A Critical Analysis On Mexican Americans Associated With Gangs Living In San Antonio, Texas

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A CRITICAL ANALYSIS ON MEXICAN AMERICANS ASSOCIATED WITH GANGS
LIVING IN SAN ANTONIO, TEXAS

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by
Rubi Guadalupe Gonzales
2021
Dedication

Dr. Oney D. Fitzpatrick

&

Guadalupe
A CRITICAL ANALYSIS ON MEXICAN AMERICANS ASSOCIATED WITH GANGS
LIVING IN SAN ANTONIO, TEXAS

by

RUBI GUADALUPE GONZALES, M.A

DISSERTATION

Presented to the Faculty of the Graduate School of
The University of Texas at El Paso
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for the Degree of

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This dissertation was completed during the pandemic of the ongoing racism in this country and COVID-19 while holding academics, academia, and organizations accountable. This dissertation was also a traveling document while on an interstate move. The dissertation began in El Paso, and shortly right after continued in quarantine. It continued while we packed our home in El Paso to move to St Louis, continued while virtually finding a place in St Louis, continued while we hurriedly filled up our POD during the late nights to prepare our 12-hour drive to Houston. It continued while staying in Houston for 3 weeks while seeing family and “balancing” family time. The final draft of the dissertation was completed in Houston. However, shortly after we were once again on the road for our final destination in St Louis, another 12-hour drive. This dissertation was defended in St Louis, just 4 days prior when we had just moved here. Acknowledging this is important as completing a dissertation during the year 2020-2021 is a miracle.

It is a miracle that myself and my fellow colleagues across the U.S also completed their dissertation during 2020-2021. Choo-Hee, Iván, Marvyn, Pablo & Nelson I see you! It was not an easy feat! I’m proud of us!

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like to thank one person in particular, me. In the words of Calvin Cordozar Broadus Jr, “I wanna thank me. I wanna thank me for believing in me. I want to thank me for doing all this hard work. I wanna thank me for having no days off. I wanna thank me for never quitting. I wanna thank me for always being a giver and trying to give more than I receive. I want to thank me for trying to do more right than wrong. I want to thank me for just being me at all times.”

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Abstract

The U.S has a major national concern of mass incarceration. Mass incarceration poses a threat to achieve health equity as there are many adverse health effects documented related to incarceration (i.e., posttraumatic stress disorder, depression, anxiety, hypertension, diabetes, asthma, hepatitis, HIV, tuberculosis, etc.,). There is a great need to conduct research on incarceration with a critical lens. The present study examined the incarceration trajectories of Mexican American men who were associated with gangs during their youth and lived in the west side of San Antonio. This cohort of males were followed at three different timepoints in their life using retrospective data. The study spanned from 1997-2012. To identify latent classes, growth mixture modeling was utilized. The results indicated two latent classes of incarceration. One-way ANOVAs, chi-square tests of independence and a one-way MANOVA were conducted to determine associations with the latent classes. The one-way MANOVA yielded statistically significant differences between the two classes on depression and behavioral risk violence. These findings contribute to the literature and give researchers a better understanding of the heterogeneity of individuals who are incarcerated. The findings have important implications for ensuring mental health providers are fully equipped to treat formerly incarcerated individuals.
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Chapter 1: Introduction

Hispanics\(^1\) made up 16\% of the U.S population but make up 19\% of the incarcerated population (Prison Policy Initiative, 2004). More specifically, Hispanic men\(^2\) are four times more likely to go to prison at some point in their lives compared to non-Hispanic white males (The Sentencing Project, 2003; Nellis, 2016). Further, 1 in 4 people who go to jail will be arrested again within the same year (Prison Policy Institute, 2004).

Moreover, 1 in 3 Hispanics are in federal prisons. In 2001, 4\% of Hispanic males in their early 20’s and 30’s were in prison or jail compared to 1.8\% of white males, and Hispanics are the fastest growing group being imprisoned. More specifically, the Hispanic population in State and Federal inmates increased from 10.9\% in 1985 to 15.6\% in 2001 (The Sentencing Project, 2003).

These disproportionate percentages of individuals being incarcerated is a major national concern that poses a threat to achieving health equity (Acker, Braveman, Arkin, Leviton, Parsons & Hobor, 2019; Cloud, Bassett, Graves, Fullilove, & Brinkley-Rubinstein, 2020; Gaiter, Potter, & O’Leary, 2006; Golembeski & Fullilove, 2008; Bowleg, 2020). According to the Robert Wood Johnson Foundation, the number of individuals who were incarcerated consistently increased on an annual basis between the years of 1980-2008 (Acker, Braveman, Arkin, Leviton, Parsons & Hobor, 2019). This inappropriate and unjust increase of incarceration is known as mass incarceration and has well documented the adverse health effects (i.e., posttraumatic stress disorder, depression, anxiety, hypertension, diabetes, asthma, hepatitis, HIV, tuberculosis, etc..) of those incarcerated (Petit & Western, 2004; Bowleg, 2019; Acker, Braveman, Arkin, Leviton, 2019).

