UNDERSTANDING THE FACTORS ASSOCIATED WITH RESILIENCE IN LATINO IMMIGRANTS

by

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ABSTRACT

KERI ELLIOTT REVENS. Understanding Factors that Enhance Resilience in Latino Immigrants
(Under the direction of DR. MARK J. DEHAVEN)

Background: Latinos are the fastest growing racial / ethnic group in the US and the second largest behind whites. Thirty-five percent are foreign-born immigrants who are at higher risk of mental disorders, resulting from disproportionately high rates of social and economic disadvantage, and the stressful conditions associated with migration and acculturation. Resilience is the ability to recover from stress or "bounce back" from difficult experiences; it contributes to lower rates of anxiety and depression, and higher levels of life satisfaction and emotional stability. This study is the first to examine the relationship between cultural protective factors, resilience, and psychological distress in first-generation Latino immigrants. The study also seeks to determine whether resilience mediates the relationship between protective factors and psychological distress.

Methods: A mixed methods, community-based participatory research (CBPR) study conducted with a Latino community center; participants included first-generation Latino immigrants. Trained bilingual Latino research assistants administered in-person surveys from July – September 2018. The following data were obtained: Brief Resilience Scale (BRS), Brief Symptom Inventory (BSI), Duke University Religion Index (DUREL), Multi-group Ethnic Identity measure (MEIM), and the Interpersonal Support Evaluation List (ISEL-12). Simple correlation, linear regression, and mediation analysis was performed using SPSS. Four focus groups explored how culture and the lived experience of immigrants influences resilience. Focus groups were conducted from November 2018-

December 2018. Focus group data were analyzed using deductive, thematic analysis.

Results: Participants (n=128) were mostly female (77%), married (71%), and aged 18-49 years (49%). Resilience was positively related to social support (p=.001) and religiosity (p=.006), and negatively related to psychological distress (p=.001). Resilience significantly mediated the relationship between social support and psychological distress (p=.006). Focus group participants indicated that resilience depends on social support through multiple interpersonal relationships and several aspects of faith. Participants also indicted individual characteristics- optimism, problem-solving, perseverance- and individual behaviors- self-care and physical activity influence resilience.

Conclusions: High levels of resilience in Latino immigrants contribute to lower levels of psychological distress, and social support and faith are the key contributors. Promoting connectivity and social support in Latino communities can improve wellbeing by increasing resilience and reducing distress.

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CHAPTER I: INTRODUCTION

The United States (US) is home to one-fifth of the world's total immigrant population, making it the country with the most immigrants worldwide (Zong, Batalova, & Hallock, 2018; Lopez, Bialik, Radford, 2018). An immigrant or foreign born is defined as anyone who resides in the US but was not a US citizen at birth (US Census Bureau, 2019). The number of immigrants in the US has grown rapidly over the past several decades, more than quadrupling since 1970 - from 9.6 million (4.7% of the total population) to a new record of 43.7 million (13.5% of the total population) in 2016 (Zong et al., 2018; Camarota & Zeigler, 2016). Moreover, immigrants and their descendants are expected to account for 88% of total US population growth over the next 45 years (Lopez et al., 2018).

Almost half (45%) of all immigrants living in the US are of Hispanic or Latino[1] origin (Zong et al., 2018). Indeed, Latinos have been the fastest growing racial or ethnic group in the US for the past 40 years, accounting for half of the US national population growth since 2000 (Zong et al., 2018). As of 2016, the Latino population is nearly 59 million, making Latinos the second-largest racial or ethnic group in the US behind whites (Passel and Cohn, 2008; Flores, 2017). Furthermore, Latinos are expected to make up one-third of the total US population by the year 2060 (Taylor, 2014).

Moreover, the Latino immigrant population increased twenty-fold over the past century, growing to more than 19.4 million, making up 34.4% of the total Latino population in the US (Passel and Cohn, 2008; Taylor, 2014). Latino immigrants

[1] The terms Hispanic and Latino are often used interchangeably to refer to individuals of Spanish or Latin decent. The term Latino will be used throughout this dissertation.

experience chronic, cumulative, and potentially toxic stress due to circumstances unique to migration and acculturation- such as violence, political turmoil, separation from family members, and social isolation- which increase the risk of mental health disorders (Perreira & Ornelas, 2013; Goodman, Vesely, Letiecq, & Cleveland, 2017; Polanco-Roman & Miranda, 2013; Lijtmaer, 2001; Hovey, 2000; Revollo, Qureshi, Collazos, Valero, & Casas, 2011).

Approximately 35% of Latino immigrants experience some sort of trauma during the migration process (Perreira and Ornelas, 2013). Moreover, Latino immigrants are disproportionately exposed to poverty, low educational attainment, and discrimination upon settlement in the US (Caredemail, Adams, Calista, & Connell, 2007; Camarota & Zeigler, 2016). Chronic stress experienced before, during, and after migration can have lasting effects on physical and mental wellbeing, increasing the risk of mental health disorders and chronic disease (American Psychological Association; 2019; Cook, Alegria, Lin, Guo, 2009).

Latino immigrants are also more socially and economically disadvantaged than any other group, including US-born Latinos, non-Latinos, and other immigrant groups (Camarota & Zeigler, 2016; Camarota, 2012). Fifty-four percent of Latino immigrants live in or near poverty compared to 45% of US-born Latinos and only 25% of non-Latino whites, respectively (Camarota & Zeigler, 2016). Forty-six percent of Latino immigrants have less than a high school education compared to 13% of US born Latinos and 6% of non-Latino whites (Camarota & Zeigler, 2016). Latino immigrants are also more likely to have low English language proficiency (44%) compared to Asian (22 %), white (12%), or black (9%) immigrants (Camarota & Zeigler, 2016; Camarota, 2012).

Although Latino immigrants make significant improvements in socioeconomic status (SES) and language proficiency over time in the US, they do not come close to closing the gap with non-Latinos in the US (Camarota & Zeigler, 2016). Social and economic disadvantages make it difficult to cope with the challenges of daily living and can increase the risk of developing mental health disorders (Alarcon, Parekh, Wainberg, Duarte, Araya, Oquendo, 2016).

However, despite social and economic disadvantages, some Latino immigrants fare comparatively better on average to their US-born counterparts on several health indicators. For example, several studies have shown Latino immigrants have better mental health outcomes compared to US born Latinos, a phenomenon known as the immigrant or Hispanic paradox (Franzini, Ribble, & Keddie, 2001; Alegria, Canino, Shrout, Woo, Duna, Vila, et al., 2008; Alegria, Shrout, Woo, Guarnaccia, Sribney, Vila, et al., 2007; Breslau, Aguilar-Gaxiola, Borges, Castilla-Puentes, Kendler, Medina-Mora, et al., 2007). A systematic review of the mental health literature on Latinos in the US found that 24% of studies report US-born Latinos have higher rates of mental disorders compared to Latino immigrants (Bas-Sarmiento, Saucedo-Moreno, Fernandez-Gutierrez, Poza-Mendez, 2017).

Conversely, 62% of studies show Latino immigrants were more likely to present with or develop mental health disorders compared to their US-born counterparts (Bas-Sarmineto, et al., 2017). In addition, evidence from several studies shows the immigrant paradox is dependent upon country of origin and age of migration and may vary across different types of mental disorders (Alegria et al., 2008; Breslau et al., 2007). Inconsistent evidence across studies suggests some Latino immigrants adapt quite well after migration

despite facing significant adversity while others do not. Although most studies on Latino immigrants have focused on the negative effects of migration, recent research has examined the strengths of the population to better understand why some Latino immigrants have better mental health outcomes than others.

Resilience has recently emerged as a factor that may help explain differences in mental wellbeing in Latino immigrants. Although there are various definitions of resilience in the literature, the current study defines resilience as the ability to "bounce back" or recover from stress (Smith, Darlen, Wiggins, Tooley, Christopher, Bernard, 2008). Resilience is associated with lower rates of anxiety and depression, and higher levels of life satisfaction and emotional stability, across a range of populations (Luther, 2006; Smith, et al., 2008; Smith, Tooley, Christopher, Kay, 2010; Morote, Hjemdal, Martinez Uribe, Corveleyn, 2017).

Resilience research began over four decades ago when researchers began to investigate why, despite growing up in chaotic environments, some children grew into healthy, well-adjusted adults while others developed mental health disorders or experienced other negative outcomes; individuals who adjusted well were thought to be resilient (Werner & Smith, 1982; Werner, 1989). Common factors of children who were resilient were identified and include emotional support from a caring adult and competence (Werner, 1982; Werner & Smith, 1989). Since then, resilience has been examined across a variety of racial and ethnic groups, identifying factors at multiple levels that contribute to resilience (Smith et al., 2008; Luthar, 2006; Smith et al., 2010; Morote, et al., 2017). Some of the most prominent factors include problem-solving skills;

self-esteem; happiness, optimism, faith, and social support (Luthar, 2006; Richardson 2002; Richardson 2017).

However, although resilience research is growing, there is very little research on resilience in Latino immigrants. Since cultural values influence how individuals cope with stress, the findings and implications of research on resilience in other populations may not be generalizable to Latinos (Morote, et al., 2017; Fleming & Ledogar, 2008; Ungar, 2008). Most studies on resilience with Latino immigrants are qualitative, failing to empirically measure resilience or factors that influence it. The only study to empirically investigate resilience in Latino immigrants found that Mexican immigrants had high levels of resilience despite high levels of trauma (Lusk & Baray, 2017). Similarly, other research shows Latino immigrants do not report frequent symptoms of post-traumatic stress disorder (PTSD) despite reporting high levels of trauma before and during migration, (Perriera and Ornleas, 2013).

Several qualitative studies have identified cultural values and resources that are inferred to contribute to resilience (Lusk & Chavez Baray, 2017; Ornleas & Perreira, 2013; Sajquim de Torres & Lusk; Lusk & McCallister; Ornleas, 2019). However, no studies have empirically measured factors that contribute to resilience in Latino immigrants. The primary purpose of this research is to understand what factors contribute to the presence or absence of resilience in Latino immigrants and to determine whether resilience is the mechanism through which cultural factors influence psychological distress in Latino immigrants.

Statement of the Problem

Latinos are at an increased risk of developing mental health disorders due to chronic and consistent exposure to stress. Moreover, increased time in the US is associated with a higher risk of psychiatric disorders in Latino immigrants (Cook, et al., 2009). As such, the longer immigrants remain in the US, the greater the risk of developing mental health problems. This is a significant public health concern as the average Latino immigrant lives in the US for almost 21 years and most have US-born children, increasing the likelihood they will reside in the US permanently (Camarota and Zeigler, 2016).

Latino immigrants are also among the least likely group to seek mental health treatment and often receive low quality care due to cultural and linguistic barriers and mental health stigma in Latino culture (Aguilar-Gaxiola, et al., 2012; American Psychiatric Association, 2014; McGuire & Miranda, 2008; Bridges, Andrews, Deen, 2012; Vega, Wassertheirl-Smoller, Arredondo, Castaneda, Choca, eta l., 2014). Untreated mental health symptoms are a significant public health concern, placing individuals at a greater risk of suicide, addiction, violence, homelessness, incarceration, disability, chronic disease, and other preventable conditions (Insel, 2015; Office of the Surgeon General, 2001).

Preventative strategies may be more feasible to address the mental health needs of Latino immigrants because some immigrants are not likely to seek mental health treatment; resilience is preventative against negative mental health outcomes (Smith et al., 2008) and is positively associated with greater life purpose and positive mood and emotions (Richardson, 2002; Luther, 2006; Smith et al., 2008; Morote, et al., 2017).

Interventions and services that enhance resilience are needed to protect the mental wellbeing of Latino immigrants after settlement in the US. To develop interventions that enhance resilience, factors that contribute to resilience in Latino immigrants must be understood.

Conceptual Framework

This study is guided by the Metatheory of Resilience and Resiliency (MRR), a conceptual framework that explains the role of risk and protective factors in resilience (Richardson, 2002; Richardson, 2017). MRR was selected because it provides a framework for identifying potential factors that contribute to resilience- the theory contends the presence or absence of protective factors-internal and external resources that help individuals cope with stress- influence resilience (Richardson, 2017). Consequently, protective factors identified in the literature on mental health in Latino immigrants are hypothesized to contribute to resilience.

The most prominent protective factors in the literature on mental health in Latino immigrants include cultural or ethnic pride, often operationalized as ethnic identity, familism, social support, and religion/spirituality (Clauss-Ehlers, 2008; Bermudez & Mancini, 2013; Berger Cardoso & Thompson, 2010; Abraido-Lanza, Dohrenwend, & Turner, 1999; Polanco-Roman & Miranda, 2013; Leong, Park, & Kalibatseva, 2013; Franzini, Ribble, & Keddie, 2001),

Ethnic identity, familism, social support, and religion have all been associated with a lower risk of a variety of negative mental health outcomes in Latino immigrants- such as depression, anxiety, and suicidal ideation Polanco-Roman & Miranda, 2013;

Leong, Park, & Kalibatseva, 2013; Franzini, Ribble, & Keddie, 2001. Considering the proponents of MRR, it is hypothesized that resilience provides the mechanism through which protective factors decrease the risk of mental health disorders. As such, resilience is expected to mediate the relationships between protective factors and mental health.

Statement of the Purpose

The primary purpose of this study is to empirically measure the association between resilience and four protective factors- social support, familism, ethnic identity, and religiosity through in-person survey interviews. Secondary and tertiary aims are to measure the association between resilience and psychological distress and determine whether resilience mediates the relationship between protective factors and psychological distress.

The study also seeks to gain a deeper understanding of how cultural protective factors and the lived experiences of Latino immigrants influence resilience through qualitative focus groups. Qualitative research will be used to provide insight into the mechanisms behind the associations between resilience and other factors identified by the quantitative survey data. The use of qualitative research in the current study also allows participants to share their experiences, providing insight into the lived experiences of a group that is understudied.

Research Questions and Hypothesis

This study uses mixed methods conducted sequentially in two phases. Phase I of the study addresses multiple research questions:

1. What is the association between ethnic identity, familism, social support, and religiosity (independent of one another) and resilience in Latino immigrants?

Hypothesis: There will be a positive association between each of the four factors and resilience.

2. What is the association between resilience and psychological distress in Latino immigrants?

Hypothesis: There will be an inverse association between resilience and psychological distress.

3. What is the association between ethnic identity, familism, social support, and religiosity (independent of one another) and psychological distress in Latino immigrants?

Hypothesis: There will be an inverse association between each of the four factors and psychological distress.

4. Does resilience mediate the relationship between ethnic identity, familism, social support, and religiosity (independent of one another) and psychological distress in Latino immigrants?

Hypothesis: Resilience mediates the association between each of the four protective factors, respectively, and psychological distress in Latino immigrants.

In addition, since there is no resilience research on Latino immigrants, not all instruments used in the current study have been previously tested with Latino immigrants. As such, the reliability of the instruments will be assessed. The association between resilience and psychological distress will also assess the construct validity of the resilience instrument used in the current study.

The research question for Phase II is:

1. How do cultural factors (identified in Phase I), insights, and the lived experience of Latino immigrants contribute to resilience?

Definition of Terms

Important terms used throughout the research will be briefly defined here. Variables used to address the research questions will be explained in more detail in chapter two.

- Latino: individuals of Latin or Spanish descent; refers to both males and females (US Census Bureau, 2019.)
- Latina: female individuals of Latin or Spanish descent; the term Latina will only be used when the study sample in reference includes only females.
- First generation Latino immigrant: an individual born outside of the states of the US in a country of Latin or Spanish descent (US Census Bureau, 2019); the current study includes Puerto Ricans in the definition of first-generation Latino immigrants.
- Migration Patterns: Who accompanied the individual on the move to the US.
- Resilience: the ability to cope with adverse experiences or "bounce back" from stress (Smith, et al., 2008).
- Social support: any emotional assistance or resource provided by neighbors, friends, or members of the community (Counts, Buffington, Chang-Rios, Rasmussen, & Preacher, 2010).
- Familism: a core value and belief in the centrality of family in the life of Latinos; it includes family loyalty and family cohesion (Bermudez & Mancini, 2013)

- Ethnic identity: the degree to which one identifies with his or her ethnic group; involves possession of traditional cultural values and beliefs, and participation in cultural rituals (Polanco-Roman & Miranda, 2013).
- Religiosity: beliefs, practices, and rituals related to the transcendent, where the transcendent is God, Allah, Hashem, or a higher power in Western religious traditions (Koenig, 2012).
- Psychological distress: any uncomfortable emotional experience accompanied by predictable biochemical, physiological, and behavioral changes (American Psychological Association, 2019).

Procedures

This dissertation follows a traditional five-chapter format, using mixed methods in two phases. Phase I is a descriptive, cross-sectional study using in-person survey interviews to examine the association between cultural protective factors- familism, social support, ethnic identity, and religiosity with resilience; the associations between cultural protective factors- familism, social support, ethnic identity, and religiosity with psychological distress; and the association between resilience and psychological distress in Latino immigrants. The study also seeks to examine whether resilience mediates the relationship between the cultural protective factors and psychological distress.

Phase II is a qualitative, exploratory study using focus groups to better understand the relationships between resilience and cultural factors identified in Phase I and to explore how lived experiences of Latino immigrants influence resilience from the perspective of the participants. Phase II builds upon the findings from Phase I to provide insight into why cultural protective factors do or do not influence resilience; the focus

group guide used in Phase II was designed to illicit information from participants that further explains the associations found in Phase I.

Community-based participatory research. The research is guided by the principles of community-based participatory research (CBPR) and the CBPR framework (Wallerstein, Oetzel, Duran, Tafoya, Belone, Rae, 2008; Wallerstein, Duran, Oetzel, Minkler, 2018). CBPR is a community-directed approach to research that involves an equitable partnership among all members of the research team, embracing the strengths that each partner brings to the research (Wallerstein et al., 2018).

CBPR uses data and research while considering the priorities and perspectives of the community to develop multi-level strategies to reduce health disparities and improve health equity (Wallerstein et al., 2018). Over the past several decades, CBPR has established itself as an effective means of empowering underserved communities, including Latinos, towards change and has made significant contributions towards increasing health equity in vulnerable communities (Wallerstein et al., 2018; De Las Nueces, Hacker, DiGirolam, Hicks, 2012; DeHaven, Ramos-Roman, Gimpel, Carson, DeLemos, Pickens, 2011).

To achieve an equitable partnership with the Latino community, this research leverages an existing partnership through the CommUniversity, a formal partnership between the University of North Carolina at Charlotte (UNCC), and a Latino-serving agency, Camino Community Center (CCC). The CommUniversity was developed to improve the health and wellbeing of the Latino immigrant community through service learning and research. In accordance with CBPR practices, CCC was an equal partner in all aspects of the research project from identifying the research question to disseminating

the findings. Partnership with CCC allowed the project to build off existing resources in the Latino community and leverage existing relationships of trust between CCC and community members.

Camino Community Center (CCC). CCC is a Latino-serving holistic health and wellness agency established to serve the underserved and uninsured in Charlotte, NC, primarily serving low-income, Spanish speaking Latino immigrants. CCC provides a variety of health services including a primary health care clinic, mental health treatment services, physical activity classes, a gym, a food pantry, a thrift store, and a homeless ministry. Since its opening in 2004, CCC has become a trusted resource for the Latino immigrant community in Charlotte, serving approximately 20,000 individuals annually.

CCC is located within five miles of UNCC in the University City area of Charlotte, North Carolina (NC), an area where the Latino population is 19%, and as high as 30% in some neighborhoods (Mecklenburg County Health Department, 2017). The Latino population in Charlotte has grown rapidly over the past decade, growing by 28% from 2010-2017 (US Census Bureau, 2018) faster than any other group, including whites and African Americans, currently accounting for 13% of the total population in Mecklenburg County (Mecklenburg County Health Department, 2017). Much of the population growth among Latinos in Charlotte is due to an influx of immigrants moving to Charlotte for economic opportunities due to the area's agricultural and processing industries, and its reputation for possessing high quality of life (UNC Charlotte Urban Institute, 2006). Furthermore, most Latinos in Charlotte are immigrants (68%) and not US citizens (58%) (UNC Charlotte Urban Institute, 2006).

Just as Latinos experience social and economic disadvantages nationwide, the same is true for Latinos in Charlotte- 23% of families live in poverty; 43% have an annual household income of less than $20,000; 66% experience housing stress; 35% live in overly crowded conditions, and only 26% own a home (UNC Charlotte Urban Institute, 2006). In addition, despite being the fastest growing population in Charlotte, the Latino community continues to identify bilingual and culturally aware services as the most critical need in Mecklenburg County (UNC Charlotte Urban Institute, 2006). Furthermore, evidence shows immigrant populations residing in new receiving sites- like Charlotte-have an increased risk of developing mental health disorders, often due to a lack of services and resources that support the needs of the community (Kiang, Grzywacz, Martin, Arcury, Quandt, 2010).

Identification of the research problem through CBPR. Given the nature of CBPR, the research problem was identified in partnership with CCC. Three years prior to the beginning of the current study, the executive director and staff at CCC identified an unmet need for mental health services in the Latino community. Although CCC provided primary care services, there were no mental health services. Moreover, there were no bilingual mental health services in the Charlotte area that were accessible to Latino immigrants. To bridge the gap between the need for culturally appropriate mental health services and the lack of accessible services, faculty and students from the CommUniversity collaborated with Camino Staff to develop Tu No Estas Solo (You are not Alone), a culturally and linguistically responsive mental health counseling program.

The PI of the current study conducted a program feasibility and effectiveness study after year one of the program. Findings showed 98% of clients were first-

generation Latino immigrants and most presented with high stress levels related to past trauma, relationship distress or family problems, and acculturation (Revens, et al., 2017). Although the program was effective at reducing depression, anxiety, and stress in Latino immigrants, it only serviced a limited number of clients, indicating the need for additional mental health services. CCC sought to expand and improve services that promote social and mental wellbeing in the Latino community but were unsure of where to begin.

A community advisory board (CAB) was developed to provide an infrastructure to guide the activities of the current study, and to provide representation of the perspectives and needs of the Latino community. The CAB is comprised of nine members of the CommUniversity. All are bilingual in English and Spanish, eight are of Latino ethnicity, half (n=5) have lived experience as an immigrant, and all have extensive experience working in the Latino immigrant community. Forming the CAB was an intentional process to gain representation from diverse Latin American countries, acknowledging and respecting cultural and linguistic differences between Latino subgroups based on region and country of origin. CAB members were from a range of countries including Mexico, the Dominican Republic, Guatemala, Argentina, and Peru. A description of CAB members is below.

1) Executive director of CCC- Latina female with family ancestry from Mexico; active leader in the Latino community in Charlotte
2) Community Advocate, co-founder, and former executive director of CCC- a Latina immigrant female from the Dominican Republic with more than 15 years

of experience providing services to Latino immigrants and acting as a community advocate for Latinos in Charlotte.

3) Co-director of *The CommUniversity*, a second-generation Latino male from Peru; a licensed clinical social worker with 16 years of experience in mental health in Latino communities; clinical social work professor at UNCC.
4) Community advocate, UNCC alumni- an immigrant male from Mexico.
5) Program Manager of *The CommUniversity* & community advocate- a Latina immigrant female from Mexico; graduate student in public health sciences at UNCC.
6) Community member- a Latina immigrant female from Mexico- recent graduate in health communications at UNCC.
7) PhD student in public health sciences at UNCC- a Latina immigrant female from Guatemala.
8) Patient advocate of CCC- a Latina immigrant female from Argentina.
9) Community advocate & graduate social work student- a second-generation Latino immigrant male from Mexico with experience working at CCC and another Latino-serving agency, the Latin American Coalition, in Charlotte.
10) Co-founder and president of CCC- a non-Latino, white male with over 20 years of experience providing services to the Latino community in the US and in Latin American countries.

The CAB begin meeting monthly six months prior to the start of the study and continued through study completion. In addition to monthly meetings, the PI had regular contact with all members of the CAB on an individual basis to collaborate and provide

guidance in respective areas of expertise as needed. The CAB also met socially after completion of each phase of research to celebrate and share progress of the project. The CAB advised on study protocol design and implementation, including the selection of constructs of interest, instruments used to measure constructs, and recruitment techniques and materials (Newman, Andres, Magwood, Jenkins, Cox, Williamson, 2011). Members of the CAB also assisted with recruitment, data collection, analysis, and dissemination of findings.

The use of a CAB in CBPR is a best practice for ensuring equal partnership between the community and research team, building off existing community strengths and resources, and promoting co-learning and capacity, ultimately enhancing the credibility of the research (Krieger, Allen, Cheadle, Ciske, Schier, Senturia, 2002; Minkler, 2005; Israel, Parker, Rowe, Salvatore, Minkler, Lopez…Halstead, 2005). Moreover, community involvement provides cultural and community relevance; enhances external validity and the credibility of the findings; and increases the chances of successful recruitment and retention of Latino populations (De Las Nueces, et al., 2012; Minkler, 2005).

CAB members of the current study represent the Latino community and voice concerns, perceptions, preferences, and priorities of the community (Newman, et al., 2011). The CAB collectively decided to take a strengths-based approach to the research problem, examining factors that contribute to resilience as opposed to factors that contribute to mental health disorders; this is consistent with resilience research in other populations (Werner, et al., 1982; Luthar et al., 2006; Richardson, 2008).

CAB members also sought to raise awareness of factors related to stress and resilience in Latino immigrants in order to normalize mental health issues and ultimately reduce the stigma surrounding mental health in Latino culture. Moreover, the CAB felt it was important to tell a story of strength and empowerment among Latino immigrants, a group that is often misrepresented and criticized in the media and other outlets, in hopes of changing the dialogue regarding Latino immigrants in the US.

Another important role of CAB members in the current study is to act as community and cultural brokers, bringing local and cultural knowledge to the research project (Newman et al., 2011; Minkler, 2005).CAB members bring lived experience, as well as local and cultural knowledge to coping and resilience, ensuring the study is conducted in a way that is culturally appropriate and sensitive to the needs of the Latino community (Minkler, 2005; Newman, et al., 2011). The local and cultural expertise of CAB members is especially important in the current study where the PI is a non-Latina, white female with limited Spanish language proficiency.

Researcher Statement. As the PI of this research, I am a white, US born female and am therefore not Latina or an immigrant. I have however volunteered and spent time in Latin American countries, including Ecuador and Peru, where I was able to immerse myself in Latino culture and learn more about the way of life. Professionally, I am a certified health education specialist and have had the opportunity to teach health education lessons to Latino children in Ecuador and locally in Charlotte, NC. I am a former health teacher with years of experience working at a heavily populated Latino school in Concord, NC.

Although I am not an immigrant, I have lived in and spent considerable time in other countries where I experienced culture shock and psychological distress related to acculturation. I have been in positions where I was unable to communicate or ask for help, leaving me feeling helpless and alone. I have also experienced homesickness and isolation living in another country far from home. However, the distress and anxiety created by these situations was temporary for me as I was able to return to my comfort zone, my home in the US. While I can never fully understand the experiences of a Latino immigrant, I can empathize with some similar experiences, although to a much smaller extent. I recognize the perspectives I bring to this research project will be based off experiences living and traveling to other countries, as well as my experiences working with Latinos at CCC.

In addition, I recognize my position of privilege and power as an educated, American, white female and my position as an "outsider" to the Latino community. To bridge racial and cultural barriers, I have spent the last four years actively involved in research and service-oriented projects at CCC. I developed relationships with CCC staff, clients, and families in the local community to build trust and rapport. As a health educator, I assisted with health education and nutrition classes, cooking demonstrations, health assessments, and health education programs for children.

As a researcher, I assisted with program evaluations where I shared findings with CCC to help improve programs, ultimately gaining the trust of CCC leadership and staff. As a volunteer, I attended health fairs and community events hosted by CCC, further establishing a personal relationship with members of the Latino community. Engaging in

activities that are not “required” has been cited as a powerful way to build trust and rapport with minority communities by other CBPR researchers (Minkler, 2004).

Investing time at CCC and in the Latino community helped build a relationship of trust with CCC staff, CAB members, and potential participants. These relationships of trust assured community and agency members that I did not have a hidden agenda and was a genuine partner in the project, creating buy-in that led to successful recruitment and retainment of participants, ultimately enhancing the quality of the research design and the data collected (Minkler, 2005; Lincoln & Guba, 1985).

Significance

Latino immigrants experience significant adversity and trauma before, during, and after migration, and often continue to experience chronic stress after settlement into the US due to poverty, acculturation, and language barriers. Moreover, Latino immigrants who remain in the US long term are at risk of experiencing a diminished state of mental health, ultimately compromising physical health and quality of life. This is a significant public health concern given that most Latinos who move to the US tend to remain permanently and have US born children; nearly two-thirds of Latino immigrants in the US have lived in the US for more than 10 years and nearly half are parents of US-born children (Taylor, Lopez, Passel, Motel, 2011).

The Latino immigrant population represents a significant and growing proportion of the US population yet remains understudied. Consequently, compared to non-Latinos, there is less mental health research on Latinos, with even less that specifically targets Latino immigrants. Much of the existing mental health literature on Latino immigrants focuses on the deficits and risks associated with acculturation and migration, failing to

identify the relative strengths of the population. Evidence shows strength-based approaches to mental health that focus on the abilities and potential of the community are effective and sustainable (Kretzmann & Mcknight, 1993). There is a need for innovative, culturally responsive approaches to mental health services that build off existing strengths in Latino culture and communities, equipping individuals with the tools needed to cope with the stress of adapting to a new home, culture, and way of life.

