a description by Juana, who had tried a detox diets, and shared the challenges of making healthier food choices due to her work schedule:

I’m coming out of work and at that time it is hard because all the places that are open are fast food places and for me, I can't go home and start cooking a meal because everybody's asleep and I don't want to make any noise, so you know, I kind of just go for the easy thing.

Juana resorted to eating at fast food places because the late shifts she worked, and concerns about waking her family up to cook at home.

Anna, who was described skipping meals in middle school and depriving herself of food to “look a certain way”, also reported eating fast food due to her work related environment during her teenage years. She shared her efforts to make healthier food choices despite the limited options:

I would go to school from 7:00 am to 3:00 pm and I would work from 4:00 to 8:00 pm, and so I would get there like a half hour before work because of the bus schedule, and so then I would, there was nothing else to eat so I would just eat at [fast food place] but I tried, you know I was always conscientious about not eating a burger every day, so I would try to eat a salad instead, and I know that that is still not healthy because it's from a fast food restaurant.

Anna reported eating the healthiest options available, despite the limited choices she had.

Feliz, shared how her extensive work hours contributed to the food choices she made:

I only have a day off, but I should say when I get off of work at 7:00 and before I go into work at 10:00, I just don't cook for myself because I'm just either too tired, just too lazy to get something, you know, and so I'll snack on chips or something like that.

Feliz reported it was easier to opt for snacks and processed foods after working long hours.

The next sub-theme within Environments consisted of descriptions the women made about availability and ease of accessing restaurants.
Sub-Theme 2: Availability and Ease of Accessing Restaurants

Nine (60%) women shared their experiences of the availability and ease of accessing restaurants. The women provided examples of eating out at fast food places and selecting the healthiest options at these establishments or selecting fast food places that they believed offered healthier fast food selections. Following are selected exemplar quotations by Delia, Petra, and Ramona.

Delia, who earlier expressed strong feelings about eating healthy, also shared experiences of eating out with her children, which evoked memories of not having the same experiences during her childhood:

I love the experience of dining out… My parents never took us to eat fast food. My girls are familiar with something I never experienced [as a child], and so we love to go and try new restaurants and try new things, and I want them to be able to be exposed to different types of foods. Their favorite food is sushi. But that's expensive, and I don't really know how to make or prepare that, so we'll go out for that kind of stuff or just try different things. We'll go to nice restaurants and they love to go to [name] restaurant and we had duck, they love mussels and oysters, and it was stuff that I didn't really want to eat, but it's just different things, and they had these different vegetables that I didn't even know what they were, they present it in this fashion and you have this whole experience. I try to avoid those chain restaurants, too, with our kids. Like sometimes, I like [popular fast food chain], their soft serve ice cream and their fries, but not to eat dinner or anything like that, I would never do that unless it's a fundraiser for their school or something, but I feel that we would rather …go to a mom and pop small restaurant that's probably more like homemade, it's not fast food, but it's not at your home, but it's pretty much somebody is making it fresh in the back. We try to go to those places and we avoid any, like we don't go to [popular fast food chains], unless we're on the go and we're on a road trip and we have to stop. [Popular fast food chain] is one of our favorite fast food places…We don't like to go to chain restaurants I guess like [another popular fast food chain].

Delia reported being selective about restaurant choices when eating out with her children.

Petra, who had reported her dieting journey, shared the ease of accessing fast food restaurants:

If I get a craving for fast food, there's a [fast food place] right by my house, and I like their chicken tacos because that's the healthiest food you can get there. And I go there and I get a diet soda and two chicken tacos.

Petra mentioned her focus on choosing healthier fast food.
Ramona, who reported on her mother’s cooking and the use of few vegetables, shared the various fast food places she ate at:

I wouldn't do much fast food. Just for the simple fact that I was trying to stay fit. But now, he's [husband] hungry and we're like, okay let's go. Let's cook, let's just go to [fast food place name] or [other fast food place name]. Let's go to Chinese something. Like it's too late to go home and cook, so let's just buy something quickly and that's a big thing.

Ramona recognized the ease of going out to eat with her husband and the impact it had on her eating patterns.

In summary, the major theme, Environments, depicted connections the women made about places where they worked and the impact some work environments had on their eating patterns. They reported examples of eating out at fast food places and selecting the healthiest options at these establishments or intentionally selecting fast food places that they believed offered healthier fast food selections in general. Overall, the descriptions provided by the women about their environments exemplified the ways their eating patterns were impacted.

**Theme 5: Time and Money**

The last major theme I identified, Time and Money, consisted of two sub-themes, the impact of time and the impact of money. I developed these sub-themes from the women’s words about their descriptions on the impact finances and time had on their eating patterns.

**Sub-Theme 1: Impact of Time**

I developed this sub-theme from the women’s descriptions about the impact time had on their eating patterns. Ten (67%) women reported time as a factor on their eating patterns. The women indicated that various factors, such as college, their children’s schedules, and work were primary contributors to their time, which in turn impacted their eating patterns. Following are exemplar quotes from Anna, Sofia, Elena, and Isabel.

Anna, who reported depriving herself of eating because of her desire to “look a certain way” in middle school, reported about her past experiences in college:
When I started college and I came over to visit my mom, she just about fell over because I had lost so much weight, I didn't gain the college 15, and in that time to eat because I was working and 14, 16 credits at [college], that’s significant. And so I'm just eating a Snickers bar in the car between work and then when I get home from my group projects and everything I was exhausted, I didn't even want to eat and then I'd go to sleep so then I lost a whole bunch of weight.

For Anna, being a college student limited her time to eat, and as a result, she reported losing a significant amount of weight as her habits changed.

Sofia, who was married with children reported on the limited time she had to prepare meals, due to the numerous activities in which their children were involved, as well as the adults’ own work schedules. Following she describes her hectic day and the food choices she made:

For example, last week was an unusually busy week, but they had between both of them [the children], they had 16 basketball games in a week, and I had to work the weekend…so it was a horrible week for eating, and I felt like horrible. I was like, oh we're eating all this junk at the concession stands. Leaving work at 7:30, racing to [City] takes me 45 minutes, and then I'm eating a nasty hot dog at the concession stand and that's what I ate for dinner. So, there is lot of conflict in my head about wanting to prepare these certain things. You know, I like to cook and I want to make these meals, but at the same time, I'm gone for 16 hours a day, and then it's like that's all I had for dinner, and I didn't have time or I didn't think about making something on the go. I'll have a healthy breakfast and lunch, but then I'll eat junk sometimes because I just can't keep up with everything. And this weekend it was like 4 basketball games, and so when you're there at these functions, it's like you eat all this processed stuff. And yesterday was like the worst day. We were like racing and I didn't want to wake up, and we had to be somewhere at 8:15, and I think I had tea for breakfast, and then I had Krispy Kreme donut, and then I had like nachos and oh God, it was horrible, [a popular type of sugar candy]. It was what all these kids were eating, and that is so crazy. I just feel horrible and it was the whole day, and by the time we get home, and it's like, oh let's get something to eat. We had some Thai food. So, I didn't cook yesterday or Saturday. So that's really frustrating to try and balance that out, to try to eat healthy because I know the importance, that's really like the basis for your health. It's such an important thing. So, it's a challenge to try to be involved with them and try to be at all their functions, and their school is very demanding and trying to do all their things, and at the same time try to go to the gym and exercise.

During the interview, Sofia expressed a great deal of frustration over the lack of control she had with her schedule, despite her knowledge about the importance of eating healthier and exercising.
Elena, who described food on a “spiritual level” and as a “connector” reflected extensively on time. She shared the impact her fluctuating schedule had on her eating patterns and those of her family. In this account, she reported on her time management:

Maybe it's more time management on my part. I'm home all day, why didn't I throw something in the slow cooker, so I guess it's stressful because I make it stressful on myself. My desire to have them [family] eat homemade meals and lack of time management for the day, that's what turns it into a stressful thing

Elena recognized the challenges she had with managing her time which in turn contributed to an increased stress level.

The next quote is from Isabel, who referred to her mom as “granola girl”. She reported how she partly worked from home and, as a result, was able to plan her week and prepare meals for her family:

I'm a writer and I partly work from home. Monday is a shopping get your meat day, and so by Monday I've got the meat that I'm going to use. And so, my husband says, do you want to grab something on a Wednesday, I'm looking at the chicken and I'm like no, we have to make the chicken. We're making chicken kabobs...So that's kind of nice because then you're not going out quite as often. If I try and make it healthy, like a chicken kabob and put stuff in there that they don’t like eating like the zucchini is very iffy, but you got the onions, and you got the broccoli, or sometimes I just do the onion and the chicken and I grill the asparagus on the side .... Sundays are really important for me. Because I will [be] over there in my corner at the dining room table and I will chunk out my week. And when I say chunk out my week, I'mchunking out my weekends in what I have to get done that day including reading my bible, doing my bible study, and exercising, and cooking dinner, and everything in between there I need to get done every week.

Isabel described doing much advance planning on weekends to be able to schedule in all the needed activities for her family.

Overall, time was a factor for the women in my study. During our interviews most of the women expressed frustrations though their body language and facial expressions. They acknowledged the importance of eating healthy, however, felt torn with the limited time they had because of their many responsibilities.

Sub-Theme 2: Impact of Money
The next sub-theme within the major theme, *Time and Money*, consisted of the impact that money had on the women’s eating patterns. Eight (53%) of the women reported how money had influenced their eating. Following are exemplars described by Anna, Feliz, Lola, and Sofia as they shared recollections of financial hardships in their youth, with marital situations, and during their college years.

Anna, who was described earlier as depriving herself of eating because of her desire to “look a certain way” when she was in middle school, gave a rich example of growing up in a limited income family and the impact it had on her eating patterns during her youth:

When she [my Mom] did make Mexican food when I was older, it was more so because we needed income and she would sell the food, so she would do a sale of tamales. She would stay up all night and make 30 dozen tamales. When I was younger her [Mom’s] source of income was cleaning houses, but as time went on, the economy got worse, so a lot of people had to let her go, and so it was hard for a while and our only income was my dad's child support and food stamps. And so with food stamps, there was only a limited amount of money, so I think that's why she started deviating more toward the American culture because it was easier to go to the grocery store and pick up bread and meat instead of going and getting masa [corn meal dough], chicken, and fresh produce. She [Mom] always made sure that I was well fed. And then as I got older… I knew since I was 15 that she was struggling with rent, and we were homeless…from about middle school, like eighth grade to sophomore year of high school. We were homeless for about two years and living with a family from church.

Anna clearly analyzed her family’s experience of homelessness and the impacts it had on their eating patterns.

Feliz, who also shared her lack of knowledge about reading food labels, had shared the financial hardships when her marriage ended in divorce and the impact it had on the eating patterns of her and her children:

I should say, we were separated for about a good year before we got the actual divorce, so me and the children lived alone, so my income was less. I was put on food stamps and so I had to watch what we were eating. So, we couldn't afford the luxury desserts and things like that either, and then we had to settle for the government food that they gave us or we'd go to the pantry and get food from the pantry [emergency food program], which you don't really like to admit or even take, you know, but you have to cut corners financially. If I could save money on groceries, then I'd have money for other bills or other necessities that I might need. But the food from the pantry, some if it was okay, but a lot of it was stuff, you know, that I would just turn around and either take back or give
to a neighbor or something, stuff that I didn't really care for, what they put in your bags at the time... Back in the days, they [emergency food programs] gave you a block of cheese, your milk and whatever you know, so you had to take what they gave you...I was living at a women's shelter for almost three months with my kids up in [location] and so money was tight, money was tight. I didn't have a car. My friend, who came up to [location] with us from [city], lent me her truck. They had an extra car, so she lent me her truck. But I always made sure that my kids got fed and clothed and that they made it to school. ...Then the meals that they made at the pantry, we had to take turns cooking, and then they'd have a menu that you had to make and then a lot of it was like mac and cheese, shepherd pie, but again, you know, I'd cook it and make it, but lots of times I wouldn't eat it just because the thought of, I don't know, in my head, the low-income food.