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\(^1\) The term Hispanic is used to describe those of Spanish speaking countries in Latin America (not including Brazil) or from Spain. However, the present researcher will utilize the more inclusive term Latinx in the subsequent sections of this text rather than Hispanic. Data on incarceration utilizes Hispanic and not Latinx.

\(^2\) Though this text focuses on Mexican American men, it is important to highlight that Black men have the highest incarceration rates compared to all other racial and ethnic groups and are victims of police brutality and/or resulting in many Black men being murdered by the police.
In addition to adverse health consequences, having a criminal record greatly impacts individuals’ opportunities for employment, housing, voting, education, and/or child custody rights (Jacobson, 2005; Mauer, 2000; Glover, & Miguel, 2020; Acker, Braveman, Arkin, Leviton, Parsons & Hobor, 2019). Given the unjust mass incarceration, researchers have long recognized the need to understand mass incarceration with a critical lens (Walters, 1996; Jacobson, 2005; Downes, 2001; Bowleg, 2019; Barkow, 2020; Bowleg, 2020, Ristroph, 2020). In other words, it is undeniable that mass incarceration has disproportionately affected racial and ethnic minoritized groups due to inequitable criminal penalties (Sudburry, 2000; Tucker, 2004; Beckett, Beach, Knaphus, & Reosti, 2108; Bailey, Feldman, Bassett, 2021; Barkow, 2020; Ristroph, 2020; Sudburry, 2000). One example is the crack cocaine sentencing disparity in which the distribution of 5 grams of crack resulted at minimum 5 years of federal prison compared to the distribution of 500 grams of powder cocaine which resulted in the same 5-year minimum sentence (American Civil Liberties Union, 2006). This law criminalized Black and Brown communities and continues to do so today (Urell, 2019; American Civil Liberties Union, 2006). This is one example in which “racism is produced and reproduced by laws, rules, and practices, sanctioned and even implemented by various levels of government (Bailey, Feldman & Bassett p. 768, 2021).” The relationship between racist laws and the individual’s health and well-being can be illustrated by the diagram that the Robert Wood Foundation has developed. Figure 1.1

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3 Minoritized is used as a verb rather than a noun as these groups have been forced to the side, mistreated, and have less power and representation in society. In other words, it is something that has been done to them. (Smith, 2016)

4 Redlining and zero-tolerance policies are well known in the literature as racist policies. Part of engaging in critical work is to name policies, laws, etc such as the Zero-Tolerance Policies and Redlining as racist as that is the first step in acknowledging racism in the U. S (APA, 2008; APA, 2017; Beckett & Francis, 2020; Boyd, Lindo, Week, McLemore, 2020, Jones, 2000).
provides a framework that helps to further understand how racism leads to unjust treatment within the [in]justice system\(^5\) (i.e., police enforcement, courts, zero-tolerance policy etc.) which results in the mass incarceration of minoritized racial and ethnic communities (Acker, Braveman, Arkin, Leviton, Parsons & Hobor, 2019). Further it is important to note that the diagram is a simplified model of a complex process. In other words, racism and/or lack of economic opportunity negatively impacts overall health and well-being, regardless of being incarcerated (Acker, Braveman, Arkin, Leviton, Parsons & Hobor, 2019). The diagram that the Robert Wood Foundation published in their executive summary raises the much-needed awareness to conduct racial health inequities with a critical lens.

Figure 1.1: Mass Incarceration Threatens Health Equity in America

Note: This figure was produced by Acker, Braveman, Arkin, Leviton, Parsons & Hobor in 2019 from “Mass Incarceration Threatens Health Equity in America.” Copyright 2019 by Robert Wood Johnson Foundation.

Therefore, the present study will explicitly state contributing social institutions (such as the school to prison pipeline\(^6\)) that have led to racial health inequities. Naming institutions,

\(^5\) [in]justice is often used in the literature to highlight that fact that the criminal system does not serve justice for all (Karakatsanis, 2019; Varghese et al., 2019; Soto, in press).

\(^6\) The school-to-prison pipeline (STPP) refers to the framework of the United States school system that systemically pushes at risk youth, like minoritized students, out of mainstream public schools via suspension and/or expulsion,
specifically institutional racism, is key to address health inequity and ultimately achieve health equity. In the process, addressing health inequities must include the recognition of the disproportionate percentage of Black and Latinx men who are and have been incarcerated) (Racism: What It Is, 2020; Acker, Braveman, Arkin, Leviton, Parsons & Hobor, 2019). Doing so will provide a “critical bifocality” which allows critical scholars to analyze the accumulative sources of inequalities that produce marginalization and inequity (Weis & Fine, 2012). More importantly, this process will help to contextualize the prison trajectories of Mexican American men in the present study who were incarcerated between the years of 1997 and 2011.