Through CBPR approaches, the current study shifts mental health approaches in Latino immigrants from deficit-based to strength-based, leveraging existing strengths of the Latino community and community agency (Hammond, 2010; Kretzmann & Mcknight, 1993). A systematic investigation of resilience processes allows for the development of culturally appropriate mental health interventions that enhance resilience and the development of a culturally appropriate resilience scale. Existing scales have been used with a variety of populations but none of them have been developed with a specific culture in mind (Clauss-Ehlers, 2008).

Previous evidence shows resilience is a culturally specific construct; cultural beliefs, values, and customs influence how an individual perceives stress and the coping mechanisms used to recover from stress (Ungar, 2008; Clauss-Ehlers, 2008). Furthermore, a large body of evidence shows Latino culture influences how Latino immigrants cope with stress (Berger Cardoso & Thompson, 2010; Lusk & Chavez Baray, 2017; Corona et al., 2018; Fortuna et al., 2017). Consequently, it is important to consider cultural components when measuring resilience in Latino immigrants

Culturally appropriate services and interventions that promote resilience are particularly important for Latino immigrants given the chronic and cumulative stress

experienced before, during, and after settlement in the US. Services that are culturally and linguistically appropriate are not only effective in recruiting and retaining participants but are effective in reducing levels of stress and symptoms of anxiety and depression in Latinos (Aguilar-Gaxiola et al., 2012; Gutierrez, Barden, & Tobey, 2014; Kouyoumdjian, Zamboanga, & Hansen, 2003; Sue, Zane, Nagayama Hall, & Berger, 2009). Culturally inclusive services that promote resilience can reduce the negative effects of stress on mental health, ultimately providing a first step towards reducing the gap in mental health disparities between Latinos and non-Latinos in the US.

CHAPTER II: CONCEPTUAL MODELS & LITERATURE REVIEW

In this chapter, key concepts will be defined and operationalized, and the conceptual models that guided the study will be introduced. Additionally, the literature review examining resilience in Latino immigrants, as well as the associations between cultural protective factors and mental health outcomes in Latino immigrants will be presented.

Conceptualization of resilience

There are multiple definitions of resilience, but the definition used in this study is "the ability to recover or bounce back from stress" (Smith et al., 2008). Although there is no consensus on how resilience is conceptualized or operationalized, consistent across the literature is that resilience is a dynamic process that fluctuates over time (Luthar, Cicchetti, Becker, 2000; Luthar, 2006; Masten & Obradovic, 2006; Masten, 2011). Resilience is not fixed; rather, it exists on a continuum, present to different degrees in various aspects of life depending on interactions with the environment and other individuals (Southwick, Bonanno, Masten, Panter-Brick, & Yehuda, 2014; Luthar, 2006).

Resilience involves the presence of a risk, along with the presence of protective factors- internal and external factors that influence how an individual will cope with and potentially recover from stress (Richardson, 2002; Luthar, 2006). Protective factors contribute to resilience and allow an individual to acquire skills necessary to handle adversity in the present situation and in the future (Richarson, 2002).

Operationalization of resilience

Research on resilience in children historically operationalized resilience as competence- or the ability to meet societal expectations associated with a given life stage

(Luthar, 2006). Competence is typically assessed through performance on stage-salient tasks (Cicchetti & Schneider-Rosen, 1986; Havighurst, 1952; Masten & Garmezy, 1985; Luthar et al., 2000).

Resilience in adults is typically operationalized using factors that increase resilience; most resilience instruments measure the ability of an individual to resist negative health outcomes through protective factors, such as optimism and social support (Morote, et al., 2017; Friborg, Hjemdal, Rosenvinge, Martinussen, 2003). Other research operationalizes resilience as the ability to bounce back from stress; these studies use resilience instruments that measure the ability to recover from stress (Smith et al., 2008; Smith et al., 2010; Rodriguez-Rey, Alonso-Tapia, Hernansaiz-Garrido, 2016). The current study operationalizes resilience as the ability to recover from stress because it seeks to understand which protective factors influence whether an individual can recover from stress (Smith et al., 2008).

Conceptual Models

The current study is guided by three conceptual models: the CBPR framework (Wallerstein et al., 2018), the Social Ecological Model (SEM) (CDC, 2007), and the Metatheory of Resilience and Resiliency (MRR) (Richardson, 2002; Richardson, 2017). Each of these models is explained in more detail below.

CBPR Conceptual Model. The procedures and methods of the project are guided by the CBPR conceptual framework (Wallerstein et al., 2008; Wallerstein & Duran, 2010; Wallerstein et al., 2018; (Figure 1). There are four primary components of the model: the context in which the research takes place; partnership processes; intervention and research; and research outcomes.

The research takes place in a social and structural context, incorporating aspects of place and culture to better understand the problem, and is guided by a formal partnership, the CommUniversity. Consistent with the tenets of CBPR, all research processes honor the cultural knowledge and voice of the Latino community through the formation of a community advisory board (CAB) (Wallerstein, 2018). The study was directed by community voices and involves the community in all aspects, ultimately leading to the collection of data that can inform cultural-centered interventions that address the mental health needs of the Latino community.

The long-term outcome of the project is to build upon the strengths of the Latino community while reinforcing culture and community empowerment, ultimately striving for health equity among Latino communities. Also consistent with the CBPR framework, the formal partnership between CCC and UNCC disrupts the cycle of mistrust between researchers and the Latino community, and may result in community empowerment, which can have broad implications for an often overlooked population like Latino immigrants.

Social Ecological Model. Consistent with the tenets of the Social Ecological Model (SEM), CBPR recognizes that individuals are part of a larger community and that factors at multiple levels influence the development of health problems. Consequently, much of CBPR research, including this study, is guided by the SEM (Israel et al., 2003; Sallis, Owen, Fisher, 2008; Wallerstein et al., 2003). The model (Figure 2) explains that health is affected by the interaction of multiple factors at the individual, interpersonal, community, and societal levels, including physical, social, and political environments (CDC, 2007).

There are two primary reasons the SEM is important to the current study: 1) factors that influence resilience occur at multiple levels- interpersonal, community, and societal 2) findings from the study will be useful in guiding research and practice on all levels of the SEM.

The Metatheory of Resilience and Resiliency (MRR). The development of the research questions and hypotheses were informed by the MRR (Figure 3). MRR and other resilience theories were developed to understand healthy development despite risk exposure, focusing on strengths of an individual rather than deficits (Fleming & Ledogar, 2008). MRR contends protective factors influence resilience, coping mechanisms, and positive mental health outcomes (Richardson, 2002). Consistent with the tenets of MRR, factors that reduce the risk of negative mental health outcomes- protective factors are hypothesized to enhance resilience; resilience is also expected to mediate the relationship between protective factors and mental health outcomes.

The theory contends an individual's life is regularly disrupted by internal and external stressors; although stress is normal and unavoidable, if not appropriately managed, stress can become disruptive, effecting how individual cope with stress (Richardson, 2002). Once a stressor becomes disruptive, it results in one of the following outcomes: 1) resilient reintegration- the individual copes with the stressor and experiences emotional growth, increased knowledge on how to deal with the problem, self-understanding, and increased resilience to better future stressors 2) reintegration back to homeostasis- the individual does not grow emotionally but returns back to homeostasis without any negative consequences 3) reintegration with loss- the individual experiences negative feelings, including giving up motivation, hope, or drive to avoid disruptive

stress in the future or 4) dysfunctional reintegration- the individual reverts to the use of addictive substances or other negative outlets to cope with the stress (Richardson, 2002).

The way most research conceptualizes resilience is similar to resilient reintegration- the ability to recover from the stressful situation while also growing emotionally and moving past the stressor. MRR is unique to other resilience theories because it focuses on different outcomes (explained above) that may result from the presence or absence of resilience, and the role of stress and protective factors in predicting those outcomes (Richardson, 2002). MRR contends protective factors make it easier to cope with disruptive stressors and influence whether an individual reaches resilient reintegration (Richardson, 2002). Moreover, learning how to overcome a stressful situation, increases resilience and makes it easier to overcome similar situations in the future (Richardson, 2002).

There are two approaches to research on resilience; the first is a discovery approach which focuses on identifying resilient qualities- factors that contribute to resilience in individuals (Richardson, 2017). The second is an applied approach that focuses on the individual's experience of "bouncing back" or recovering from stress (Richardson, 2017). Since no other research has identified factors that contribute to resilience in Latino immigrants, the current study uses the discovery approach to understand resilience in Latino immigrants. Consequently, findings from this study can lead to applied research with Latino immigrants, informing interventions that promote resilient factors, increasing resilience in Latino immigrants in the future

The tenets of MRR informed the study design and research questions of the current study. The goal of the study is to understand factors that enhance resilience to

inform interventions that improve resilience in Latino immigrant communities. Given there is very little research on resilience in Latino immigrants, MRR was used as a starting point to determine which factors to measure. Based on the tenets of MRR, factors that protect against negative mental health outcomes were thought to also predict resilience. Consequently, the four factors measured in the current research are protective factors identified in previous research on Latino immigrants.

Literature Review

Resilience research

Research on individual resilience can be traced back to the 1960s and 70s in the field of clinical psychology when studies investigated the etiology and prognosis of severe psychopathology in children and noticed that some children developed unexpectedly healthy adaptive patterns despite being from discordant and impoverished homes, consequently at high risk for developing mental health disorders (Garmezy, Anthony, & Koupernik, 1974). Certain characteristics of the individual including competence, and support from an adult were found to be consistent across healthy adaptive children (Garmezy et al., 1974). Similarly, other research found characteristics such as creativity, effectiveness, and competence were associated with healthy adaptive children (Anthony, 1974; Rutter 1979; Rutter, 1999; Werner & Smith, 1982).

Children who adapted healthfully despite exposure to high risk situations were initially labeled “invulnerable”, with the assumption they were resistant to the effects of stress (Anthony, 1974). However, as resilience research grew, it became evident that adaptation to stress is not permanent, rather it is a developmental process that changes with new life circumstances. Consequently, the term “resilient” began to be used instead (Garmezy & Masten, 1986; Werner & Smith, 1982). Examining characteristics of healthy adaptive children shifted mental health research from a deficit model to a strength-based model that focused on building strengths in the individual, in addition to addressing pathology (Luthar, 2006; Southwick et al., 2014).

A pivotal study in resilience research followed a cohort of high-risk children from birth to adulthood to examine the development of risk and protective factors throughout various phases of life (Werner, 1989). Findings from the study showed that despite

coming from similar backgrounds, including being raised in an impoverished environment with troubled family circumstances, approximately one-third of children were resilient (Werner, 1989). Resilient children developed healthy and compassionate personalities, succeeded in school, and had a successful home and social life, while the other two-thirds of children developed behavior problems by age 10, or had delinquency records, and/or mental health issues by age 18 (Werner, 1989).

Differences between resilient children and those that were not resilient were attributed to protective factors at three levels: 1) individual- cheerfulness, agreeableness; confidence; being affectionate; and the ability to solve problems 2) family- the support of at least one reliable, competent adult 3) and community- elders or peers outside of the family (Werner, 1989). Other studies have since conducted similar investigations, following high risk children to adulthood, identifying similar factors consistent across resilient individuals (Collishaw, Maughan, Pickles, Messer, Rutter, 2004; Luthar, 1991; Rutter, 1999; Werner, 2005, Luthar, et al., 2000).

The expansion of research has identified internal and external resilient qualities or assets that help children cope with difficult circumstances and grow emotionally, allowing them to successfully move past the situation (Luthar, 2006). As resilience research continued to grow, studies identified similar characteristics in resilient adults (Richardson, 2002; Luthar, 2006). More current research investigated how individuals acquire the resilient qualities identified by earlier investigators, shifting from questions regarding what goes wrong with people who experience chronic symptoms to what goes right with people who cope well (Southwick et al., 2014).

Studies found that negative consequences of risk can be reduced by changing the experience of and exposure to the risk, and by providing opportunities and resources that help individuals cope, i.e. protective factors (Luthar, 2006). Research also shows resilience is context specific as individuals adapt well to some circumstances but not others, resulting in the study of resilience in various contexts, including academic resilience and resilience in the face of natural disasters (Luthar, 2006). Furthermore, other research shows cultural values and beliefs also influence the resilience of individuals (Luthar, 2006; Ungar, 2008).

Resilience and mental health A review of over 50 years of resilience research has shown that resilience is associated with decreased negative mental health outcomes and that people who possess resilience lead successful lives despite being at risk for serious problems (Luthar, 2006). A study across four samples of adults from a variety of racial/ethnic backgrounds found resilience was inversely associated with anxiety, depression, negative affect, and physical symptoms and positively associated with positive affect and better life satisfaction (Smith et al., 2010).

Years of research also shows there are multiple external factors that influence resilience, including factors related to family, community, society, culture, and the environment (Masten & Obradovic, 2006; Luthar, 2006; Fleming & Ledogar, 2008). However, despite exposure to high risk situations at disproportionate rates, there is little research on factors that contribute to resilience in minority populations, including Latinos. Protective factors like social and family support are expected to predict resilience across many groups of individuals regardless of social class or ethnicity

(Werner, 1995; Luther, 2006), but this assumption has not been empirically tested in Latino immigrants.

Resilience and mental health in Latino immigrants

A systematic search of original research on resilience and mental health in Latino immigrants was performed using the Pub Med and Science Direct databases. All searches were limited to peer-reviewed research articles and review articles. The process for reviewing articles was the same for all searches: 1) article titles were reviewed; those that did not pertain to the research question were eliminated 2) abstracts were reviewed; studies that did not meet the inclusion criteria were eliminated. The inclusion criteria established for articles included: quantitative or qualitative studies on the relationship between individual resilience and mental health, studies with a target population of Latino immigrant adults (aged 18 and over), and studies conducted in the US.

The Pub Med database was searched using the key words "resilience AND Latino OR Hispanic AND immigrant". Filters were used to include only studies conducted on adult humans. The search results yielded 125 studies; 115 articles were removed during the title review. Of the 10 remaining articles, all were eliminated; five did not examine resilience, and five were not conducted on the target population.

A search of the Web of Science database using the key words "resilience AND Latino OR Hispanic AND immigrant AND adults", and filters for article type, language, and region (US), yielded 668 results. The word adult was used in the search because Web of Science did not allow for a filter by age group as did Pub Med; 657 articles were eliminated in the title review. After abstract reviews, all 11 articles were eliminated for

not meeting inclusion criteria: four did not examine resilience and seven were not conducted on the target population.

The consensus from searching both databases and examining article references is that no research has empirically examined the association between resilience and mental health in Latino immigrant adults. A systematic review of common themes of resilience among Latino immigrant families was identified but almost all studies included in the review were conducted on children or adolescents (Berger Cardoso, 2010). Most other studies eliminated during the title review focused on other areas of mental health but did not examine resilience. Studies that did examine resilience were conducted on Latino children and adolescents, with a few focusing on Latino homosexual men using samples of US and foreign-born Latinos.

A review of article references identified one study on resilience in Latino immigrants- a mixed methods study that examined the mental health effects of migration in recent Mexican immigrants in Texas (Lusk & Chavez-Baray, 2017). Findings showed immigrants who recently fled from Mexico to Texas had high levels of resilience, but no evidence of post-traumatic stress disorder, despite being exposed to significant trauma, including homelessness, food insecurity, violence, and health issues (Lusk & Chavez Baray, 2017).

Qualitative data from the study showed cultural factors, including familism, personalism- the ability to talk to others-, and fatalism- putting things in God's hands were important to adaptation and resilience (Lusk & Chavez-Baray, 2017). Although this study provides important evidence that some Latino immigrants are resilient and that cultural factors aid with coping, the relationships between cultural factors and resilience

were not quantitatively assessed (Lusk & Chavez Baray, 2017). Moreover, the study did not assess how and why immigrants do or do not develop resilience.

Similarly, several other qualitative studies identified factors inferred to be important to resilience such as social support from spouses (Perriera & Ornelas, 2013; Goodman et al., 2017); emotional support from children (Goodman et al., 2017); religion or spirituality (Goodman eta l., 2017; Lusk & Chavez Baray, 2017) and cultural pride (Lusk & Chavez Baray, 2017; Sajquim de Torres & Lusk, 2018). However, none of these studies empirically tested the relationships between these factors and resilience.

A few other resilience studies have been conducted with US born Latinos and Latinos in Latin American Countries (Morote et al., 2017; Heilemann et al., et al., 2012; Sutter, 2016). Resilience and other strength factors, including skill mastery and life satisfaction were more directly related to depressive symptoms than demographic factors, such as SES and education levels in Mexican immigrants (Heilemann, et al., 2002). Similarly, resilience was associated with depression, and anxiety in a sample of Latinos in Peru (Morote, et al., 2017) and in Mexico (Sutter et al., 2016). Another study found an association between social support and depression in Latinos in Mexico, but resilience was not empirically measured (Kiang et al., 2010).

Protective factors in Latino immigrants

Although few studies examine the association between resilience and mental health, several studies investigate protective factors that influence mental health outcomes. To identify the most prominent protective factors, articles identified during the initial search were reviewed; other articles were identified through the references of relevant articles. Inclusion criteria included: studies on protective factors on mental

health outcomes, studies on adult Latino immigrants (aged 18 and over), and studies conducted in the US. Many studies examined more than one factor and are discussed in multiple sections below. There are a mix of quantitative and qualitative studies, with all quantitative studies using a cross-sectional design. The most prominent protective factors studied were familism, social support, ethnic identity, and religiosity. The literature on each is discussed below.

Social support

Research across several studies shows social support from friends, community members, and significant others, is an important protective factor in Latino populations (Perreira & Ornelas, 2013; Kiang et al., 2010; Goodman et al., 2017).

Definition and conceptualization of social support. Social support is defined as any emotional assistance or resource provided by neighbors, friends, or members of the community (Counts, et al., 2010).

Operationalization of social support. Research typically operationalizes social support as emotional support from others; whether the individual has others to share events and activities with, and whether the individual has someone to help them during times of need (Kiang et al., 2010). Social support is also operationalized in terms of relationships with specific individuals, such as friends or spouses (Ai, Pappas, Simonsen, 2014b; Ai, Pappas, Simonsen, 2015; Almeida, Subramanian, Kawachi, & Molnar, 2011). Other research operationalizes social support by the frequently support is offered (Panchang, Dowdy, Kimbro, & Gorman, 2016).

Social support and mental health outcomes. Evidence shows social support is a significant predictor of mental health outcomes in Latino immigrants. Social support

decreases the risk of anxiety and depression, (Kiang et al., 2010), and mediates the relationship between acculturative stress- stress that results from being adjusting to two cultures- and mental health outcomes (Panchang, et al., 2016). On the other hand, two studies found social support was not associated with depression, anxiety, or suicidal ideation in Latino immigrants (Ai et al., 2014b; Ai et al., 2015).

Qualitative research shows feeling connected to others helps individuals feel they have people to help them solve problems; participants often reported spouses were salient sources of coping with stress (Goodman et al., 2017; Perreira & Ornelas, 2013). Some research shows it is important that social support systems share the same national origin or language (Goodman et al., 2017), while others show it is important for support systems to share the same spiritual beliefs (Lusk & Chavez Baray, 2017). Similarly, church members are often identified as sources of social support (Aranda, 2008; Lusk & Chavez, Baray, 2017).

Familism

Most research with Latino immigrants distinguishes between social support and family support due to the emphasis on family cohesion in Latino culture (Leong, et al., 2013; Campos, et al., 2014). Familism is a core value of Latino culture consistent across various subgroups of Latinos; familism instills the belief that problems can be solved together with family and that relatives can be relied on for support (Sabogal, Marin, Otero-Sabogal, Marin, Perez-Stable, 1987).

Definition and conceptualization of familism. Familism is a core belief of Latinos in the centrality of family and involves family loyalty and family cohesion (Bermudez & Mancini, 2013). Unlike traditional American culture, familism extends

beyond the immediate family to the extended family and multiple generations of blood, legal, and fictive kinship lines (Miranda, Bilot, Peluso, Berman, & Van Meek, 2006) and emphasizes interdependence over independence in Latino culture (Rojas, et al., 2016; Ai et al., 2014b; Ornelas & Perreira, 2011).

There are three basic components of familism: obligation, support, and family as referents (Sabogal, et al., 1987; Corona, Campos, Chen, 2017). Family support has been shown to remain an important part of Latino culture in Latino immigrants regardless of time spent in the US, unlike other cultural values that are thought to decline with time in the US (Sabogal, et al., 1987).

Operationalization of familism. Familism can be operationalized in several different ways- family support (Alegria et al., 2007); family environment- a collective measure of perceived family support, family organizational structure, and perceived family environment (Stacciarini, Smith, Wilson, Wiens, Cottler, 2015); and family cohesion- family closeness and communication (Panchang, et al., 2016; Ai et al., 2014a; Ai et al., 2014b; Ai et al., 2015). It has also been assessed in terms of familial values and behaviors like respect, working well together, trust, loyalty, pride, expressing feelings, and spending time together (Leong et al., 2013); and as family functioning- the ability to persevere in times of crisis and openly share positive and negative experiences to accept, solve and manage problems collectively (Bailey, Brazil, Conrad-Hiebner, Counts, 2015).

Other research assesses negative aspects of familism including family conflict (Fortuna, Alvarez, Ramos Ortiz, Wang, Mozo, et al., 2016; Ai et al., 2014b; Ai et al., 2015; Rivera, Guarnacia, Mulvaney-Day, Torres, Alegria, 2008; Leong et al., 2013); and

family burden- the frequency of demands and arguments with relatives and children (Alegria et al., 2007).

Familism and mental health outcomes. Familism is positively associated with self-reported health (Mulvaney-Day, Alegria, Sribney, 2007; Corona; Bailey et al., 2015; Stacciarini et al., 2014), and self-esteem (Corona et al., 2017) and inversely associated with depression (Almeida et al., 2011; Leong, et al., 2013; Alegria et al., 2007; Ai et al., 2014b), anxiety disorders (Leong et al., 2013; Ai et al., 2014b), and substance abuse (Leong et al., 2013) in Latino immigrants.

Research also shows family conflict is positively associated with several negative mental health outcomes, including psychological distress (Rivera, et al., 2008; Alegria et al., 2007; Leong et al., 2013); suicidal ideation (Ai et al, 2015; Fortuna et al., 2016); depression (Ai et al., 2015; Marsiglia, Kulis, Garcia Perez, Bermudez-Parsai, 2011); anxiety disorders (Ai et al., 2014a); and discrimination (Ai et al., 2014b; Ai et al., 2015). Separation from family members is positively associated with depression while reuniting with family is inversely associated with depression (Ornelas & Perreira, 2011).

Several qualitative studies identified aspects of familism that influence mental health outcomes in Latino immigrants migrating to the US to provide a better future for the family (Rojas et al., 2016; Stacciarini et al., 2014.) Familism seems to provide a source of strength, allowing immigrants to cope with difficult and stressful circumstances and ultimately preserve for the good of the family, a central component of familism.

Overall, research on familism shows family cohesion and family functioning aid in coping with stress, resulting in positive mental health outcomes while negative family

interactions make it more difficult to cope with stress and increase the risk of developing mental health disorders.

Ethnic Identity

Ethnic identity is an important protective factor against psychological distress and negative mental health outcomes in Latino immigrants (Leong et al., 2013; Edwards & Romero, 2008; Ai et al., 2014a). Although not examined in adults, ethnic identity has also been shown to promote resilience in Latino immigrant children (Cardoso Berger & Thompson, 2010).

Definition and conceptualization of Ethnic identity. Ethnic identity is defined as the degree to which one identifies with his or her ethnic group (Polanco-Roman & Miranda, 2013). It involves the possession of traditional cultural values and beliefs, and participation in cultural rituals (Berger Cardoso & Thompson, 2010).

Operationalization of ethnic identity. Latino ethnic identity is often operationalized as identification to Latino ethnicity- feelings of closeness and the amount of time spent with other Latinos (Fortuna et al., 2016; Leong et al., 2013; Panchang, et al., 2016). Ethnic identity is also operationalized as a sense of pride, belonging, and attachment to one's racial/ethnic group (Burnett-Zeigler, Bohnert, Ilgen, 2013); and as ethnic ties to a group (Panchang et al., 2016).

Ethnic identity and mental health outcomes. Ethnic identity is positively associated with higher levels of self-esteem (Edwards & Romero, 2008; Burnett-Zeigler et al., 2013), and inversely associated with psychological distress (Edwards & Romero, 2008; Burnett-Zeigler et al., 2013; Ledesma, 2017), feelings of hopelessness (Polanco-

Roman and Miranda, 2013); depression (Polanco-Roman and Miranda, 2013); and suicidal ideation (Polanco-Roman and Miranda, 2013; Fortuna et al., 2016).

Other research shows a similar construct, cultural cohesion- the connection to one's cultural group helps individuals make sense of the world, relate to others, and make decisions- helping Latino immigrants adapt to living in the US after experiencing trauma during migration (Lusk and McCallister, 2014).

Religiosity

Religion consists of psychological, social, and behavioral aspects that are closely related to mental health (Koenig, 2012). Evidence shows religion influences mental health through different mechanisms, such as providing resources to cope with stress, including prayer and scripture; fostering relationships and social connections through church services and social gatherings; and its emphasis on loving and serving others (Koenig, 2012). Each of these components increase positive emotions and provide a buffer against stress during difficult times (Koenig, 2012). Furthermore, religion provides an optimistic worldview through the existence of a God who is in control and can respond to individual's needs. Religion is also believed to provide a sense of purpose, helping individuals assign meaning to difficult life circumstances, allowing difficult events to be easier to cope with (Koenig, 2012).

Definition and conceptualization of religiosity. Religiosity is defined as "beliefs, practices, and rituals related to the transcendent, where the transcendent is God, Allah, HaShem, or a higher power in Western religious traditions" (Koenig, 2012). Religious involvement encompasses formal, public, and collective involvement at

worship-related services, as well as more informal, private forms of involvement such as private prayer (Aranda, 2008).

Operationalization of religiosity. Religious involvement is typically operationalized as frequency of attendance at religious services or frequency of private prayer (Ai et al., 2014a; Ai et al., 2014b; Ai et al., 2015; Alegria et al., 2007). Religion has also been operationalized as internal and external religious coping (Koenig, 2012; Sanchez, Dillon, Ruffin, De La Rosa, 2012). Internal coping includes sharing problems with God, prayer, and basing life decisions on religious beliefs and measures activities such as prayer and reading the bible (Sanchez et al., 2012). External coping includes support, advice, or help from religious leaders or clergy, involvement in church activities, talking to other church members, or donating time to a religious cause or activity (Sanchez et al., 2012).

Religiosity and mental health outcomes. Religious attendance is positively associated with social support (Aranda, 2008) and self-reported mental health (Ai et al., 2015), and inversely associated with depression (Aranda, 2008), anxiety (Aranda, 2008); suicidal ideation (Ai et al., 2015); acculturative stress (Sanchez et al., 2012) and substance abuse (Aranda, 2008; Alegria et al., 2007). Conversely, other research shows religious attendance or private prayer was not associated with depressive (Ai et al., 2015; Aranda, 2008) or anxiety disorders (Ai et al., 2015) in Latino immigrants.

Several qualitative studies show several aspects of religion are salient sources of coping, including faith, prayer, and reading the bible (Goodman et al., 2017; Sajquim de Torres & Lusk, 2018; Lusk & Chavez Baray, 2017).

Gaps in the Literature

A review of the literature identified several factors that are positively associated with mental health outcomes in Latino immigrants. Each of these factors seem to provide a unique source of strength, allowing individuals to cope with difficult circumstances, buffering against the negative effects of stress, ultimately reducing the risk of mental health disorders. However, the associations between protective factors and resilience have not been empirically assessed. Consistent with the tenets of MRR (Richardson, 2017) protective factors that influence mental health in Latino immigrants may also influence resilience, and resilience may provide the mechanism through which protective factors influence mental health.

Previous studies on resilience in Latino immigrants targeted populations that include both US and foreign-born Latinos without separating groups during analysis or distinguishing between groups when reporting findings. There are distinct differences in exposure to risk and prevalence of mental health disorders in US-born Latinos and Latino immigrants due to unique factors related to migration that are not experienced by US-born Latinos. Consequently, findings on US born Latinos may not be generalizable to Latino immigrants.

Studies that do target immigrants tend to be comprised of samples that only include Mexican immigrants (Lusk & Chavez Baray, 2017; Heilemann et al., 2002). and/or female immigrants only (Lusk and Chavez Baray, 2017; Goodman et al., 2017; Ornelas et al., 2019; Ornelas & Perriera, 2013; Perriera & Ornleas, 2011: Heilemann et al., 2002), failing to gain male perspectives, as well as perspectives of Latino immigrants from other countries on resilience, coping, and mental health.

Other research has also taken place in cities with a long history of large Latino populations and the accompanying infrastructure and appropriate resources to support Latino populations, like El Paso, Texas (Lusk & Chavez Baray, 2017), Washington DC (Goodman et al., 2017), and northern California (Heilemann et al., 2015).

The current research will investigate the influence of protective factors on resilience and a specific measure of mental health, psychological distress in Latino immigrants only, and includes both males and females from four regions- Mexico, South America, Central America, and the Caribbean. This study will also assess resilience with Latino immigrants in Charlotte, NC, a recent Latino immigrant destination that lacks bilingual and bicultural support systems often in place in other aforementioned cities (UNC Charlotte Urban Institute).

CHAPTER III: METHODOLOGY

Study Design

This study uses mixed-methods in two phases, following a sequential explanatory design (Figure 4). Phase I-quantitative data collection and analysis occurs first, followed by Phase II-qualitative data collection and analysis (Small, 2011). Phase I includes in-person survey interviews with all participants. Phase II includes focus groups with a sample of participants from Phase I and occurs after Phase I data collection and analysis is complete. A sequential design was selected because very little is known about factors that influence resilience in Latino immigrants; collecting two different types of data from the same participants provides the opportunity to use the qualitative data to better understand the mechanisms behind the relationships discovered from the quantitative data (Small, 2011; Onwuegbuzie, Johnson, & Collins, 2009).