Feliz' own experience of homelessness with her children also made noticeable changes in their eating patterns. She reported that she did not like to eat what she termed “low-income foods”.

Lola, was the woman who reported reverting to the eating patterns she learned as a child, including more processed and packaged foods:

The other thing is money I suppose. It's definitely a little bit more expensive to sometimes eat healthier or buy healthier things. Probably it was more of an impact to me when I was in college. I wouldn't really buy a lot of proteins because it was obviously more expensive to cook them, and I really was a novice at cooking, so I didn't really know how to cook chickens and different meats.

Lola attributed eating less protein due to her fixed income in college.

Sofia, who had a degree in nutrition and referred to food by using terms like macronutrients, acknowledged her concerns about money. However, she was able to purchase organic foods shopping around:

I know a lot of it too is economically; like financially things, I totally think that has an influence. It influences my eating choices. Like if I didn't right now have to worry about money, money is a little tight right now, and I just have a lot of things going on, I would probably buy more organic. I mean I wouldn't have to spend hours sometimes in the grocery store trying to be okay, well I want healthy, but I'm not going to pay this amount. I'm not going to pay it, so thank God for [grocery store chain], they got a lot of good products for a more affordable price,

Sofia sought our grocery stores that offered more affordable organic food options.

In summary, the major theme, Time and Money, encompassed factors impacting the women’s eating patterns, which included living on limited incomes during college, having to deal
with difficult marital situations, and making decisions about which organic foods to purchase because of cost. Others reported their challenges with time management due to family activities, work schedules, and how they apportioned the time they had.

**Overview of Coding of Women’s Comments**

In summary, I coded the 15 women’s interviews and developed the five themes from their descriptions. The women were articulate and thoughtful about the many factors that impacted their eating patterns. The exemplar quotations chosen from their transcripts provided a thorough explanation and characterization for each theme and sub-theme. Overall, the women’s comments were well represented throughout the findings.

**Chapter 4 Summary**

The study participants were US born MO women who described their own eating patterns during individual interviews. The age of the women ranged from 18 to 64. Nearly three-fourths were above the BMI normal range, consistent with higher BMIs rates reported among Latinas. Sixty-seven percent were second generation, while 33% were third generation and higher. More than half spoke English only, while the remaining were bilingual. More than three-fourths of the women had some form of higher education. Three-fourths of the women’s incomes ranged from $50,000-$149,000.

I presented the five major themes in this chapter: (a) *personal agency*, (b) *relationships with people about food*, (c) *cultural and familial influences*, (d) *environments*, and (e) *time and money*, with all the sub-themes. (See Figure 4, p. 95). The women reported a wide range of factors impacting their eating patterns, as also was shown in Table 6 (p. 94).

Overall, what the women liked about themselves consisted primarily of their conscientious efforts to make healthier food choices. Their comments reflected on the importance of making food choices that contributed to their health and reported the impact their personal health had on eating patterns. The women took the initiative to explore options on the internet and
other sources to learn about healthier food choices. They spoke with ease about navigating through websites in search of healthier food options. They described their preference for organic foods and healthier options and how they integrated these into their diets. While the cost of food was a factor, it did not deter them from purchasing organics. The women also planned and prepared menus and lists prior to shopping. They shared their preference for preparing meals at home, from scratch, and less for purchasing ready-made or meals from fast food places or restaurants. The women in my study also reported that, when they had limited time to prepare meals, they looked for quick and healthy options due to their schedules and life commitments. Furthermore, when the women purchased food at fast food places, they opted for the healthiest options on the menus.

In addition to the efforts the women made to integrate healthy food in their diets, they also reported what they did not like about themselves. In the sub-theme, What the women did not like about themselves, they primarily related their responding to eating triggers and their perceived self-images. For example, 60% of the women who reported conscientious efforts to make healthier food choices, also made comments about their perceived self-images, such as being self-conscious about their bodies and referring to themselves as “overweight.” Additionally, they reported responses to eating triggers, such as using food to cope with stress, depression, boredom, anxiety, and loneliness. They talked about eating healthier as adults than when they were younger and often shared how the diets their families prepared for them during their childhoods were less healthy. The women also continued to prepare Mexican foods, however, looked for healthier alternatives when preparing the foods, as well as being aware of portion sizes. They broadened their palates by trying foods from other cultures, as well as increased their intake of vegetables, compared to limited exposures in their formative years.

The women described in detail the impact relationships with people about food. They primarily reported the role partners, friends, and families had on their eating patterns in their early formative years and the impact these relationships had on their eating patterns. Overwhelmingly,
the majority of the women reported their mothers as the chief person to influence their eating patterns. When the women expanded their circle of influence, such as going to school or getting married, they encountered others who influenced their eating patterns, such as teachers, coaches, and spouses. The topic of eating patterns brought back memories of meals made by their mothers or grandmothers. They reported having more homemade meals when they were younger. Several reported that they thought homemade meals were better for them and healthier. Other relational factors that impacted their eating patterns were due to major life changes, such as changes in family structure because of divorce or transitions from high school to college.

The women also taught others about healthy eating. They gave various reasons for teaching others about healthy eating, which primarily stemmed from their own childhood experiences. For example, one woman reported teaching her younger cousin how to eat healthy because she herself was never taught about healthy eating as a child. Another woman reported role modeling healthy eating patterns so that her daughters would also eat healthy, since she did not have any role models when she was a child. It was evident that familial influences had an impact on the women’s eating patterns. However, cultural influences were equally as impactful.

*Cultural and Familial influences*, both Mexican and American, were woven throughout the women’s lives. All 15 women identified the significant role that their Mexican roots and the American culture had on their eating patterns. The women reported continuing to eat typical Mexican foods during childhood (i.e., rice, beans, tortillas). Yet they also reported eating American foods, which they indicated were not always healthy. The women retained parts of their MO culture, which included a strong emphasis on the types of foods prepared for celebrations, where Mexican food was primarily a central focus. Celebrations were an integral part of these women’s lives. The Mexican and American influences were evident as they described the types of foods they prepared for their celebrations. They lived in two worlds as children, their Mexican culture and the mainstream American culture. As such, they adopted characteristics from both. These cultural influences impacted their health as well. They made
references to how their cultural eating patterns impacted their families’ health as well as their own.

Health related eating patterns was an overwhelming topic for the women in my study. All 15 women in my study reported health related eating patterns. The primary concerns the women voiced related to health included obesity, diabetes, high cholesterol, and heart disease. The women reported family members having some of these diseases and were concerned about them and also feared they would follow in their family’s footsteps if they were not careful. They made connections between health and the types of foods they ate from both Mexican and American cultures. They all reported the impact eating patterns had on their health and the risks associated with unhealthy eating patterns. The women made efforts and adopted healthy measures to eat healthier. However, all the women, irrespective of their BMIs, admitted to eating less healthy foods at times. Cultural and familial influences were evident contributors to their eating patterns. Other factors that contributed also included the environments where they worked.

The Environments where the women worked had an impact on their eating patterns. Factors included the shifts they were scheduled to work, the types of jobs they had, and being in work environments where food was continually brought by co-workers for all to share. The work environment often negatively contributed to the women’s eating patterns. Factors such as working evening shifts resulted in having late night meals at fast food places. Other practices in the work place, such as co-workers bringing foods to eat that were often processed and high calorie counts, contributed to the women’s lack of control and inability to resist these foods at work. Some women worked at restaurants and fast food places, where they were surrounded by food, which in turn also contributed to their lack of control.

Similarly, the women voiced concerns about several factors related to Time and Money that contributed to their eating patterns. Hectic schedules were the primary factors that affected the women’s time. Time constraints were due to going to college, working, and taking children
to various school and extracurricular activities. Their schedules impacted the amount of time they had to prepare meals at home. Eating late was a frequent occurrence for some of the women, due to all the family activities throughout the day and getting home late at night. As a result, the women reported going to fast food places. Although they tried to make the healthiest food selections, they felt bad for not being able to prepare meals at home for themselves or their families. The lack of time to prepare healthier meals left the women feeling guilty and increased their stress levels.

Another factor that contributed to their eating patterns was money. The impact of money was related to college, divorce, wanting to purchase more organics than they normally bought, and the high cost of eating restaurants. Women with higher incomes reported eating more organic foods and money was less of a factor in limiting the types of foods they purchased. Overall, the women who reported the impact of money on eating patterns could afford to purchase healthy foods, while the women with lower incomes did not indicate specific monetary hardships in their current lives. Some women talked about their experiences with finances during their transitions to college, which also impacted their eating patterns, compared to when they lived at home with their parents. Several women experienced having limited budgets to purchase healthier foods at various times. Other women talked about how divorce impacted their income initially and had to resort to shelters for assistance with housing and food. However, their current situations changed and they were no longer facing those hardships. Overall, the level of impact was minimal. The women were primarily middle class and worked. As such, the women had the means to purchase healthy foods and to dine out with some regularity.

In summary, the women in my study were thoughtful and detailed with descriptions about their feelings, emotions, influences, thoughts, experiences, and perceptions about their eating patterns. They shared vivid memories about their eating patterns during their childhood and other important life events, as well as into the present. Next, in Chapter 5, I analyzed, interpreted, and synthesized the findings.
Chapter 5
DISCUSSION

The purpose of this qualitative, exploratory-descriptive study, using a thematic analysis approach, was to explore US born MO women’s narrative descriptions about their own eating patterns. To date, studies about eating patterns among MO women have largely focused on blanket homogeneous assumptions about Hispanic group characteristics and wide use of the acculturative and homogeneous viewpoints. that were applied when studying mainly first generation respondents. Due to the gaps in the literature, in this study I explored US born MO women who were second generation or higher to learn their descriptions about their own eating patterns.

I conducted in-depth, open-ended, individual interviews, and included supporting demographic data using a brief survey, and obtained height and weight measurements to calculate BMIs. Participants in this study included 15 US born MO women. I coded, analyzed, and organized the narrative data to develop the major themes and sub-themes from the words of the women’s transcripts. My study was based on the following question: “What are US MO women’s descriptions about eating patterns?”. The five themes that I chose to represent the women’s voices in my study were: (a) Personal Agency, (b) Relationships with People About Food, (c) Cultural and Familial Influences, (d) Environments, and (e) Time and Money. (See Table 6, p. 94, in the previous chapter for an overview of my analysis and the classification of the findings related to the women’s responses.)

In this chapter, I interpreted the data analysis and synthesis. First, I discussed the findings, including the participants’ demographics, and drew connections across themes in the study in comparison to the published literature I had reviewed, to clarify my interpretations. Second, I discussed the theoretical and practical implications, followed by the methodological and theoretical interpretations of my findings. Then, I explained the implications of the study for
nursing practice, education, and research, including its clinical significance. Lastly, I discussed strengths, limitations of the study, and suggestions for future research.

**Interpretations of the Findings**

In this chapter, I provided comparisons of the participants’ demographics when they are relevant to what has been reported in the literature I reviewed. For example, compared to the published literature, participants in the studies I reviewed were chiefly comprised of recent immigrants, first-generation Hispanics with low socioeconomic levels, and limited educational attainment. Formerly, few studies separated Hispanics by subgroup and generational status.