Researchers have urged the field of psychology to “resist the slide to focus on individuals and particularly the deficits in individuals” (Fine & Cross, p. 289, 2016). In a more recent publication, researchers stated the need for the discipline of psychology to understand past processes and environments to fully understand human behavior and the need for psychology as a historical science (Muthukrishna, Henrich, & Slingerland, 2021).

Given that the present study focuses on Mexican American males who have been incarcerated at different time points in their lives, it is imperative that the present research contextualizes the study to contribute to the field of psychology to progress beyond a traditionally Eurocentric discipline (Adames, Chavez-Dueñas, Jernigan, 2020; Cokley, Palmer, & Stone, 2019; White & Parham, 1990; White, 1970). Previous researchers have urged scholars to move beyond fixating on the individual behavior as a deficit or blame for adverse psychological outcomes, and to no longer ignore the history and institutional racism that have led into a juvenile detention facility and/or prison (Skiba, Arrendondo, & Williams 2014; Advancement Project et al., 2011; Kim, 2003; Burris, 2012). Previous researchers have found that school suspension does not reduce the student’s likelihood to reoffend, rather increases in school suspension are associated with higher future rates of reoffending and ultimately suspension (Bowditch, 1993; Costenbader & Markson, 1998, Tobin, Sugai, & Colvin, 1996; Mendez, 2003).
to the ongoing health inequities (Fine & Cross, 2016; Adames, Chavez-Dueñas, Jernigan, 2020). Doing these steps will allow for psychologists to gain a better understanding of the complexities of minoritized individuals’ experiences and to “return our analytic gaze to structures and policies that produce inequity” (Fine & Cross, p. 289, 2016; APA, 2017).

Therefore, the present researcher will first describe nationwide discriminatory practices (redlining) that were practiced in different cities across the states in the early 1900’s, specifically, San Antonio, Texas, in which the present study takes place. As San Antonio as a minority majority city, San Antonio represents what many U.S cities may look like in the future. Thus, San Antonio is an appropriate exemplar for this project. Next, the researcher will briefly describe a Supreme Court case (San Antonio v. Rodriguez, 1974) which concluded that equal opportunity to quality education is not a protected right. Lastly, the present researcher will focus on the national policy that the Federal Government passed, the Gun-Free School Act of 1994 which led to the ineffective Zero-Tolerance Policy in schools and the local (in San Antonio) discriminatory policies that were in effect and over criminalized Latinx individuals. This description of prior policies will provide much-needed contextualization to understand the incarceration of Mexican American men.

A HISTORICAL CONTEXTUALIZATION OF MEXICAN AMERICANS IN SAN ANTONIO

Home Owners Loan Corporation (HOLC) Redlining of San Antonio

To understand how San Antonio has been shaped over the decades and how it has impacted participants in the present study, it is important to examine how racist laws have had compound effects on families and future generations of minoritized families. The HOLC was established in 1933 as a federal government-sponsored program to refinance home mortgages for homeowners
facing foreclosure. In 1935, the Federal Home Loan Board instructed HOLC to review the lending practices and levels of security for real-estate investments in 239 cities, which included San Antonio (HOLC Redlining, n.d).

During this time, field agents went to these different cities and interviewed bankers, mortgage lenders, and business owners to collect data to develop a socioeconomic assessment of the city. These city survey files consisted of “residential security maps” which were color coded based on levels of security for real estate investment (HOLC Redlining, n.d). These levels consisted of 4 grading codes: Type A, B, C, and D, with Type A and B as “best” and “still desirable” for mortgage lending. Type C areas were considered “definitely declining” and Type D were marked in red as “hazardous” for lending. Overall these grading codes were based on the racial and ethnic makeup, for example, grade A (green) was ethnically homogenous (white people) and had room to be developed while grade C (yellow) was “beginning to decline” and had an “infiltration of a lower grade population” (nonwhite people).

This redlining of Type D neighborhoods were older areas of the cities which outlined areas of a lower income and minoritized racial and ethnic concentrations. Residents of Type D neighborhoods were then denied mortgages. See Illustration 1 and 2 of the redlining of San Antonio (UTSA Special Collections, 1935).
Illustration 1.1: Grade Security Map in San Antonio in 1935. The red is Grade D, it was marked at “hazardous.” The yellow is Grade C, it was marked as “definitely declining.” The purple is Grade B, it was marked as “still desirable.” The lighter color is Grade A, it was marked as “best.”