Quantitative data collected in Phase I allowed for identification of factors that influence resilience, while qualitative data collected in Phase II allowed for follow-up with participants to understand why those factors did or did not influence resilience. Consequently, the focus group guide used for Phase II was informed by the findings from Phase II. A sequential design also allowed for further exploration of unexpected findings from Phase I with participants in Phase II (Small, 2011; Onwuegbuzie, et al., 2009). Further, the use of quantitative and qualitative methods allows for exploration of the phenomenon and the population from different angles, providing a more complete and comprehensive understanding than either method could do alone (Onwuegbuzie, et al., 2009; Small, 2011).

Phase I is a descriptive, cross-sectional study to assess the relationships between four cultural factors- familism, social support, religiosity, and ethnicity identity- with

resilience and psychological distress; and to determine whether resilience mediates the relationship between each of the cultural factors and psychological distress. Phase I was conducted from July-September 2018. Phase II is exploratory, using focus groups to discover how the cultural factors empirically measured in Phase I, along with the lived experiences of immigrants, influences the development of resilience, adding breadth to the data collected in Phase I. Phase II was conducted from November-December 2018; study procedures for each phase will be presented in detail in later sections.

Participants

The target population for both phases of the research is first-generation Latino immigrants, aged 18 or over, who reside in the US. Inclusion criteria include: first-generation Latino immigrant; born in a country of Latin or Spanish descent, including Puerto Rico; aged 18 or older; speak English or Spanish; and currently reside in the US. Exclusion criteria include: Latino immigrants under the age of 18; second or later generation immigrants, i.e. Latinos who were born in the continental US; Latino immigrants who speak a language other than English or Spanish; and first-generation Latinos who do not currently reside in the US.

The literature regarding whether Puerto Ricans are included with Latino immigrants in research is not consistent. Although Puerto Ricans are US citizens, they experience similar stressful circumstances as Latino immigrants and have been included in other research with Latino immigrants by some researchers (Alegria et al., 2007). The PI of the current study recognizes that Puerto Ricans have a different migration experience from other immigrants which will be controlled for during analysis.

Study setting

Phase I took place at Camino Community Center and Camino Church, which has two locations. Both Camino Churches are affiliated with the community center; the president and founder of CCC is the pastor of Camino Church in Concord, a bilingual church (English/Spanish) where most members and attendees are of Latino ethnicity. Iglesia Camino (Camino Church) was founded as an extension of Camino Church Concord to serve the growing Latino population in a neighboring city, Monroe.

CCC is located within five miles of the University of North Carolina at Charlotte (UNCC) in the University City area of Charlotte, NC, an area with a population that is 19% Latino (Mecklenburg County Health Department, 2017). Approximately 90% of the clients of CCC are first-generation Latino immigrants (Revens, et al., 2017). Camino Church is located north of Mecklenburg County in Cabarrus County, and Iglesia Camino is located south of Mecklenburg County in Union County. The distance between CCC and Camino Church Concord is approximately 10 miles and the distance between CCC and Iglesia Camino is approximately 36 miles.

The Latino population in Concord is similar to that of Charlotte; Latinos make up 12.5% of the total population and Spanish is the most common foreign language spoken (9.8%) (American Community Survey, 2016). The Latino population in Monroe is larger than the Latino population in Concord or Charlotte at 28% of the total population, making Latinos the second largest population in Monroe (American Community Survey, 2016).

CCC and Camino Church are places participants already visit and feel safe and comfortable, increasing recruitment and participation rates. Moreover, the use of both

locations of Camino Church, in addition to CCC, expands the reach of the target population, capturing a more complete picture of the growing Latino immigrant population in and around the greater Charlotte area in NC.

Human Subjects Concern

The study was approved by the University's Institutional Review Board in July 2018 (#18-0222). A verbal informed consent process was completed with all participants prior to participating in the study. Verbal consent only was obtained from participants by a member of the CAB; the CAB member signed the informed consent document to indicate verbal consent had been obtained and gave a copy of the informed consent document to the participant. Verbal consent only was used to alleviate fears related to signing an official document that might exist in undocumented immigrants; such fears have been reported by other researchers (Baumann, Domenech Rodriguez, Parra-Cardona, 2011; Jennings, Kahn, Mastroianni, Parker, 2003). The informed consent document included information on both phases of the research, but verbal consent was obtained again with focus group participants prior to the beginning of each group.

Throughout the data collection process, there was a risk of psychological harm to participants as the survey and focus groups involved reporting mental health symptoms and possibly recalling traumatic experiences associated with immigration and acculturation (Marshall & Rossman, 2006). Risks were minimized by conducting interviews and focus groups in an environment where participants felt safe to share experiences. Confidentiality of participants was maintained using random ID numbers, pseudonyms, and password protected data storing procedures, and the use of private rooms to conduct surveys and focus groups. Moreover, the use of a bilingual, Latino

immigrant to conduct interviews and focus groups helped build rapport and trust between the investigator and participants. A list of community resources, including information on mental health treatment services at CCC, was provided to each participant should they choose to seek mental health treatment. There were no physical risks to participants of the current study.

The following sections explain the steps taken in Phases I and II of the study. Phase I uses quantitative methods to conduct in-person survey interviews. After completion of Phase I, Phase II uses qualitative methods to conduct focus groups with a sample of the participants who participated in survey interviews. The data collection procedures for each phase are explained in the next two sections.

Phase I: Quantitative Methods

Research questions

The research questions for Phase I were:1) What is the association between ethnic identity, familism, social support, & religiosity (independent from one another) and resilience? 2) What is the association between resilience and psychological distress? 3) What is the association between ethnic identity, familism, social support, & religiosity (independent from one another) and psychological distress? 4) Does resilience mediate the relationship between each protective factor and psychological distress?

Sampling plan

Latino immigrants are considered a *hidden population*- a population with strong privacy concerns due to stigmatized or illegal behavior (Heckathorn, 1997); more than half (57.9%) of the Latino immigrants in Charlotte are not US citizens, many of whom may be undocumented (UNC Charlotte Urban Institute, 2006). Standard probability sampling methods cannot be used in hidden populations because the size of the population is not known, and a complete sampling frame does not exist (Heckathorn, 1997). As such, the current study employs non-probability sampling methods- purposive, site specific sampling at three sites- to obtain the study sample, aiming to increase participation and response rates (Aday and Cornelius, 2006). Site specific sampling was used to ensure participants felt safe and comfortable, which is especially important given the sensitive nature of the study an the current political climate related to immigration.

Respondent-driven sampling (RDS) was also used to increase the reach of the sample, allowing participants to recruit peers outside of the study site. RDS uses an incentive system to increase compliance from potential respondents (Aday and Cornelius, 2006; Cuellar, Arnold, Gonzalez, 1995). Though all participants received an incentive for

participation, participants could earn additional incentives by recruiting others who met the inclusion criteria; participants were given referral coupons and information about the study to recruit peers from their neighborhoods, communities, and churches to increase the reach of the sample.

RDS was selected due to the collectivist nature of Latino culture, assuming participants would have large social networks who are also Latino; it was also used because it has been successful in other studies with Latino immigrants (Da Silva, et al., 2017). However, it was not very successful in the current study; most participants were recruited onsite, in-person at CCC or churches (n=121) with few recruited from the referral system (n=7).

Site specific, purposive sampling. Site specific sampling was used because Latino immigrants may be hard to find, and/or be hesitant to participate in research due to past extortion or negative experiences, and fear of documentation status being revealed to legal or immigration authorities (Baumann et al., 2011; Jennings et al., 2003). CCC and Camino churches were selected to establish trust and rapport with participants because they are places Latino immigrants regularly go and feel safe (De Las Noches et al, 2012; Minkler, 2005). All three institutions have established themselves as trusted resources in the Latino community in the Charlotte area over the past several years. Other studies with Latino populations have successfully used similar techniques, recruiting from community establishments, churches, or universities (Cecilia Zea, Asner-Self, Birman, Buki, 2003; Umaña-Taylor & Baámaca, 2004).

Sample size calculation. Sample size was determined using a calculation that was developed with another hidden population by previous researchers (Wejnert, Pham,

Krishna, Le, DiNenno, 2012). The sample size calculation [n= DE * (P)(1-P)/ $(d)^2$] used the design effect (DE)-2; the proportion of the Latino population who are Latino immigrants(P)- 0.67; and the standard error (SE)-0.06 (Wejnert et al., 2012). An SE of 0.06 and DE of 2 were recommended for studies with limited resources that require a smaller sample size, such as the current dissertation study (Wejnert et al., 2012). Approximately 67% of Latinos in Charlotte are immigrants (UNC Charlotte Urban Institute, 2006), thus based on a proportion of 67%, a SE no greater than 0.06, and a DE of 2, the required sample size for the present study was n=123 (Wejnert et al., 2012). Sampling ended once the target sample size was reached.

Recruitment of participants. Recruitment for the study took place from July-September 2018. Participants were recruited in person at CCC as they accessed services, including the health clinic, thrift store, food pantry, and physical activity classes. Recruitment at CCC most often took place Tuesday-Friday between the hours of 9:00am-6:00pm. Participants were recruited on-site at Iglesia Camino on a Saturday during a community event and on-site at Camino Church Concord after church services on Sunday afternoons.

Flyers, email, social media, and word of mouth were also used for recruitment. Evidence shows Latinos most often receive information related to services through informal sources, such as family, friends, and neighbors and through social media (Padilla & Villalobos, 2007; Umãna-Taylor and Baḿaca, 2004). Moreover, guidance from CAB members, leadership at CCC, and the PI's own experience working with the Latino community, informed recruitment methods; in-person, word of mouth, and social media have all been successful at CCC in the past.

All recruitment materials included: an explanation of the study purpose; inclusion criteria; information on incentives; benefits to the Latino community; and contact information- including the email and phone number of a CAB member. In-person recruitment followed a script that included the same information provided on the other recruitment materials. All materials were available in English and Spanish.

Translation of study materials

Translation of study materials from English to Spanish leveraged existing partnerships of the CommUniversity with the Department of Language and Cultural Studies at UNCC. Flyers, recruitment scripts, and informed consent documents were translated from English to Spanish by two graduate students who are currently training to become certified translators; all documents were cross-checked for accuracy by two supervising faculty, both of whom are certified translators and interpreters with extensive experience in translating legal, medical, and research documents from English to Spanish.

Spanish and English versions of all documents were also shared with native Spanish speakers from the CAB to check for comprehension in lay terms across Latino subgroups with various forms of Spanish language. Discrepancies were discussed among CAB members and translators and resolved. Other study materials, including thank you notes and focus group notes, were translated and cross-checked by two bilingual CAB members. The translation procedures used in the current study have been commonly used by other researchers when translating documents from English to Spanish (Schwartz, Unger, Des Rosiers, Lorenzo-Blanco, Zamboanga, Huang et al., 2014; Sabogal, et al., 1987; Merz, Penedo, Navas-Nacher, Ponguta, Roesch, Malcarne, et al., 2013).

Data Collection Procedures

Six bilingual CAB members were trained in quantitative data collection and management protocols by the student principal investigator (PI) and supervising faculty advisor. The inclusion of community members who share the same ethnicity and language in the data collection process is a common and successful practice in CBPR as it increases feelings of trust and familiarity, and reduces non-response rates, resulting in a higher quality of data (Stacciarini et al., 2015; Michael, Farquhar, Wiggins, Green, 2008). Moreover, participants who trust the investigator and feel comfortable during Phase I are more likely to remain in the study and engage in Phase II (Minkler, 2005).

Quantitative data protocols were adapted from protocols used by the supervising faculty to train community members in previous CBPR work (DeHaven et al., 2011). Each CAB member attended one of two training dates with the student PI prior to the start of quantitative data collection to ensure all protocols were followed consistently throughout the project. Each CAB member was given a packet which included a copy of the data collection protocol; study materials, including recruitment flyers and scripts; referral coupons- for referring other participants; and incentive logs. All materials were also stored in a shared google drive. The PI was onsite during most survey interviews, but CAB members were also required to debrief with the PI once a week to discuss progress and concerns or complications with the survey or data collection procedures.

Instruments

Seven instruments measuring each construct of interest were selected and combined into a survey for the current study. A variety of criteria were used to select instruments including availability in both English and Spanish; good reliability and

validity in both languages with Latino populations; and consistent use throughout the mental health literature on Latinos. Given there were seven different instruments, the length of instruments was also considered in an effort to maximize the quality of the survey while also minimizing participant burden. Spanish versions of instruments were previously translated from English to Spanish by the instrument developers. Descriptions of each instrument and tests for validity and reliability are provided below.

Demographic and Immigration characteristics. Demographic and immigration questions were adapted from the National Latino and Asian American study survey (Alegria, Takeuchi, Canino, et al., 2004) and the Survey of Mexican Migrants (Pew Research Center, 2005). Demographic information included age, gender, education level, marital status, and income level. Immigration information included- country of origin, age at migration to US, English language proficiency, and Spanish language proficiency.

No other research has examined migration patterns thus the question on migration patterns was developed by the PI and CAB members. The question was used to assess who accompanied participants during the move to the US; the decision to use this question was based on extensive research that shows the importance of social support to stress and coping. It was expected that individuals who move to the US alone would have higher stress levels and lower levels of resilience. The question used was: Who moved with you to the US?

Resilience. Resilience was measured using the brief resilience scale (BRS). The BRS is a one-factor instrument with six items that measures the ability to recover from stress using a Likert scale from 1- strongly disagree- to 5- strongly agree (Smith, et al., 2008). Scores on the BRS range from 1 (low resilience) to 5 (high resilience). Sample

items include, “I tend to bounce back quickly after hard times” and, “I usually come through difficult times with little trouble.” (Smith et al., 2008).

The BRS was selected because it is a short, straight-forward assessment of resilience. It is one of the only instruments that measures whether an individual can recover, or “bounce back” from stress; other resilience instruments measure factors that contribute to resilience but fail to measure resilience itself (Smith et al., 2008). Other instruments use proxies of resilience, such as social support to measure resilience. Given the current study aims to determine whether social support is associated with resilience, the use of another measure may have caused multicollinearity.

The BRS was also selected because it showed good validity and reliability in both English and Spanish with Latino populations. The English BRS has shown good internal consistency across four diverse samples, with Cronbach’ alphas ranging from .80-.91 (Smith et al., 2008). The BRS also showed good convergent and discriminate predictive validity (Smith et al., 2018). The BRS was translated to Spanish and assessed for validity and reliability with Spanish-Speaking Latinos in the US in a recent study in Texas (Karaman, Cavazos Vela, Aguilar, Saldana, & Motenegro, 2018). The BRS proved to be an effective measure of resilience, with good criterion validity and adequate internal consistency (α=.74) (Karaman et al., 2018).

Ethnic identity. The Multigroup Ethnic Identity Measure (MEIM) was used to measure ethnic identity. The MEIM is a one-factor, 15-item self-report questionnaire using a Likert scale from 1- strongly disagree to 5- strongly agree (Phinney, 1992). The MEIM was developed based on Erikson’s (1986) identify formation perspective which posits belonging, affirmation, exploration, and commitment are key components of

identity. Consequently, the MEIM is comprised of 3 subscales- belonging, affirmation, and exploration and commitment. The belonging and affirmation subscales both consist of five items; the exploration and commitment, subscale consists of seven items. The last three items ask about the ethnicity of the participant, and the ethnicity of the participant's mother and father (Phinney, 1992). Sample items include, "I have a lot of pride in my own ethnic group" and, "I am active in organizations or social groups that include mostly members of my own ethnic group." (Phinney, 1992).

The MEIM was selected because it is a measure of ethnic identity that can be used across diverse ethnic groups (Phinney, 1992). Although there are other instruments that specifically measure Latino ethnic identity, such measures tend to include Latino cultural values, such as familism and spirituality. Given that the current study measured familism separately, the use of a measure of ethnic identity that also included familism would have resulted in multicollinearity.

The MEIM was also selected because it has been shown to have good validity and reliability in studies with Latinos across a range of countries and age groups, including adults and adolescents (Phinney, 1992; Ponterotto, Gretchen, Utsey, Stracuzzi, Saya, 2003). In a group of racially/ethnically diverse adults, including Latinos, the English MEIM showed good validity and internal consistency (α=.85) (Polanco-Roman and Miranda, 2013). In another study with adults, the MEIM showed a Cronbach's alpha of .83 in a sample that was 70% Latino (Phinney & Ong, 2007).

The MEIM was translated from English to Spanish by previous investigators using two sets of translators to verify translations across different dialect groups (Schwartz, et al., 2014). The Spanish version of the MEIM showed good reliability

(α=.91) in recent Latino immigrant adolescents (Schwartz, et al., 2014). Another study assessed the reliability of the MEIM with Latino adolescents in two ways: the entire sample together, encompassing Latinos as one group (α=.80) and then by Latino subgroup (α=.59-.88) (Umaña-Taylor, & Fine, 2001). Puerto Rican and Nicaraguan samples had stronger reliability (α=.85 and .88, respectively) while Mexican, Salvadoran, and Colombian adolescents had moderately strong reliability (α= .79, .80, .81, respectively); other sub groups had lower reliability. The MEIM also showed concurrent validity when examined in the whole Latino group (Umaña-Taylor, & Fine, 2001).

Familism. Familism was assessed using the familism scale, a 15-item scale used to measure the degree to which individuals value close and supportive family relationships and prioritize family commitments and obligations before the self (Sabogal, et al., 1987). The familism scale was developed in English and translated to Spanish using a double translation procedure by the survey developers (Sabogal et al., 1987). The familism scale is a 15-item scale comprised of three distinct subscales: familial obligations- six items; perceived support from the family- three items; family as key referents for decision making- five items. Items are rated on a 5-point Likert-type scale from 1- very much in disagreement to 5- very much in agreement. Sample items include "When one has problems, one can count on the help of relatives" and "Much of what a son or daughter does should be done to please the parents." (Sabogal, et al., 1987).

The familism scale was chosen because it is one of the most widely used self-reported familism scales with Latino populations and was designed specifically to capture familism as it relates to Latino culture (Sabogal et al., 1987; Corona et al., 2017; Campos et al., 2014). The scale was also selected because it has shown good validity and

reliability with Latino populations in English and Spanish (Sabogal et al., 1987; Corona et al., 2017; Campos et al., 2014). The familism scale was assessed for validity and reliability by scale developers in a sample of Latinos from a variety of regions, including Mexico, Cuba, and Central America; the scale showed adequate reliability as a three-factor model measuring familial obligations (α=.76), support from family (α=.70), or family as referents (α=.64) (Sabogal et al., 1987). Constructs on the scale were correlated with constructs used in other scales to measure family support and values, showing convergent validity (Sabogal et al., 1987).

Since the scale's development, other researchers have determined the scale performs well as a one-factor model that measures familism in diverse Latino samples from Mexico, South American, and Central American, most of whom are US-born (α=.87, 85) (Campos, Ullman, Aguilera, Schetter, 2014; Corona et al., 2017). Given the familism scale performs well as a one-factor and three-factor with Latinos, the scale will be tested as both a one-factor model and a three-factor model in the current study.

Social support. Social support was assessed using the Interpersonal Support Evaluation List-12 (ISEL), a 12-item measure of perceived social support (Cohen, Mermelstein, Kamarck, & Hoberman, 1985). The ISEL-12 is a one-factor model with three subscales- appraisal, belonging, and tangible social support (Cohen et al., 1985). Items are rated on a four-point Likert scale from 0- definitely false to 3- definitely true. Sample items from the ISEL-12 include, "There is someone I can turn to for advice about handling problems with my family", and "If I wanted to have lunch with someone, I could easily find someone to join me." (Cohen et al., 1985).

The ISEL-12 was selected because it is a brief measure of overall social support and has been assessed for validity and reliability in English and Spanish. The ISEL-12 was recently assessed for reliability in English and Spanish in a large, national sample of Latinos, the majority of whom were immigrants (82.6%) (Merz, et al., 2013). The MEIM showed good internal consistency across a variety of Latino subgroups, including Dominican, Central American, Cuban, Mexican, Puerto Rican, and South American (α= .80, .81, .84, .81, .83, .82, respectively) (Merz et al., 2013).

Cronbach's alpha showed the three-factor model was not adequate in the English or Spanish versions, but the one-factor model performed well in both English and Spanish (α=.86, α=.80, respectively) (Merz et al., 2013). When assessed as a three-factor model, the subscales had high intercorrelations, suggesting they are not unique from one another (Merz et al., 2013). The one-factor model was also a good fit for the data and demonstrated convergent validity in both the English and Spanish versions (Merz et al., 2013). As such, the instrument will be used as a one-factor model measuring overall perceived social support in the current study.

Religiosity. The Duke University Religion Index (DUREL), a five-item measure of religious involvement was used to assess three dimensions of religiosity- organizational religious activity- one item; non-organizational religious activity-one item; and intrinsic or subjective religiosity- three items (Koenig, Parkerson, Meador, 1997). Items on religious activities are rated using a frequency rating scale from 0- never- to 4- more than once a day or a week, depending on the item (Koenig et al., 1997). Items on subjective religiosity were rated using a five-point Likert scale from 0- definitely not true- to 4- definitely true (Koenig et al., 1997). Sample items include, "How often do you

spend time in private religious activities, such as prayer, meditation, or Bible Study?", and "My religious beliefs are what really lie behind my whole approach to life." (Koenig et al., 1997).

The DUREL was selected because it is a short, practical measure of religiosity that captures the three dimensions of religion that are most often acknowledged as central components in religion literature (Klemmack, Roff, Parker, Koenig, Sawyer, Allman, 2007). The three dimensions of the DUREL are also most often linked to physical and mental health outcomes (Klemmack et al., 2007; Koenig & Büssing, 2010; Taylor, 2013). Moreover, the DUREL was designed to measure religion in Western religions, such as Christianity or Catholic- the religions reported most often by Latinos in the US (Taylor, 2003). The DUREL was also selected because it has been assessed for validity and reliability in English and Spanish.

The DUREL was assessed for reliability and validity in English and Spanish in a sample of Latinos, including both immigrant (58%) and US born (34%) (Taylor, 2013). The sample was divided into three groups 1) the overall sample-a combination of those who completed the assessment in English and those who completed it in Spanish; 2) only those who completed the assessment in English; 3) and only those how completed the assessment in Spanish. The combination of the English and Spanish versions showed good internal consistency (α=.77); the English sample showed good internal consistency (α=.82), but the Spanish sample had lower internal consistency (α=.66). In all three samples, the DUREL performed well as a one-factor model; high intercorrelations between subscales were found, suggesting an overlap between subscales of the DUREL

and a common latent variable, religiosity (Taylor, 2013). Consequently, the DUREL will be used as a one-factor measure of religiosity in the current study.

Psychological distress. Psychological distress was measured using the brief symptom inventory-18 (BSI-18), a shortened version of the original BSI-36 instrument (Derogatis & Fitzpatrick, 2004). The BSI-18 is an 18-item measure of psychological distress, consisting of three subscales with six items each- somatization, depression, and anxiety (Derogatis & Melisaratos, 1983). Items are rated according to the frequency at which participants experienced symptoms over the past seven days from 0-never to 4-very often (Derogatis & Fitzpatrick, 2004). Sample items include, "Feeling no interest in things", "Trouble getting your breath", and "Feeling fearful" (Derogatis & Fitzpatrick, 2004).

The BSI-18 was selected for the current study because the purpose of the study is to understand the effects of resilience on overall mental health, rather than specific disorders, such as depression and anxiety. The BSI-18 performs well as a one-factor model that measures overall psychological distress and does so in a comprehensive, yet abbreviated form. The BSI-18 has also been found to be a valid and reliable (α=.87, α=.91, α=.95) measure of psychological distress across several studies with samples that include a combination of US and foreign-born Latinos (Negi & Iwamoto, 2014; Asner-Self, Schreiber, Marotta, 2006; Ledesma, 2017).

When tested specifically with immigrants, the BSI-18 was more robust when used as a one-factor model of psychological distress than a three-factor model that measures depression, anxiety, and somatization (Asner-Self, et al., 2006). As such, the BSI-18 will

be used as a one-factor model to assess psychological distress in the current study.

Survey administration

The in-person survey was developed using a combination of the instruments described above. The English and Spanish versions of all instruments were entered verbatim into Qualtrics- an online survey platform- to create an English and Spanish version of the survey. The PI inputted the English version into Qualtrics, and a CAB member inputted the Spanish version; both versions were checked by a second CAB member for accuracy.

Each scale was entered as a separate section; scales were ordered based on the perceived level of sensitivity of the items and feedback from CAB members. The familism scale was listed first because the CAB believed questions on family would help the participant feel comfortable, easing them into the survey; the BSI-18 was listed last because the items ask about specific symptoms of mental health disorders, which may illicit uncomfortable feelings from participants.

The survey was administered in-person by a trained CAB member using a lap top or tablet in private rooms to ensure confidentiality and privacy. Surveys were administered at CCC and Camino Churches from July- September 2018. In-person survey interviews rather than self-report surveys were chosen to ensure comprehension of survey questions and measures, to alleviate barriers created by literacy rates, and to build rapport, encouraging honest responses, ultimately reducing item nonresponse (Aday and Cornelius, 2006). The use of in-person survey interviews has also been used in other research with Latino immigrant populations (De Silva, et al., 2017).

The survey was pilot tested in June with three bilingual staff members at CCC to assess the length of the survey and identify any complications with the administration of the survey; survey protocols were then adjusted accordingly. Based on feedback from pilot testing, a handout with response choices for each section of the survey was developed in English and Spanish to help participants follow along with and remember response choices for each section.

Before beginning the interview, participants were asked a series of screening questions to ensure they met the inclusion criteria (Heckathorn, 1997). Eligibility questions included 1) Do you identify as Latino/Hispanic? 2) Were you born in a country other than the US, including Puerto Rico? 3) What country were you born in? 4) Are you 18 years of age or older? 5) Do you reside in the US?

Once eligibility was ensured, the CAB member went over the informed consent process and obtained verbal consent. Participants were then asked for contact information- name, phone number, address, and email address- to allow for recruitment for follow-up focus groups; no participant names or personal information were used for research purposes. Participants were assigned a unique ID number used throughout the study and on all study documents; numbers were assigned using an online random number generator.

The survey interview lasted approximately 15-20 minutes. Upon completion of the survey, participants received a $15 food lion gift card and information on the mental health program and other services at CCC, given the sensitive nature of the study. Participants were also offered three referral coupons to recruit others into the study. Participants who were referred by others, were instructed to bring the coupon or give the

name of the participant who recruited them when arriving to complete the survey. Participants who recruited others into the study were mailed an additional $5 food lion gift card for each person they recruited at the end of data collection for Phase I- September 2018. A thank you card was also mailed to all survey participants who provided an address at the end of Phase I.

Data storage. A shared google drive was used to store all study materials and data; the google drive could only be accessed by the PI and members of the research team- CAB and dissertation committee members- using respective user names and passwords. A google sheet was used to track participants name, ID numbers, contact information, and date and location of survey. Survey data was exported from Qualtrics into an excel spreadsheet and stored on the shared google drive.

Data Analysis

Data analysis was performed in SPSS software Version 25 (IBM Corp, 2017). A description of each variable and procedures used to answer each research question are provided below.

Variables. Demographic variables include gender, marital status, education level, and income level. Immigration variables include country of origin, migration pattern, English language proficiency, Spanish language proficiency, and length of time in the US. Predictor variables include familism, social support, ethnic identity and religiosity. Outcome variables include resilience and psychological distress. For mediation analysis, psychological distress was the outcome variable and resilience was the mediating variable.

Descriptive Statistics and Preliminary analysis. Descriptive statistics were conducted to compute the distribution of demographic, immigration, predictor, and outcome variables. Person's Correlation Coefficients were computed to assess the relationships between all predictor and outcome variables, and to detect multicollinearity between variables.

Statistical Analysis Model. The mediation analysis performed in the current study followed the procedures outlined by Baron and Kenny (1986). Multiple regression was used for mediation analysis because it is a straight-forward method consistently used in the Latino mental health literature to test associations between cultural protective factors and mental health outcomes (Alegria et al., 2008; Morgan Consoli, 2015; Revollo et al., 2011; Campos et al., 2014).

The statistical analysis model (Figure 5) for the current study was developed based on the study hypotheses, and procedures suggested by Baron and Kenny (1986). In the model, X represents the predictor variables- familism, social support, ethnic identity and religiosity; M represents the mediating variable- resilience; and Y represents, the outcome variable- psychological distress. Mediation cannot occur unless there are significant, direct relationships between the predictor variable, the mediating variable, and the outcome variable (Baron and Kenny, 1986). To test the relationships between the predictor variables, the mediating variable, and the outcome variable, four separate regression tests were conducted; all tests were conducted controlling for demographic and immigration variables. Each test is explained below.

1. Linear regression to test the association between predictor variables (independently) and the mediating variable- resilience- to establish there is a

direct relationship between each of the predictor variables and resilience; path "a" in Figure 4.

2. Linear regression to test the association between the mediator- resilience- and the outcome variable-psychological distress- controlling for all predictor variables to establish the effect of resilience on psychological distress; path "b" in Figure 4.
3. Linear regression to test the associations between each of the predictor variables (independently) and the outcome variable- psychological distress- to establish there is a direct relationship between each of the predictor variables and psychological distress; path "c" in Figure 4.
4. Linear regression to test the effect of the predictor variables on the outcome variable- psychological distress- controlling for resilience to establish that resilience mediates the effect of the predictor variables on the outcome variable- psychological distress.