In this section, I described the theoretical and practical implications of my findings. I used Critical Social Theory (CST) as my philosophical underpinning with the Social Ecological Model (SEM) as a framework. I discussed the themes I developed from the women’s descriptions about eating patterns, utilizing a CST lens with the SEM framework.

**Theoretical Framework: Social Ecological Model**

The theoretical framework I chose to apply to understand broader meanings in the descriptions of US born MO women was the Social Ecological Model (SEM) (Belsky, 1980; Teris, 1987; Blum et al., 2002; Bronfenbrenner, 1981; MacMahon & Pugh, 1970; McLeroy et al., 1988; Sweat & Denison, 1995). The SEM allowed for examination of various influences ranging from the *intrapersonal, interpersonal, institutional, and community levels, to policy and structural levels*. (See Figure 1, p. 21). This is a multifaceted model, with interrelated levels, that I used to draw attention to relationships that existed between individuals and their contextual environments (McLeroy et al., 1988).

**Intrapersonal level.** The Intrapersonal level of the SEM was at the core of the women’s descriptions in their interviews. Each spoke from her individual perspective. This level encompassed each individual’s unique mix of personal characteristics, such as language, education, skills, behaviors, traits, SES, gender, and ethnicity. To summarize several of the
participants’ demographic characteristics across the sample, respondents had indicated that two-thirds of them were second generation and the remainder were third generation and higher. Over one-half of the women spoke only English (9, or 60%) and 6 (40%) were bilingual; none spoke only Spanish. Educationally, all had completed high school, with 11 (73%) having attended at least some college, including one-fifth of the women who had earned master’s degrees.

**Personal agency theme, sub-theme: What the women liked about themselves.** In the context of eating patterns, the first major theme I developed, *Personal Agency* most closely reflected the women’s descriptions about their own eating patterns on an intrapersonal level. For example, the major theme *Personal Agency*, encompassed sub-themes related to *what the women liked about themselves* and *what the women did not like about themselves*. The factors that contributed to what 14 (94%) of the women liked about themselves consisted of *conscientious efforts to make healthier food choices*, which reflected their preferences for the quality of food they chose to prepare and eat. As part of this sub-theme, women took the initiative to explore options on the internet and other sources to learn about healthier food choices. They spoke with ease about navigating through websites in search of healthier food options. They also described their preferences for organics and healthier options and explained how they integrated these into their diets. While the cost of food was a factor, it did not necessarily deter them from purchasing organics.

**Relationship of personal agency to impact of time.** Despite their reports of conscientiously working to eat healthier, some of the women admitted to constraints they encountered that related to the *Time and Money* theme. These limits were often due to their careers and family, such as time conflicts with their children participating in extracurricular activities. In contrast, in the literature I reviewed, many authors identified knowledge deficits about healthy eating from the participants in their studies (Akresh, 2007; Castellanos & Abrahamsen, 2014; Greaney et al., 2012; Gregory-Mercado et al., 2007; Guarnaccia et al., 2012; Supplee et al., 2015). However, in one study from the literature I reviewed, the author reported that
the women who had achieved higher educations also exhibited increased dietary self-efficacy (Montoya, 2011), which could be the case for the women in this study. The major theme, Personal Agency, also encompassed a second sub-theme that described what the women did not like about themselves. The aspects I identified from the interviews, in which the women expressed what they did not like about themselves, also were incorporated within the intrapersonal level of the SEM. Those aspects were: responding to eating triggers and the women’s own perceived self-images.

**Personal agency theme, sub-theme 2: What the women did not like about themselves, responding to eating triggers.** In this study, 10 (67%) of the women reported responding to eating triggers. The women’s descriptions indicated they had the capacity to make their own personal decisions about the choices they made related to their eating patterns, however, they also acknowledged some of the choices they made were not always healthy ones. For example, the women reflected on their lack of “discipline”, “will power”, “and “self-control” when they reported eating foods they were trying to avoid (e.g., ice cream, cake, tortillas). They also reported making excuses and were aware of making these justifications to eat less healthy foods and/or rationalizing by opting for less healthy choices due to “doing so well” on their diets. They reported that emotions, such as anxiety, stress, depression, and boredom, frequently triggered their desire to reach for less healthy food options. The women also reported unsettling events in their lives, such as divorce, that impacted their emotions, which in turn resulted in selecting less healthy foods and overall impacting their eating patterns. Similarly, authors of several studies in the literature I reviewed identified various emotional influences on eating patterns, which the authors had reported as stress, social isolation, self-comfort, and lack of self-control (Hoke et al., 2006; Keller et al., 2007; Lindberg & Stevens, 2011; Greaney et al., 2012; Schloemann et al., 2012).

**Personal agency theme, sub-theme 2: What the women did not like about themselves, perceived self-images.** In this study, 12 (80%) of the women reported perceptions about their self-
The women spoke negatively about themselves and, at times, indicated their eating patterns contributed to their own views about themselves. They used phrases like “didn’t care about myself” and “I just didn’t care” particularly when undergoing life-altering circumstances. For some women, the task of making healthier food choices was too daunting and they expressed a sense of hopelessness. Other women in this study described trying to diet to lose weight, not seeing continued results, stopping their diets, then starting new ones, often with a component of regaining much of the weight that had been lost initially. Women also commented on finding it easier to continue less healthy eating patterns although they expressed wanting to make healthier changes. This is a sharp contrast from my findings in the literature review, in which no authors had indicated perceived self-image as a factor impacting eating patterns.

**Relationships of personal agency to BMIs.** In this study, many of the women described themselves with words like “obese,” “overweight,” and used phrases like “not happy with my body”. I considered these words as indicators of how they perceived their bodies. While factually stated, these words also can indicate displeasure with their bodies; their comments about repeated efforts to lose weight may be an indicator about their perceived self-images. In fact, nearly three-fourths of the women I interviewed were above the normal BMI range (≥25 kg/m²), with a mean BMI of 29.83 kg/m². As such, their perceptions about their self-images were often in agreement with their actual BMIs being higher than normal range and calculated as overweight or obese. Furthermore, when several of the women briefly described their own bodies at the end of the Demographic Information Form (Appendix D), they often jotted factual remarks that related to their BMIs before I measured their heights and weights as the final part of the interview process. In their descriptions, they wrote notes about planning to actively modify their eating and/or exercising habits, for example, “not where I’d like to be, but in the process of getting there” and “looking to make some changes this year.” Anna, with a BMI in the normal weight range wrote that she “second-guessed” others’ opinions of how she looked, while Maria, who was in the obese range clarified that “I feel I’m overweight but I do see that, but inside I’m beautiful, in and out.”
In other words, their stated self-perceptions were generally accurate when describing their weight or overall body characteristics. They could acknowledge they were “not perfect” but did not dwell on the negatively expressed aspects of their self-images. Overall the women were very articulate in their descriptions at an intrapersonal level. In their descriptions, some women also shared their financial statuses and how money impacted their eating patterns.

Relationships of personal agency to impact of money. Eight (54%) of the women interviewed indicated that Money had an impact on their eating patterns. These women reported that their own college years and/or their families undergoing divorces had affected their finances, particularly earlier in their lives. This had, in turn, impacted the foods they were able to purchase. Additionally, they expressed wanting to purchase more organic foods than they normally bought and commented on the high costs of eating out frequently. All the participants worked outside the home, most of them full-time. Over one-half (8 or 54%) reported incomes that ranged from $50,000-$149,000, with another 6 (40%) of the women identifying annual incomes from $25,000-$49,000. Only 1 (7%) identified an annual income less than $25,000 for herself, although she lived with other family members. Overall, the women in this study did not express severe financial constraints in their current situations. However, in my review of the literature, authors of many of the studies identified financial constraints as having an impact on eating patterns (Cason et al., 2006; Castellanos & Abrahamsen, 2014; Creighton et al., 2012; Gray et al., 2005; Greaney, 2012; Guarnaccia, 2012; Hampl & Sass, 2001; Keller et al., 2007; Montoya et al., 2011; Ramirez et al, 2007; Schloemann et al., 2012; Sharkey et al., 2011; Suplee et al., 2015).

Overall, I identified multiple individual characteristics that impacted the women’s eating patterns on an Intrapersonal level, which forms the core of the SEM. Findings from this study demonstrated that the women’s Personal Agency had an impact their eating patterns. Furthermore, as a result of their levels of education and financial status, some of the women had the ability to select more expensive options, such as organics. However, for some women,
financial status had exerted more powerful impacts during divorces or transitions around college, which were more closely aligned with the second level of the SEM, the Interpersonal Level.

**Interpersonal level.** The *Interpersonal level* is the next layer expanding from the individual core of the SEM. It consists of social networks and support systems, such as informal connections, friends, and family members. In the context of eating patterns, the next two major themes I had developed reflected the women’s descriptions about eating patterns on an interpersonal level. They were: *Relationships with People about Food* and *Cultural and Familial Influences*. The women’s interpersonal relationships had direct impacts on their eating patterns.

**Relationships with people about food theme.** There are three sub-themes within the second major theme, *relationship with people about food*. They are: the *early formative years*, *major life changes*, and *taught others about healthy eating*. In the women’s narratives, they were able to elaborate on the considerable amount to which they focused interpersonally on their family members as they related to their own eating habits.

**Sub-theme 1: Early formative years.** The first sub-theme is the *early formative years* and these were reported as impactful on all 15 of the women in the study. Family was a predominant factor in this major theme. The women overwhelmingly referenced family, more often than friends or social networks, as having a major influence on their eating patterns during their childhood and adolescent years. Their household structures influenced the preparation of meals and food habits within their nuclear network and support systems. The primary figures who significantly influenced their eating patterns were their mothers and grandmothers. Compared to the findings from my literature review, the authors had also noted that families (i.e., spouses, children) of the women in those studies played influential roles in their eating patterns. Moreover, the authors had stated that their respondents were encountering generational differences, in which the adults in their participants’ families preferred more homemade meals than did the children in those families (Cason et al., 2006; Gray et al., 2005; Greaney, 2012; Guarnaccia, 2012; Hampl & Sass, 2001; Hoke et al., 2006; Keller et al., 2007; Kerber et al., 2014; Ramirez et al., 2007; &
Schlomann, 2012). However, in this study, only about one-fourth (4 or 27%) of the women reported compromising their eating patterns by placing others’ needs before their own. Yet, there was definite consistency about the generally powerful impacts of families among the reports of studies included in my literature review and the women whom I interviewed (Hampl & Sass, 2001; Hoke et al, 2006; Greaney, 2012; Schlomann, 2012; Kerber et al., 2014).

**Sub-theme 2: Major life events.** The second sub-theme in themes, Relationships with People about Food, was major life events. These events occurred in the contexts of their interpersonal relationships and also had impacts on participants’ eating patterns in this study. These events included changes in family structure due to divorce or parent remarriage. Some women reported turning to food as a source of comfort and way to help ease the emotions that were brought about by these major changes. For example, one woman shared how her divorce caused a cascade of events, beginning with a decrease in her family’s income which left her with limited alternatives, such as going to food pantries (emergency food shelters) and having to move to a woman’s shelter until she was able to get reestablished with housing for her and her children and a job. Some life changes were reported to be positive, such as a parent remarrying or transitioning from high school to college. In contrast, the impactful life events identified by the authors included in my literature review were reported as language challenges, lack of transportation, and less access to fresh produce. Often the respondents in most of the prior studies were reported as low SES. For the primarily first generation participants in the studies I reviewed, moving from Mexico to the US was reportedly experienced as tumultuous (Cason et al., 2006; Castellanos, 2014; Gray et al., 2005; Greaney et al., 2012; Keller et al., 2007; Lindberg & Stevens, 2011; Martinez, 2013; Ramirez et al., 2007; Schlomann, 2012).