Illustration 2.1: Racial Concentration Map in San Antonio in 1935

These maps directly categorized areas of San Antonio with a large number of Mexican-Americans as “hazardous.” These areas are concentrated in west and south San Antonio. These maps and the labels lenders had toward Mexicans denied them of home loans, which perpetuated the already existing racial segregation and poor living conditions (Redlining: the Racist Policy, n.d). Rather than basing the individual’s ability to repay a loan, they defined neighborhoods as credit risk to providing home loans. This policy was enacted until 1968, when the Fair Housing Act eradicated redlining and banned racial discrimination in housing (How 1930s Discrimination, 2018). Nonetheless, these policies continue to have detrimental effects on minoritized communities fifty-three years later, such as gaining wealth and accruing generational wealth via homeownership (Redlining: the Racist Policy, n.d). The impact of redlining are still present today in many cities, including San Antonio. For example, the west side of San Antonio today, which is
denoted as Group D in Illustration 1, is still impoverished and consists of lower income families with high rates of crime (Tovar, 2020; Taylor & Fry, 2012 & Hedrick, 2016).

This housing segregation leads to vastly differently experiences in policing (i.e. racial profiling), meaning many racial and ethnic minoritized communities have had and continue to have unnecessary contact by the police based on where they live (NPR, 2018). Therefore, racism has greatly shaped the lives of people in every facet of their lives (i.e., housing, education, policing, etc.). In addition to the Homeowners Loan Corporation, the education system has historically engaged in inequitable practices. The next section describes one such example.

**U.S. Supreme Court Case: San Antonio Independent School District et al., vs Rodriguez et al., case (1973)**

The education system and HOLC are institutions that have engaged in practices that systematically oppressed Mexican-Americans in San Antonio. This oppression is evident with the Supreme Court Case, San Antonio Independent School District vs Rodriguez, 411 U.S1 case (1973) in which families from property poor areas filed a class-action suit stating that Texas reliance on local property tax only favored property rich areas (San Antonio Independent School, n.d). The parents of the children attending San Antonio Independent School District attempted to make the case that the Texas education system violated the 14th amendment, (“equal protection of the law”) by demonstrating the unequal expenditure per student between the property rich and the property poor districts. However, the Supreme Court ruled against Rodriguez with a 5-4 decision, stating that plaintiff (the lawyer representing the parents of the students in San Antonio) did not provide sufficient evidence that the school district violated the 14th amendment. Further, the

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7 The primary way Texas schools are funded is through local property taxes. Schools that are located in property rich areas receive more funding because those areas are taxed based on their property tax. This disparity in taxation leads to a severe school inequity in the city, where students who live in property poor areas do not receive the same level of education as students who live in property rich areas.
Supreme Court stated that education is not a fundamental right (San Antonio Independent School District v Rodriguez, 1973). This policy of school funding has remained unchanged to this very day in many districts across Texas.

Approximately a couple of decades following the San Antonio vs Rodriguez case (1973), additional federal policies were passed such as the gun free school act. These policies would further target young individuals from minoritized groups. The next section briefly describes these policies and the negative impact it has had on communities of color.

**Zero-Tolerance Policy**

In 1994, the federal government passed the Gun-Free Schools Act, which required schools who received funding from the government to expel any student who brought a gun to school grounds. This act also ultimately led to many schools utilizing the zero-tolerance policy, which required any student who broke school rules to face penalties, including suspension and expulsion. Many government and education officials believed this act was going to lead to safer schools and prevent students from breaking school rules. However, researchers have shown that the 20-year policy was ineffective and led to racial and ethnic minoritized student’s disproportionality being suspended or expelled from school (Skiba, Arredondo, & Williams, 2014; Skiba, Michael, Abra, & Peterson, 2002; APA, 2008). Although many scholars have now agreed about the ineffectiveness of this policy, the consequences of the zero-tolerance policies have had long lasting adverse effects on peoples’ lives\(^8\), such as incarceration and diminished health (APA, 2008, Skiba et al, 2014; Skiba, Michael, Abra, & Peterson, 2002).

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\(^8\) The U.S Department of Justice and Education in 2014 published a “dear colleague” letter, affirming the detrimental impact that suspension and expulsion has historically had on minoritized individuals. The letter stated, “significant and unexplained racial disparities in student discipline give rise to concerns that schools may be engaging in racial discrimination that violates the Federal civil rights laws...in short racial discrimination in school discipline is a real problem” (U.S Department of Education/US Department to Justice, 2014).
Racist policies, such as the Zero-Tolerance Policy, which coincide with the generational oppression via mechanisms like the Home Owners Loan Corporation and the Supreme Court ruling in the San Antonio v Rodriguez (1973) case have had compounding, detrimental effects for the participants in the present study. It is argued that these experiences may help shape their incarceration trajectories. Therefore, it is critical to ground the present study and provide this needed historical context. In the next chapter of this proposal, the researcher will briefly describe the literature review relevant to the present study.
Chapter 2: Literature Review

The present study focuses on Mexican American gangs in the west side San Antonio. This is a unique sample, as San Antonio predominately consists of non-first generation Mexican Americans. As mentioned before, the history of San Antonio is unique, as there are sociopolitical factors as described earlier in the text that have contributed to how some people’s lives have been shaped, including the participants in this study. To engage in “critical bifocality” it is essential to understand the oppressive circumstances that may lead for some to join a gang.