Mediation analysis. A significant association in steps one and three were only found for one predictor variable- social support. Consequently, step four was only conducted with social support as the predictor variable; no other variables met the conditions for mediation analysis. A significant association in steps one-four, suggest resilience mediated the relationship between social support and psychological distress. To determine the size of the mediation effect, a Sobel test was conducted using the unstandardized coefficients and standard errors computed from the fourth regression analysis- the effect of social support on psychological distress while controlling for resilience.

Assessment of validity and reliability of instruments

The BRS has not been previously tested with Latino immigrants. Given previous research in US-born Latinos and other populations, resilience should be inversely associated with psychological distress and positively associated with social support. Consequently, testing the association between resilience and psychological distress and resilience and social support assesses the construct validity of the BRS with Latino immigrants. All the instruments were not previously tested with Latino immigrants. As such, Cronbach's alpha is computed to measure the internal consistency of all instruments in the current study.

Phase II: Qualitative Methods

Research question

The research question for Phase II is: How do culture, insights, and the lived experiences of Latino immigrants influence resilience?

Study Design

Phase II uses focus groups to answer an exploratory question on how culture and the lived experiences of immigrants influence resilience; Phase II seeks to understand why some factors are associated with resilience and others are not. The use of qualitative methods to expand upon quantitative methods has several benefits. Qualitative data can provide explanations for expected and unexpected relationships between variables identified in Phase I (Michael et al., 2008). Using quantitative and qualitative methods together also allows for the identification of agreement and discrepancies across both findings, enhancing the credibility and validity of the findings (Lincoln & Guba, 1985; Umãna-Taylor and Baḿaca, 2004). Qualitative methods also provide the opportunity to gather data from individuals with literacy problems, and eliminate language barriers, important considerations of the target population in the current study (Umãna-Taylor and Baḿaca, 2004).

Ethnographic methods. Ethnography studies groups of individuals, "seeking to understand how they collectively form and maintain a culture" (Marshall and Rossman, 2016). Ethnographic methods attempt to explain a social problem from the participant's viewpoint, emphasizing local knowledge and experience (O'Mahony, Donnelly, Este, Bouchal, 2012). Ethnographic methods were used to explore the research problem because the researchers sought to understand how lived experiences and insights of immigrants influence resilience and coping through a cultural lens.

Ethnographers typically engage in long term cultural immersion, often living and working amongst the group to develop an understanding of the beliefs, customs, language, and behaviors of the culture (Marshall and Rossman, 2016; O'Mahony, Donnelly, Este, Bouchal, 2012). Although full, long term immersion of Latino culture was not attempted in this study, partial immersion in Latino culture was achieved through the work of the PI with CCC over the years; through the partnership between UNCC and CCC; and through CBPR approaches.

Focus Groups. Focus groups were selected for the current study for many reasons. First, the overall goal of the focus group was to develop a consensus across Latino immigrants as a cohesive group, an objective that is better achieved through focus groups than one-on-one interviews (Lincoln & Guba, 1985). In addition, focus groups are a useful method for obtaining in-depth information on an understudied topic or population due to their ability to elicit discussion in a setting with multiple representatives of a target audience (Umãna-Taylor and Baḿaca, 2004). Moreover, the collectivist nature of Latino culture is likely to facilitate engaging group discussion that may elicit information not obtained in an individual interview.

Focus groups are also particularly useful in populations with historically limited power or influence- like Latinos; when participants are in a group of peers who share similar experiences, they feel more comfortable sharing their own thoughts and experiences (Umãna-Taylor and Baḿaca, 2004). Focus groups also provide a way for Latinos to be involved in the process of research, including the interpretation and presentation of findings- an integral component of CBPR (Umãna-Taylor and Baḿaca, 2004).

Sampling Plan

Focus groups were conducted with a sample of the same participants who participated in Phase I of the research project, allowing for a more in-depth exploration into associations between cultural factors and resilience measured in Phase I (Small, 2011). The target sample size for focus groups was three groups of eight participants, for a total of 24 participants. The number of focus groups was determined based on a calculation to achieve 80% power in detecting themes (Fugard and Potts, 2015). Evidence shows 80% of themes are identified after the first 3-4 focus groups (Guest, Namey, McKenna, 2017) and that the probability of identifying a theme among a sample of six individuals is greater than 99% if the concept is shared among at least half of the larger population (Galvin, 2015). To account for nonresponse, 60 participants were selected for focus groups.

Random, proportionate sampling was used to obtain 60 participants from the total sample who provided contact information in Phase I. Several participants (n=13) did not provide contact information in Phase I and thus were not eligible to be contacted for Phase II; it was assumed that if participants did not provide contact information they preferred not to participate in Phase II. The remaining sample (n=141) was stratified by gender, country of origin, and length of time in the US. These variables were selected due to different culture and immigration experiences, and differences in mental health symptoms and outcomes based on gender, country of origin and length of time in the US.

Recruitment. Participants were contacted by bilingual CAB members using a recruitment script that reminded the participants of their participation in the survey and explained the purpose of the focus groups. Participants were asked to participate and

given five different dates/times from which to choose. Participants were informed they would receive an additional $5 food lion gift card for focus group participation, and that dinner and child care would be provided.

CAB members followed a protocol developed by the PI, contacting each participant three times by phone or text message, and tracking each contact in a shared google sheet. Once participants were unreachable-after three contact attempts, or opted out, more participants were selected from the larger sample. Efforts were made to maintain equal proportions of stratified variables, but because many participants were unreachable, all participants with a phone number were eventually contacted and asked to participate in focus groups.

Maintaining homogeneity of demographic-gender and age, and social characteristics-country of origin and length of time in the US in each focus group was difficult due to limited representation from specific groups and scheduling conflicts. For example, there were not enough male participants to hold separate male and female focus groups. Participants were grouped based on the focus group date and their availability, as opposed to being grouped by demographic or immigration characteristics, which would have ensured homogeneity between groups.

Following recommendations in the literature from researchers with experience conducting focus groups with Latinos and guidance from CAB members, focus groups were conducted on weekends and in the evenings; and a taco lunch/dinner, and childcare were provided. Hospitability, childcare, and culturally appropriate foods have been cited as key strategies of successful recruitment for participation in focus groups with Latino populations (Umãna-Taylor and Baḿaca, 2004). Moreover, providing participants time to

socialize over the meal before the start of the focus group helped increase feelings of comfort and alleviated feelings of worry or anxiety (Umãna-Taylor and Baḿaca, 2004).

Data collection protocols

Four focus groups were conducted from November-December 2019. All focus groups were conducted in Spanish, given that 91% of participants chose to take the survey in Spanish during Phase I. Focus groups were conducted by trained, bilingual CAB members- who identify as Latino- in a private conference room at CCC.

Participants are more likely to trust an investigator who shares the same language and ethnicity as them, and can personally relate to their experiences, allowing them to feel more comfortable and communicate freely; this is especially important when discussing a sensitive or unique topic that may elicit feelings of trauma, such as immigration (Michael et al., 2008; Umãna-Taylor and Baḿaca, 2004). Moreover, the use of a CAB member to moderate focus groups helps eliminate power differentials that often exist between participants and researchers, further encouraging participation and open communication between participants (Umãna-Taylor and Baḿaca, 2004).

Four bilingual CAB members were trained by the PI and supervising faculty to conduct focus groups using qualitative data protocols adapted from two manuals, *The Toolkit for Conducting Focus Groups (*Omni Institute, ND), and *Designing and Conducting Focus Groups* (Krueger, 2000; Krueger & Cassy, 2015). Two CAB members conducted each focus group; one moderated while the other observed and took notes.

Informed consent for focus groups was included on the initial informed consent document used in Phase I. However, CAB members went over the informed consent process again and obtained verbal consent for participation and audio recording before

the start of each focus group. No names or identifying information were used for focus groups; participants chose their own pseudonyms to be used in place of names during the focus group to ensure confidentiality.

Focus group guide. The focus group guide (Appendix A) was developed by the PI and members of the CAB after data collection and analysis for Phase I was complete; questions were checked by a member of the dissertation committee with expertise in qualitative data. Questions were written to learn more about cultural influences on resilience, and to understand why some expected relationships between cultural factors and resilience were or were not found in Phase I.

Six members of the CAB- four from Mexico, one from the Dominican Republic, and one from Guatemala- met with the PI to design focus group questions and discuss discrepancies before beginning Phase II. The questions were written by CAB members using resources on qualitative data under the direction of the PI (Krueger, 2000; Krueger & Cassy, 2015). The questions were then shared with the rest of the CAB for review and modification. The role of CAB members in developing focus group questions ensured the questions were culturally appropriate and easy to understand, and that the needs of the community were prioritized over the needs of the research team (Minkler, 2005).

Once all questions had been approved, questions were translated from English to Spanish by two bilingual members of the CAB, with each checking the other's translations for accuracy. English and Spanish versions of focus group questions were then distributed to the other CAB members to check for comprehension.

Translation of materials

All focus groups were recorded in Spanish and transcribed verbatim. Recordings were sent to a professional transcription service to be transcribed in Spanish. Spanish transcripts were translated into English by two graduate students training to become certified translators/interpreters with experience translating research documents; these were the same students who translated the informed consent for the study. Each student translated one transcript and then checked each other's translated transcript for accuracy; the transcripts were then cross-checked by a supervising faculty member, a certified translator and interpreter with extensive experience translating legal, medical, and research documents. The other two transcripts were translated by the supervising faculty and checked by a second experienced, certified translator/interpreter.

Data storage. Focus group recordings and transcripts were stored on the PI's UNCC google drive that could only be accessed through the PI's username and password; recordings and transcripts were shared with translators and CAB members for analysis via google drive.

Data Analysis

The English transcripts were used for data analysis. Data was analyzed using a deductive analysis approach (Bernard, Wutich, & Ryan, 2017; Figure 6). Deductive analysis is theory driven and uses what is already known about a topic to identify key themes and later derive conclusions (Bernard, et al., 2017). A deductive analysis approach was selected because key factors expected to predict resilience were already identified and tested in Phase I. The focus group guide was developed from findings in

Phase I, asking specific questions on factors that predict resilience; as such, many of the codes were predetermined based on the guide.

Deductive analysis follows three steps (Figure 6). In step one, a code book (Table 1) was developed to summarize and compress the data into central concepts, allowing for a more efficient analysis process (Saldana, 2016). The coding scheme was created by two researchers- the PI and a trained member of the CAB- using guidelines outlined in *The Coding Manual for Qualitative Researchers* (Saldana, 2016).

A priori codes were developed first- from the focus group guide and quantitative data collected in Phase I. In step two, all transcripts were coded, incorporating other codes into the coding scheme as they emerged from the data (Saldana, 2016; Bernard, et al., 2017). The researchers discussed the a priori codes and resolved discrepancies before beginning the coding process; other codes were discussed between researchers as they emerged. Both researchers agreed on all codes used in the final codebook. The codebook (Table 1) was used to organize codes and indicate the frequency of codes across participants and focus groups.

Codes were then condensed into major themes that described commonalities across focus groups by each researcher independently. In step three, after all themes were derived, the researchers met to compare themes, using frequencies of codes for each theme, along with supporting quotes. The researchers discussed and resolved discrepancies across themes, deciding on the final themes together. The final themes were then discussed with a third researcher- a CAB member who moderated focus groups and reviewed the transcripts. The use of multiple coders increased the likelihood of finding all examples that pertain to a given theme in the text (Creswell & Poth; 2018). The

collaborative approach used throughout data analysis also employed triangulation of multiple perspectives, enhancing the cultural sensitivity and credibility of the findings (Lincoln & Guba, 1985; Streng et al., 2004: Patton, 1999).

Establishing trustworthiness

Several strategies were used to ensure qualitative methods were rigorous and produced trustworthy and authentic findings. The trustworthiness of qualitative data includes credibility- the degree to which people will believe the findings; transferability- the degree to which findings are applicable to other studies, situations, and people; dependability- the degree to which the findings could be replicated by another researcher; and confirmability- the degree to which the findings can be confirmed based on the evidence provided (Lincoln & Guba, 1985). Prolonged engagement, peer debriefing, reflexivity, audit trails, and member checking were all used to enhance the trustworthiness of the findings in the current study.

Prolonged engagement. Prolonged engagement involves the investment of enough time to learn the culture, build trust, and test misinformation that may be introduced from distortions of the participant or community (Lincoln & Guba, 1985). The PI achieved prolonged engagement with the Latino community through time spent conducting mental health research at CCC and servicing the community.

The PI has co-investigated several projects on mental health in Latinos with Latino colleagues, enhancing knowledge and skills on conducting research in the Latino community (Revens, et al., 2018; Revens, & Suclupe, 2018; Revens, Suclupe, Gutierrez, DeHaven, 2017; Suclupe, Revens, Reynolds, 2018). The PI also spent time reading and reviewing the literature on Latino culture and mental health, as well as engaging in

regular discussions with Latino peers, friends, and colleagues to learn more about Latino culture and experiences.

Peer debriefing. Peer debriefing involves exploring aspects of the findings with a peer; the peer asks questions that force the investigator to explain the basis for his/her interpretation of the findings, showing the interpretation of the findings is not just within the mind of the researcher (Lincoln & Guba, 1985). Peer debriefing also provides an opportunity to test any hypothesizes that have developed from the data and discuss and next steps with other researchers (Lincoln & Guba, 1985). All four CAB members who conducted the focus groups participated in peer debriefing with the PI after each focus group session, as well as at the end of data analysis.

Reflexivity. Reflexivity is a process where the PI acknowledges biases and previous experiences and how biases and experiences might affect how data is interpreted. A discussion of the PI's background, experiences, and training was provided in chapter one to help the reader understand the perspectives the PI brings to the research topic. The PI also kept a reflexivity journal- a documentation of thoughts, perceptions, and feelings throughout the research process, which serves to increase the transferability of the findings (Lincoln & Guba, 1985; Finaly, 2002).

Audit trail. An audit trail is a record of all procedures used during the research that allows other researchers to authenticate and duplicate the accounts of the research, enhancing the dependability and confirmability of the findings (Lincoln & Guba, 1985). The audit trail for the current research includes: logs of survey interviews; logs of attempted contact and contact made with participants during Phases I and II; records, agendas, and notes from monthly CAB meetings; journal entries recorded by the PI to

document reflections, perceptions, thoughts, and ideas throughout the project; focus group recordings in Spanish; English and Spanish transcripts; informal notes taken during focus group sessions; and the code book used to code the data. The code book provided an outline of the process used to work through the data- including coding, categorizing, and analyzing- allowing the process to be replicated, further enhancing the dependability of the findings (Warren-Findlow, 2013).

Member checking. Member checking is a process where findings are shared with participants to check accuracy, further enhancing credibility (Lincoln & Guba, 1985). After data analysis was complete, a CAB member contacted focus group participants by phone to share findings and check whether the research team's interpretation of the data was an accurate representation of the participants' experiences and thoughts; any discrepancies were resolved and reported back to the PI (Lincoln & Guba, 1985; Patton, 1990). Almost 50% of focus group participants (n=11) gave feedback on the study findings; agreement with study findings was consistent across all participants.

Although all methods listed above help ensure the findings from Phase II are credible and can be trusted, the use of CBPR approaches is one of the most powerful ways to ensure study findings are credible. Collaboration with the community throughout the entire research process ensures the findings are not only credible, but are representative of the community voices and perspectives, and are relevant to the needs of the local community.

Summary of Methods

The study uses a sequential, explanatory design to examine factors that influence resilience in Latino immigrants using quantitative data collection, followed by qualitative

data collection. Quantitative data includes in-person survey interviews conducted at CCC and Camino churches; surveys combined seven valid and reliable instruments to measure resilience; psychological distress; social support; familism; ethnic identity; religiosity; and demographic and immigration factors. In-person survey interviews were conducted by trained CAB members at CCC and Camino churches.

A sample of participants who participated in Phase II also participated in four focus groups conducted by trained, Latino CAB members at CCC. The focus groups were designed to learn more about the relationships between resilience and protective factors assessed in Phase I and how the lived experiences of immigrants influence resilience; the focus group guide was based off findings from quantitative data collection and analysis. All focus groups were conducted in Spanish by trained CAB members at CCC.

CHAPTER IV: RESULTS

In this chapter, findings from Phase I will be presented, followed by findings from Phase II of the study.

Phase I Results

Statistical significance is concluded when the p-value is less than 5%. The interpretation of effect sizes is based on Cohen's recommendations for effect sizes for social and behavioral sciences (Cohen, 1988). According to Cohen (1988), r=0.10 indicates small effect size, r=0.30 indicates medium effect size, and r=0.50 indicates large effect size.

Descriptive Statistics: Demographic and Immigration Variables. A total of n=128 participants participated in Phase 1 of the study (Table 2). Most participants were recruited in person (n=121) at CCC or Camino Churches; few participants were referred from other participants (n=7). Most participants chose to take the survey in Spanish (n=111) with less taking the survey in English (n=17).

Twenty-three percent (n=29) of participants were male and 77% were female (n = 99), 49% (n=63) were aged 18-29; 19% (n=24) were aged 40-54 (19%), and 31% (n=39) were aged 55 or older. Most participants were married or in a domestic partnership (n=90, 70%); had less than a ninth-grade education (n=75, 58.6%); and had a combined household income lower than 20,000 (n=37, 29%), or between 20,000-35,000 (24, 19%).

Participants' country of origin spanned 17 countries; country of origin was categorized according to four regions: Mexico (n=51, 40%); Central America, including Costa Rica, El Salvador Guatemala, Honduras, and Nicaragua (n=34, 27%); South

America, including Argentina, Chile, Colombia, Ecuador, Peru, Uruguay, and Venezuela (n=20, 15%); and the Caribbean/Other, including Cuba, the Dominican Republic, and Puerto Rico (n=23, 18%). Most participants reported speaking in Spanish (n=122, 95%) and about 45% of the participants had some ability to speak in English (n=58); many of them lived in the US for more than 10 years (n=78, 61%), and migrated to the US with other family members (n=85, 43%).

Descriptive statistics: Predictive and outcome variables. Recall that scores on each of the scales were obtained using a total score from all scales, except for the brief resilience scale (BRS) which uses a mean score (Smith et al., 2008). Mean scores indicated high levels of religion and resilience; moderately high levels of familism, social support, and ethnic identity; and low levels of psychological distress.

Preliminary Analysis. One-way ANOVA was conducted to determine if there were significant differences in resilience and psychological distress scores based on demographic and immigration variables. There was a significant difference in psychological distress scores between participants who migrated to the US alone (M=11.23, SD= 10.686) and those who migrated to the US with family members (M=6.60, SD=9.334, p=.02). Participants who reported migrating to the US with family members reported significantly lower levels of psychological distress compared to participants who reported migrating to the US alone. There were no significant differences in psychological distress scores across any other demographic or immigration variables.

Correlation analyses (Table 3) and simple linear regression were conducted to examine the relationships between resilience and: familism; social support; ethnic

identity; and religiosity (Table 4); and psychological distress and: familism; social support; ethnic identity; and resilience (Table 5).

Cultural factors and resilience. There was a positive correlation between social support and resilience (r=.471, n=128, p=.000) and between religiosity and resilience (r=.241, n=128, p=.006). Overall, social support had a large, positive effect on resilience, and religiosity had a small but significant positive effect on resilience. Ethnic identity and familism were not correlated with resilience. The association between familism and resilience was also assessed using familism as a three-factor model: familial support, familial obligations, and family as referents for decision making; none of these were significantly associated with resilience.

A significant regression equation was found between social support and resilience; predicted resilience was equal to 2.302 + .041(social support), meaning participant's resilience increased .041 for each unit increase of social support. After controlling for covariates, social support still influences resilience; for each unit increase in social support, resilience increases 0.039, when other variables are fixed. A significant regression equation was also found between religiosity and resilience; predicted resilience was equal to 2.582 + .036 (religion), meaning participant's resilience increased .036 for each unit increase of religion. After controlling for covariates, religion still significantly influenced resilience; for each increment increase in religion, resilience increases by 0.032 when other variables are fixed.

Cultural factors and psychological distress. There was a marginal, inverse correlation between familism and psychological distress (r=-0.16935, p=0.056), and a significant inverse correlation between social support and resilience (r=-0.28121,

p=0.0013). Overall, familism had a small but significant, inverse effect on psychological distress, and social support had a medium, inverse effect on psychological distress.

A significant regression equation was found between social support and psychological distress; participants' predicted resilience was equal to 2.302 + .041(social support), meaning participant's resilience increased .041 for each unit increase of social support.

Resilience and Psychological distress. There was a significant inverse correlation between resilience and psychological distress (r=-.36 p=<.001). Resilience had a medium effect on psychological distress; as resilience increased, psychological distress decreased. Participants' predicted psychological distress was equal to 27.890 -5.909 (resilience), meaning the participant's psychological distress score decreased 5.909 points for each unit increase of resilience while holding other independent variables fixed.

Mediation Analysis. The only variable associated with both resilience and psychological distress was social support. As such, resilience was tested as a mediator of the relationship between only social support and psychological distress. Once resilience was added into the regression model, social support no longer influenced psychological distress (p=.124), suggesting resilience mediates the relationship between social support and psychological distress (Figure 7). A Sobel test was conducted to determine the size of the indirect effect using the unstandardized coefficients and standard errors from the regression analysis. The Sobel test showed resilience mediates the relationship between social support and psychological distress (test statistic= -2.73, SE= 0.072, p=.006).

Validity and Reliability of instruments. Resilience was inversely associated with psychological distress, providing evidence of the construct validity of the BRS. Cronbach's alpha was used to measure internal consistency among each of the scales used in the current study (Nunnaly, 1978). Cronbach's alpha was obtained for combined English and Spanish versions. The combined scores are as follows: BSI showed excellent internal consistency (α=.923). The familism scale (α= .835), the MEIM, (α= .866), the ISEL-12 (α=.821), and the DUREL all showed good internal consistency (α=.712). The BRS (α=.698) showed acceptable internal consistency (Nunnaly, 1978).

Phase II Results

A total of (n=4) focus groups were conducted with a total of (n=23) participants at CCC (Table 6). Group one had (n=8) participants; group two had (n=7); group three had (n=2); and group four had (n=6) participants. Most focus group participants were female (n=19, 83%), aged 18-29 (n=10, 43%) or 55 and older (n=8, 35%), and married (n=18, 78%). Participants were from a range of regions and almost all reported speaking a lot of Spanish (n=22, 96%) and a little to no English (n=14, 61%).

Some participants (n=23) were unreachable due to invalid phone numbers. Other participants could not participate due to transportation and scheduling conflicts. Consequently, group three had only two participants because although others had confirmed attending, they were not able to find transportation; however, the two participants were already on site, thus the group was conducted with two participants.

Three types of themes emerged from the data: descriptive; conceptual; and empirical (Table 7). Descriptive themes were themes that provided background information on the participant or research problem but did not directly address the research question. Conceptual themes were those that emerged from MRR, the literature on resilience, and the questions on the focus group guide; i.e. factors that influence resilience (Bernard, et al., 2017). Empirical themes were those that emerged directly from the data to further explain the mechanisms behind the conceptual themes.

Descriptive themes

Participants were asked about reasons for moving to the US and goals they hoped to achieve after moving. Reasons and goals were combined into the theme- reasons for

moving to the US. Many participants reported a combination of reasons for moving and more than one source of stress. Two descriptive themes emerged a priori from the focus group guide and included reasons for moving to the US and sources of stress.

Reasons for Moving to the US. Four themes emerged as reasons for moving to the US: economic circumstances; political freedom; quality of life for family; and family unification. Many participants reported a combination of reasons for moving to the US so there is some overlap between themes. For example, a participant commented: "…to get ahead economically, to be safer, and to have my family united, because otherwise we would be separated."

Economic circumstances. The most common reason for moving to the US was economic circumstances- living in poverty in the home country- which often coincided with pursing a better quality of life. One participant commented, "My reason for leaving my country was poverty. We lived in a very poor town, and for a better future." Several participants discussed the intent of moving to the US to earn and save money and then return to the home country; however, participants decided to stay, primarily because the quality of life was better in the US, and they wanted to raise children in the US. For example:

"My wife and I decided to move and start living here in the United States for the economic advantages that the country has, the security advantages, and because we just had a child, we had the opportunity for the child to be born here, and after he was born here, we decided to raise our children here."

Similarly, another participant discussed staying in the US due to circumstances in the home country and a desire to create a better life for her son: “I had a residency that required me to stay in the country [US] or relinquish it, and due to how things were in the country where we are originally from, we decided, it is better to keep the residency living here in the US; we looked for the best life for our son. And regardless, the comfort and quality of life is totally different from that of my country of origin.”

Quality of Life for family. Participants often spoke about the ability to provide a better quality of life for their children in the US than they could in the home country. For example: “My goal was to come here to the US, to save money, to return to Mexico, and to make a home. But…I didn’t go back. I got married here, and now I have my husband and my two girls. We are happy with a better future- better than in Mexico. Similarly, others spoke about children not having “close to what they have here [US]” in the home country.

The overarching desire for quality of life encompassed several factors that participants perceived to be measures of success, including learning English, getting a better job, saving money, and buying a house. There was a common understanding across participants in all groups that learning English would help them get a better job and “get ahead” here in the US. For example, a participant stated, “Because without the language and without a job, I can say I’m going to look for a job, but where am I going to get one if I don’t have the language they need.”

Another participant discussed pursuing the “American dream”, which included earning money, buying a house, and providing a better future for her children: “I came with my husband…we came to have a better life, to pursue the American dream that we all came

here for. I brought my three-year old daughter…we really came because we never had the chance of buying a house [in Mexico]".

Political Freedom. The second most common reason for moving to the US was for political freedom. One participant spoke about a combination of the lack of freedom of expression and a deteriorating economy as reasons for fleeing the home country: "The reason I was brought to the US was for political reasons, as a result of the government in my country. It started to lack freedom of expression…the economy was terrible because of the monetary exchange rate." Another participant spoke about lacking religious freedom and experiencing religious persecution due to the political system:

> "I was born in a socialist, community, atheist country…I remember on many occasions the police coming and arresting my father to take him prisoner for having religious activities with the church…at school I was humiliated on at least two occasions for my [religious] beliefs…I grew up year after year with that trauma and fear…I was afraid to live in a social system like that one. There was no freedom of expression."

Overall, political freedom was linked to better quality of life, freedom of expression, and freedom of religion.

Family Unification. Another common reason for moving to the US was family unification- moving to reunite with family members who had previously moved to the US or accompanying a spouse or significant other who was moving for a job or other reason. For example: "I came because…my wife is a teacher who came to teach Spanish, and I came as her dependent, and because of where I live…I came because of economic problems

too". Although many participants cited their spouse as the reason for moving to the US, the underlying reason the spouse moved was typically to pursue economic advancement.

Violence/crime and health reasons were cited less often as reasons for moving. Almost all participants moved to escape poverty and political dependence in the country of origin. Most participants believed moving to the US would provide a better quality of life for themselves and their children compared to the country of origin. In addition, participants expressed the original intent of moving temporarily to earn and save money but stayed long term and to build a life and a family in the US.

Sources of stress. Participants were also asked to provide an example of a difficult problem or situation and describe how they overcame that problem. The problems were combined into one theme- sources of stress- a situation or person that causes the individual to feel stressed. Explanations for how they overcame the problem, along with information from proceeding questions on coping with stress, were coded and combined into a central overarching theme- factors that influence resilience. Five themes emerged as sources of stress: language barriers; adjusting to a new profession or social class; interpersonal conflicts; uncertainty in how to access social, economic, or mental health services; and separation from family members.

Language barriers. Language barriers referred to barriers created by not being proficient in the English language, as well as not understanding variations in the Spanish language. Language is a significant source of stress because it can prevent immigrants from communicating with others and getting a job. Participants expressed frustration that even when they could speak some English it was not enough to get a job. One participant

discussed frustration that cleaning houses was her only option for a job due to English language proficiency:

"Coming to this country was very difficult…the first thing I did was clean houses. I didn't know where to start. I got that job cleaning houses through a friend who is also from that country. Then she said to me: the only thing that you can do is this. I knew English that allowed me to communicate, but it wasn't the English people speak here."

Another participant spoke about language and cultural barriers: "Being immigrants in this country…we don't fully know the culture, we don't fully know the language, it makes sense to think that we do have stress." English language proficiency caused problems other than those associated with employment, preventing Latinos from communicating with others. One participant believed many Latinos stay silent because they do not speak English well or at all:

"I know how to speak English, and I understand more, I can read…I realize I speak how I write and sometimes they don't understand me….that is what affects the Latino community most- that it takes a lot to learn English. We need it, and many times people stay quiet for not knowing how to speak."

Staying silent could have many implications on the life of the individual, family, and community because Latino immigrants are not able to communicate their needs to others who may be in positions to help. Participants also expressed frustration that they could not even communicate with other Latinos due to variations in the Spanish language between different regions and countries. The stress Latinos felt from not speaking English

was compounded by the fact that they could not even speak the "right" Spanish to other Latinos. One participant commented:

> "I learned to speak another language, another Spanish, because…here you have to learn to speak Spanish, and I asked, what do you mean I don't speak Spanish. She said because Mexicans speak differently, the Central Americans speak different, the Colombians speak differently, the Venezuelans speak differently. The first day I went to clean houses with a Mexican…I said what are you saying to me, I don't know?"

Similarly, another participant spoke of struggling to understand her students who speak a different type of Spanish, describing the experience as feeling like other people were from "Mars and I'm from Pluto because we don't understand each other." Overall, barriers between the English and Spanish language, and within the Spanish language, kept Latinos from connecting with others and created a barrier for getting jobs. Further, Latino immigrants in the US must not only attempt to learn English but often must also attempt to learn another form of Spanish, adding additional stress to daily life.