**Sub-theme 3: Taught others about healthy eating.** Other interpersonal relationships for the majority (9 or 60%) of the women in this study related to their reporting that they taught others about healthy eating. They related this to their reactions to their own childhood experiences, when they often related that they were not taught about healthy eating as children.
Therefore, they reported the importance that they role model healthy eating behaviors for their own children. In contrast, in the literature review, I identified that deficits in dietary knowledge impacted eating patterns, but there was no specific mention about whether the participants in those studies were actively trying to alter their eating patterns (Akresh, 2007; Castellanos & Abrahamsen, 2014; Greaney, 2012; Gregory-Mercado et al., 2007; Guarnaccia, 2012; Hampl & Sass, 2001; Hoke et al., 2006; Ramirez et al., 2007; Suplee et al., 2015).

Impact of lack of time in interpersonal relationship. Time was not only expressed as a negative factor in the women’s descriptions about their own lives and how this impacted their eating patterns on an intrapersonal level, but also had interpersonal effects. Among the women in this study, two-thirds reported on the impact of time constraints on their eating patterns. Hectic schedules were the primary factors that affected the women’s time, whether attending college, working, and/or taking children to various school and extracurricular activities. All of these affected the amount of time the women had to prepare meals at home. Eating late was a frequent occurrence for most of the women, due to all the family activities throughout the day and then returning home late at night. As a result, the women reported going to fast food places and feeling bad for not being able to prepare meals at home for themselves and their families. With the lack of time to prepare healthier meals, the women reported increased stress. Similarly, in my review of the literature, time constraints were identified as a factor in numerous studies (Cason et al., 2006; Castellanos, 2014; Gray et al., 2005; Greaney, 2012; Guarnaccia, 2012; Hoke et al., 2006; Keller et al., 2007; Lindberg & Stevens, 2011; Martinez, 2013; Ramirez et al., 2007; Schloumann et al., 2012).

Overall, the interpersonal relationships the women in this study developed during childhood and adolescence appeared to have a pronounced impact on their eating patterns as adults. Findings from the interviews demonstrated lifelong impacts of behaviors learned in childhood and adolescence on eating patterns as adults. Furthermore, the women I interviewed were primarily from middle income families and reported being generally able to purchase
healthy foods. However, their professions that placed them in this income bracket also resulted in career-related time constraints. Moreover, the women were able to afford to place their children in extracurricular activities, such as sports. However, these added family commitments left them with less time to prepare healthy meals and, in turn, they resorted to more quick, convenient meals and/or fast food places.

**Cultural and Familial Influences Theme.** These influences of culture and families comprised another major theme that was associated with the interpersonal level of the SEM. There are two sub-themes within this major theme: *Mexican and American influences* and *health challenges in families*.

**Sub-theme 1: Mexican and American influences.** The first sub-theme within this major theme is *Mexican and American influences*. The comments about foods the women ate reflected the influences that both cultures had on their eating patterns. Both cultures intertwined throughout their lives. The interpersonal relationships from their Mexican cultural backgrounds often consisted of celebrations that revolved around traditional Mexican foods that were infused with their American upbringing. This is consistent with the literature; authors from numerous studies have identified the continued influence of both Mexican and American cultures on US and foreign-born Mexicans living in the US (Akresh, 2007; Cason et al. 2006; Castellanos & Abraham, 2014; Creighton, et al., 2012; Greaney, 2012; Guarnaccia, 2012; Hoke, et al., 2006; Keller, et al., 2007; Lindberg & Stevens, 2011; Martinez, 2013; Montoya, et al., 2011; Ramirez, et al., 2007; Schlamann, et al., 2012; Sharkey, et al., 2011; Suplee, 2015). However, in one study I reviewed, the authors reported that US born MO Hispanics had a higher intake of fast food compared to MB Hispanics (Sharkey et al., 2011).

**Sub-theme 2: Health challenges in families.** The final aspect of the interpersonal level of the SEM is found in the second sub-theme of *Cultural and Familial Influences*. All the women expressed concerns about health challenges in their families. The women participants reported family members who had comorbidities, such as diabetes and heart disease. This in turn, raised
concerns about their own health, fearing they would follow in their family members’ footsteps if they were not careful. They made connections with health and the types of foods they ate from both their Mexican and American cultures. Most of the women in this study reported making efforts to adopt measures to eat healthier. Similarly, authors of several studies I reviewed found that MB and USB Hispanics reported concerns about health-related eating patterns (Castellanos & Abraham, 2014; Lindberg & Stevens, 2011; Supplee et al., 2015).

In summary, the interpersonal level within the SEM encompassed the major themes Relationships with People about Food and Cultural and Familial Influences. Growing up in bicultural worlds had a lasting impact on the interviewees’ eating patterns. Furthermore, the women in my study were acutely aware of the health conditions in their families and made connections between eating patterns and health. This, in turn, reinforced the role healthy eating patterns have on their overall well-being and the prevention of chronic diseases. Compared to the literature reviewed, the women in this study reported considerable knowledge about healthy foods and made efforts to integrate them into their own eating habits and those of their families.

Institutional Level, Including Environments Theme. The third layer, the Institutional level of the SEM, consisted of social institutions and the organizational characteristics that exist within them. Organizational institutions are comprised of places such as restaurants, churches, grocery stores, community centers, clinics, schools, and work. McLeroy et al. (1988) stressed that organizational structures can have significant impact on their members. For example, Quintiliani et al. (2010) indicated that work schedules and stress in the workplace can affect food choices and the risk of obesity. In the context of eating patterns, the major theme I developed from the participant interviews.

The major theme, Environments, reflects the Institutional level of the SEM. For the 87% of the women interviewed who reported environments had an impact on their eating patterns, they primarily reported two institutional areas, work related and work environments and restaurants as places that impacted their eating patterns. Women indicated a factor, such as working evening
shifts, could result in late night meals at fast food places. Others reported that practices in the
work place, such as co-workers bringing processed and high caloric food to eat, were difficult for
the women to resist. Other Environments that impacted their eating patterns were related to the
availability and ease of accessing restaurants. Some women worked at restaurants and fast food
places during their high school and college years, where they were surrounded by food. Some
women provided examples of eating out in which they often reported selecting the healthiest
options available at restaurants or selecting fast food places that they believed offered healthier
selections. Similarly, numerous authors of the studies in my literature review found that work
related eating patterns for their participants were due to hectic schedules, long and/or erratic work
hours, and limited time to plan and prepare meals (Gray et al., 2005; Cason et al., 2006;
Castellanos & Abraham, 2014; Guarnaccia et al., 2012; Greaney, 2012; Hoke et al., 2006; Keller
et al., 2007; Lindberg & Stevens, 2011; Martinez, 2013; Ramirez et al., 2007; Schlamann et al.,
2012). However, authors in the literature I reviewed also noted immigration played a major role
in eating patterns for MB Hispanics. After moving from their home countries to the US, they
encountered challenges, such as unfamiliarity with foods in the US, language barriers, and
financial constraints (Cason et al., 2006; Castellanos & Abraham, 2014; Keller et al., 2007;
Ramirez et al., 2007; Lindberg & Stevens, 2011; Guarnaccia et al., 2012; Schlamann et al., 2012;
Martinez, 2013).

Despite the efforts for the women in my study, there is confirmation that the women’s
work-related and work environments and the availability and ease of accessing restaurants
generally did not provide healthy options compared to what they reported could be accomplished
within their own homes.

In summary, at the institutional level of the SEM, the women’s comments
overwhelmingly reflected the influence that Environments had on their eating patterns as not
helpful to them. They expressed their concerns and frustrations with the impact of these
environments and the need to make efforts to avoid eating unhealthy foods at work or on the way
home. However, factors beyond their control, such as work schedules, ready availability of high caloric foods, and few restaurant options open later at night, made it difficult for them to maintain healthy eating habits. When the women reported eating out and using fast food places that impacted their eating patterns, they also emphasized their efforts to select healthier options in these establishments.

Community level. The Community level of the SEM involves several structural layers. McLeroy et al. (1988) defined three levels: mediating structures, organizations within geographic regions, and power structures. The two community level organizational entities that were mentioned by the women I interviewed included mediating structures and power structures.

For the women participants in this study, mediating structures included their families (i.e., parents, children, other relatives) and informal social networks (i.e., friends, college groups, co-workers). These mediating structures influenced their eating patterns in several ways. For example, the women made numerous references to their childhoods and the impact their experiences of the foods their families prepared, the celebrations in which they participated, as well as the major life changes that occurred, had all impacted their eating patterns. Beyond their immediate family environment, the women talked about the connections they had at work and in college. This was evident in the comments they shared, for example, about co-workers bringing food to work to share, as well as the types and quality of available foods for college students on limited budgets. The ease of accessibility to restaurants and eating establishments was another mediating factor evident in their comments. Additionally, the women’s descriptions often indicated that they lived near grocery stores with an abundance of choices, likely because two-thirds of the women lived in urban settings, with most of the rest in the suburbs. This in turn, made food accessibility and quality readily available for them and they reported making use of these resources.

The other community level organizations included power structures; these also impacted the women’s eating patterns. These were evident in their descriptions about their ease of access to
grocery stores and restaurants, coupled with the financial means to purchase healthier foods, such as organics. For example, Delormier, Katherine, Frohlich, and Potvin (2009) explained the power that family members have to make decisions about the foods they eat when they have accessible resources, such as transportation, grocery stores, and financial means. For the women in this study, while not readily identified by them explicitly, highly contextualized sources of power may have contributed to shaping their eating patterns. These factors may include advertising by fast food companies, grocery stores, and easy access to marketing on social media sites, such as Pinterest. Hayward & Lukes (2008) described a less obvious form of power, one that is concealed but has a major impact on shaping and influencing the way people make decisions, and on what they desire and believe. This less obvious form of power, for example, can be seen in marketing done by the food industry. Nestle (2002, 2013) suggested that the food industry’s competitive drive to win over consumers creates a mass of advertisements to convince consumers to purchase their food products. Moreover, these food industries leverage their power to persuade “government officials, nutrition professionals, and the media that their products promote health” (Nestle, 2002, p. 1). The women’s accounts about their decisions to purchase, prepare, serve, and eat certain foods may have been driven by media and marketing. For example, their comments about purchasing organics and eating the healthiest options at fast-food places may have been driven by advertisement and marketing sources in part, as well as by their own independent choices. Furthermore, we live in a society that is continuously bombarded with food marketing, chiefly, fast foods, sugary beverages, and less healthy convenience type items. Researchers have found that media has powerful influences on shaping attitudes, choices, and decisions about eating (Reisch et al., 2013). These power structures intersected throughout the developmental stages of the women I interviewed. They influenced many aspects of their lives from childhood through adulthood. As such, these structural forces continually impacted people’s eating patterns, but in ways that are not readily apparent to those receiving the marketing and images.
Public policy level. The outermost layer of the SEM is *public policy* which consists of local, state, and national laws and policies. All levels of government can influence laws and policies to promote and support healthy food for all families, including those with lower incomes than many of the women whom I interviewed. Two (13%) of the women in this study, who also reported *conscientious efforts to make healthier food choices*, had at some point in their lives needed to access emergency food banks. Feliz who went through a divorce in her younger years had no alternative but to access food from a food bank. Anna reported living in a single parent home when she was a child. At one point in this woman’s life, income was limited, and her mother needed to use food stamps to help make ends meet. Similarly, in the literature review, I found that authors identified financial constraints for some of their participants, which necessitated access to food banks (Cason et al., 2006; Castellanos & Abraham, 2014; Sharkey et al., 2011; Suplee et al., 2015). Although 13 (87%) of the women in this study did not indicate the need to access food banks, emergency shelters, or food stamps, these resources were important in the past and could become so again, given the changing ups and downs in the economy and women’s lives generally. Funding for public food safety networks are important to maintain for those exact situations in which they are needed.