Though not all people who live in oppressive circumstances join gangs, gangs are an alternative for some individuals who live in these environments. Youth, street and prison gangs have quickly been labeled as deviant and previous researchers have characterized these individuals as criminals. As Rios states, “Gangs are not a lifestyle choice; people do not grow up wanting to be an outlaw. This is what happens when people are cut out of the system and out of society.” (Reyes, 2019, para. 13).

One of the guidelines used by the Department of Justice (DOJ) and the Department of Homeland Security’s (DHS) Immigration and Customs (ICE) describes gangs as having the following characteristics, “The members may employ rules for joining and operating within the association, the members may meet on a recurring bases, the association may seek to exercise control over a particular location or region, or it may simply defend its perceived interests against rivals, and the association may have an identifiable structure. (NIJ, 2011)” Additionally, the DOJ and DHS definition of gang includes but is not limited to those whose “purpose is to

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9 Previous researchers have found that non-first-generation Mexican Americans differ from first generation Mexican Americans on various domains. Therefore, non-first-generation Mexican Americans offer an important and unique insight on this population.

10 In 2011, the National Institute of Justice (NIJ) stated there is not a universal definition of a gang in the United States and national and state definitions of gangs differ (NIJ, 2011).
engage in criminal activity, and which uses violence or intimidation to further its criminal objectives (NIJ, 2011).”

It is imperative to challenge how and what we think of when we think of a gang, as many organizations and structures could also be considered as a gang. For example, fraternities, the police, government, military, professional sports leagues, terrorists’ groups, and white nationalists would constitute gang membership using the above definition. However, the extent to which these institutions and organizations\textsuperscript{11} are considered a gang is based on who holds the power. Further, many of these institutions and organizations often are not penalized or merit severe penalization when they engage in criminal activity.

The present researcher would argue that the prototype of what we think of a gang has been based on what the media has presented to us via television shows, movies, and how the news media coverage perpetuates a monolithic group of people to represent a gang. Typically, what is shown on media are non-white gangs, which then perpetuates the negative stereotype of Black and Brown communities. This portrayal is just one example of how a system can maintain power, control and subtly deliver a message to the masses. Other every day examples abound where imagery and symbolism are used to deliver messages of superiority and prominence\textsuperscript{12} (Connell, 1987). When researchers can examine the societal impact of how the dominant group creates and drives the narrative for any subjugated group, we can then create a dialogue

\textsuperscript{11} One prime example were the white gangs in Chicago during the 19\textsuperscript{th} century and 20\textsuperscript{th} century, such as the Hamburg Athletic Club, which was legitimized through politics and terrorized people. Further, they incited the deadliest race riots in Chicago in 1919 in which the gang attacked, killed, and injured many Black people in the community (Kass, 2012).

\textsuperscript{12} One example of this phenomenon exist, as one can look at the skin color of Jesus Christ (who is from the Middle East) or Saint Nicholas/Santa Claus (who is from Turkey) to see how subtle messages of whiteness are delivered to the masses.
about the broader issues of societal structures in place that oppress individuals and impact their life trajectory, in this case, incarceration trajectories.

There has been previous research on gangs, however, much of this research has primarily focused on cities like Los Angeles, Denver and Chicago. Researchers acknowledge that there are differences between gangs based in the city, as they can differ demographically and may have different histories across cities. Further, one aspect researchers have focused on in the gang literature is gang embeddedness. Gang embeddedness more specifically is a construct that aims to capture how embedded an individual is in their respective gang. Gang Embeddedness

Gang embeddedness is a relatively new term that stemmed from the term criminal embeddedness. Gang embeddedness specifically describes how immersed, involved members in a gang may be in their respective gangs (Pyrooz, Sweeten, & Piquero, 2013). In one longitudinal study, Pyrooz and colleagues (2013) measured gang embeddedness among 226 gang members and posited that those who are greatly embedded in a gang are less likely to leave the gang or desist from the gang. Researchers found that individuals who were weakly embedded in gangs left the gang at a faster rate than those who were deeply embedded in the gang. Researchers also noted that increased embeddedness in a gang may hinder individual’s ability to build other networks in the areas of education and employment opportunities. Further, those who are deeply embedded in gangs are more likely to be targets of policing and more likely to be criminalized because of their gang involvement (Pyrooz et al, 2013; Sweeten, Pyrozz, Piquero, 2012).