Adjusting to a new job or social class. Relatedly, many participants earned degrees and held professional jobs in the country of origin but were unable to obtain similar jobs in the US, often due to language and immigration status. Participants felt a lack of fulfillment from the jobs held in the US and described a range of negative feelings- frustration, rejection, aggression, and sadness- associated with working in service and industry jobs like cleaning houses/offices, and construction. One participant explained that immigrants in the US must work in "whatever they can", while another explained that immigrants must "keep their head down" at work and "do what they're told". This participant spoke about holding a management position in the country of origin, which he

described with passion and a sense of pride; conversely, the participant discussed his construction job in the US with frustration and a sense of defeat: “You have to take it [the job] for something to be better…they’ve worn me down here”

Another participant discussed struggling with similar issues and the potential effects on mental and emotional health:

> “Facing the language barrier, there was a barrier of not having papers. I couldn’t go to work in what I was, in my profession [in country of origin]. So you feel a bit of frustration, and these frustrations make you aggressive and teach you to learn to defend yourself.…It is a fight of personal conflicts that you have face to face. You have to be very strong to not fall into a depression, to not fall into what they vulgarly call ‘the cycle of alcohol’, ‘the cycle of drugs’, and to keep yourself afloat.”

This participant framed the struggle as a personal conflict that can lead to negative coping mechanisms such as substance abuse and negative mental health outcomes like depression.

Employment is directly linked to income levels and thus social class; as a result of low paying jobs, many participants were forced to adjust to a lower social class. One participant discussed the stress of confronting two different worlds- the one in the country of origin and the one here in the US: “Confronting a reality that is completely different to the reality you are accustomed to makes you a servant of others, and to learn to help, or to be rejected.” Another participant spoke about how hard it was to not have access to the money she had earned in the country of origin: “It is a bit difficult, at first I felt pretty bad, because I would say oh my God…because you can imagine for someone to come from

their country where you have you retirement salary and the pension from social security, they are two salaries that I have but I cannot receive them here."

Participants also explained that their spouses experienced similar issues which caused both individuals to feel the negative effects of stress. Participants also felt it was difficult to remain in a positive mind set and cope with their own problems. Similarly, participants spoke of the struggles their children faced at school, which also affected the stress level of the participant.

Overall, attempting to adjust to a new social class and/or profession caused participants to feel a range of negative emotions that put them a risk for negative mental health outcomes. This theme also brings attention to the effect the stress of others can have on the individual; stress experienced by other family members impacted the individual's ability to cope with their own problems, and consequently mental health status.

Interpersonal conflicts. Conflicts with family members and others were another source of stress. Some examples included disagreements about helping other family members financially; difference of opinions in lifestyle choices between family members; inappropriate behaviors between family members; and problems related to children, such as medical issues and children having trouble at school. One participated discussed a conflict with her brother and sister-in-law over financial assistance provided to help bring her sister-in-law to the US, which caused conflicts between the entire family within the household: "Not everyone thinks or is grateful in this life…he [brother] did not pay me rent or food like three months before so that he could save money and bring her…but to my brother's wife, I am a bad person…those are situations that mark you."

The situation placed emotional strain on the participant because harsh words were exchanged, and she felt the family was not grateful for her help; the situation took a toll on her relationship with her brother with whom she was very close and her overall emotional health. Other participants discussed disagreements with family members in the country of origin about providing them with financial and economic help. One participant commented: “It’s not easy to have your family far from you...managing your American stress and your family’s stress is not simple.” The participant felt conflicted trying to balance financial concerns of his immediate family with financial concerns in the country of origin. Ultimately, it caused him to “distance himself” by not talking to family in the country of origin which caused additional emotional strain.

Family separation. Correspondingly, family separation was a source of distress as many extended family members remained in the country of origin. One participant spoke of feeling sad that she and her immediate family stayed in the US [had originally planned to move back] because the rest of her family is in the country of origin; “Our plan was to return…to buy a house in Mexico and start a business…but we didn’t return…my children are here…now I have gotten depressed by the situation…I am alone here, well only with my children and husband.”

Other participants spoke about how being “far from your family” and “having no family here” made it difficult to find support during times of need; family separation also led to feelings of loneliness. Not having close access to family members led many Latinos to turn to other sources for support, such as friends, church members, and others in the community; these sources of support will be discussed in detail in later sections.

Lack of familiarly with community services and resources. Another source of stress was a lack of familiarly with community services and resources; participants reported not knowing where to find help and resources needed in different situations, including mental health services, or help with social and economic needs. A participant discussed not knowing about Camino [the community center] until recently and explained that knowing about more resources upon first moving to the US would have been helpful:

"Maybe if we [Latinos] had known about all the resources there are at different organizations, it would've been easier for us to survive…we didn't have the opportunity of someone telling us, look, go here or go there. We just kept going to churches, reading what was on the walls…not even the internet, we didn't know how to access anything online. So we started from zero."

Other participants did not know about the services CCC provides or where else to go for social, economic, or mental health services. A few participants talked about seeking mental health treatment for themselves or family members and being put on a long waiting list. Overall, participants felt that knowledge on how to access more resources would help them be more successful in the US.

Conceptual and empirical themes

Four conceptual themes emerged as factors that may influence resilience. Conceptual themes were driven by resilience theory and existing literature factors that are external to the individual and attributes of the individual. Several external factors measured in Phase I, including social support, religion, and familism emerged as conceptual themes. Within each conceptual theme, empirically driven subthemes emerged from the data.

Although not measured in Phase I, attributes of the individual also emerged as a conceptual theme and included characteristics and behaviors. All themes are organized and discussed according to the frequency at which they occurred in the transcripts (Table 6).

External factors that influence resilience

External factors were factors outside of the individual that may influence resilience and included: social support; religion; and familism. Several empirical themes emerged from the data to explain the mechanisms by which each conceptual theme may influence resilience; these are described in more detail below.

Social support. Social support was the most consistent theme cited throughout all transcripts. Across all focus groups, most participants believed emotional support from others is necessary to cope with and recover from the negative effects of stress. Data indicates social support may influence resilience through four mechanisms- emotional support from others; social integration; community resources; and serving others. The most salient sources of social support were friends, spouses, and church members. Participants rarely distinguished whether support came from other Latinos or from non-Latinos; only one participant discussed the need to interact with other Latinos from the same country for social integration.

Emotional Support. Emotional support was defined as having access to someone to talk to about problems; typically, someone that could relate and give advice. Individuals who provided support included friends who could relate to the problem; a spouse; an elder or person who was considered wise; a person who was religious; and members of the

church family. Support from the church family and spouse are mentioned here but discussed in more detail in proceeding sections on “religiosity” and “familism”.

Consistent across all focus groups was the need to have someone to turn to during difficult times. Participants often talked about finding someone to help find a solution to a problem: “My husband, friends…people in the community can help with something…you use your support resources…so depending on the necessity, there is always someone that can give you the best answer or solution.”

Emotional support from others was perceived as important to emotional wellbeing; talking to others provided an outlet, and prevented individuals from keeping things inside, which was perceived as making the situation worse and ultimately leading to negative mental health outcomes. One participant commented: “To not fall into a pit of stress or a hole of depression…you have to communicate with others. Communication is a way to get ahead, because the more you bottle it up, the more you close yourself off, the worse it is.” Another participant voiced how important it is for everyone to have someone to lean on for support: “Every human being needs someone…you do need God’s help first…and you need someone to tell….you need someone’s help, someone to listen.”

Similarly, another participant explained the importance of having friends to talk to during stressful situations: “In difficult times of stress, I have looked for help from friends. I have only been in the US for nine years, but I have been lucky to have friends that have supported me in true stress and difficulty. I have found that support basically in the area where I moved, and in church and the community center [Camino].” Participants were also intentional about who they went to for support, seeking someone who could relate to the situation and/or provide meaningful advice. A few participants mentioned reaching out to

someone who went through a similar situation, while others emphasized the importance of talking to someone who was religious in order to receive advice that coincided with their beliefs and the bible.

Social Integration. Social Integration was defined as spending time with and socializing with others. Consistent throughout the data was the idea that socializing and integrating with others is important to mental and emotional health. Most participants believed that isolating yourself from other people results in negative thoughts and feelings, and consequently, poor mental and emotional health. One participant commented, "The key is to not be closed away in your house and to be thinking about things." Similarly, another participant discussed the effects of being alone on mental health: "I don't like to be alone. When I am alone, I get depressed, I fall into a sadness, I want to cry. But when I am in a group, when I am with people, I feel different, I feel together, I don't feel alone."

Many participants explained that simply spending time with other people was important to mental and emotional health regardless of whether problems were discussed; being with others preoccupies the mind and puts individuals in a better mood and a positive mindset- making it easier to cope with stress. One participant discussed the importance of simply being out and about with other people:

> "Maybe sometimes even though we don't talk about things, the simple fact of being there, chatting, and having some juice or something, eating together…it helps you get out of your routine, and without the person realizing that you are going through sometimes…they smile and we change the routine."

Similarly, another participant talked about spending time with friends to combat stress: “To beat stress…another friend that was from my country…we all sort of stuck together…we ate our food, we heard our music, and followed our traditions.” Another acknowledged that although speaking with God is important, so is speaking with people, “We are human, and we need another human.”

Participants also recognized the importance of integrating within the local community to become aware of resources and services. One participant commented: “There are programs that are developed…there are resources…if you know how to look for them…they aren’t going to reach you at home alone.” Another participant said: “You start to meet people, either in the supermarket, the street, or wherever you find them. From there I met a lady who was Colombian…I told her I was cleaning houses, but I was a teacher...she told me…take your papers, take everything you want, they will translate it and then you can present yourself to the school system.”

Participants also acknowledged the importance of social integration to learn English- a goal that many believed was an important way to “get ahead” in the US. One participant commented: “If you stay home alone, and you are alone from work to home, you don’t learn anything [English]…communicating with other people- it doesn’t matter if you learn to speak fluently- but at least you understand what the other person is saying to you- for me it is a way to get ahead.” The participant brought the idea back to a central belief among Latinos that learning English provided a means of getting ahead economically in the US, paving the way for a high quality of life for individuals and family members.

Community resources. Community resources were defined as resources or services provided by organizations, agencies, or churches, that helped the individual deal with

social, economic, or emotional problems. Participants were able to access resources in the community when they needed assistance with food or clothes. One participant referred to CCC specifically: “Camino is a table of salvation for many people. For family and foreigners, that is, for Christians and those that aren’t believers in the church…I attended Camino a lot when I lived here in Charlotte.” Other participants spoke about receiving help from community services to learn English; and translate documents into English to get a job.

Serving others. Serving others was defined as doing something to help another person i.e. volunteer work or helping a friend or neighbor. Serving others was cited less often than other forms of social support but participants stated helping other people made them feel happy and more positive. One participant spoke of leading support groups to help others who experienced a similar problem as him and stated, “I’ve learned in life that you feel happiest helping others.” This participant also acknowledged the impact attending a support group had on his life when he was struggling and wanted to provide the same opportunity for others.

Another participant talked about serving others to persevere through hard times: “To keep serving, to keep helping. I think that those of us that are here all have that mentality to be able to serve.” This participant also explained helping others puts things in perspective, allowing her to see that some people have problems that are more severe than hers, which reminds her to be grateful and focus on the positive aspects of life.

Overall, qualitative data suggests social support may influence resilience through emotional support, social integration, community resources, and serving others. Having someone to turn to during difficult times provides an outlet for stress and allows the

individual to receive advice on how to handle the problem. Integrating with others makes individuals feel more positive and less stressed and can help individuals learn English or become informed of other resources in the community that help them succeed. Serving others made participants feel more positive, happier, and more grateful, making it easier to persevere and deal with stressful situations.

Religiosity. Religiosity was the second most common theme throughout across all focus groups. Empirical themes emerged from the data to provide potential explanations for how religiosity may influence resilience; it appeared to influence resilience through four mechanisms: faith, tranquility, relatability, and connectedness from the church family.

Faith. Faith was defined as belief that a higher power [God] is in control and will provide. Faith was cited more often than any other factor of religiosity as the mechanism that helps participants recover from the negative effects of stress. Consistent across all focus groups, participants believed a strong sense of faith in God as the "provider" was a source of strength and comfort, making it easier to cope with difficult situations. Several participants commented that God has always come through for them in the past, allowing them to let go of situations or problems and "put them in God's hands". One participant discussed his faith as a way to combat stress: "I would say that 99% of the stressful moments that happen in my life, I channel them through prayer and confidence in God as creator."

Also discussed was the importance of giving the situation to God to move forward and focus on the future. One participant stated, "That's the first thing [when faced with a difficult situation] putting it in God's hands." Similarly, another participant stated, "I've prayed a lot…and now I've let it go, now I've left that burden with the Lord." Participants

frequently emphasized the importance of faith in God to persevere and move forward in the US. One participant commented:

> "One of the good things about this country is that in one way or another we get closer to God…going to church…we have faith in God, and in ourselves, we can get ahead. Never lose faith, that's my opinion…for me, miracles exist, and miracles are answered prayers. When you cry out to God, when you ask for strength, with faith, God answers."

Participants also reported it was easier to not worry about things because they knew God would "handle it" or "provide" what they needed. One participant commented that faith in God allows them to feel a sense of calm: "Negativity will come to your life and…like I say God will provide…and be calm. And until now, thank God, since he has been a strong anchor." Another participant spoke about comfort and strength God provides: "God gives us the strength and helps us confront the situations that come up."

Faith helped participants overcome difficult situations because they were able to give the burden to God and move forward. Leaving the burden with God also helped them feel at peace and more positive, making it easier to cope with daily stress.

Tranquility. Tranquility was defined as the state of being calm or at peace; tranquility was received from prayer and the bible. Prayer provided a mechanism for participants to communicate with God, allowing them to confront their problems in the moment; several participants commented on the need to talk to someone "right now", allowing them to feel peace and remain calm during the situation. For example: "My prayer is always there, because I feel like I am in danger, I feel like I am in a situation that I do

not like, I always say, 'My lord, give me peace'". Another participant stated: "My spirituality and religion reduce my stress levels when I pray in whatever moment I feel…I ask the Lord for peace, to have more patience, to get out of a situation that I don't like, when I see things happening in society…". Several others described praying to God for peace, wisdom, or patience to help them through a difficult situation.

Participants also cited scripture from the bible as a source of comfort and peace. One discussed how the bible can help you be more mindful- or live in the moment: "Biblical quotes that can help people a lot, how to live in the moment, not thinking about tomorrow because that brings more worry and all that." Likewise, another participant discussed the implications of reading the bible on your emotional health:

> " It (the bible) gave me peace. It doesn't matter where you open the Bible. You are bothered, you are in pain, you have problems about whatever…sleep…and now people use YouTube for everything. Use the Bible, read it, and after not even 10 minutes, you are clam. It is like comfort for the soul".

Participants expressed that both reading the bible and praying to God brought immediate feelings of comfort, peace, and relief.

Relatability. Relatability was defined as something the participant could understand or feel sympathy for. Relatability occurred through scripture and through hearing sermons at church. Participants reported reading scripture helped them realize others have gone through and overcome similar problems in the past, increasing confidence in their own ability to do the same. One participant described how messages received during the sermon

provided a way for him to get advice and encouragement on a problem without having to talk to anyone about it:

> "I don't tell anyone anything, it has happened to me that I get to Sunday and the pastor is preaching and he is talking exactly about the situation that I'm going through…I'm not telling anyone anything, and it is as if God was talking to me without the person realizing it…saying keep going!"

Similarly, another participant discussed not having anyone to go to for help but getting strength and advice from the bible: "I don't have anyone that I think I could tell and be able to get any real help. My sustenance is the Word. I open the Word of God and the Lord tells me lots of things there…that sustains me". Several other participants discussed how stories in the bible provide situations they can relate to, helping them feel as if they are not alone. The bible also provides reassurance that things will be OK by illustrating stories throughout history where others have faced and overcome difficult situations.

Connectivity from church family. Connectivity from church family was defined as emotional and economic support from the church family. Attending church provided an opportunity to connect with others who share similar values and religious views, allowing participants to feel as if they were part of a community. One participant commented: "I went to church…it is a way to be part of a community. Church is the first element where you congregate with other people, where you make friends with others. It is where you get together with study groups, where you get together to learn English."

Church members were cited as salient sources of social support to help participants cope during difficult times. One participant discussed the importance of talking to church members when facing a problem:

> "When you go to church…there is .someone that you feel is worries about you…you are here meeting people. It is satisfying…but when you close yourself off and you don't tell anyone anything or no one knows, no one is going to say anything. It is the worst thing you can do."

Several others discussed how they began to rely on friends at church for support, especially when family members were in the country of origin. Participants believed the "church family" becomes family, offering support in times of need. One participant discussed the implications of having the support from friends at church:

> "As an immigrant…the bulk of our extended family is in our countries…but we three here (referring to others from church)…are good friends. In our circle of friends, we have good support on how to manage stress… sometimes we formally or informally get together, and we have chats where we bring to the table lots of problems and we can finally come up with solutions…We shouldn't underestimate as immigrants the strong support that there is in formal and informal circles of people…someone can bring to the table different opinions and solutions, because there is always going to be a solution."

For other participants church simply provided a way to socialize and share with others: "Going to church, sharing with people, rejuvenating my mindset, that's helped me

a lot." Participants also talked about the church family providing resources and support in times of need i.e. providing items such as food and clothes, and English classes.

Connectivity from church members reiterates the importance of social support in coping with problems and difficult situations in the Latino community.

Familism. Familism emerged as theme but was discussed less often compared to social support and religiosity. Data suggests familism may influence resilience through family support, emotional strength gained from children, and family bonding.

Family support. Family support was defined as emotional support received from family members or spouses. As previously mentioned, many participants turned to social support outside of the family because family members are often in the country of origin. However, spouses were cited as the most salient source of support within the family. Spouses were referenced as people who help give support, motivation, and advice:

> "My person is also my husband. He gives me lots of advice and I also advise him…When I am really depressed, he tells me, no we are going to do this. That is, we motivate each other so that we don't get down…I don't talk about my problems with my family because…it is better to try to solve problems as a couple."

Similarly, another woman spoke about how her husband provides someone she can share the burden of her problems with, "I thank God for this fella [husband], he is a companion…a good friend. So, it is like they say, a shared burden weighs less." A few participants cited family members, such as their mom or aunt as an important resource for dealing with problems. Conversely, other participants emphasized being intentional about not talking to immediate or extended family members about problems. For some it was

because they believed problems should be solved "within the family"- between the husband and wife; others reported not talking to family members about problems because they did not want to worry them, or because family members were perceived as not being able to help because they were far away.

Emotional strength gained from children. Emotional strength from children was defined as the motivation to move past obstacles to provide a better life for children. A consistent theme was that parents were willing to endure burdens and struggle if they believed it would benefit their children. Participants often referred to their children as "motivation" to keep going. One participant explained that even on her lowest days, she is motivated to be strong and get out of bed for her children:

> "There are days that you feel that you don't want to get up…and you spend the whole day at home without doing anything…you get sick…and who is going to watch your kids, no one else but you…you find strength where you can, from wherever you can, to get ahead for them…it isn't for yourself but for them…someone like a mother is what gives you the little push to get ahead for them, to have confidence in them."

Similarly, another stated that helping her children get ahead was the most important thing in life; "I had to help my children get ahead…nothing else mattered. To have lived only to work." Another commented on staying strong for her children in hopes that her children would learn to be strong themselves: "There are moments that I stay strong for my children, because that is what I want to teach them." Overall, parents drew strength from their children which motivated them to keep moving forward even when times were tough.

Family bonding. Family bonding was defined as spending time with family members to relieve stress. Family bonding help participants shift focus away from negative situations or feelings, encouraging the individual to focus on the positive. Many participants talked about doing things with their children inside and outside of the home. One participant described family bonding as being active outside together: "In our case, spending time with family a majority of the free time that we have, going to parks, looking for activities that you can do outside with family."

Another participant commented: "My children help me avoid falling into depression and stop thinking so much about one thing…I start to do activities with them, like playing hide and seek, like guess the word, there are so many things that we can do at home." Similarly, another talked about spending time with her children to distract herself and keep from staying in the house: "I get rid of what's in my head, because somethings during the week there is so much pressure in your head that you reach the point where you say, I don't want to do anything. I want to be lazy. So…because I have small children, I try my best to get out and distract myself with them."

Spending time with family provided the opportunity to get out the house and do something active or positive, helping individuals avoid falling into negative patterns and coping mechanisms, which may lead to mental health disorders such as depression or anxiety.

Attributes of the individual

Although not empirically measured in Phase I, attributes of the individual that may influence resilience emerged from the data. Attributes of the individual included characteristics and behaviors that influence coping and may influence resilience.

Individual characteristics. Individual characteristics were traits or tendencies of the individual that helped them cope with and recover from stress; individual characteristics included optimism; perseverance; and acceptance

Optimism. Optimism was defined as the tendency to look on the more favorable side of events or conditions, expecting the most favorable outcome. Participants often discussed the tendency to not dwell on negative thoughts. One participant discussed the importance of preventing negative thoughts from taking control to combat depression: "There are many ways that one can stop depression and stop thinking negative thoughts that actually don't define our lives." Likewise, another participant discussed how "drowning yourself in negative thoughts" prevents you from "moving forward". Others discussed the importance of optimism in order to create a better life in the US- the primary motivation for moving to the US for many. For example: "If we get here seeking a better life because in our own country, we can't find what we want, we have to try to see the positive here."

Overall, optimism helped participants stay in a positive mindset, allowing them to avoid negative thinking that can often lead to negative feelings and mental health outcomes. It also helped participants keep moving forward because they believed things would turn out favorably in the end.

Perseverance. Perseverance was defined as persistence in doing something despite difficult or delay created by obstacles. Several participants discussed their desire to keep moving forward even during difficult times. One participant discussed struggling for years to get ahead in the US, continuing to move forward despite all the obstacles:

> "I came here to the US about 15 years ago…haven't been able to get ahead…so the only thing to do is take refuge in the things that can be accomplished. It doesn't matter that a piece of the puzzle doesn't want to fit, but you have to keep going."

Other participants reported frequently reminding themselves that they are "capable" and will "keep going" to "make progress" despite difficult times; participants were typically referring to working and doing whatever it took to earn money to provide for their family. Participants also reported gaining strength from past obstacles; overcoming a difficult situation in the past made it easier to persevere through current situations because they believed if they had done it in the past, they could do it again. One participated discussed his battle with alcohol addiction, commenting that his "weaknesses in the past made him stronger today". Similarly, another participant talked about gaining strength from past struggles, saying: "I think that it is worth it to trip and fall in order to stand up with more strength."

Perseverant individuals find a way to keep pushing forward despite the presence of obstacles. Perseverance was indicated by a sense of determination to not give up and keep going, which led to a more optimistic attitude. Participants also gained a sense of strength by overcoming difficult situations in the past, leading to a sense of confidence they could overcome and move forward again.

Acceptance. Acceptance was defined as the ability to let go of what cannot be changed or controlled. Acceptance allowed participants to feel a sense of calm and peacefulness, which helped them handle difficult situations. One participant discussed accepting things she did not like about living in the US, and how that acceptance led her to positive adaptation: "There are things that are one way and can't be another. You have to accept them, because you're in a different place and you have to accept what you like and what you don't. And that causes a positive adaptation and brings positive change for people."

Similarly, another participant commented: "If there are things that I can't change, I have to accept them, but I am always trying to avoid getting into problems. And even if it is difficult to stay calm and peaceful, I have to do it because if I don't, there will be more problems." This participant recognized the importance of acceptance and remaining calm as not to create additional problems that can further increase stress levels.

Other participants tied acceptance to religion, explaining how placing a situation in God's hands allows them to let things go and feel peace: "If you can, you move forward, and if you can't, that's not in my hands to change, and instead of worrying, like a lot of us have said, I leave it up to the Lord and let it go…it doesn't make sense to keep worrying about problems I can't solve."

The ability to accept things that cannot be changed prevents unnecessary stress and allows for the release of negative feelings related to stress and control, allowing the individual to feel peace and begin shifting focus away from the problem and towards something more positive, or towards moving ahead with future goals.

Individual behaviors. Individual behaviors were behaviors or activities the individual engaged in to cope with and recover from stress; individual behaviors included problem-solving; self-care/relaxation; physical activity; and preoccupation.

Problem-solving. Problem solving was defined as taking responsibility of the problem and included defining the problem; identifying the cause of the problem; and identifying potential solutions or options. Problem solving involved a sense of ownership on the part of participants; this process allowed participants to come to a resolution and prevent similar problems in the future: One participant discussed the importance of facing the problem to develop a solution: "I start to think what it is that I have to do, what is the smartest option…trying to understand how to solve it to prevent more problems and…understand what is happening in order to face it and keep moving forward."

Participants also believed that although God can help in difficult situations, the individual has a responsibility to use the tools God gives them to solve the problem: "God will help you…but you have to make an effort to get out of the problem, because if you just wait for God to do his part, that won't work."

Problem solving also involved shifting focus back towards the participant themselves, allowing them to avoid taking on the stress of others, such as family members of friends. One participated discussed not "expending anymore energy" on her husband's stress which stemmed from dissatisfaction from his job. She identified the source of her stress- her husband's mental health struggle- and realized that although she could offer support to her husband, she could not manage the stress for him; at that moment she decided to focus on herself and things she could do for her own mental health. A few others also

talked about not letting others "stress them out" and "blocking out" stress inflicted by others to focus on themselves.

Other participants cited specific tools or strategies needed to overcome certain situations, such as learning English or another form of Spanish, or seeking external help i.e. going to a food pantry when food was the problem. Problem-solving helped participants overcome the situation because it allowed them to identify the cause and potential solutions, enabling them to come to a resolution and move past the problem; this skill also helped them prevent similar problems from occurring in the future.

Self-care. Self-care was defined as activities that individuals engage in to take care of their mental, emotional, and physical health. Participants often reported "taking time for themselves" and engaging in activities they "enjoy" as important to coping with stress. One participant discussed how engaging in activities she enjoys helps combat negative thoughts and feelings of depression: "When you can take the time for yourself…be it reading a book when they [children] are asleep, because I like it and it takes me to another world, like we say…there are many ways that one can stop depression and stop thinking negative thoughts."

Participants also gave specific examples of self-care. For example: "So every time I feel like there is something that is not working, I involve myself in activities that I know I like…I really like essential aromas, running a hot bath, talking with friends, or listening to music. In the day to day, that helps me relax and prevent episodes of stress." Similarly, another participant discussed cooking as a form of self-care and taking time for herself: "I like to cook- make traditional Colombian dishes. I take my time and everything."

Self-care helped participants manage stress in both the short and long term. Self-care allowed time to themselves to decompress and relax in the moment, but also provided long term relief when practiced regularly. Engaging in enjoyable activities appeared to reduce the effects of day-to-day stress and elevate mood, better equipping individuals to handle stressful situations as they arise in the future.

Physical activity. Physical activity was defined as engaging in physical activities to relieve stress and/or enhance mood. Although physical activity is a form of self-care, physical activity emerged as a theme of its own because it was repeatedly cited as an effective means of relieving stress, improving mood, and developing a positive mindset. Several types of physical activities were discussed, including yoga, Zumba, jogging, cycling, and walking. One participant commented that physical activity provides a way to clear the mind and enhance mood: "Look at how many adults, people 45, 50, 60…and young people exercising [at the gym], and you can see how these people see a difference, the positivity in their life, and how they radiate…how they clear their heads." Others referred to physical activity as an "antidote to stress" and commented that it "helps you feel better, and "changes mood".

Participants also spoke specifically about the added benefits of being active in nature. One participant commented: "When I felt a lot of stress or felt very sad, that's why I go to the park. I try to be in places with fresh air…walking will help a lot…but more than anything, being in fresh air and being connected with nature helps." Likewise, another participant talked about the benefits of fresh air on mental health: "How do I manage it [stress]? Go connect with nature. Not long ago I read that people that live in the cities, in order to not have anxiety, stress, they recommend a minimum of two times a week to go

out and have some contact with nature…feel the air. And there are a lot of sites to go here for that [to feel nature]."

Physical activity helps participants recover from stress because it elevates mood, increases optimism, and decreases feelings of stress and sadness. Exercising in nature has an added benefit of fresh air, which makes individuals feel better emotionally; further, being in nature appears to have perceived benefits, regardless of whether it is combined with physical activity.

Preoccupation. Preoccupation was defined as occupying the mind with other things so as not to dwell on negative thoughts or feelings. Participants often reported the need to keep themselves busy or to "distract themselves" to prevent them from dwelling on negative circumstances that could not be changed. One participant explained that doing nothing allows for more time to think about and feel the negative effects of stress: "I think that stress goes with keeping yourself busy, because if you don't do anything, that's when you start to think about a lot of things: that's where the stress comes from. But if you are busy doing something, you aren't going to think about it."

Participants also believed staying busy prevented dwelling on things they do not have, and reminded them to be grateful: "Keeping your people involved in activities, be it with family members, with friends, or different things, that do not make you feel like I do not have this, I don't have what they have in the home country." Another described the role of working to prevent stress, emphasizing the need to stay busy at home when you are not able to work: "When you have a job, there the stress of work goes away, because you are active, going here and there. But when you don't have a job is when the stress falls on

you.” Another person commented:“Stay active at home…since with stress if you don’t control it, it can overcome you.”

The need to actively do something was a coping mechanism that prevented dwelling on negative thoughts and/or being consumed by stress, which can negatively affect mental and emotional health outcomes. Distractions helped participants be more optimistic and focused on the task at hand, rather than dwelling on problems and stress.