Public policy indirectly influenced the women’s eating patterns. This was evident in their reports of the access and ease they had navigating through websites to learn about healthy food options and the availability of purchasing organic foods. Feliz had accessed federally funded programs that provided aid such as food stamps. Public policy plays an important role in the promotion of healthy eating. Beyond periodic updates by the USDHHS and USDA (2010, 2015) of dietary guidelines, various laws have been enacted to promote production and access to healthy foods, as well as raise awareness about healthy eating. For example, two milestone pieces of legislation by the federal government include the Nutrition Labeling and Education Act of 1990 (USDHHS, 2014) that mandated nutrition labeling on all packaged foods, and the Affordable Care Act, passed in 2010 (USDHHS, 2017), which included requirements for large chains of
retail food stores and vending machine operators to disclose information about caloric content on all their foods. In addition, the federal government updates the United States Department of Agriculture Dietary Guidelines every five years to help guide Americans to implement healthy diets and prevent diet-related chronic diseases (USDHHS, 2016).

Thus, the SEM provided a multifaceted model that served as the framework I used to explore the descriptions about eating patterns among US born MO women. This perspective facilitated exploration of the relationships that existed between the interrelated levels. Therefore, the application of the SEM, grounded in CST, allowed me to more deeply explore descriptions about eating patterns of US born MO Hispanic women using a multilevel approach.

**Philosophical Underpinning: Critical Social Theory (CST)**

I used Critical Social Theory (CST) as my philosophical underpinning for this study. Used in that manner, CST provided a lens to identify hidden meanings and restrictive sociopolitical barriers that impacted eating patterns of an underrepresented ethnic group in the US (Wilson-Thomas, 1995). Fontana (2004) recommended using CST to contextualize situations of interest by addressing the historical, economic, political and social forces through a process consisting of seven components grounded in the critical tradition: *democratic structure, reflectivity, dialectic analysis, critique, context, politics, and emancipatory intent*. I applied each component in the process of conducting this study, as explained next.

At the start of each interview, I fostered a *democratic structure* to build trust with each participant by introducing myself and expressing my genuine interest in her descriptions about her own eating patterns. This component of the interview was vital to building relationships, so the women would feel comfortable and willing to share their personal information. The establishment of trust helped to build a collaborative connection that allowed the women to freely explore their personal meanings about their eating patterns.

During my process of analysis, I used *reflexivity*, meaning that I closely explored the data used varied perspectives to examine how the knowledge was being created and reflecting on the
effect of my role as researcher, including keeping a reflexive journal and exploring my decision-making. The intent was to expose conditions, situations, and environments that may have had impacts on the women’s eating patterns. In addition, I am a US born bilingual Hispanic woman of MO who has lived and worked for years in the communities where I recruited the women. I remained cognizant of my biases as a researcher to avoid misinterpreting the data. However, I also had some similar experiences to the women I interviewed that could have enhanced my understanding. For example, as a bilingual MO woman researcher, I was aware of various idioms and Spanish language terms the women spontaneously used during the interviews. This, in turn, contributed to greater comprehension and more accurate translation than I would have had if I lacked familiarity with the language.

_Dialectic analysis_ helped me probe deeper during the interviewing process to examine underlying aspects in the women’s eating patterns by asking them for further clarifications. During the analysis phase, applying multiple perspectives helped me to gain a richer understanding of how historical, societal, and other factors also may have shaped their descriptions about eating patterns (Fontana, 2004).

Through the _critique_ process, I explored associations of power in society to identify injustice and oppression within the historical and social structures in which MO women live. Having an awareness of the historical marginalization of MO Hispanics, as identified by Telles and Ortiz (2008), compounded by the continued marginalization of women in society, allowed me to provide a deeper contextual understanding of US born MO women. In this study, two-thirds (10, or 67%) of the women reported negative perceptions about their physical appearance. Their views were primarily focused on outward physical appearances, especially their weights. Some women reported being criticized by others about their appearances due to their eating patterns. Powerful structures such as marketing and media scrutinize women’s bodies and perpetuate the notion of images that are unrealistic and unattainable (Mills, Shannon, & Hogue, 2017; Rude, 2014). Furthermore, for some women in this study, families contributed to negative
body messages and self-images by focusing on superficial attributes such as weight. The women in this study did not refer to any form of stereotyping or reference to any specific indicators of marginalization. However, gender marginalization was evident in the comments about their physical appearances, weight, and household roles.

Interviewing the women in their homes, workplaces, and communities provided a lens into the contexts of the lives. Also, I made the following statement to each woman at the start of the interview, “Please describe your eating patterns. This description of your eating patterns can include your feelings, thoughts, opinions, perceptions, experiences, memories, images, influences, and anything else you wish to share about your eating patterns.” In this way, the interview request was open-ended and gave each woman the flexibility to fully share any experiences and reveal the context of her life to the extent she wanted. The women made numerous references to the impact their childhood years had on their eating patterns. As I listened to their descriptions about eating patterns, I remained open to potential historical, economic, political, and social factors that may have impacted their eating patterns. This provided deeper insights into the descriptions they shared about their eating patterns.

The politics were revealed within the women’s accounts and descriptions in which they provided insights into their eating patterns and the many factors that influenced them. All the women grew up in bicultural environments and continued eating foods from both their Mexican and American cultures as adults. However, the women also reported how social factors contributed to high levels of stress, anxiety, and depression, which triggered them to eat. Most of the women also reported having less time to prepare homemade meals due to their hectic schedules (i.e., work, college, extracurricular activities for their children). Furthermore, most of the women in this study had professional careers, yet continued to do most of the household chores, were primarily responsible for the care of their children, as well as shopping and meal preparations for their families. Most of the women also reported their mothers and grandmothers were major influences on their eating patterns during their childhood and their adolescent years.
As such, those early family-based social interactions, as well as the cultural aspects of their MO backgrounds, appeared to have continuing influential impacts on their eating patterns as adults. Their roles as caregivers, nurturers, and being primarily responsible for the domestic tasks in the home were impressed upon them at early stages of their development and carried into adulthood. These roles are also emphasized for women in the wider society. The women reported continuing to take on these roles at home, in addition to their own work and careers. The women’s descriptions provided insights into how underlying political forces may have had impacted their eating patterns. For example, the women expressed trying to meet standards, such as preparing meals for their families and providing healthier food options for them, while maintaining their professional careers. These difficult-to-meet standards may stem from marginalization of women in society and the pressures for women to conform to gendered roles, while striving to be treated as equals in the workforce. As such these societal pressures may contribute to feelings of inadequacy, their levels of stress, and can ultimately impact many facets related to their eating patterns.

The topic of eating patterns generated a great deal of interest among the women I interviewed. The women commented on its emancipatory intent, saying that it raised their awareness about what they were eating, why they were eating, and who impacted their eating patterns. Ten (two-thirds) of the women voluntarily stated that the interviews helped them gain a deeper understanding about their eating patterns. They expressed that they were grateful to have been interviewed and reported voluntarily that they planned to be more mindful of their eating patterns.

The women I interviewed described their eating patterns from their own realities. Eating patterns were shaped by their life experiences, which included social networks, their Mexican roots, assimilation into American culture, and their socioeconomic status. The interconnections within these multifaceted factors, from the intrapersonal core of the SEM to the outermost layer, policy and structural levels, impacted their eating patterns. Additionally, approaching the
women’s descriptions using a CST lens shed light on the impact that historical, economic, political, and social factors had on their eating patterns in the past and continue to exert in the present.

Theoretical and Methodological Importance

Theoretical Implications

This study serves as an example of the multifaceted influences that impacted eating patterns for US born MO women. The SEM provided a framework to explore the interrelations that exist between individuals and their environments (Belsky, 1980; Teris, 1987; Blum, McNeely, & Nonnemaker, 2002; Bronfenbrenner, 1981; MacMahon & Pugh, 1970; McLeroy, Bibeau, Steckler, & Glanz, 1988; Sweat & Denison, 1995;). The SEM allowed me to explore the women’s eating patterns from five influence levels, ranging from the intrapersonal, interpersonal, institutional, and community levels, to policy and structural levels (McLeroy et al., 1988). This multifaceted model, with interrelated levels, allowed me to thoroughly explore the complexity of factors that impacted the women’s eating patterns and thus was a good fit for this study, just as the CST philosophical approach broadened the dimensions of the analysis and interpretations of the women’s narratives.

Methodological Implications

The exploratory-descriptive, narrative method I used in this study generated new knowledge about US born MO women’s descriptions eating patterns compared to the literature I reviewed (Brink & Wood, 1998). Individual interviewing allowed the women to take time to provide thoughtful reflections about their own eating patterns. The broadness of the interview inquiry gave the women the freedom to express their feelings about how their emotions impacted their eating patterns. They were able to express thoughts and opinions about the factors they
perceived as impacts on their own eating patterns. As each interview progressed, the women reflected on memories about their childhood experiences and how these experiences impacted their adult eating patterns. The women also reported on other factors that impacted their eating habits, such as time, money, and cultural influences. Overall, the methods I used facilitated deep insights into the women’s descriptions about their eating patterns. By thoughtfully reflecting on their words, using the SEM and CST as ways to find additional meanings in their narratives, I interpreted the findings and made comparisons to the literature reviewed.

**Additional Interpretive Insights**

The structural layers that impacted the women’s eating patterns were multifaceted and complex, including family, SES, culture, gender, race, and ethnicity. Their SES generally placed them at an advantage because they were primarily middle-class women with professional careers. For many, their level of education was reflected in their increased knowledge about nutrition, which in turn informed their choices and eating patterns. However, broader social structures, such as standards society perpetuated about gender roles, also contributed to the formation of their eating patterns. Unrealistic expectations for women to be treated as equals in the workforce, while continuing to uphold roles as homemakers in their families added to their stressors. As such, many of the women juggled multiple roles as working women, mothers, and stewards of the meal preparation in their homes. As a result of these multiple roles, they often had to eat at fast-food places and restaurants, although they reported that they made conscious efforts to choose healthier foods at those eating establishments. Furthermore, the geographical location where the women lived, largely urban and suburban, provided easy access to grocery stores and restaurants.

The women also talked about the impacts that growing up in two cultures had on their eating patterns. All the women grew up in bicultural worlds. Many of them only spoke English, however, all reported their MO cultural upbringing. The presence of their cultural roots continued to be a strong factor in their lives, even to the third and fourth generation, despite the loss of their families’ native language. This was evident in their descriptions about their familial celebrations.
infused with Mexican traditions, as well as the Mexican foods they ate while growing up and which they continued to eat as adults. While growing up in two cultures may have its advantages, their ethnicity also is associated with disadvantages that have resulted from negative racial attitudes still operational in US society. As a group, MO women have been, and continue to be, marginalized in the US (Ortiz & Telles, 2012).

Most of the women reported about their perceived self-images. The comments were primarily negative and women identified that often emotional triggers played a role in their eating patterns. Furthermore, power structures, such as marketing and media, were evident as influences within their reports about decisions they made related to the foods they purchased and places they opted to eat when they did not have time to cook at home. Overall, for the women in this study, multifaceted layers impacted their daily lives, which, in turn, were manifested in their choices of foods and overall eating patterns.