Overall, being deeply embedded in a gang delays the successful transition into adulthood and the decision to leave the gang (Pyrooz et al, 2013). Further, when comparing Latinx to whites, white gang members have increased ability to leave the gang due to their social capital to business and communities. On the other hand, Latinx members have increased difficulty to integrate in the
community and to find a job outside of the gang (Hagedorn, 2005; Vigil 2002). These researchers also recommend that scholars continue to examine the role gang embeddedness as they have found that gang embeddedness has a direct impact on offending (Sweeten, Pyrooz, & Piquero, 2012).

In the studies described above Sweeten, Pyrooz, and Piquero (2012) and Pyrooz, Sweeten, and Piquero (2013) have measured gang embeddedness by using an item response theoretic model that incorporates a mixed graded response model which consisted of questions such as, gang contact frequency, position in the gang, importance of the gang to the individual, proportion of friends in the gang, and frequency of gang-related assault. This method of measuring gang embeddedness differs from previous studies, which measured gang embeddedness via a single item assessment. The present study aims to measure gang embeddedness using the following dimensions of gang embeddedness: history of gang membership, the organization of the gang/gang activity, family and friends’ gang membership, and external factors related to leaving the gang.

**Mexican American Gangs**

While Pyrooz and colleagues have been instrumental in understanding gang embeddedness, researchers Alvarado Valdez, Alice Cepeda, and Charles Kaplan have been key in understanding male Mexican American gang members specifically. Nowotny, Frankeberger, Cepeda and Valdez (2019) have examined the trajectories of heroin use among Mexican American men who were associated with gangs during their adolescence using retrospective data. In this study, researchers identified 5 distinct groups (low use, late accelerating, early decelerating, late decelerating, and stably high) of drug users using group-based trajectory modeling (a type of analyses to identity sub or latent classes).
“Low use” of heroin were those who used heroin at low rates while those who were in the “late accelerating” use of heroin group had a delayed onset of use. The “early decelerating” use of heroin on the other hand were those who had relatively high levels of heroin use during their teenage years but then quickly decreased their use to no use or low levels of use. However, those in the “late decelerating” use of heroin group were those who did not have a quick transition to no or low level of heroin use. Lastly, those in the “stably high” group were those who maintained high levels of heroin use.

Researchers found that the “low heroin use” group were more likely to have a full-time employment and experienced less serious injury compared to the other groups. This “low use” group also had lower levels of depression, anxiety and psychoticism than the other groups. More specifically, the groups that were “late accelerating” and “late decelerating” generally reported more symptoms of depression, anxiety and psychoticism than the “low heroin use” and the “early decelerating” groups. However, the “stably high” group had consistently higher prevalence of symptomology for depression, anxiety and psychoticism than all the other four groups (Nowotny, Frankeberger, Cepeda, and Valdez, 2019).

This study also assessed depressive, anxious, and psychoticism symptoms and found that for depressive symptoms, the “late accelerating” group had a prevalence rate of 45.2% which was followed by the “late decelerating” group with a 31.6% prevalence rate. The rates were lower for the “low use” group with a 29.2% prevalence rate and the “early decelerating group” with a prevalence rate of 7.7%. This study is particularly important as the researchers highlighted how Mexican American men who were associated with gangs differed in their heroin use trajectory and how heroin use has major implications for their mental health. Moreover, this study assessed behavioral risk (described further below), which was found to be significant across the different
groups described above. However, this is the only research study that has used and conceptualized behavioral risk. Therefore, the present researcher will also use behavioral risk.

In another study, Valdez (2003) identified a typology for 26 Mexican American gangs in San Antonio and found there to be four types of gangs: Barrio-territorial, criminal adult dependent, criminal non-adult dependent, and transitional gangs. The Barrio-territorial gangs consist of younger males who may engage in drug dealing, theft (auto, burglary and robbery) but were not associated with an adult gang. Next, the criminal adult dependent gangs engaged in drug dealing for their primary source of income, engage in violence, and use weapons. The criminal non-adult dependent gang is less structured in gang organization and are not influenced by adults who are associated with gangs. This type of gang is more focused on territory and are involved in personal disputes. Lastly, transitional gangs are typically smaller and organized within neighborhoods. These types of gangs are less structured and developed during junior and high school years and typically engage in substance use. This typology is key, as it demonstrates that people who are in gangs are not a monolithic group and vary in which behaviors they engage in, which impacts future behaviors and outcomes.

The previous studies mentioned above demonstrate the diversity in the type of gangs and the within group differences that exist. The present study aims to examine the prison trajectories of Mexican American males who were involved in gangs during their youth. Further, the present study will examine how these different trajectories predict prevalence rates of depression among the participants who live in communities that are typically underserved.