Individual characteristics- optimism; perseverance; and acceptance- helped individuals focus on the positive, let go of stress, and move forward despite difficulties, making it easier for them to cope with and recover from stress. Individual behaviors- self-care, physical activity, and spending time in nature- provided outlets for stress, allowing individuals to feel calm, and have a positive perspective, making it easier to cope with stressful situations in the moment and in the future. Problem-solving allowed the individual to determine the cause of the problem and either address it or accept it and move on. Other behaviors like preoccupation are techniques for shifting focus away from the situation, allowing for focus on something else, ultimately making it easier to cope and move past the situation.

Summary of Results

Phase I findings show social support and religion are positively associated with resilience. Qualitative data supports the findings from Phase I and provides potential explanations for how social support and religion may influence resilience. Social support provides emotional support, social integration, community resources, and the opportunity to serve others. Religion provides faith in a higher power, tranquility from prayer and

scripture, and connectivity from church family members. All aspects of social support and faith identified in Phase II help explain how individuals use different factors to cope with stress, which ultimately influences resilience and overall mental health.

Familism was not found to be significantly associated with resilience in Phase I but did emerge as a theme in Phase II. Data from Phase II provides explanations as to why familism was not associated with resilience and suggests other ways family may influence coping and resilience, such as family bonding and emotional strength from children. Attributes of the individual not measured in Phase I also appear to influence resilience; these include optimism, problem solving, acceptance, perseverance, along with self-care, physical activity, and preoccupation behaviors.

CHAPTER V: CONCLUSION AND RECOMMENDATIONS

This study makes a significant contribution to the literature on the mental health of Latino immigrants. It is one of few studies to specifically focus on resilience in immigrants. Resilience is important in the context of migration due to the unique and stressful circumstances related to migration that are not experienced by US-born Latinos and non-Latinos in the US. This is also the first study to empirically measure factors that contribute to resilience in Latino immigrants, building upon existing literature examining factors that enhance resilience in other groups, as well as qualitive literature on resilience in Latino immigrants. Furthermore, this is the first study to assess the construct validity and reliability of a resilience instrument in Latino immigrants.

Findings show resilience is positively associated with social support and religiosity, and inversely associated with psychological distress. A secondary finding is that resilience mediates the relationship between social support and psychological distress. Qualitative focus groups indicate resilience is influenced by multiple interpersonal relationships and several aspects of faith. Participants also indicate there are several personal characteristics- optimism, perseverance, acceptance, and behaviors- problem-solving, self-care, physical activity, and preoccupation that influence resilience.

Resilience in Latino Immigrants

Several studies have inferred Latino immigrants may be resilient based on data from focus groups or interviews (Ornelas, et al., 2019; de Torres & Lusk, 2018; Lusk & McCallister, 2014; Ornelas et al., 2009; Goodman et al., 2014; Perreira & Ornleas, 2013), but only one other study empirically measures resilience with Latino immigrants (Lusk &

Chavez Baray, 2017). Consistent with the current study, Lusk and Chavez Baray (2017) found Latino immigrants had high levels of resilience despite high levels of trauma.

Similarly, other studies have empirically measured resilience with a combination of US and foreign-born Latinos (Consoli et al., Heliemann et al., 2012) and Latinos in Mexico (Sutter, et al., 2016) and Peru (Morote, et al, 2017). Three of these studies show findings consistent with the current study, that resilience is inversely associated with depressive symptoms (Heilemann et al., 2012; Sutter et al., 2016; Morote et al., 2017); the third study did not measure the association between resilience and mental health but did find high levels of resilience in Latino undergraduate college students (Morgan Consoli et al., 2013).

Factors that contribute to resilience

Four factors hypothesized to have a positive association with resilience are measured in the current study; these factors are religiosity, familism, social support, and ethnic identity. Religiosity and social support were positively associated with resilience while familism and ethnic identity were not. Although not empirically measured, focus group participants identified several other factors thought to contribute to resilience; these include optimism, perseverance, acceptance, problem-solving, self-care, physical activity, and preoccupation. Previous research on each of these factors is discussed below.

Social support and resilience. The current study found **s**ocial support is positively associated with resilience in Latino immigrants; social support was also identified as an important indicator of resilience by focus group participants more often

than any other factor in the current study. Findings from several other qualitative studies indicate social support influences resilience, consistent with findings in the current study, (Goodman et al., 2014; Lusk and Chavez Baray, 2017; Ornelas, et al., 2009; Perreira and Ornelas, 2013; de Torres & Lusk, 2013).

Qualitative findings from the current study indicate social support influences resilience through emotional support, social integration, community resources, and serving others. Emotional support from others provides someone to share experiences with and get advice from; similarly, "personal reference"- the ability to talk to others about their own experiences - was identified by another study as important to resilience (Lusk & Chavez Baray, 2017).

Social integration with others helps participants avoid loneliness and isolation, a finding consistent with several other studies (de Torres & Lusk, 2018; Smith-Morris, Morales-Campos, Castaneda, & Turner, 2012). Social integration with others in the local community may influence resilience by mitigating the negative effects of family separation and home sickness (Smith-Morris et al., 2012). Emotional support and social integration also help Latino immigrants feel as if they are part of a community (Lusk & Chavez Baray, 2017). Finally, Latina immigrants often cite husbands (Goodman et al., 2014; Ornelas et al., 2009; Perreira & Ornelas, 2013) friends and relatives outside the immediate family (Ornelas et al., 2009; Lusk & Chavez Baray, 2017), and members of the church family as important sources of support (de Torres & Lusk, 2018; Shaw, Joseph, & Linley, 2005; Aranda, 2008).

Participants in the current study did not specify whether social support needs to come from other Latinos. In other studies, however, support from other Latinos and/or

immigrants was important to resilience and coping (Lusk & Chavez Baray, 2017; de Torres & Lusk, 2018). Latino immigrants felt a sense of solidarity and community when they were able to share experiences with other Latinos with similar world views; and indicated they appreciated the sense of respect and acceptance they felt from other Latinos (Lusk & Chavez Baray, 2017; de Torres & Lusk, 2018).

A potential explanation for why participants in the current study did not identify the need to integrate with other Latinos is that they were not directly asked about this. Additionally, most immigrants in the current study have been in the US for more than 10 years and may have formed bonds with non-Latinos whereas recent immigrants comprised the other studies' samples (Lusk & Chavez Baray, 2017; de Torres & Lusk, 2018).

Community resources, such as English classes, and community organizations that provide social and economic help were also identified by participants in the current study, consistent with other research (Ornelas et al., 2009; de Torres & Lusk, 2018; Goodman et al., 2014). In a study measuring the effect of different types of stressors on the mental health of Latino immigrants, findings showed lack of community support was the most often cited stressor for new immigrants and was inversely associated with physical and mental health (Caplan, 2007). Resources in the community help Latino immigrants connect with other Latinos and non-Latinos in their local community and provide support for social and economic needs.

Resilience as a mediator. The current study found resilience mediates the relationship between social support and psychological distress. Only one other study attempted to link social support, resilience, and mental health outcomes in Latino

immigrants. Kiang and colleagues (2010) found social support was inversely associated with depression and suggested social support increased resilience, in turn decreasing depression. However, resilience was not measured empirically, and the assumption was not tested (Kiang, et al., 2010).

The present study findings suggest social support alone does not affect mental health, rather social support increases resilience, which in turn affects mental health. This finding supports the importance of developing interventions and services that enhance resilience through social support in Latinos. Similarly, other research points to the need to connect Latinos to others, especially new immigrants who are not yet connect to other individuals and sources within the community (Caplan, 2007).

Religiosity and resilience. The current study found religiosity significantly influences resilience. Several other qualitative studies identify religion or spirituality as an important coping resource (Goodman et al., 2014; Lusk and Chavez Baray, 2017; de Torres & Lusk, 2018). Although Lusk and Chavez Baray (2017) used the construct spiritualism - placing everything in God's hands, this is similar to the theme "faith in God" in the current study. Similarly, other investigations found that faith or trust in God helps Latinos realize problems are not permanent and God will help them get through them; participants also discussed the need to do their part to help God solve problems, like the theme "problem-solving" in the current study (de Torres & Lusk, 2018).

Another aspect of religion that may influence resilience is the effect religion has on how individuals frame their perspective on life; participants often report viewing situations positively or being able to accept things out of their control because of their

faith in God. This is consistent across other qualitative studies with Latino immigrants (de Torres & Lusk, 2018; Shaw, Joseph, & Linley, 2005).

Participants in the current study also report a sense of peace or tranquility through prayer and reading the bible, consistent with other studies (Goodman et al., 2014; de Torres and Lusk, 2018). Relatability to stories of adversity and triumph in the bible was also discussed by participants; reading the bible encouraged participants to persevere through difficult circumstances because others in the bible had done so. This finding is unique to the current study and may require additional exploration in future studies.

Religion also appears to influence resilience through social support or connectivity with other members of the church, consistent with existing research (de Torres & Lusk, 2018; Shaw, Joseph, & Linley, 2005). Participants describe forming close bonds with other members of the church, often referring to them as “church family”; they also explained that they turned to church family for support because some family members were too far away.

Although no studies empirically examine the association between religiosity and resilience with Latino immigrants, one study did examine it with a sample of US and foreign-born Latinos (Morgan Consoli and collegagues, 2015). Unlike the current study, Morgan Consoli and colleagues (2015) found spirituality was not associated with resilience but was associated with thriving. Results between the two studies likely differ due to variations in conceptualization and measurement of religiosity and spirituality; the use of different instruments to measure resilience; and differences in the study sample.

The sample in the study by Morgan Consoli and colleagues (2015) consists of mostly (88%) US-born, relatively young, Latina college students (M=18) who speak English; these characteristics are not representative of Latino immigrants in the US or the current study, where Latino immigrants tend to be relatively uneducated and speak mostly Spanish (Camarota and Zeiger, 2016). It is possible that older, first-generation Latino immigrants hold more traditional values and are more religious than younger, US-born Latinos.

Spirituality and religiosity differ in conceptualization; spirituality includes universality- a belief in the unity and purpose of life and feeling that life is interconnected; prayer fulfillment- feeling of contentment and joy that results from prayer; and connectedness- a sense of personal commitment to others (Morgan Consoli, et al., 2015). Religiosity is only one component of spirituality (Morgan Consoli and colleagues, 2015). Although Morgan Consoli and colleagues (2015) found spirituality was not associated with resilience, they pointed to the need for future research on what type of spirituality may influence resilience and thriving. Findings from the current study provide insight into this, showing religiosity is significantly associated with resilience in Latino immigrants.

Familism and resilience. The current study found no significant association between familism and resilience. Other studies have found similar results in combined samples of US and foreign-born Latinos (Morgan Consoli et al., 2015; Campos et al., 2014; Valdivieso-Mora, Peet, Garnier-Villarreal Salazar-Villanea, Jonhson, 2016). One qualitative study found that although children cited familism as important to resilience, adult immigrants did not (Perreira & Ornelas, 2013).

The finding that familism was not associated with resilience was not expected given the emphasis on family in Latino culture, along with qualitative evidence in other studies (Ornelas & Perreira, 2011; de Torres & Lusk, 2018; Berger Cardoso & Thompson, 2010). Family structure and how family is conceptualized may explain the findings in the current study. Although Latinos traditionally rely on relatives rather than external sources of support (Cobb, 1976; Sabogal et al., 1987; Morgan Consoli, et al., 2015), immigrants with family members who are far away tend to turn outside the family for social support during times of need (Ruiz et al., 2016).

Additionally, due to changes in family structure as a result of migration, the way familism is conceptualized may change with time in the US. Likewise, identification with traditional cultural values like familism may weaken with time spent in the US due to acculturation (Sabogal et al., 1987; Ramos-Sanchez & Atinson, 2011; Morgan Consoli et al., 2015). Traditional components of familism measured in the familism scale (Sabogal et al., 1987) may have also changed since the scale was developed.

Although familism and resilience were not empirically associated, qualitative findings indicate family support from spouses and children are important to coping (Ornelas & Perreira, 2011; de Torres & Lusk, 2018; Berger Cardoso & Thompson, 2010; Parra-Cardona, Bulock, Imig, Villarruel, & Gold, 2006; de Torres & Lusk, 2018). The family support identified by participants in Phase II may differ from the way family support was empirically measured in Phase I. The familism scale used in Phase I (Sabogal et al., 1987) includes family support but responses to the questions depend on how the participant defines family; a definition was not provided to participants. It is possible some participants conceptualize family as the family they grew up with i.e.

parents, siblings, grandparents, and extended family, as opposed to the immediate family they have now i.e. spouses and children.

Finally, although family support is important to coping, qualitative data from the current study indicates families may also be a source of stress, consistent with other studies (Alegria et al., 2007; Fortuna, et al., 2016; Ai et al., 2014b), and that participants may not seek support from family members who are far away because they do not want to worry them or simply because they are far away.

Ethnic identity and resilience. Consistent with other research, ethnic identity was not associated with resilience or psychological distress in the present study. Other studies found that ethnic identity, operationalized as cultural pride, was not associated with resilience in US and foreign-born Latino college students (Morgan Consoli et al., 2015). Ethnic identity or similar constructs like cultural pride were not identified by focus group participants in the current study; only one participant discussed the importance of engaging in cultural practices with other Latinos.

There are several reasons why ethnic identity may not be associated with resilience, ranging from the conceptualization of ethnic identity; the instrument used in the study; the study sample; or the influence of other Latino cultural values. Latinos with a high sense of ethnic identity may see themselves as part of a larger group from whom they can draw strength but may consider this to be social support or connectedness rather than ethnic identity. In addition, the instrument used in the current study - the MEIM - measures a sense of belonging or pride to Latino ethnicity; it is possible participants feel a stronger connection to the specific country of origin than to Latino identity. For example, an individual may more strongly identify with being Mexican than being

Latino. Latinos may also draw strength from others within the same subgroup more often than from other Latinos.

Another reason ethnic identity did not predict resilience may be related to traditional gender roles in Latino culture. Women may feel uncomfortable or less empowered to express ethnic pride than men due to cultural values like machismo - a sense of strong, masculine pride; and marianismo - the notion that women should be submissive to their husbands, especially in public (Caplan, 2007). Marianismo also reflects the high value that women place on being dedicated wives and mothers (Caplan, 2007). Findings from the current study and others confirm the existence of marianismo in Latinas, showing Latina women strongly identify with being a wife and mother (Ornelas, et al., 2019; Goodman et al., 2014).

Given females comprise most of the sample (77%) in this and other studies, (Lusk and Chavez Baray, 2017; Goodman et al., 2014; Ornelas et al., 2019; Heilemann et al., 2002), cultural factors like marianismo and machismo should be considered when assessing ethnic identity. Although the current study found no differences in levels of ethnic identity, it is possible there were not enough males in the study to detect differences.

Finally, ethnic identity may not be associated with resilience because it may be a source of stress for some immigrants (Bermudez & Mancini, 2013). NC- the study location- is estimated to have one of the highest proportions (59%) of undocumented Latino immigrants in the US (Camarota, 2016). Although immigration status was not empirically measured in the current study, several participants discussed their undocumented status in focus groups. Latino immigrants, especially those who are

undocumented, may feel a need to subdue feelings of ethnic and cultural pride due fear of discrimination or fear of deportation. Although Latino immigrants are not the only undocumented immigrants in the US, they are the most adversely affected by immigration policies, and are often overrepresented in apprehensions, removals, and returns (Baker, 2017; Dreby, 2012). Moreover, there have been several recent Immigration and Custom Enforcement (ICE) raids in Charlotte which may have heightened fears of deportation and separation in participants in the current study (Dreby, 2012). However, collaboration with CCC and the use of CBPR appeared to mitigate feelings of worry or fear in undocumented participants.

Individual attributes and resilience. Although not measured empirically, qualitative research in the current study identified characteristics and behaviors of individuals that influence resilience. Individual characteristics include optimism, perseverance, and acceptance. Behaviors include problem-solving, self-care, physical activity, and preoccupation.

Individual characteristics. Optimism, perseverance, and acceptance were inferred to positively contribute to participants' wellbeing. On the other hand, preoccupation may have positive or negative effects on wellbeing depending on the situation and whether other coping mechanisms are used.

Participants in the current study explained that being optimistic helped them recover from stress by preventing them from dwelling on negative thoughts. Perseverance allowed participants to keep going even when situations were difficult or uncomfortable. For example, several participants explained they were unhappy working in jobs they felt overqualified for but continued to do it because they wanted to earn money and "get

ahead"- create a better life for themselves and their families. Participants also discussed the ability to accept and let go of stressors that were out of their control; some tied acceptance to faith while others did not. Problem-solving skills, such as learning English or weighing possible solutions to problems, helped participants actively do something about the problem or situation.

Latino immigrants from several other qualitative studies also identified optimism (de Torres & Lusk, 2018; Lusk & Chavez Baray, 2017), perseverance/hard work (de Torres & Lusk, 2018; Parra-Cardona, et al., 2006; Lusk & Chavez Baray, 2017); problem solving (de Torres & Lusk, 2018; Parra-Cardona, et al., 2006; Lusk & Chavez Baray, 2017); and acceptance (Lusk & Chavez Baray, 2017) as factors that contribute to resilience. Optimism, perseverance, problem-solving and acceptance may also be linked to traditional Latino cultural values (Lusk and Chavez Baray, 2017). For example, dichos - common Spanish sayings that reflect positivity, such as "We're going to get through this" - reportedly strengthens individuals' ability to cope and be resilient by reminding them to stay positive and persevere (Lusk and Chavez Baray, 2017; Alcaron et al., 2016).

Related to Latino cultural values, acceptance is thought to be a characteristic of marianismo while avoidance, similar to preoccupation, may be a characteristic of machismo (Alcaron, et al., 2016). Acceptance has also been described as a characteristic that is similar to the Latino cultural value fatalism - the belief that events are predetermined and cannot be changed (Lusk & Chavez Baray, 2017). However, fatalism is often inferred to negatively impact coping due to the assumption that individuals will not take control of their own behaviors. Conversely, in the current study, acceptance was

perceived to be a way to stop worrying about things that cannot be controlled to find a state of peace.

Preoccupation was described by participants in two ways. Some participants discussed "staying busy" to avoid thinking about problems or negative situations. Other participants discussed avoiding problems all together- "keeping everything inside" or "not thinking about stress" to prevent them from dwelling on negativity and problems; these coping mechanisms were consistent with other research in Latino immigrants (Goodman et al., 2017). Preoccupation may have both positive and negative long-term effects on mental wellbeing; while not dwelling on issues helps individuals stay in a positive mindset, ignoring problems all together can allow negative feelings to manifest, increasing the risk of negative mental health outcomes or negative coping mechanisms in the future.

Individual behaviors. Self-care and physical activity also emerged as important contributors to resilience. Self-care activities like taking a bath, reading a book, or using essential oils helped participants feel relaxed and at peace. Participants also implied that engaging in self-care regularly helped them remain calm when faced with daily stressors.

Physical activity contributed to resilience by improving participants' mood, making problems seem less severe and easier to handle. Physical activity also served as a positive outlet for stress, preventing participants from engaging in harmful coping mechanisms, such as substance abuse. The types of physical activities mentioned by participants include jogging, Zumba, yoga, and walking. Several participants also explained that engaging in physical activity outside or spending time in nature provides additional benefits- feelings of tranquility and improvement in mood. No other studies on

resilience in Latino immigrants discuss self-care, physical activity, or spending time in nature as coping mechanisms, warranting the need for future research on the topic.

Factors that contribute to psychological distress.

The current study also empirically measured the association between the four factors described previously- social support; religiosity; familism; and ethnic identity, respectively, and psychological distress. Higher levels of social support and familism contributed to lower levels of distress; religiosity and ethnic identity were not associated with psychological distress. Other research on the associations between psychological distress and these factors will be discussed below.

Social support and psychological distress. A large body of evidence supports the finding that social support is inversely associated with psychological distress or other negative mental health outcomes, including depression (Ornelas & Perriera, 2011; Kiang et al., 2010), anxiety (Kiang et al., 2010), and mental wellbeing (Panchang et al., 2016).

Two other studies found that social support was not associated with mental health outcomes, including depression, anxiety, or suicidal ideation in Latino immigrants (Ai et al., 2014b; Ai et al., 2015). However, these studies did not measure resilience; findings from the current study show social support was only associated with psychological distress when resilience was included into the analysis model.

Familism and psychological distress. Familism was inversely associated with psychological distress in the current study, consistent with other studies (Ornelas & Perriera, 2011). Other research shows familism is inversely associated with negative mental health outcomes, such as depression (Almeida et al., 2011; Corona et al., 2017);

anxiety (Leong et al., 2013), and substance abuse (Leong et al., 2013) and positively associated with self-reported mental health (Mulvaney-Day et al., 2007).

Family separation was identified as a salient source of stress by focus group participants, consistent with findings in other qualitative studies (Ornelas, et al., 2009). Other research empirically measures negative aspects of familism, including family conflict and family burden showing these are also associated with negative mental health outcomes (Ornelas & Perreira, 2011; Alegria et al., 2007; Fortuna et al., 2016).

Religiosity and psychological distress. Religiosity was not associated with psychological distress in the current study. This finding was not expected given supporting evidence from other studies on the importance of religion for coping (Goodman et al., 2014; Lusk and Chavez Baray, 2017; de Torres and Lusk, 2018); and the frequency at which faith and prayer were cited as coping mechanisms by focus group participants in the current study.

Nonetheless, other studies found similar results. Religious coping - the tendency to relate to faith with comfort and certainty- was not linked to acculturative or psychological distress among recent Latina young adult immigrants (Da Silva, et al., 2017). In another study, higher levels of religious attendance were associated with lower risk of depression, but private prayer was not (Aranda, 2008). This is not consistent with qualitative findings in the current study that show prayer is a salient coping mechanism that lowers feelings of stress in Latino immigrants.

A possible explanation for the finding that religiosity is not associated with psychological distress is that although religion helps individuals develop resilience,

additional factors such as social and emotional support may be needed to address the effects of psychological distress. Furthermore, religion was measured using a short five-item scale that did not measure religious coping. Given that participants refer to resilience as a source of coping with stress, the use of an instrument that measures religious coping may have resulted in different outcomes. Consequently, measuring religious coping may confirm the hypothesis that resilience mediates the relationship between resilience and psychological distress, pointing to the need for additional research on the effects of religion on resilience and psychological distress in Latino immigrants.

Reasons for migration and sources of stress

The focus group participants also identified reasons for migrating to the US and current sources of stress. Consistent with existing studies, the primary reasons given for moving to the US were economic advancement, political freedom, family unification, and/or a better overall quality of life for the individual and family (Lusk and Chavez Baray, 2017; Goodman et al., 2014; Ornelas et al., 2019; Alcaron et al., 2016; Perreira & Ornelas, 2013).

In contrast, other studies reported high levels of trauma and violence as reasons for moving to the US (Goodman et al., 2014; Lusk & Chavez Baray, 2017; Ornleas, 2019). Participants in the current study may have reported violence less often since they were not directly asked questions about violence; they were asked “Why did you move to the US?”. Other studies specifically targeted Mexican immigrants who migrated because of violent circumstances and empirically measured exposure to violence and trauma (Lusk & Chavez Baray; Perreira & Ornelas, 2013).

Most other studies did not examine broad sources of stress in Latino immigrants but specifically investigated trauma and/or exposure to violence (De Torres & Lusk, year; Lusk & Chavez Barray; Perreira & Ornleas, 2013). As such, there are not many studies for comparison on sources of stress. However, the primary reason this question was asked was to elicit examples of how participants coped with difficult situations.

The most common source of stress cited by participants in the current study were linguistic barriers related to both the English and Spanish language. Family separation was also cited as a source of stress by participants in the current study, consistent with other qualitative research (Ornelas & Perriera, 2011; Goodman et al., 2014). Family separation was also empirically associated with acculturative stress in another study (Caplan, 2007). Similar to the current study, a lack of community support was also cited as the primary source of stress in immigrants who recently migrated to the US (Caplan, 2007).

Study Implications

Findings from the current study have implications on theory, including the community-based participatory research (CBPR) conceptual framework, the Social ecological model (SEM), and the Metatheory of Resilience and Resiliency (MRR), as well as implications for future research and practice.

CBPR Conceptual Framework. CBPR is an approach to research designed for collaborative problem solving to address a social problem. It is particularly well suited for studying populations that require a great deal of trust to undertake investigations. CBPR contributed to the successful recruitment and retainment of Latino immigrants in

the current study, suggesting Latino immigrants may not be "hard to reach" but need to be reached in culturally competent ways that ensure safety and trust.

Consistent with tenets of CBPR, a relationship of trust was established through a collaboration and long-term commitment with a Latino serving agency (Wallerstein et al., 2008; Wallerstein and Duran, 2010). Additionally, knowledge, strengths, and resources of the Latino agency contributed to the design and implementation of the current study. Like other CBPR studies, the partnership between the community agency and researchers was guided by a community advisory board (CAB).

In accordance with principles of the CBPR framework, all members of the CAB benefitted from participation in the study. Members of the Latino community learned how to conduct both quantitative and qualitative research, and presented findings with the PI at professional meetings, creating a sense of ownership and pride in the research.

On the other hand, the PI learned about Latino culture, the Spanish language, and cultural humility. For example, although the PI was present at the study site, she did not remain in the room during focus groups, not just because her presence could bias the findings, but because participants shared sensitive and sometimes emotional stories about their journey to the US; the presence of a white, non-Latina may have caused participants to feel uncomfortable speaking openly and honestly. Behaviors and experiences such as these helped the PI earn the respect and trust of CAB members and participants throughout the project. Furthermore, as a result of mutual respect and shared goals between the PI and CAB members, close bonds were formed, increasing the likelihood for future collaboration and honoring the long-term commitment of CBPR.

The PI was also humbled to learn about the experiences of Latino immigrants, a motivation to continue doing research with Latinos- this is important given Latinos are understudied. The PI also has privilege and power as a white, highly educated female- with the capacity to share findings of the current study and future research with mental health professionals nationwide, potentially informing interventions and policies that improve the wellbeing of an understudied but vulnerable population.

The current study also created community empowerment throughout the community agency and Latino community, consistent with tenets of the CBPR framework. Participants, agency staff, and other community members were pleased to learn there would be a community celebration to share findings of the study and many of them helped plan the event. Additionally, a study that reported on the strengths of the Latino immigrant community, as opposed to the deficits or weaknesses, was well received by the community.

Socio ecological model (SEM). According to the Social Ecological Model (SEM) (CDC, 2007; Figure 2), individuals are affected by factors at many levels, including individual, interpersonal, community and social circumstances. Findings from this study provide insight into the development of interventions that enhance resilience and wellbeing in Latino communities at all levels of the SEM.

The present study empirically measured factors at each level of SEM; both quantitative and qualitative results indicate there are factors at each level that influence resilience. Characteristics and behaviors of the individual, and aspects of faith- prayer and reading the bible, occur at the individual level; emotional support, strength, relatability, and integration with others occur at interpersonal and community levels;

integration with others in the community and at church, along with community resources occur at the community level; and the availability of culturally and linguistically appropriate social, economic, and health resources occur at the societal level.

Promoting resilience in Latino immigrants has implications that extend beyond the individual to the family and community. Due to the emphasis of Latino culture on family, Latino parents and children tend to make decisions that promote the social and economic stability of the entire family, suggesting resilient parents may influence the resilience of children (Espinoza-Herold, 2007; Parra-Cardona, Bulock, Imig, Villarruel, & Gold, 2006). Moreover, resilient families are more likely to have greater emotional, social, and economic stability (Leading on Opportunity, 2018). Consequently, the development of organizations or institutions where Latinos can connect and feel as though they are part of a community is likely to result in increases of individual resilience, family resilience, and community resilience in surrounding Latino communities.

The Metatheory of Resilience and Resiliency (MRR). One of the tenets of MRR is that protective factors help build resilience (Richarson, 2002; Richardson, 2017). The present study supports this conceptualization; social support and resilience - factors that protect mental health- were positively associated with resilience. Furthermore, qualitative findings from this study extend the theory by providing insight as to why social support and religion enhance resilience.

Social support contributes to resilience through emotional support and advice from others; social integration that alleviates feelings of loneliness and helps individuals feel they are part of a community; connecting with community resources for additional

support; and volunteering to help others which increases feelings of gratefulness and happiness. Religion contributes to resilience through faith in God that allows individuals to let go of problems and trust that God will provide help; through scripture and prayer that provide a sense of immediate tranquility and relatability that others have experienced similar struggles; and through social connectivity with others at church.

MRR also contends that once individuals overcome adversity, they begin to develop new skills and qualities that help them become more resilient and better able to handle stress and/or change in the future (Richardson, 2017). Qualitative findings in the current study support this tenet; participants explained that past struggles helped them realize they overcame something difficult in the past and could do it again. Findings from the current study suggest some Latino immigrants may be more resilient than others because of the struggles they faced in the country of origin before moving to the US; participants often framed stress in the US as less severe than stress experienced in the country of origin.

According to MRR, factors that influence resilience are “resilient qualities” (Richardson, 2002; Richardson, 2017). The current study is the first to identify resilient qualities in Latino immigrants in the context of Latino culture. Several resilient qualities proposed by MRR can be linked to traditional Latino cultural values. For example, acceptance and emotional strength- such as strength gained from children - have been described as aspects of marianismo - the traditional female role of Latino culture (Alacron, et al., 2016) and “fatalism” (Lusk and Chavez Baray, 2017). While avoidance may be an aspect of machismo (Alacron, et al., 2016).