**Relationship Between the Findings and Previous Research**

In the US, MO Hispanic women have been a vulnerable and marginalized group for generations. For example, Ortiz and Telles (2012) identified the racism Mexican Americans continued to experience, even after being fourth generation and higher as Hispanics in the US. Factors such as as legal status, socioeconomic level, educational attainment, and language have historically impacted MO Hispanics’ health. In this study, the women did not mention racism. All were US born, had achieved higher income levels, and most had achieved higher educational attainment, compared to the literature I reviewed. However, there also were similarities I identified in the published literature that supported the findings in this study.

One study in the literature I reviewed found that participants who had higher educational attainment also had increased dietary self-efficacy (Montoya, 2011). In this study, all the women I interviewed reported descriptions, which I included within the major theme of *Personal Agency*, that reflected a certain degree of assurance in their ability to exert control over their eating
patterns. However, more similarities were identified about factors related to how the women responded to eating triggers and their own perceived self-images between this study and the literature results. Factors in the published studies included: lack of self-control, increased consumption of food due to stressors in the US, frequent junk food snacking as a reward for working hard, desire for convenience, life-style changes, and social isolation (Greaney, 2012; Hoke, 2016; Lindberg, 2011; Schlomann, 2012).

I found more similarities between the previous research and my findings in terms of the theme, *Relationships with People about Food*. The authors from the previous literature also identified factors such as family gatherings, multigenerational household challenges, and control by others to limit food intake. The women respondents in the published literature were identified as the primary food purchasers and cooks, placed their families’ needs before their own, and catered to their families’ food preferences (Cason, 2006; Castellanos, 2014; Gray, 2005; Greaney, 2012; Guarnaccia, 2012; Hampl, 2001; Hoke, 2006; Keller, 2007; Kerber, 2014; Ramirez, 2007; & Schlomann, 2012;).

Additionally, another major theme in this study, *Cultural and Familial Influences*, also showed similarities with what was reported in the previous literature, especially about the impacts of family and celebrations. The authors from the published literature identified factors that impacted eating patterns, such as changes in food from Mexico to the US, family preferences for culturally traditional home cooked meals, greater assimilation to American food with linguistic acculturation, and/or language challenges (Akresh, 2007; Castellanos 2014; Creighton, 2012; Greaney, 2012; Kerber, 2014; Lindberg, 2011; Martinez, 2013). The major factors I identified in this study evolved from women’s reports about their Mexican roots, those of the American culture, and how these cultures both influenced their eating patterns in ongoing ways. This distinction may be a partial result of the differences between largely first-generation participants in the published literature, in comparison to my selection of only second generation and higher MO women.
In another major theme, Environments, I had identified factors that emerged from the descriptions of the women in this study that were similar to those reported in the literature. However, the circumstances for the women in this study differed dramatically. The women in this study primarily had professional careers in health and other fields, while others were college students. Only three (20%) of the women had non-professional roles when they were interviewed. Related to the Environments theme, women generally reported availability and ease of accessing restaurants for multiple reasons, including enjoying different foods or having little time to prepare meals when taking their children to extracurricular and school-related activities. Most of the women in this study lived in urban and suburban locations where healthy food was easily accessible. The authors from the literature I had reviewed reported transportation issues to access food, which was not part of what the respondents in this study noted. However, work demands, use of emergency food banks, and farmers markets had been, or at times still were, problematic for some of the women interviewed for this study. Lastly, the women in this study made reference to the high cost of healthier foods. However, their concerns centered around knowing where the food was produced and specifically the cost of organic produce, which they wanted to purchase.

One of the prominent differences between the previous literature and the women’s interviews in this study was the impact time and impact of money had on eating patterns. The women I interviewed reported having less time to prepare healthier meals at home due to their families’ extracurricular activities and professional careers. Compared to the previously reviewed literature, those authors had characterized the impact of time as primarily working long hours and several jobs to financially make ends meet, which limited their time and energy to cook at home (Cason et al., 2006; Castellanos, 2014; Greaney, 2012; Guarnaccia et al., 2012; Hoke et al., 2006; Keller et al., 2007; Lindberg & Stevens, 2011; Ramirez et al., 2007; Schlomann et al., 2012; Martinez, 2013).

A notable characteristic among all studies in the previous literature was the level of income among sampling frames. More than 95% of the participants across all the studies in my
literature review were at or below the federal poverty level, with fewer than 5% of those authors reporting participant incomes at $40,000 or more (Akresh, 2007; Creighton et al., 2012; Gregory-Mercado et al., 2007; Montoya et al., 2011; Sharkey et al., 2011; Suplee et al., 2015). In this study, the incomes of the women I interviewed had annual income ranges that were considerably higher in comparison. In this study, more than half of the women’s incomes ranged from $50,000-$149,000, while only 1 (7%) fell within the $0-$24,000 income range. The primary reasons the women I interviewed had reported insufficient money impacting their eating patterns were during times they experienced transitions with college, were undergoing divorce, or during their childhood and adolescent years. The women in this study reported fewer financial constraints impacting their eating patterns compared to those reported by authors of previous studies reviewed (Cason et al., 2006; Castellanos, 2014; Greaney, 2012; Guarnaccia et al., 2012; Keller et al., 2006; Montoya et al., 2011; Ramirez et al., 2007; Schomann et al., 2012).

**Implications of the Study for Nursing Practice, Education, and Research**

The women in this study provided a wealth of information during their interviews. Coding and other processes of analysis resulted in professional implications for nurses, including practice, education, and research. These are critical considerations in a practice-based discipline like nursing.

Eating patterns are considered strong predictors of overall health and chronic diseases (USDHHS & USDA, 2015). MO women comprise the largest Hispanic subgroup of Latinas (63.8%) in the US (US Census, 2013) and have higher obesity rates (50.6%) compared to non-Hispanic white women (38.0%) (Hales, Carrol, Fryar, & Ogden, 2017). It is imperative to understand the eating patterns of US born MO women from a generational and subgroup perspective, including societal forces. These insights may propel practicing nurses, educators, researchers, policy makers, and other health professionals to look beyond acculturative and
homogeneous viewpoints to a broader structural approach that can positively impact eating patterns that contribute to maintaining overall health and preventing chronic diseases. This may be done by nurses working clinically with individuals and groups to see each person within their own broad context and be better informed about forces surrounding people that influence their choices about food. Knowing the contexts of individuals and communities when working holistically to promote health as nurses may enable consideration of possible innovative interventions to promote health.

**Implications for Nursing Practice**

From the results of this study, I presented implications for nursing practice related to the descriptions of eating patterns of US born MO Hispanic women. Multilevel and complex factors impacted the eating patterns of the women in this study. The women verbalized increased awareness of their eating patterns. They expressed an appreciation for the opportunity to be interviewed and reported they wanted to become more mindful of their eating patterns because of being interviewed. One of the suggestions I derived from this study was the need for nurses to help patients and communities understand the implications that generational status, cultural norms, societal factors, and historical and political forces have on eating patterns. Nursing is a profession that views people and their health from a holistic perspective. As such, nurses’ expertise in addressing the whole person within the contexts of their families and communities can result in positive impacts on societal factors that may be negatively impacting health. Furthermore, nurses can take the lead by exploring ways to develop new and innovative strategies to address eating patterns, as well as collaborating with other disciplines in the movement toward wellness from a nutritional standpoint.

**Implications for Nursing Education**

In this chapter, I provided insights on differences in factors that impact eating patterns identified in the published literature about first generation MO Hispanic women, compared to the
second and higher generations of MO women living in the US whom I interviewed. Nursing faculty can help undergraduate and graduate nursing students develop deeper understanding of eating patterns by offering specialized courses in advanced nutrition that specifically address eating patterns from a multilayered approach. Integrating frameworks, such as the SEM, and partnering with people to explore their lives and situations using CST, can provide broader perspectives on the forces that impact eating patterns and their health. Collaborating with faculty in other disciplines who teach courses, such as anthropology, Latin American Studies, Women and Gender studies, and the Arts, may broaden students’ perspectives, as well as help them develop creative ways to extend beyond traditionally implemented approaches. Innovations can be proposed to help communities gain a greater understanding of the consequences of varied factors affecting eating patterns and how these influences might be modified for positive health results.

**Implications for Nursing Research**

The Hispanic population is not a homogenous group. Knowledge about factors that impact MO women’s eating patterns from subgroup and generational perspectives are important for researchers to consider. From my interpretation of the study results, I have suggested the need to address nursing research beyond standardized assumptions about the Hispanic population. Researchers can gain a more comprehensive understanding of eating patterns by examining variations such as migration, generational status, education, political forces, and socioeconomic status. Furthermore, the American culture is having a more profound impact on Hispanics of second and higher generations. Therefore, it is essential to focus research using a subgroup approach, rather than studying an internally diverse group as if it is homogenous, without recognizing the varied cultural differences within the larger population. Innovative research approaches applying creative methods are essential to further develop and test instruments. Implementing new interventions could address eating patterns that may be contributing to the growing obesity epidemic among Hispanics.
Implications for Vulnerable Populations

US born MO Hispanic women are a vulnerable group in the nation. Factors such as legal status, socioeconomic level, educational attainment, and language have impacted MO Hispanic women's health. The majority of the participants in the samples from the literature reviewed consisted of immigrants from Latin and Central American countries who had migrated to the US. However, the women participants in this study were all US citizens, with varying levels of education ranging from completion of high school to master's degrees. They all spoke English and some were bilingual. Additionally, the majority of the women in this study had professional careers, resulting in middle socioeconomic income levels. Furthermore, the majority of the women in this study had BMIs that placed them in the overweight and obese categories. These categories are defined for adults as overweight for BMIs of 25-29.9 and obese if the BMI is ≥30 (CDC, 2012). Nearly one-fourth of the women, 4 (27%), had BMIs that are considered overweight, while another 7 (47%) were defined as obese, with BMIs >30. US born MO Hispanic women continue to experience high rates of obesity and chronic diseases nationally. The women in this study had achieved higher educational levels, were second to fourth generation, and were middle income earners, yet relatively few had BMIs in the normal range. The authors of the previous studies I reviewed had reported multiple barriers, primarily due to numerous socioeconomic disadvantages experienced by their sample populations, such as adapting to a new country and living conditions, experiencing financial constraints, having low educational levels, encountering limited social support, and having language difficulties. These were considered limitations to their ability to eat healthy, yet the women I interviewed also encountered barriers in different ways.
Eating patterns are considered strong predictors of overall health and chronic diseases (USDHHS & USDA, 2015). Associations between diet and chronic conditions, such as diabetes, cancer, and obesity, have been made (Willett et al., 2006). Implications from this study may assist in expanding foci to include the many complexities that result from the multiple influences, societal powers, contexts, living conditions, other environments, and individual situations that impact eating patterns and may be negatively impacting health and reinforcing vulnerabilities.

**Strengths and Limitations of the Study**

A strength of this study includes insights of US born MO women's descriptions about their eating patterns. This is a group whose voices are lacking in much of the published research literature. A qualitative approach provided valuable information about the women’s thoughts, emotions, experiences, and behaviors that impacted their eating patterns. Another strength of this study was that a qualitative exploratory-descriptive, narrative approach provided a venue for me to learn directly from the women I individually interviewed. By maintaining a reflexive journal after each interview and throughout analysis, I enhanced and maintained the integrity of my research process. The use of bracketing aided in being aware of my biases, preconceptions, and assumptions. This, in turn, strengthened my awareness of my own experiences of being a US born MO Hispanic woman, which helped separate my biases from influencing the data interpretation, including consistently keeping and referring to my audit trail throughout the analysis phases. Lastly, a systematic and iterative process of analysis was applied that ensured methodological rigor.