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13 These four types can be further found in Valdez (2003) and Valdez & Sifaneck (2004) in which the authors have a table to outline the different gangs. In Valdez & Sifaneck (2004), their figure can be found on page 91, figure 1.
In the following section, the present researcher will briefly describe the disproportionate prevalence of depression in the Latinx community and the limited research available on people who are or were in gangs and their mental health.

**DEPRESSION**

Hispanics who live below the poverty level are more likely to report psychological distress compared to Hispanics over twice the property level (Mental and Behavioral Health, nd). In 2017, suicide was the second leading cause of death for Hispanics aged 15 – 34 (Mental and Behavioral Health). In 2017, Hispanics reported feelings of worthlessness, hopelessness, and sadness at almost 2 times the rate of Non-Hispanic whites (U.S Department of Health and Human Services Office of Minority Health, nd). Unfortunately, only 36 percent of Hispanics with depression receive care compared to the 60 percent of whites.

Previous researchers have found that young individuals who joined a gang had higher levels of depression, thought seriously about suicide, and had attempted suicide compared to the general population (Wakins, 2016; Coid al., 2013). Further, belonging to a gang exacerbated any preexisting mental health illness.

To the researcher’s knowledge, there are no studies that examine the depression prevalence of Mexican American men who have been associated with gangs in their youth. As such, the present study will examine depression symptomatology among the participants in the present study. This is especially important as Latinx have a high prevalence of depression and do not receive treatment due to cultural, financial, and stigma barriers (Jones, 2002; Hardeman et al., 2018 & Boyd, Lindo, Weeks, and McLemore, 2002).
RELIGIOUS INVOLVEMENT

Previous literature has found religious involvement to be a protective factor against delinquent behavior (Salas-Wright, Olate, & Vaughn, 2013a; Salas-Wright, Olate, & Vaughn, 2013b), substance use (Kulis, Hodge, Ayers, Brown, & Marsiglia, 2012), suicidal behavior (Gearing & Lizardi, 2008), and poor mental health (Levin, 2010; Jocson, Alers-Rojas, Cebello, & Arkin, 2020). Given that researchers have found religious involvement to be a protective factor against adverse behaviors, other researchers have examined how it can be protective specifically for those in gangs and those exposed to neighborhood violence (Giordano, Longmore, Schroeder et., 2008; Salas-Wright, Olate, Vaughn, 2013a; Salas-Wright, Olate, & Vaughn, 2013b; Cruz & Rosen, 2020; Jonshon, Larson, Li, & Jang, 2000).

Salas-Wright, Olate, and Vaughn (2013a, 2013b) found that among adolescents and young adults who were involved in gangs in San Salvador, El Salvador, religious involvement served as a protective factor for engaging in delinquent behavior (such as property vandalism, possession of weapons, theft, and selling marijuana). In another study with indigenous youth from a southwestern city, researchers found religious involvement to be protective against substance use (Kulis et al., 2012). This finding was similar to what was found among young black males living in Boston, Chicago, and Philadelphia, in which religiosity was protective against drug use and other illegal activities (Johnson, Larson, Li, Jang, 2000). In one study of 223 Latino adolescents living in Northeastern U.S cities, researchers also found that religious involvement was a protective factor from negative effects of community violence exposure, including depression and post-traumatic stress disorder (Jockson et al., 2020).

One study which specifically has examined the factors in leaving gangs in El Salvador found that one of the factors contributing to leaving the gang was having an affiliation with a
church. Given the important role religious involvement has on mitigating negative outcomes and leaving the gang, additional studies are needed to examine the role religion has on Mexican American men who are involved with gangs. Therefore, the present researcher will measure participants’ religious involvement to help further understand its role in incarceration trajectories. In the next section, I discuss the theoretical frameworks used for the present study.

**THEORETICAL FRAMEWORKS**

**Critical Race Theory**

Critical Race Theory (CRT) is a theoretical, conceptual, and methodological framework that aims to address and eliminate racial oppression in addition to other layers of subordination. CRT acknowledges that racism is deeply engrained in the United States (Tate, 1997). CRT consists of five tenets. The first tenet states that racism is ‘normal,’ which means that the U.S has historically benefited whites and placed women, Black, Indigenous, People of Color, LGBTQAI+ communities at a disadvantage (Delgado & Stefanic, 2001). Second, although CRT acknowledges racism exists in society, society does not truly acknowledge it.\(^{14}\) Third, race and races are social constructs that has benefited society and is modified when convenient for the dominant group. The fourth tenet states that differential racialization changes throughout time for any minority group and these changes are designed to benefit the majority\(^{15}\). At any moment, this favor can shift and that minoritized group may be deemed a threat where stereotypes, fear, and vigilance of this

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\(^{14}\) This lack of knowledge about systemic racism makes it difficult to truly address and eradicate racism. Systems in society have the preference of white people over people of color and these preferences directly benefit the dominant group such that the majority receives no benefit in eliminating structural racism (Delgado & Stefanic, 2001).