MRR describes the process of resilience through five waves: identification of resilient qualities; the process of resilience experienced by the individual; understanding the motivation of the individual; learning skills that foster resilience; and self-mastery- the ability to use skills to effectively deal with a situation or problem (Richardson, 2017). The current study is consistent with research in wave one; identifying resilient qualities of Latino immigrants provides the opportunity for future research to move into wave two of MRR and eventually apply these qualities to interventions or programs that enhance resilience and the wellbeing of Latino immigrant communities (Richardson, 2017).

Implications for Practice. Findings from this study confirm the importance of social integration and connectivity on mental health in Latino immigrants. Emotional support from others and social integration are the most important factors necessary to recover or "bounce back" from stress. Latino immigrants need others for emotional support, socialization, and integration into the local community. Although this is important for all populations, immigrants may especially need support from the local community because they are often separated from family members and cannot communicate with the majority population.

These findings add to a large body of literature on the effects of social capital- the nature of the relationships within a social group or community on health (Putnam, 2000). Social capital is known to predict health across populations (Almedom, 2005), a finding that is confirmed in the current study. However, findings from the current study also have implications for interventions that aim to increase social capital or social connectivity in Latino immigrants. There are two types of social capital- bonding and bridging (Putnam, 2000; Almedom, 2005). Bonding refers to social capital within a group whereas bridging

refers to social capital between races or social groups (Putnam, 2000; Aledom, 2005). Research on bridging and bonding social capital contends that if individuals do not feel connected within their own community, they will not have the capacity to access external resources for social or economic help (Putnam, 2000; Aledom, 2005).

Consequently, interventions that effectively increase social capital must start with bridging social capital; interventions or services that attempt to connect the Latino community with the majority population will not be successful until the individual feels connected to others within his or her own community (Putnam, 2000; Almedom, 2005). There is a need for community organizations and services that are intentional about connecting Latinos to others in the community to provide necessary supports and resources.

Furthermore, this study points to the need for more culturally appropriate mental health services for Latinos, consistent with other research (Revens et al., 2018; McGuire & Miranda, 2008). Studies indicate culturally appropriate mental health services are four times more effective than those focused on the general population, and interventions provided in a client's native language are twice as effective (Griner & Smith, 2006). Organizations like CCC and bilingual churches provide places where immigrants feel safe; can communicate with others in their native language; and can go for help, or simply to socialize with others. While this is promising, few organizations like this exist, especially in areas like Charlotte with relatively newer Latino populations. Furthermore, not all immigrants are aware of or have access to organizations like CCC. Existing organizations and services need to create or revise strategies for marketing and promotion to bilingual communities. Information needs to be disseminated in Spanish; in culturally

appropriate ways; and in places where Latinos already spend time, such as libraries and waiting rooms.

These findings provide a unique opportunity to develop programs that prevent, rather than treat, the onset of mental health disorders. Resilience is preventative against negative mental health outcomes including depression and anxiety and high levels of psychological distress, and findings from the current study show social support is an important indicator of resilience. Consequently, findings from this study can be used to inform the development of bilingual and bicultural peer or community support groups that provide emotional and social support specifically for Latino immigrants.

Recommendations for future research

Findings from the current study have implications for future research regarding the study population and methodology.

Study population. The primary contribution of this study to existing literature is the focus on Latino immigrants and identifying factors important for resilience. While this makes the study unique it also points to the need to expand research on Latino immigrants. Many studies use samples that combine US and foreign-born Latinos (Heilemann, et al., 2002; Morgan Consoli et al., 2015) without separating groups during analysis. The social and economic characteristics, as well as cultural influences differ between US and foreign-born immigrants. Immigrants also experience stress and trauma unique to migration, acculturation, and immigration status that is not experienced by US-born Latinos.

Gender differences. Resilience studies with Latino immigrants tend to have female only samples (Ornelas & Perriera- all of them; Lusk & Chavez Baray, 2017; Sajquim de Torres & Lusk, 2018; Goodman et al., 2017). This is consistent in other mental health research with Latino populations. Although the current study included both genders, the sample was mostly female. It is important to obtain male perspectives on why some factors influence resilience, especially given traditional gender roles in Latinos that may influence resilience and mental health outcomes.

Future research should be intentional about recruiting male participants; suggestions for recruiting male participants include conducting data collection late in the evenings or on weekends to avoid work schedule conflicts, and collecting data where participants live or work if permitted. Focus groups or interviews with Latino males could also inform recruitment procedures that increase Latino male participation in research.

Immigration Status. The current study did not assess immigration status to avoid creating apprehension in participants due to fear of being deported. Previous evidence shows 37% undocumented immigrants express concern with seeking services due to fear of deportation (Cavazos-Rehg, Zayas, Sptznage, (2007). Similarly, undocumented Latino immigrants have expressed hesitation towards participation in research due to fear of documentation (Baumann et al., 2011; Jennings et al., 2003).

In retrospect, relationships of trust through CBPR appeared to mitigate feelings of apprehension towards revealing immigration status in the current study. In several instances, participants volunteered their immigration status to CAB members, suggesting it is possible to include questions on immigration status in future research. Other studies

with immigrants have asked about immigration status without reporting any issues or concerns (Perreira and Ornelas, 2013; Cavazos-Rehg et al., 2007).

Immigration status has been identified as a significant source of stress in the current qualitative study, as well as other studies (Ornelas & Perriera, 2011; Goodman et al., 2014; Ornelas et al., 2019; Dreby, 2012). Furthermore, empirical evidence shows immigration status is associated with an increased risk of experiencing negative emotional states like anger (Cavazos-Rehg et al., 2007) and risk of PTSD (Perreira & Ornelas, 2013). Given the effects of immigration status on mental health outcomes, it may also influence resilience. Subsequently, future studies that aim to investigate resilience in Latino immigrants should inquire about immigration status, assuming proper steps are taken to build a relationship of trust in the community, such as the use of CBPR approaches.

Methodology. Most studies on resilience in Latino immigrants are qualitative and infer resilience from information provided by participants. There is a need for more empirical studies of resilience, specifically measuring factors identified by this and other studies. For example, there is ambiguity in findings regarding the influence of familism and/or family support on resilience. Future research should further investigate the influence of familism on resilience and include questions on how family is conceptualized by immigrants who have recently migrated and those who have been in the country for relatively longer. Future research should also measure religious coping to better understand the effects of religion on resilience and psychological distress.

Resilience scales. The most common sources of stress cited by focus group participants in the current study were related to migration and acculturation. Given that

these experiences are unique to immigrants, it may be beneficial to design a resilience scale that specifically measures the ability to recover from acculturative stress- stress related to adjusting to two cultures. Although the BRS proved to be valid and reliable with Latino immigrants, a scale designed specifically for immigrants to measure acculturative stress may provide additional meaningful data that helps inform mental health interventions for Latinos immigrants. In addition, the translatability of items to Spanish should also be considered when developing a new scale as the phrasing on some items like “bounce back” or “snap back” do not directly translate to Spanish.

Assessing the relationships between resilience and other factors. Future research should also empirically assess the associations of optimism; acceptance; perseverance; and problem-solving with resilience and psychological distress in Latino immigrants. These characteristics were identified by focus group participants in this and other studies with Latino immigrants (Lusk and Chavez Baray, 2017; Ornelas and Perriera, 2011), as well as other populations (Luthar, 2006; Richardson, 2002). Moreover, resilience research shows these are characteristics of resilient individuals across other populations (Luthar, 2006; Smith et al., 2008; Richardson, 2002).

Resilience and physical activity. Self-care and physical activity, other coping strategies not often identified in other research with Latinos, were also mentioned by participants in the current study. Although, a large body of evidences shows the benefits of physical activity on physical and mental health (CDC, 2019) no research has examined the influence of physical activity on resilience in Latinos. Furthermore, research has not examined the influence of resilience on physical health outcomes in Latino immigrants.

Future research should empirically examine these associations in Latino immigrants; such research may inform future interventions that increase resilience though physical activity. Future research may also want to consider the effects of physical activity in nature or interacting with nature in other ways on resilience in Latino immigrants. Physical activity interventions for Latinos are likely to be effective given the popularity of dance, and exercises class such as Zumba in Latino culture. Physical activity interventions have the potential to enhance both the mental and physical wellbeing of Latino immigrants.

Study Limitations

Although there are many strengths of the current study, there are also a few limitations to the proposed study related to the study design, sample, and challenges associated with CBPR.

Study Design. The cross-sectional nature of the study design does not allow for causal statements between cultural factors, resilience, and psychological distress. Additionally, the use of self-reported measures inevitably increases the risk of over or under reporting due to social desirability, especially given that surveys were administered face to face by a CAB member (Derogatis & Fitzpatrick, 2004). On the other hand, having surveys administered by Latino CAB members helped participants feel comfortable, minimizing the risk of social desirability as much as possible. In addition, the current study only measures resilience at one specific time point; resilience is a process that fluctuates throughout time (Luthar, 2006). Other studies should consider longitudinal designs that measure resilience at multiple time points.

Sampling procedures. The use of nonprobability sampling made it difficult to determine the sample size for the current study; the proposed sample size was obtained from a sample size calculation and design effect recommended for another hidden population- injection drug users. The sample size calculation had not been previously tested for use in Latino immigrants, but the calculation used was the most appropriate option for the study- there was no existing sample size calculation for Latino immigrants. However, the sample size calculation demonstrated enough power to show statistical significance. Nonprobability sampling also increased the risk of sampling error and coverage error; however, the use of multiple recruitment sites reduced the risk of coverage error as much as possible.

Other limitations related to the use of non-probability sampling include difficulty in determining how well the target population was represented, affecting the generalizability of results. However, demographic characteristics of the study sample were similar to characteristics of Latino immigrants nationwide (US Census Bureau, 2017). Although purposive sampling may result in sampling bias, the nature of the study was exploratory, aiming to determine whether Latino immigrants were resilient; in this situation, sampling bias was a helpful tool in identifying immigrants who have access to predictors of resilience, such as social support through CCC (Aday and Cornelius, 2006).

Another limitation is that some of the study participants likely knew each other through church or CCC which could influence responses during focus groups. In addition, husbands/wives chose to attend the focus group together which may have also influence responses. Feedback from CAB members showed participants, particularly

males, did not speak up frequently when their wife was in the room, further emphasizing the need to conduct more research with male participants.

Study sample. The results from the current study may not be generalizable to other Latino immigrant groups, including recent immigrants or immigrants who are not connected to community organizations or churches. However, recruitment of Latino immigrants without the help of a community partner would have been very difficult and may have resulted in low recruitment and retention rates. Given that some participants were recruited from church, the sample may have been skewed towards a more religious sample. However, literature on Latinos shows the majority are religious and that churches are one of the best places to recruit Latinos (Umana-Taylor & Bamaca, 2004). Moreover, several other studies that did not recruit from churches also identified religion as an important indicator of resilience (Lusk & Chazey Baray, 2017; de Torres & Lusk, 2018; Ornelas & Perriera, 2013; Ornelas et al., 2019)

Language barriers between the target population and the PI was another limitation in the current study. All materials were translated into Spanish which was time consuming. However, the collaborative network of the CommUniversity allowed for the translation of documentations from English to Spanish through a partnership with the Department of Language & Cultural Studies at the University. Although time consuming, the use of trained and certified translators increases the accuracy of translations and the credibility of the study findings.

CBPR Challenges. Although the use of trained, bilingual, Latino CAB members was a strength of the study, it also posed some challenges. Scheduling conflicts of participants and CAB members made it difficult to achieve consistency in focus group

moderators- that is, not all focus groups were moderated by the same person. Several of the CAB members were college students with class schedules that took priority. Given that the same CAB member did not moderate all focus groups, it is possible some questions may have been asked slightly differently. However, all CAB members were trained at the same time and followed consistent protocols, including the use of a pre-developed focus group guide.

Strengths of the study

Despite limitations of the study, there are also several strengths. The study findings provide insight into what factors enhance resilience in Latino immigrants and can be used to inform the development of services that enhance the mental wellbeing of a vulnerable and growing population in the US. Study findings may also inform the development of a culturally appropriate resilience scale for Latino immigrants.

CBPR brought together the skills, knowledge, and expertise of community members and researchers to examine resilience in a way that no other research has done with this population before. CBPR allowed for successful recruitment and retention of a population that is often perceived as hard to reach. Collaboration with CCC and a CAB provided a bridge between two cultures, allowing a white, non-Latina with limited Spanish language proficiency to connect with and conduct research in a Latino immigrant community.

Community input throughout all aspects of the project also makes the study findings credible and useful to the community. Moreover, community input ensures the study was culturally sensitive, something other scientific studies often lack (Minkler,

2005; de Las Nueces et al., 2012). The use of CBPR and the CAB may have also helped dismantle the lack of trust some Latino immigrants have towards participation in research.

Although there are limitations to community members collecting data, there are also many strengths. Participants could identify with CAB members, allowing them to be more open and honest. Moreover, conducting in-person interviews and focus groups in the participant's native language, also decreased the chances of non-response, and enhanced the credibility of participant responses.

Other strengths include the study sample itself which represented immigrants from 17 countries and four regions, providing insights into the experience of multiple immigrant subgroups. Almost all existing research on resilience with Latinos has been conducted with Mexican immigrants only (de Toress & Lusk, 2018; Lusk and Chavez Baray, 2017; Orenelas et al., 2019; Perreria & Ornleas, 2011; Orneals et al., 2011). Although Mexicans are the largest subgroup of Latinos in the US, other Latino populations are on the rise (Alarcon et al., 2015). As such, understanding factors that influence stress and resilience will be important as Latino subgroup populations continue to grow (Alarcon et al., 2015).

Furthermore, the sample was representative of the target population in Charlotte. The Mecklenburg County Latino needs assessment showed that most Latinos were aged 18-34 (53%), have less than a high school diploma, and are employed in low-average wage jobs with median household income is approximately $39,265 (UNC Charlotte Urban Institute, 2006). The sample is also representative of the Latino population in the US (Alcaron et al., 2015).

Dissemination Plan

Findings from the research were summarized and presented to the CAB, staff and volunteers at CCC, the Executive Board at CCC, and other community stakeholders. Findings will be disseminated through a community forum celebration co-hosted by the CAB and CCC. Findings will also be disseminated to participants and community members through presentations at both Camino churches. Findings will be presented to the Latino community in Spanish by a participant of the study, with guidance from the CAB and research team.

Findings will also be disseminated to mental health professionals and other professionals in Charlotte through the Latinx Mental Health Summit at CCC and the Charlotte Opportunity Research Showcase. Dissemination to academics and other professionals will occur through presentations at local, regional, and national conferences, and through publication in journals. Preliminary findings have already been presented at the Race, Ethnicity and Place Conference in Austin, Texas, the Society of Behavioral Medicine in Washington DC, and at ResilienceCon in Nashville, TN. Over the next several months, findings will also be presented at the American Public Health Association- through the immigrant mental health caucus. Target journals for publication identified thus far include The Journal of Immigrant and Minority Health and the Hispanic Journal of Behavioral Sciences.

Conclusion

Latino immigrants represent a significant and growing proportion of the US population that experience social and economic advantages at higher rates than other

groups in the US. Immigrants also experience stressors before, during, and after migration that increase the risk of psychological disorders. Despite this, some Latino immigrants have low levels of psychological distress and high levels of resilience.

Religiosity and social support are the most significant predictors of resilience. Social support from others in the community and at church allows individuals to feel connected to others and have access to resources in times of need. Individuals in the current study were recruited from a community organization and churches, institutions that connect them with other Latinos and non-Latinos and provide places where individuals can communicate and receive services in their native language.

Although levels of resilience in the study sample were high, there are other Latino immigrants who do not have high levels of resilience and may suffer from psychological disorders that prevent them from achieving optimal quality of life. Social connectivity is a necessary component for mental wellbeing in Latino immigrants but not all immigrants have access to support systems in the US and many Latinos experience cultural and linguistic barriers that not only prevent them from accessing services, but from communicating with others in the community.

There is a need for organizations and services that provide bridges to connect Latinos with others in the community; Latinos, just like other populations, need to feel as though they belong and are part of a community. Increasing social support and connectivity can increase levels of resilience and lower the risk of psychological disorders.

Most Latino immigrants tend to stay in the US and start families; support systems and coping mechanisms have implications that extend beyond the individual to the family and community. Furthermore, if Latinos are unable to connect with those around them, it will be difficult for them to access services outside the local community that might help them not only survive but thrive in the US.

Immigrants who live in isolation will experience difficulty in social and emotional development which may result in detrimental effects on physical and mental wellbeing, as well as overall quality of life. Programs that connect Latino immigrants to others within the community, such as peer support groups, can prevent the onset of mental health disorders, ultimately reducing health disparities that exist between Latinos and non-Latinos in the US.

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APPENDIX A: FOCUS GROUP GUIDE

Engagement questions:

1. Tell us about why you moved to the US?

2. What was your goal in coming to the US?
   Probing Question:

   Did you accomplish it or are you on the path to accomplishing it?

   What or who helped you along the way?

Exploration Questions:

3. How does you culture or identity as a Latino(a) influence how you cope with stress?

4. How does your experience as an immigrant shape how you cope with stress now in the US?

5. Tell me about a time you were challenged or had a struggle you overcame

6. How did you overcome the challenge or struggle?

7. What do you typically do when you are facing a tough time or challenge?
   Probing questions:

   Who do you turn to in tough times?

   What keeps you going?

8. What kind of messages did you receive about how to manage stress throughout your life? For example from family; school; church; other places?

9. How does your family affect your level of stress and how you cope with stress?
   Probing question: Tell me more about specific or situations

10. How does your religion or spirituality affect your level of stress and how you cope with stress?
    Probing questions:

Tell me more…

Provide an example…

Exit Question:

11. Does anyone have anything else they would like to share that we have not already discussed?

Table 1: Code book for Qualitative Analysis

Name of Code	Frequencies	
I**. Reasons for Moving to the US**	Participants	Focus Groups
A. Economic Circumstances	11	4
B. Political Freedom	6	4
C. Quality of Life	5	3
D. Family Unification	4	3
E. Mental health concerns	3	2
F. Violence/Crime	2	2
G. Health Issues	1	1
H. Religious Persecution	1	1
II. Goals in the US		
A. Create a better life for children	6	3
B. Save money- return home	3	2
C. Learn English	4	3
D. Help family back home	3	2
E. Buy house	1	1
III. Sources of Stress		
A. Language barriers	9	3
B. Interpersonal issues	8	4
C. Uncertainty in how to access help	7	2
D. Adjusting to a new profession/social class	6	3
E. Family Separation	6	3
F. Work	5	2
G. People refusing to help	4	2
H. Issues with family back home	3	2
I. Issues related to children	3	3
J. Loneliness	3	3
K. Social Media	1	1
L. Cultural barriers	1	1
IV. Individual factors of resilience		
A. Problem solving	10	4
B. Optimism	8	4
C. Self-care/Relaxation Techniques	8	4
D. Perseverance/Determination	7	3
E. Acceptance	7	3
F. Preoccupation/distractions	6	3
G. Physical activity	8	3
H. Being in nature	5	3
I. Avoidance	4	3
J. Learning new things	3	2
K. Not taking on stress of others	2	2
L. Self-Worth	2	2
V. Social Support		
A. Socialization/Integration	12	4
B. Someone to talk to/listen	10	4
C. Community Resources	8	4
D. Helping others	5	3
E. Advice from others	5	2
F. Therapy	3	2
G. Support from others with shared culture	1	1
VI. Familism		
A. Emotional strength from children	9	4
B. Family bonding	7	4
C. Spousal support	6	2

D. Emotional support from family members	5	2
E. Family obligations	3	2
F. Not confiding in family about problems	3	2
VII. Religion		
A. Faith	18	4
B. Peace/Comfort from prayer	11	3
C. Connectivity from church family	10	4
D. Peace/Comfort from scripture	6	3
E. Relatability from scripture	5	3
F. Relatability from pastor/sermon	4	2
G. Negative aspects of religion	2	1
H. Connectivity from God	1	1

Table 2: Demographic and Immigration Data of Participants in Phase I

Variable	N	%
Gender (n=128)		
Males	29	22.7
Females	99	77.3
Age (n=126)		
18-29	63	49.2
40-54	24	18.8
55 or older	39	30.5
Country of Origin (n=128)		
Mexico	51	39.8
Central America	34	26.6
South America	20	15.6
Caribbean	23	18.0
Migration Patterns (n=128)		
Family	85	66.4
Alone	43	33.6
Length of time in US (n=128)		
5 years or less	32	25
6-10 years	18	14.1
11-15 years	36	28.1
More than 15 years	42	32.8
Marital Status (n=128)		
Married/Domestic Partnership	90	70.3
Not Married	38	29.7
Education Level (n=128)		
Grade 9 or less	75	58.6
High school, college prep, etc.	24	18.8
College or more	29	22.7
Income (n=128)		
Less than 20,000	37	29%

20,000-34,999	24	19%
35,000-49,999	12	9%
Over 50,000	10	8%
Don’t Know/No answer	45	35%
Spanish Language Proficiency (n=128)		
None	31	24%
Speak a little	1	1%
Speak some	19	15%
Speak a lot	20	16%
English Language Proficiency (n=128)		
None	31	24%
Speak a little	58	45%
Speak some	19	15%
Speak a lot	20	16%

Table 3: Correlations, Means, and Standard Deviations of all Variables

Measure	Familism	Social Support	Ethnic Identity	Religiosity	Resilience	Psychological Distress	M	SD
Familism	___	.07	.01	.36	.09	-.17*	55.62	7.08
Social Support	.07	___	.18	.22	.47*	-.28*	25.28	7.39
Ethnic Identity	.22	.11	___	.18	.07	.08	37.85	5.62
Religiosity	.36	.17	.18	___	.24	-.15	20.84	4.26
Resilience	.09	.07	.07	.24*	___	-.36*	3.34	0.645
Psychological Distress	-.17*	-.28*	.08	-.15	-.36*	___	8.16	10.69

Table 4: Linear Regression Analysis of Predictors of Resilience

Independent Variables	Estimate of Coefficients	Standard Error	t-value	p-value
Familism	.008	.085	.960	.339
Social Support	.041	.007	5.999	.000*
Ethnic Identity	.008	.010	.797	.421
Religiosity	.036	.013	2.778	.006*

*p<.05

Table 5: Linear Regression Analysis on Predictors of Psychological Distress

Independent Variables	Estimate of Coefficients	Standard Error	t-value	p-value
Familism	-.256	.132	-1.929	.056*
Social Support	-4.06	.124	-3.289	.001*
Ethnic Identity	.144	.169	.850	.397
Religiosity	-.374	.221	-1.693	.093
Resilience	-.022	.005	-4.289	.000*

*p<.05

Table 6: Demographic and Immigration Data of Participants in Phase II

Variable	N	%
Gender (n=23)		
Males	4	17%
Females	19	83%
Age (n=23)		
18-29	10	43%
30-54	4	17%
55 or older	8	35%
Country of Origin (n=23)		
Mexico	7	31%
Central America	4	17%
South America	6	26%
Caribbean	6	26%
Migration Patterns (n=23)		
Family	16	70%
Alone	7	30%
Length of time in US (n=23)		
5 years or less	4	17%
6-10 years	6	26%
11-15 years	4	17%
More than 15 years	9	39%
Marital Status (n=23)		
Married/Domestic Partnership	18	78%
Not Married	5	22%
Education Level (n=23)		
Grade 9 or less	8	35%
High school, college prep, etc.	4	17%
College or more	11	48%
Income (n=23)		
Less than 20,000	5	22%

20,000-34,999	6	26%
35,000-49,999	2	7%
Over 50,000	4	17%
Don't Know	6	26%
Spanish Language Proficiency (n=23)		
None	0	0%
Speak a little	0	0%
Speak some	1	4%
Speak a lot	22	96%
English Language Proficiency (n=23)		
None	3	13%
Speak a little	11	48%
Speak some	3	13%
Speak a lot	6	26%

Table 7: Themes from Phase II

Theme	Description	Supporting Quote
Reasons for Moving to the US		
Economic circumstances	Leaving the home country due to a poor economy, hoping for better economic circumstances in the US	"My wife and I decided to move and start living here in the United States for the economic advantages that the country has, the security advantages, and because we just had a child, we had the opportunity for the child to be born here, and after he was born here, we decided to raise our children here." "My reason for leaving my country was poverty. We lived in a very poor town, and for a better future."
Political Freedom	Seeking freedom from political or religious persecution	"The reason I was brought to the US was for political reasons, as a result of the government in my country. It started to lack freedom of expression…the economy was terrible because of the monetary exchange rate" "I was born in a socialist, community, atheist country…I remember on many occasions the police coming and arresting my father to take him prisoner for having religious activities with the church…at school I was humiliated on at least two occasions for my (religious) beliefs…I grew up year after year with that trauma and fear…I was afraid to live in a social system like that one. There was no freedom of expression."
Quality of life for family	Seeking a better quality of life for self or family; most often referring to economic advancement	"I had a residency that required me to stay in the country (US) or relinquish it, and due to how things were in the country where we are originally from, we decided, not it is better to keep the residency living here in the US; we looked for the best life for our son. And regardless, the comfort and quality of life is totally different from that of my country of origin." "I didn't come to America because I like it…I am pro-American, but if it weren't for my children I wouldn't be living here." "My wife and I decided to move and start living here in the United States for the economic advantages that the country has, the security advantages, and because we just had a child, we had the opportunity for the child to be born here, and after he was born here, we decided to raise our children here." "My goal was to come here to the US, to save money, to return to Mexico, and to make a home. But…I didn't go back. I got married here, and now I have my husband and my two girls. We are happy with a better future- better than in Mexico."
Family unification	Reuniting with family members already residing in the US or to accompany a	"I came because…my wife is a teacher who came to teach Spanish, and I came as her dependent, and because of where I live…I came because of economic problems too".

	family during their move to the US	
Sources of Stress		
Language/cultural barrier	Not being proficient in the English and in all forms of Spanish.	"Being immigrants in this country…we don't fully know the culture, we don't fully know the language, it makes sense to think that we do have stress." "I know how to speak English, and I understand more, I can read…I realize I speak how I write and sometimes they don't understand me….that is what affects the Latino community most- that it takes a lot to learn English. We need it, and many times people stay quiet for not knowing how to speak." "I bought a little book in the supermarkets here…that taught me and helped me to understand Mexican Spanish"…because the thing is they [students at school] didn't understand me "I learned to speak another language, another Spanish, because…here you have to learn to speak Spanish, and I asked, what do you mean I don't speak Spanish. She said because Mexicans speak differently, the Central Americans speak different, the Colombians speak differently, the Venezuelans speak differently. The first day I went to clean houses with a Mexican…I said what are you saying to me, I don't know?" "…These people are from Mars and I'm from Pluto because we don't understand each other."
Adjusting to new employment and lower social class	Working a job other than what the participant was accustomed to in the home country, typically due to language and immigration status.	"Facing the language barrier, there was a barrier of not having papers. I couldn't go to work in what I was, in my profession (in home country). So you feel a bit of frustration, and these frustrations make you aggressive and teach you to learn to defend yourself….It is a fight of personal conflicts that you have face to face. You have to be very strong to not fall into a depression, to not fall into what they vulgarly call" "the cycle of alcohol", "the cycle of drugs", and to keep yourself afloat." "Confronting a reality that is completely different to the reality you are accustomed to makes you a servant of others, and to learn to help, or to be rejected." "Coming to this country was very difficult…the first thing I did was clean houses. I didn't know where to start. I got that job cleaning houses through a friend who is also from that country. Then she said to me: the only thing that you can do is this. I knew English that allowed me to communicate, but it wasn't the English people speak here." "I was cleaning offices…you have the clean them at night…I cried and I said to God, is it worth it? Me cleaning here and my children alone?"

Interpersonal conflicts	Conflicts within the immediate or extended family and between friends	"Not everyone thinks or is grateful in this life…he [brother] did not pay me rent or food like three months before so that he could save money and bring her…but to my brother's wife, I am a bad person…those are situations that mark you." "…It's not easy to have your immediate family far from you…managing your American stress and your family's stress is not simple.
Family Separation	Participants were separated from family due to migration; many family members remain in the home country	"Our plan was to return…to buy a house in Mexico and start a business…but we didn't return…my children are here…now I have gotten depressed by the situation…I am alone here, well only with my children and husband."
Lack of familiarity with community services and resources	Being unfamiliar with community resources or not receiving help when needed	"Maybe if we (Latinos) had known about all the resources there are at different organizations, it would've been easier for us to survive…we didn't have the opportunity of someone telling us, look, go here or go there. We just kept going to churches, reading what was on the walls…not even the internet, we didn't know how to access anything online. So we started from zero."
Factors that influence Resilience		
Social Support		
Emotional support	Having access to someone to talk to about problems; someone that can relate and give advice	"My husband, friends…people in the community can help with something…you use your support resources…so depending on the necessity, there is always someone that can give you the best answer or solution." "I try to talk with people that you soon realize are maybe in the same situation as you or in worse shape." "Every human being needs someone…you do need God's help. First, God, and you need someone to tell….you need someone's help, someone to listen."- need someone that can relate to you." "To not fall into a pit of stress or a hole of depression…you have to communicate with others. Communication is a way to get ahead, because the more you bottle it up, the more you close yourself off, the worse it is. You have to relate and communicate."
Social Integration	Spending time with others	"Maybe sometimes even though we don't talk about things, the simple fact of being there, chatting, and having some juice or something, eating together…it helps you get out of your routine, and without the person realizing that you are going through sometimes…they smile and we change the routine." "You have to integrate…you have to be social." "Prayer is speaking with God, but we are human, and we need another human, another person."