One strength of this study is that I was able to obtain intricacies, such as body language, tone of voice, facial expressions, and the ability to probe deeper into the women’s descriptions through individual interviews. This information is basically missed in quantitative research. Another strength of this study is that findings can be transferable to other settings, regardless of the number of women interviewed, based on identified similarities.
There were limitations to the study. First, fifteen women were interviewed for this study and interviews ranged from forty-five minutes to two hours. The large amount of data collected was rich with detailed examples and descriptions of eating patterns. However, the volume of data transcribed from the women I interviewed was time consuming to analyze interpret. However, as a result of the large amount of data I had collected, there were rich, detailed descriptions about the women’s eating patterns.

A second limitation is that findings from qualitative data may take longer to summarize and can be more difficult to depict in visual ways because of the narrative nature of the results, in comparison to the numerical calculations and graphical displays that are used for quantitative data. However, in this research, I was able to give voice to a vulnerable, historically marginalized group of MO women who have been living in the US for multiple generations and yet have not been well represented in the literature. The additional analysis and synthesis time can assist in identifying aspects that add depth and breadth to the women’s narratives and knowledge about this marginalized group using their own perspectives.

Lastly, while it can be considered a strength in trust-building that I also am a US born MO Hispanic woman who has lived and worked in the communities where I recruited the women participants, it can also be a limitation due to existing preconceptions. To address this potential problem, I kept a reflexive journal throughout my interviewing and analysis processes to help me identify any biases. The biases I had to be acutely cognizant about were the cultural similarities in the women’s descriptions about their families and some of traditional ethnic foods they described so I would not miss differences or outlier viewpoints. There were multiple similarities in their descriptions of their eating patterns during their childhood and adolescent years, with which I was familiar and needed to be especially sensitive to maintain an unbiased perspective. Furthermore, my own strong cultural roots and upbringing about women as primarily responsible for cooking and preparing family meals was also a common shared message, so I avoided making assumptions or asking leading questions on these topics while encouraging the women to clarify
their own meanings. My approach to the interview minimized the potential for my preconceptions to interfere with the process by requesting that each woman address one open-ended inquiry at the start of the interview and then allowing her to reflect and thoughtfully respond, with prompts to encourage her to clarify more as needed.

Suggestions for Future Research Based on Themes

In this study, I identified five major themes: Personal Agency, Relationships with People about Food, Cultural and Familial Influences, Environments, and Time and Money. I described suggested areas for future research within these five major themes.

Personal agency. Perceived self-images was an aspect of the sub-theme, what the women did not like about themselves, within the major theme, Personal Agency. Almost all (93%) of the women I interviewed remarked about physical appearance and shared their own views about their self-images. They also indicated that their eating patterns contributed to their self-images. Many studies on self and body image have been conducted, including the following: Hofmeier et al. (2017); Tylka, and Wood-Barcalow (2015); and Webb, Wood-Barcalow, and Tylka (2015). The participants in these studies reported being dissatisfied with their weight changes (Hofmeier et al., 2015; Tylka, & Wood-Barcalow, 2015; Webb, Wood-Barcalow, & Tylka, 2015). For example, Hofmeier et al. (2017) surveyed 1,849 women over the age of 50 from various ethnic backgrounds, including 2.7% Hispanic/Latinas, to explore perceptions about their self-images. These authors reported the women were dissatisfied with their bodies and attributed their dissatisfaction to both physical and psychological aspects of aging. Furthermore, the women in their study expressed the importance of exercising and eating healthy, despite challenges they faced to maintain healthy life styles. In my study, one-third of the women who reported their ages in the ranges from 45-64 years, described their views about their own self-images, including being overweight or obese in relationship to their eating patterns. They also included criticisms they had received from others.
Furthermore, researchers have explored self-image from a subgroup perspective, such as MO women (Bojorquez-Chapela, Unikel, Mendoza, & De Lachica, 2014; Cachelin, Monreal, & Juarez, 2006; Colchero, Caro-Vega, & Kaufer-Horwitz, 2014; Curiel, 2008; Felix, 2016; Fernandez, 2005; Gamboa, 2007; Petti, 2008; Poloskov & Tracey, 2013; Snooks & Hall, 2002; Stein, Trabold, & Connelly, 2017; Stokes, 2014; Tiggemann, 2015). As one example, Stein, Trabold, and Connelly (2017) conducted focus groups with 15 MO, first-generation women living in rural farming areas about their perceptions of body weight, eating, and weight control behaviors. The authors found the weight and eating behaviors reported by these women were influenced by their roles as mothers, placing others’ needs before their own, and described that their weight gain was due to emotional triggers which led them to eat. Similarly, the US MO women I interviewed reported that emotional triggers contributed to their eating patterns.

Additional research, including in-depth reviews of studies specifically focused on self-image in adult US born MO women from generational and sub-group specific perspectives could provide other insights. Also, collaboration with researchers from other disciplines, such as social sciences, psychology, public health, and anthropology, whose areas of study include human behavior, could be worthwhile. Nurses collaborating with other disciplines can result in broader perspectives and new insights. The women in this study also reported that emotions, such as anxiety and stress, frequently triggered their eating. Therefore, additional research, using mindfulness based interventions or other alternative stress-reducing approaches, could be explored. O’Reilly, Cook, Spruijt-Metz, and Black (2014) conducted a literature review on mindfulness based intervention. These interventions are targeted to aid in the development of an increased awareness of thoughts and emotions that trigger emotional eating and then acknowledge those emotions without having to impulsively resort to food to suppress them (O’Reilly et al., 2014). The authors identified interventions such as mindful eating programs, combined cognitive and behavioral approaches, and mindfulness exercises to produce positive
results for those who had obesity related eating behaviors (O’Reilly et al., 2014). Other authors conducted a systematic review on mindfulness meditation as an intervention for emotional and binge eating, and included nutrition/energy balance classes, goal setting, and problem solving strategies in their analysis. They reported that the mindfulness intervention effectively reduced these types of eating habits (Katterman et al., 2014).

I found only one mindfulness intervention study specific to Latinas (Daly, Pace, Berg, Menon, & Szalacha, 2016). The study sample was comprised of 37 Latina adolescent females (ages 8-14), with BMIs >90th percentile (BMI range 35.7 ±7.6kg/m2). For children and teens, the 85th to less than 95th percentile is considered overweight, and the obese category is when the BMI is 95th percentile or greater (CDC, 2016e). BMIs for children and adolescents are determined using age and sex-specific percentiles instead of using the adult BMI categories. (CDC, 2016e). The Latina adolescents participated in a six-week program, which met once weekly for 90 minutes. Mindfulness interventions, such as slow intentional eating and identification of cues and triggers that led to overeating, were implemented in the program. Results from this study found a statistically significant decline in BMI by 1.1kg/m2 (t =3.03, p = 0.019) among those teens who used mindfulness interventions (Daly et al., 2016). Mindfulness also appears to be an area worthy of further exploration for MO adult women.

**Relationships with people about food.** To my knowledge, this is the first study to examine descriptions of feelings, thoughts, opinions, perceptions, experiences, memories, images, and influences reported by US born MO Hispanic women who were second generation or higher. The women frequently referenced the impact their mothers had on their eating patterns. For many of the women, their mothers were first generation. As such, additional research could be conducted to compare differences among mother-daughter dyads from subgroup, gender-specific perspectives. Social and historical factors, such as generational identity, assimilation, and educational attainment, can differentiate mothers from their daughters, as was evidenced by the
group of women I interviewed. Gaining a broader understanding of the heterogeneity within the
dyads can be further refined by nurses in practice, education, and research.

Another possibility is redesigning this study to use a participatory research approach with
a larger group. Participatory research is an approach that focuses on contributions, decision
making, and actions that involve all members of a group, including researchers and participants
(Cornwall & Jewkes, 1995). Various techniques can be employed with this approach. One such
approach is the use of photovoice (i.e., individuals taking photographs related to a focal topic)
and then meeting in focus groups to elicit other explanations and reactions and clarify
unanswered questions. For example, Haglund, Belknap, Garcia, Woda, and O'Hara (2016) used
this approach to explore adolescent Latinas' perspectives on relationships. Participants in this
study took photos illustrating their perceptions of relationships. The photographs taken by the
participants were then used to guide focus group discussions with them about the topic of healthy
relationships.

**Cultural and familial influences.** Minimal research has been conducted from a gender-
based, subgroup approach for Hispanics. Overall, obesity rates of men and women in the
Hispanic population have escalated (Hales, Carroll, Fryar, & Ogden, 2017). Modifiable risk
factors for obesity and chronic diseases include unhealthy diets and eating behaviors (Blanco et
al., 2016). However, other factors, such as environmental, social, and economic influences also
contribute to overall health and eating behaviors, such as the complexities of SES, education, and
occupation. These SDH are factors that can have positive or negative impacts on access to
resources among ethnic minority groups and are considered less modifiable than other personal
choices (APA, 2007; World Health Organization, 2016). Therefore, a broader perspective is
needed, one that includes examination of the SDH, including how factors such as race, ethnicity,
class, and gender intersect (Crenshaw, 1991). Additionally, exploring other factors could provide
valuable insights, such as marginalization of women and the impact gender roles have on eating
patterns of MO Hispanic women. In general, more voices of Hispanic women need to be heard, especially since they otherwise have been scarcely found represented in the literature.

**Environments, and time and money.** The other two major themes that I developed from the women’s narratives were less prominent, but their importance cannot be discounted. The women reported the impact worksites had on their eating patterns. As such, work environments may be ideal places to reach more women to study their eating patterns. Also, exploring the impact of political forces that affect consumer decisions, and marketing companies that target women’s self-images, could be examined from MO Hispanic women’s perspectives.

One additional message that I developed from the insights of the women I interviewed could include exploring the possibilities of developing greater environmental awareness about farms and needed investing of additional supportive resources and money into producing organics locally. Also on a policy level, fewer resources could go into the marketing of unhealthy foods. Nurses and other health professionals can collaborate and approach policymakers to advocate at the state and national levels to support and sustain the growth and production of locally grown organic foods. Furthermore, nurses can play a role in partnering with local and national organizations to promote a decreased consumption of processed food and increased consumption of more organic and nutritious foods.

**A Final Storyline Composite of US Born MO Women’s Eating Patterns**

As proposed by Vaismoradi et al. (2013), finalizing the thematic analysis entailed creating a “storyline” (p. 107) about the eating patterns of MO women, based on the connections and interpretive narrative to answer the research question. The MO women did describe their eating patterns in great detail. Following is a composite view from the women who were interviewed.

The US born MO woman struggles between being a professional woman and meeting the needs of her family. The demands she places on herself to retain her maternal head of household
role as a Latina woman, and exert her independence as a professional American woman, have impacts on her eating patterns. As a US born MO women, she is vulnerable and has been marginalized by expectations of how women should look, that are dictated by society. As a result, she struggles with her perceptions of herself and strives to improve her self-image and/or describes it in negative terms.

However, the US born MO woman is well educated and aware. She is a middle-class woman with the financial means to purchase the foods she desires. She is capable of making decisions about her own health and the foods she eats. The US born MO woman has lived in a bicultural world all her life and has been able to retain her preferred features from her culture of origin and integrate them into the mainstream US culture in which she lives. Throughout her life, the US born MO woman has witnessed her family develop chronic health conditions related to their eating patterns and has made efforts to prevent these conditions in herself.

The US born MO woman is caring. She has integrated her life experiences, higher education, and improved socioeconomic status to improve her eating patterns as well as those of her family. The US born MO woman is resilient. Despite the pitfalls and setbacks she experiences with her eating patterns, she is determined to make conscientious efforts about healthy eating patterns and passes the knowledge she has gained to her family. The family role of the US born MO woman is evolving. A key to identifying ways to improve eating patterns and health among US born MO Hispanics lies in the knowledge that can be obtained from their perspectives about their lives and the descriptions of their contexts.