		"There are programs that are developed…there are resources, sometimes not everything, but there are if you know how to look for them…they aren't going to reach you at home alone." "The key is to not be closed away in your house and to be thinking about things." "To beat stress…another friend that was from my country…we all sort of stuck together…we ate our food, we heard our music, and followed our traditions." "I don't like to be alone. When I am alone, I get depressed, I fall into a sadness, I want to cry. But when I am in a group, when I am with people, I feel different, I feel together, I don't feel alone." "If you stay home alone, and you are alone from work to home, you don't learn anything (English)…communicating with other people- it doesn't matter if you learn to speak fluently- but at least you understand what the other person is saying to you- for me it is a way to get ahead." "You start to meet people, either in the supermarket, the street, or wherever you find them. From there I met a lady who was Colombian…take your papers, take everything you want, they will translate it and then you can present yourself to the school system."
Community resources	Resources or services provided by organizations, agencies, or churches, that help with social, economic, or emotional problems.	"Camino is a table of salvation for many people. For family and foreigners, that is, for Christians and those that aren't believers in the church or no. I attended Camino a lot when I lived here in Charlotte."
Serving others	Doing something to help another person i.e. volunteer work or helping a friend/neighbor	I've learned in life that you feel happiest helping others." "To keep serving, to keep helping. I think that those of us that are here all have that mentality to be able to serve."
Religiosity		
Faith	Belief that a higher power [God] is in control and will provide.	"God gives us the strength and helps us confront the situations that come up." "Negatively will come to your life and no. Like I say, God will provide, and be calm. And until now, thank God, since he has been a strong anchor." "God provides everything, everything." "I don't depend on any man, I depend on God, and he always shows up in time, always. That is really important.

		IT does help, you of looking for someone…I want to talk to someone now…but it turns out they're needier than me." "One of the good things about this country is that in one way or another we get closer to God…going to church…we have faith in God, and in ourselves we can get ahead. Never lose faith, that's my personal opinion…for me, miracles exist, and miracles are answered prayers. When you cry out to God, when you ask for strength, with faith, God answers." "I ask God to give me peace, that he gives me wisdom. I put it to him first!" "That's the first thing (when faced with a difficult situation) putting it in God's hand". "I've prayed a lot…and now I've let it go, now I've left that burden with the Lord." (concerning her husband's depression) "It's important to keep going. I say God has a purpose for all of this, and what happens, happens. And I'm standing on the word that my house and I will serve you, and I'm not budging. The rest is extra…my strength is the spiritual part." "I cried, and I said to God, is it worth it? Me cleaning here and my children alone? But He gave me strength, and thanks to God."
Tranquility	The state of being calm or at peace; tranquility was received from prayer and the bible	"I would say that 99% of the stressful moments that happen in my life, I channel them through prayer and confidence in God as Creator." "My prayer is always there, because I feel like I am in danger, I feel like I am in a situation that I do not like, I always say, "My Lord, give me peace." "My spirituality and religion reduce my stress levels when I pray in whatever moment that I Feel…I ask the Lord for peace, to have more patience, to get out of a situation that I don't like, when I see things happening in society…" "I talk about God, the antidote to my depression, to stress, its prayer. For me, it helps give me peace and calm." "[The bible]. It gave me peace…It doesn't matter where you open the Bible. You are bothered, you are in pain, you have problems about whatever, you sleep…and now the people use everything. YouTube, for everything. Use the Bible, read it, and after not even 10 minutes, you are calm. It is like comfort for the soul." "Biblical quotes that can help people a lot, how to live in the moment, not thinking about tomorrow because that brings more worry and all that."

Relatability	Messages received from church sermons and scripture provide stories individuals can relate to that encourage them to keep going	"I don't tell anyone anything, it has happened to me that I get to Sunday and the pastor is preaching and he is talking exactly about the situation that I'm going through...I'm not telling anyone anything, and it is as if God was talking to me without the person realizing it…keep going!" "I don't have anyone that I think I could tell and be able to get any real help. My sustenance is the Word. I open the Word of God and the Lord tells me lots of things there…in the Psalms, in the Proverbs. That sustains me."
Connectivity from church family	Connectedness; emotional and economic support from the church family	"When you go to church…there is someone that you feel is worried about you…you are here meeting people. It is satisfying…but when you close yourself off and you don't tell anyone anything or no one knows, no one is going to say anything, it is the worst thing you can do." "Going to church, sharing with people, rejuvenating my mindset, that's helped me a lot." "I had an experience with depression, stress, and anxiety…I was not doing well at all…Bit by bit I was coming out of the depression and the stress…afterward I got closer to God. I started to go to church…I was able to overcome it...I finally controlled my stress and anxiety." "I went to church…it is a way to be part of a community. Church is the first element where you congregate with other people, where you make friends with others. IT is where you get together with study groups, where you get together to learn English." "There was a time that we couldn't do anything…any small thing you explode…now since we have been going to church for awhile, sometimes we go every week…you feel more relaxed, that is the moment of relaxation that you feel…that's where you see the same faces every week…you get to de-stress and to be listening to what the pastor says….let your imagination go"- this person also said it helps them stay positive
Familism		
Family support	Support received from family members or spouse; support may include advice, motivation, or emotional support	"So then, that's the person (aunt) that gives us a bit more support and helps us move forward, that tells us "be calm, you are going to move forward, so the beginning is hard, but this is temporary." "My person is also my husband. He gives me lots of advice and I also advise him…When I am really depressed, he tells me, no we are going to do this. That is, we motivate each other so that we don't get down…I don't talk about my problems with my family because…it is better to try to solve problems as a couple." "I thank God for this fella (husband), he is a companion…a good friend. So it is like they say, a shared burden weighs less."

Emotional strength from Children	Motivation to move past obstacles to provide a better life for children	"There are moments that I stay strong for my children, because that is what I want to teach them." "The biggest motivation in my life is my kids." "I had to help my children get ahead…nothing else mattered. To have lived only to work." "There are days that you feel that you don't want to get up…and you spend the whole day at home without doing anything...you get sick…and who is going to watch your kids, no one else but you…you find strength where you can, from wherever you can, to get ahead for them...it isn't for yourself but for them…someone like a mother is what gives you the little push to get ahead for them, to have confidence in them.
Family bonding	Spending time with family members to relieve stress	"I try to keep my family busy, doing something all the time being together." "In our case, spending time with family a majority of the free time that we have, going to parks, looking for activities that you can do outside with family." "My children help me avoid falling into depression and stop thinking so much about one thing. I, okay, see. I start to do activities with them, like playing hide and seek, like guess the word, there are so many things that we can do at home." "I get rid of what's in my head, because somethings during the week there is so much pressure in your head that you reach the point where you say, I don't want to do anything. I want to be lazy. So…because I have small children, I try my best to get out and distract myself with them."
Individual Attributes: Characteristics & Behaviors		
Problem-solving	Taking responsibility of the problem; identifying causes of the problem and potential solutions	"I start to think what it is that I have to do, what is the smartest option…trying to understand how to solve it to prevent more problems and…understand what is happening in order to face it and keep moving forward." "God will help you…but you have to make an effort to get out of the problem, because if you just wait for God to do his part, that' won't work either."
Optimism	The tendency to look on the more favorable side of events or conditions and expect the most favorable outcome	"No matter how difficult a problem is, there will always be a solution. Circumstances change." "There are many ways that one can stop depression and stop thinking negative thoughts that actually don't define our lives,…" "If we get here seeking a better life because in our own country, we can't find what we want, we have to tr to see the positive here."

		"There's no reason to drown yourself in negative thoughts because then you don't move forward." "Why make your life bitter, why do that if there are so many good things to do?"
Self-care	Activates engaged in to take care of mental, emotional, and physical health; activities that the individual enjoys and helps them relax	"So every time I feel like there is something that is not working, I involve myself in activities that I know I like….I really like essential aromas, running a hot bath, talking with friends, or listening to music. In the day to day, that helps me relax and prevent big episodes of stress." "When you can you take the time for yourself…be it reading a book when they (children) are asleep, because I like it and it takes me to another world, like we say…there are many ways that one can stop depression and stop thinking negative thoughts that actually don't define our lives, and what we think and feel we impart onto other people." "I like to cook- make traditional Colombian dishes. I take my time and everything and I like it."
Physical activity	Engaging in physical activities to relieve stress and/or enhance mood	"Exercise helped a lot, too. Twenty-three years ago I got clean and started jogging…I said I have to recover…I prayed…and I started jogging and cycling…my mood changes. I feel bored, sad, if I exercise, my mood changes, I feel better." From same person 11/19: "I see exercise as the antidote to stress, to all sicknesses, and it helps you feel better." "Look at how many adults, people 45, 50, 60,..and young people exercising, and you can see how these people see a difference, the positivity in their life, and how they radiate….how they clear their heads." "When I felt a of stress or felt very sad…walking will help a lot."
Perseverance	Persistence in doing something despite difficult or delay created by obstacles.	"After crying and crying and crying, to keep going, to get up, to say I can, life goes on, this doesn't end here, and to keep moving forward" "I came here to the US about 15 years ago…haven't been able to get ahead…so the only thing to do is take refuge in the things that can be accomplished. It doesn't matter that a piece of the puzzle doesn't want to fit, but you have to keep going." "I am capable. And every day I wake up and say I can do it. I'm going to keep going. I'm going to make progress. I belief in myself." "I think that it is worth it to trip and fall in order to stand up with more strength." "God has sustained me. He's made me stronger through all these ordeals."

		"You have to take it,for something to be better. Because you're worn down. They've worm me down here…but to be better." [referring to working jobs with long hours]
Acceptance	The ability to let go of what cannot be changed or controlled	"If there are things that I can't change, I have to accept them, but I am always trying to avoid getting into problems. And even if it is difficult to stay calm and peaceful, I have to do it because if I don't, there will be more problems." "If you can, you move forward, and if you can't, that's not in my hands to change, and instead of worrying, like a lot of us have said, I leave it up to the Lord and let it go…it doesn't make sense to keep worrying about problems I can't solve." "There are things that are one way and can't be another, you have to accept them, because you're in a different place and you have to accept what you like and what you don't. And that causes a positive adaptation and brings positive change for people that's what I've found."
Preoccupation	Occupying the mind with other things so as not to dwell on negative thoughts and feelings	"I think that stress goals with keeping yourself busy, because if you don't do anything, that's when you can start to think about a lot of things; that's where the stress comes from. But if you are busy doing something, you aren't going to think about it." "Keeping your people involved in activities, be it with family members, with friends, or different things, that do not make you feel like I do not have this, I don't' have what they have in the home country." "When you have a job, there the stress of work goes away, because you are active, going here and there. But when you don't have a job is when the stress falls on you." "Stay active at home…since with stress if you don't control it, it can overcome you."

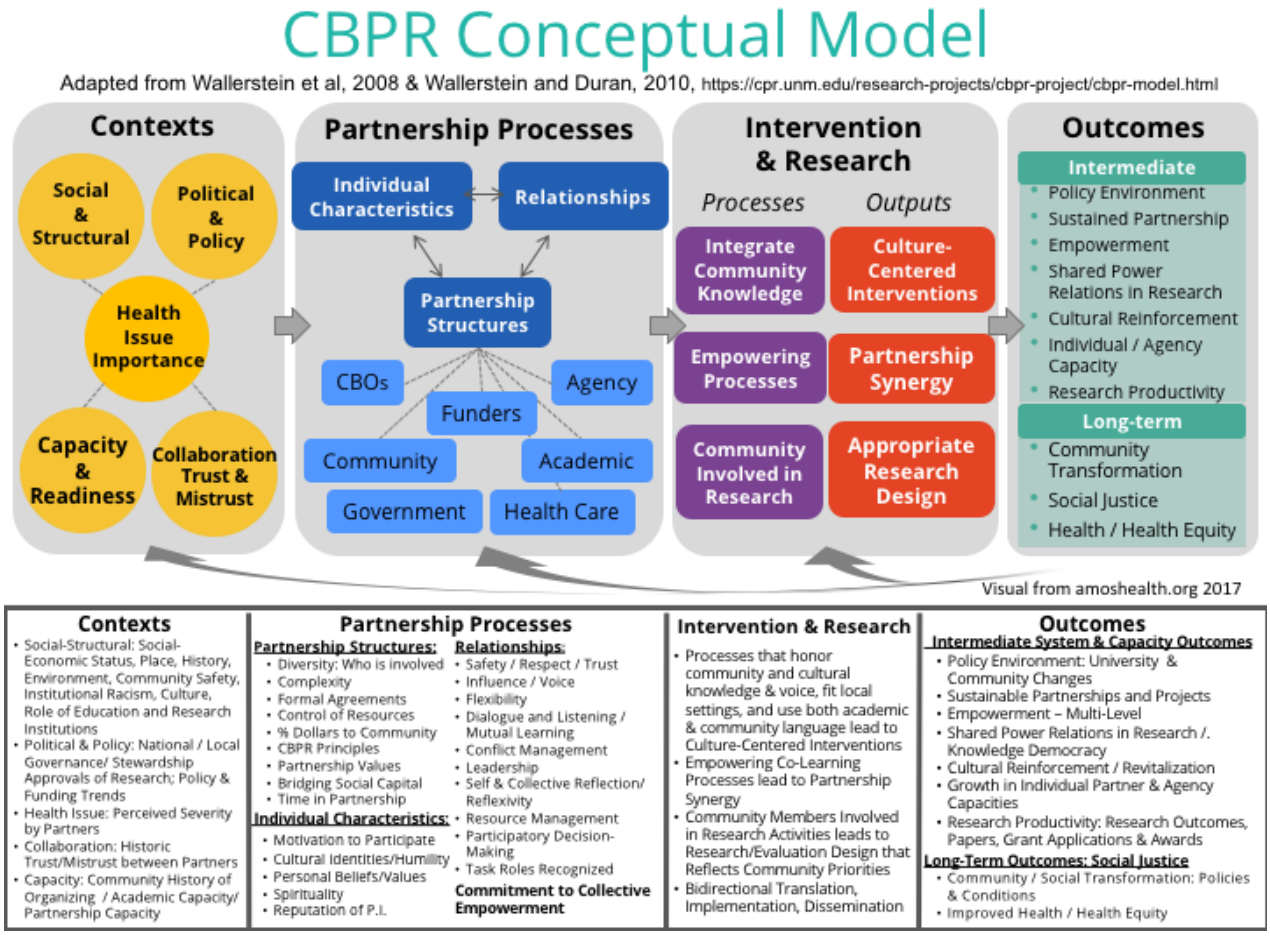

Figure 1: CBPR Conceptual Model (Wallerstein et al., 2018)

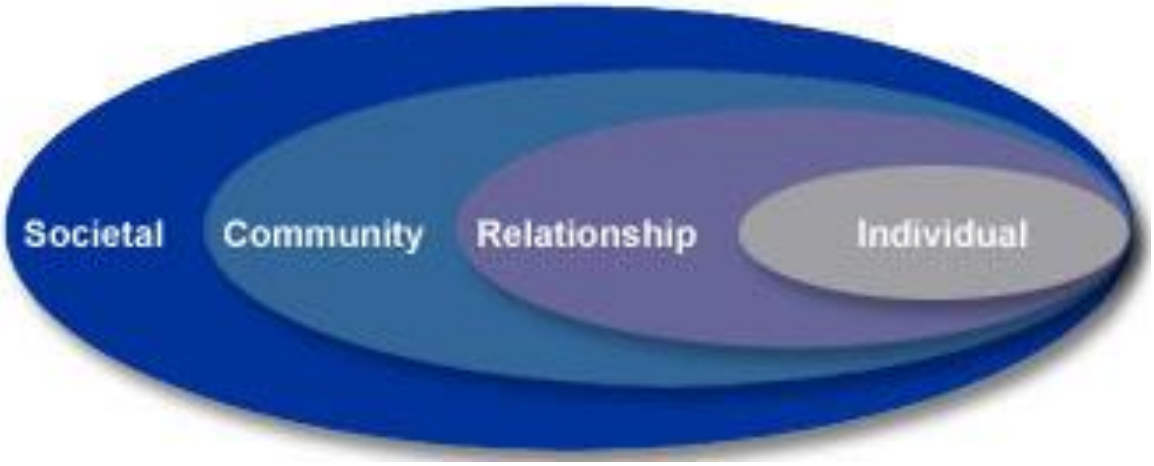

Figure 2: Social-Ecological Model (CDC, 2007)

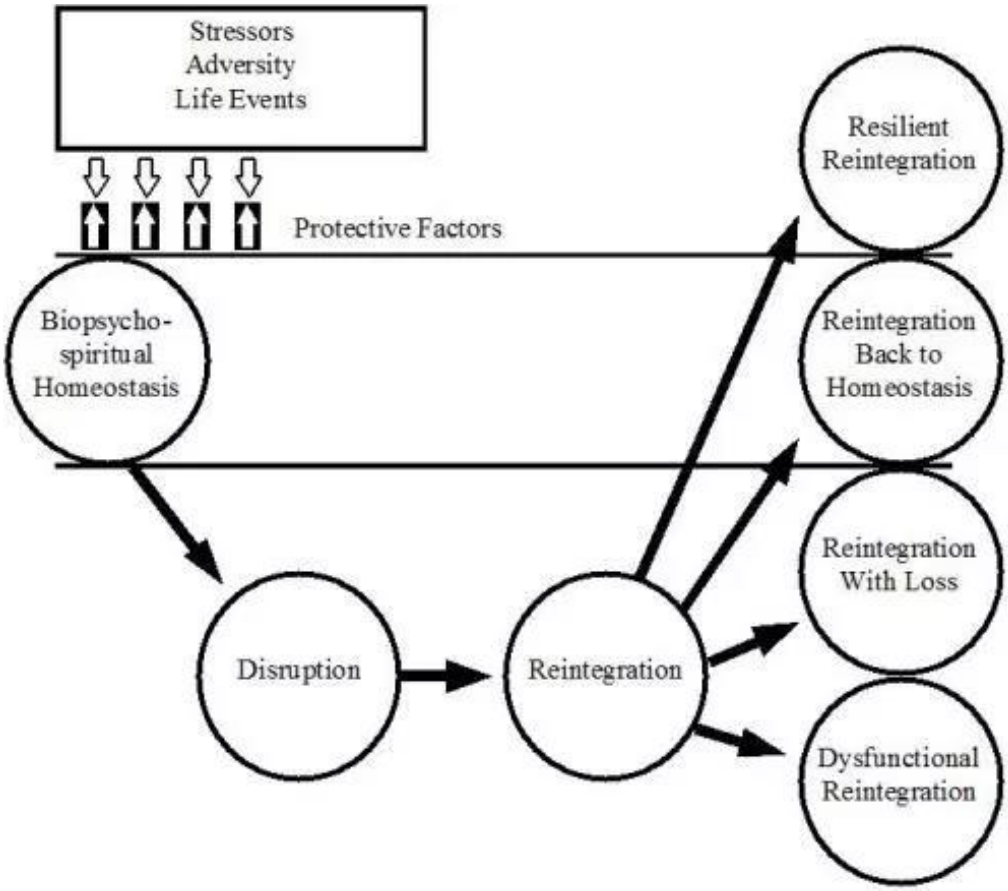

Figure 3: Conceptual Framework of the Metatheory of Resilience and Resiliency (Richardson, 2002)

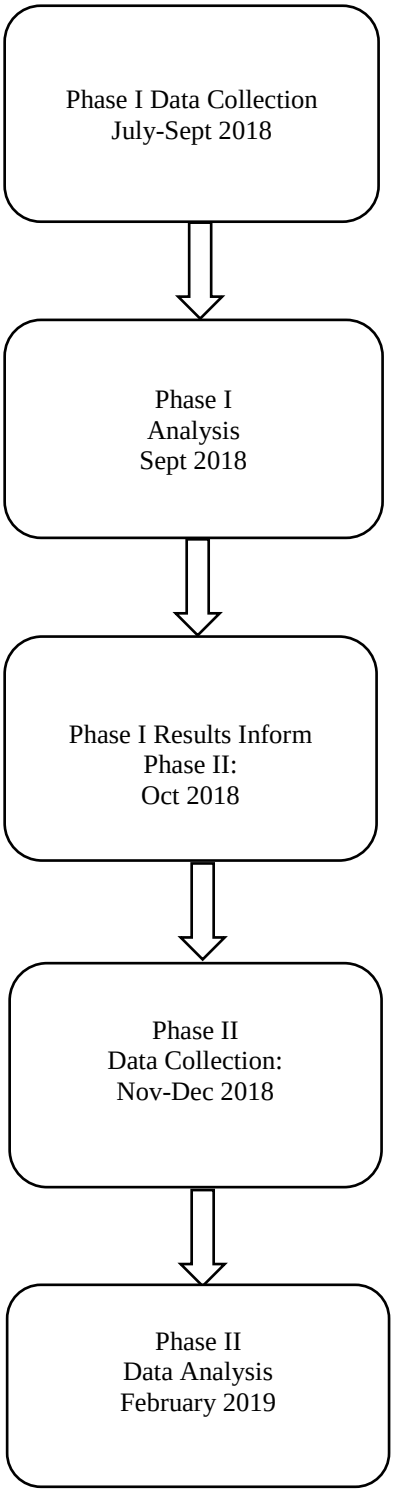

Figure 4: Sequential Mixed Methods Design: Phase I (Quantitative) followed by Phase II (Qualitative)

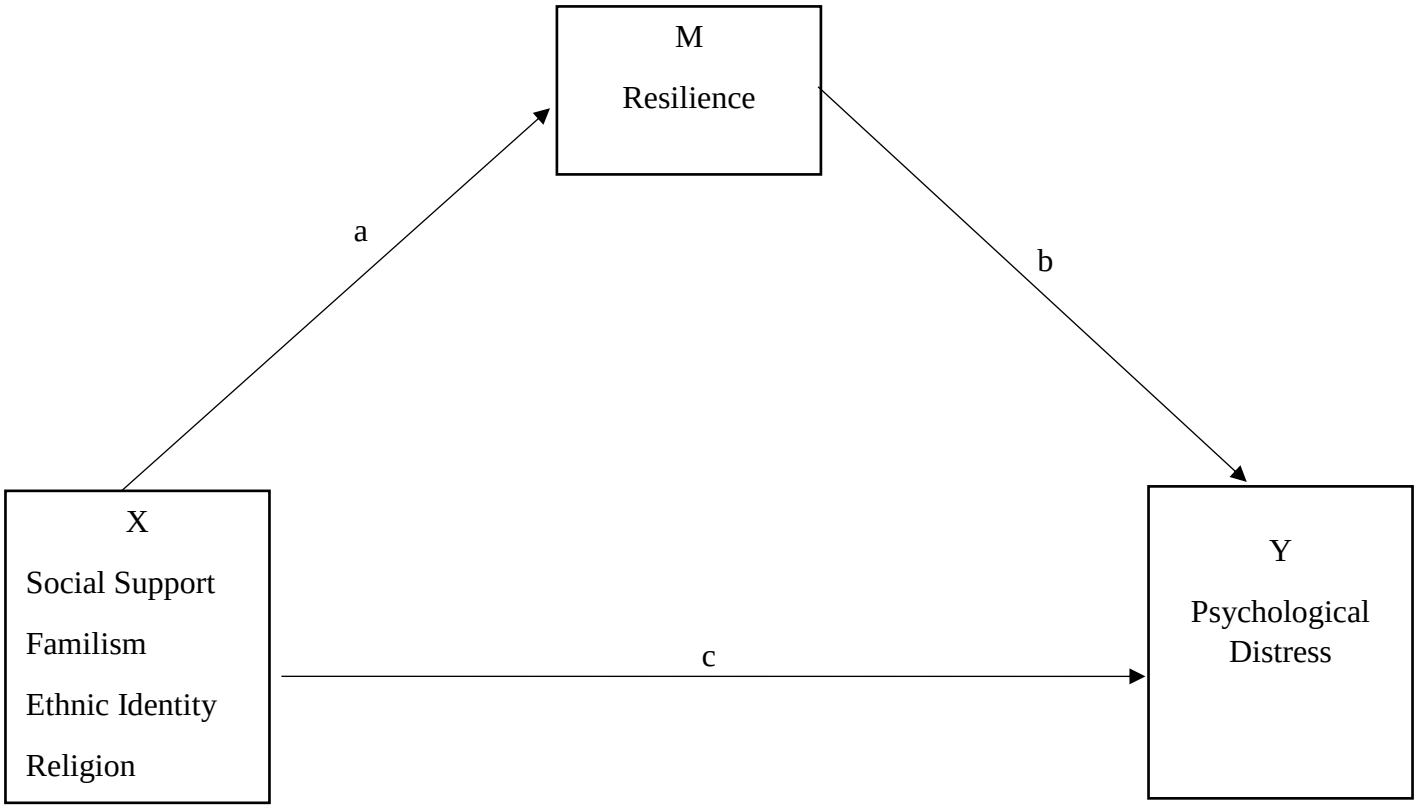

Figure 5: Statistical Analysis Model: Phase I (Baron and Kenny, 1986)

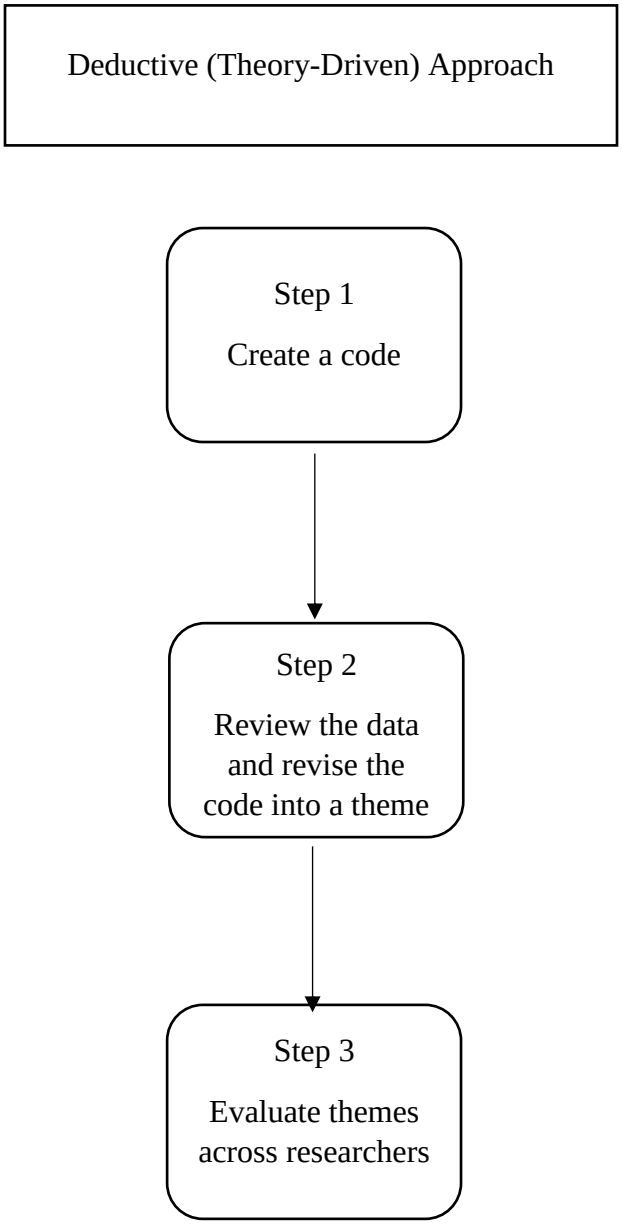

Figure 6: Steps for Phase II Analysis
Developing Themes Deductively; Adapted from Boyatzis's
(Bernard et al., 2017)

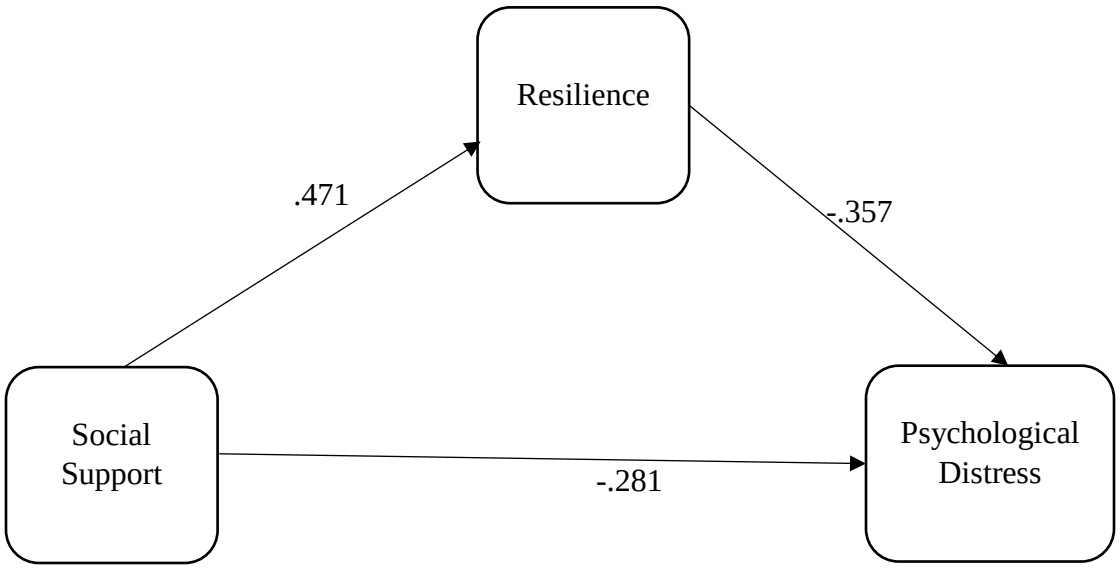

Figure 7: Standardized regression coefficients for the relationship between social support and psychological distress as mediated by resilience; and the regression coefficients for the relationship between religiosity and resilience.