Conclusion

As the Hispanic population increases, so does the need to understand the factors that impact health from a generational and subgroup perspective. Mexican origin (MO) women comprise the largest Hispanic subgroup of Latinas (nearly two-thirds) in the US and have high incidences of obesity and associated chronic diseases. Modifiable risk factors for obesity and
Eating patterns are complex. The complexity of how people develop their patterns of eating is multi-layered and an ongoing process. As a result of this research, I suggested that extending beyond blanket assumptions is needed for the heterogeneous Hispanic group with members who differ in their countries of origin, backgrounds, language, and generational status. The goal is to produce a broader examination of components that encompass economic, social, political, and environmental factors that can impact eating patterns from generational, cultural subgroup, and gender specific perspectives. As the growth of the second, third, and higher generations of Hispanics in the US rises, it is crucial to gain more comprehensive understanding of this heterogeneous group. It is my hope that this study sheds light about the need to look beyond common Hispanic group characteristics and explore innovative approaches for teaching, studying, and developing policies to address eating patterns and associated diet related diseases.


Appendix A

Sample Email for Recruitment

Dear [enter name of organization or its representative]:

I am a doctoral (PhD) nursing student in the Marquette University College of Nursing conducting a research study on descriptions about eating patterns for my dissertation. The purpose of this study is to explore the descriptions of United States-born Mexican origin Hispanic women on their own eating patterns. The results of this study may provide a better understanding of the topic that could be used to improve health. I would like to obtain your permission to distribute the attached flyer at an event held by your organization. Additionally, I would also be able to attend any events you may hold at your facility to explain my study and recruit eligible women who might be interested in it.

I have attached a flyer explaining all the details of the study for you to review. In brief, the study will involve a one-time interview, a short questionnaire, and the measurement of height and weight. The process will generally take less than two hours to complete. To be eligible to participate in this study, a woman needs to be 18 years or older, born in the United States, and of Mexican origin.

Upon completion of the interview, questionnaire, and height and weight measurement, each participant will receive a $25.00 gift card to show my appreciation for her time. All inquiries are confidential.

If you have any questions or you would like to discuss this further, please feel free to contact me:
My email is juanita.garcia@marquette.edu or you can call me by phone at 262-347-8022.

Thank you for your interest.

Juanita T. (Terrie) Garcia, MEd, RN
PhD candidate
Marquette University College of Nursing
United States Born Mexican Origin Female Research Participants Needed

I am a doctoral (PhD) student in the Marquette University College of Nursing and a Registered Nurse who is conducting a research study on descriptions about eating patterns for my dissertation. The purpose of this study is to explore descriptions about eating patterns among United States (US) born Mexican origin Hispanic women. The results of this study may provide a better understanding of the views of US born Mexican origin Hispanic women, which are not well known.

Eligibility Criteria:
- 18 years or older
- Born in the United States
- Hispanic women of Mexican origin

What does the study involve?
- One-time interview, generally less than two hours
- A brief informational questionnaire
- Measurement of height and weight

In appreciation of your time, you will be compensated with a $25.00 gift card. All inquiries and information collected will be kept confidential.

To volunteer for this study, and for more information, please contact Juanita T. (Terrie) Garcia, MEd, RN, by Email: juanita.garcia@marquette.edu or Phone: 262-347-8022.
You have been invited to participate in this research study. Before you agree to participate, it is important that you read and understand the following information. Participation is completely voluntary. Please ask questions about anything you do not understand before deciding whether or not to participate.

PURPOSE:
The purpose of this research study is to explore the development of eating patterns in United States (US) born Mexican origin women from their own individual descriptions. Eating patterns consist of the foods and beverages that a person consumes. These patterns also include your own descriptions about your eating behaviors. You will be one of approximately 15 participants in this research study.

PROCEDURES:
The study involves individual interviews. I will be interviewing women on a one-on-one basis, and asking broad open-ended questions so each one can freely share her own descriptions about eating patterns. Each interview will take place at a location that is convenient, quiet, and mutually agreeable to both of us and will be conducted in English or Spanish, as you prefer. The interview will start with the following question: “Please describe your eating patterns. This description of your eating patterns can include your feelings, thoughts, opinions, perceptions, experiences, memories, images, influences, and anything else you wish to share about your eating patterns.” At the end of the interview, I will ask you to complete a brief two-page demographic form, in English or Spanish, as you prefer, and I will also take a measure of your height and weight. Then, I will provide you with a $25.00 gift card to express my appreciation for the time you contributed to the study. You will be audio recorded during the interview portion of the study to ensure accuracy. The audio recording will later be transcribed verbatim by a bilingual transcriptionist who will also maintain confidentiality. Before I finalize the transcripts for analysis, I will recheck each to assure that any identifying information, including your name, location, or other specific facts you might mention, will be adjusted or eliminated to maintain your privacy and confidentiality.

DURATION:
Your participation will consist of a one-time session that could take as long as you want to be interviewed, but will generally be completed in less than two hours.

RISKS:
The risks associated with participation in this study are minimal and are not over and above those associated with participation in the interview, including the time it takes to complete the brief demographic form and to measure your height and weight.

BENEFITS:
There may or may not be direct benefits to you participating in this study. By me closely listened to you on a topic that is not frequently discussed, you may sense the value of sharing your descriptions and helping me learn your views about eating patterns. Indirect benefits to participate in this study would be those of increased focus on your eating patterns. When I complete the research, the results may help other researchers, nurses, educators, and policy makers gain a better understanding of the descriptions about eating patterns of US born Mexican origin Hispanic women, which are not well known.
CONFIDENTIALITY:
The records of this study will be kept confidential. All data will be kept in a locked file at my residence; only I will have access to the data. All your data will be assigned an arbitrary code number rather than using your name or other information that could identify you as an individual. I will make every effort to ensure confidentiality and anonymity by keeping all signed consent forms and identifiable data in a separate locked storage cabinet and all electronic data will be password-protected; only I will have access to the data in an office at my residence. All audio recordings will be deleted from the recorders after transcriptions are verified and identifiers removed. If the report is published, I will include direct quotes; however, I will not include any information that would make it possible to identify you. All raw data will be kept indefinitely after I have published the results. The records may be used for future research purposes, such as further analysis for publication. Your research records may be inspected by the Marquette University Institutional Review Board or its designees, and (as allowable by law) state and federal agencies. If I terminate the research for any reason, all data will be destroyed.

COMPENSATION:
You will receive a $25.00 gift card to thank you for your time. I will distribute it to you after the interview ends and the brief demographic questionnaire and height-weight measurements are completed.

VOLUNTARY NATURE OF PARTICIPATION:
Participating in this study is completely voluntary and you may withdraw from the study and stop participating at any time without penalty. Your data will be used even if you withdraw from the study. The gift card will be given after completion of the interview, demographic questionnaire, and height-weight measurements. When asked to complete the brief demographic form, you may skip any questions you do not wish to answer. You also will be asked to have your weight and height measured, which is completely voluntary. Your decision to participate or not will not impact your relationship with me, the investigator, or Marquette University.

ALTERNATIVES TO PARTICIPATION:
There are no known alternatives other than to not participate in this study.

CONTACT INFORMATION:
If you have any questions about this research project, you can contact Juanita T. (Terrie) Garcia at (262) 347-8022 or juanita.garcia@marquette.edu; alternatively you may contact my advisor, Dr. Leona VandeVusse at (414)-288-3844 or leona.vandevusse@marquette.edu.
If you have questions or concerns about your rights as a research participant, you can contact Marquette University’s Office of Research Compliance at (414) 288-7570.

I HAVE HAD THE OPPORTUNITY TO READ THIS CONSENT FORM, ASK QUESTIONS ABOUT THE RESEARCH PROJECT AND AM PREPARED TO PARTICIPATE IN THIS PROJECT.

___________________________________________
(Printed Name of Participant)

___________________________________________             _________________________
(Signature of Participant)                                                            Date

___________________________________________
(Printed Name of Individual Obtaining Consent)

___________________________________________             _________________________
(Signature of Individual Obtaining Consent)                              Date
Appendix D
Demographic Information Form

Assigned Code Number ________________

*Instructions:* Please answer each question; mark the box or fill in the blank.

1. **What is your age?**
   - ☐ 18 to 24 years
   - ☐ 25 to 34 years
   - ☐ 35 to 44 years
   - ☐ 45 to 54 years
   - ☐ 55 to 64 years
   - ☐ Age 65 or older

2. **What language do you speak most?**
   - ☐ English
   - ☐ Spanish
   - ☐ Bilingual (English and Spanish about equally)

3. **What is your generational status in the United States (US), based on the timing of your family’s immigration from Mexico?**
   - ☐ 2\textsuperscript{nd} (born in US and have one parent born outside of the US and its territories)
   - ☐ 3\textsuperscript{rd} (born in the US and have both parents born in the US)
   - ☐ 4\textsuperscript{th} (born in the US and have both parents born in the US)
   - ☐ 5\textsuperscript{th} and higher (born in the US and have both parents born in the US)

4. **Which best describes where you live?**
   - ☐ Rural (in the country)
   - ☐ Urban (in the city)
   - ☐ Suburban (in a suburb)

5. **Counting yourself, how many people live in your household?**
   - ☐ 1
   - ☐ 2
   - ☐ 3
   - ☐ 4
   - ☐ 5
   - ☐ 6
   - ☐ Other _____
6. What is your annual income (or combined annual income if you are living with others)?
   ☐ $0-$24,000
   ☐ $25,000-$49,000
   ☐ $50,000-$74,000
   ☐ $75,000-$99,000
   ☐ $100,000-$149,000
   ☐ $150,000 or more

7. What is the highest level of education you have?
   ☐ Less than high school diploma
   ☐ High School graduate or equivalent
   ☐ Some College
   ☐ Trade or Vocational Degree
   ☐ Associate Degree
   ☐ Bachelor’s Degree
   ☐ Master’s Degree
   ☐ Doctoral Degree

8. How many hours per week do you USUALLY work at your job?
   ☐ 35 hours a week or more (full-time)
   ☐ Less than 35 hours a week (part-time)
   ☐ I am not currently employed outside the home

9. Please write in briefly how you would describe your body?
   __________________________________________________________________________
   __________________________________________________________________________

For Office Use Only

Height_____________       Weight_____________
Appendix E
Specifications of Materials: Stadiometer and Portable Digital Scale

SECA 213 Stadiometer

The SECA 213 Stadiometer is described in company literature as follows:

- Simple & easy to set up
- No wall fastening necessary
- Large floor plate ensures stability
- Result clearly visible while measuring
- Convenient and easy to transport

The specifications are attached below

Source: www.SECA.com
HealthOMeter Portable 844KLS Professional Home Care Digital Scale, 440 x 0.1 lb

This Health o meter Professional Digital bathroom floor scale features an easy-to-clean plastic platform and a heavy duty metal base inside. The extra-large display is very easy-to-read and displays an accurate reading in only a few seconds. A button on the bottom can switch the display from pounds to kilograms. This new high-capacity digital bathroom scale weighs persons up to 440 lbs in increments of 0.1 lb.

- Capacity: 440 lb / 200 kg
- Resolution: 0.1 lb / 0.05 kg
- Connectivity via USB
- 1-1/4" LCD display
- Functions: LB / KG Switch, Auto Zero, Auto Off
- Platform Size: 12-5/8" (w) x 12-1/2" (d)
- (2) 3-Volt Lithium batteries included
- Optional Carrying Case Available (order # 64771)
- 1 Year Limited Warranty

Weight: 5.00 lb