\(^{15}\) One prime example is the Brazero program, which was an agreement between Mexico and the United States to allow Mexicans to work in the U.S short term between the years of 1942 to 1964. These jobs were primarily in agricultural labor and Brazeros helped the U.S during World War II when there were labor shortages (Bracero History Archive, nd).
group may arise.\textsuperscript{16} The fifth tenet states that no individual has one single identity. It emphasizes that one person from a minoritized group is never a representative of their group. Therefore, people should not expect them or ask them to speak for a large group since people’s experiences differ.\textsuperscript{17}

Critical Race Theory (CRT) is a prominent theoretical framework that was developed in the field of legal studies in the 1970’s and has been utilized in various disciplines, including law, political science, women’s studies, ethnic studies, American studies, sociology, and education. That said, there has been little research in psychology that has utilized CRT. This fact has been particularly curious, given CRT was developed by a group of interdisciplinary scholars. Given that psychology is well positioned to address the roles that power, privilege and oppression can have on an individual’s overall health and well-being, it is surprising that this theory has received little attention in mainstream psychology. Further, Bell Hooks developed CRT for the purpose of it to be utilized in a multi-disciplinary and interdisciplinary approach, as CRT can be applied to various disciplines (Adams & Salter, 2011). Therefore, the present study aims to bridge CRT into the present study.

\textit{Social-Ecological Model}

In addition to this framework, the socio-ecological or ecological model provides a holistic approach to understanding individual behavior. More specifically, previous researchers have argued the need to focus on greater societal factors to understand human behavior using an ecological model (Bronfenbrenner, 1977; Wilcox, 2001; McBride & McCoy, 1981; Moon, \textsuperscript{18} For example, while individuals of Mexican descent were welcomed during World War II, the administration of Donald Trump has separated over 2000 children of Mexican and Central American descent from their parents who were seeking asylum while crossing the U.S/Mexico border (Southern Poverty Law Center, 2020).
\textsuperscript{17} For example, someone who identifies as a second-generation Mexican American will have different lived experiences as compared to someone who migrated from Mexico to the U.S and has the status of a resident. This is commonly known as the presumed competence that minoritized individuals expect to have about race and racism (Delgado & Stfamic, 2001).
Patton, Rao, 2010). More importantly, ecological models ground and contextualize individual behaviors to understand people’s lived experiences (Arditti, 2005; Bronfenbrenner, 1977).

Typically, the ecological model consists of the microsystem, the mesosystem, the exosystem, and the macrosystem. (Bronfenbrenner, 1977). More commonly, these levels are also referenced in the literature as individual, interpersonal/relationships, organizational, communities, and policy (Fitzsimons & Clark, 2021; University of Minnesota & Leadership Education in Maternal & Child Public Health, 2015; Cronin, 2019).

The individual level describes personal traits of the person, such as, race/ethnicity, sexual orientation, age, etc. The next level is relationships which includes formal and informal social relationships. Examples of relationships include peers, family, and co-workers. Next, the third level is entitled organization and describes the relationship between the individual and the public, private, and non-profit organizations. An example of an organization may include the school system. The next level is at the community, which can include neighborhoods and other socio-cultural groups. The fifth level is policy which intuitively includes laws and policies that are implemented at local, state, federal and international levels. Lastly is the society level, which can include at large societal factors such as norms, beliefs, and practices. Examples of these include oppression, racism and discrimination (University of Minnesota & Leadership Education in Maternal & Child Public Health, 2015).

To better understand an ecological model, the figure below provides an illustration of one example of how the model has been modified, in this case for mental health and well-being. According to the present researcher, there are no known modified models that specifically include and illustrate individuals who have been impacted by the school to prison pipeline. However, this figure provides detailed information for each level in the Socio-Ecological model,
as created by the University of Minnesota, Center for Leadership Education in maternal and Child Public Health.

Figure 2.1: A Socio-Ecological Model

As illustrated above, there are six levels in this ecological model. Other socio-ecological models may have fewer levels than on the model described above. Although the present researcher is interested in individual’s incarceration trajectories, there are other factors that contribute to participants’ lived experiences that are important to take into consideration, such as, school expulsion (i.e., education opportunities within the organization level of the model), housing availability (i.e., disadvantaged neighborhoods and housing instability within the community’s level of the model), laws and policies (within the policy level of the model) and oppression, racism and discrimination (within the society level of the model).
Overall, the social science literature has had an insufficient focus on the complex nature of individuals in examining the social and environmental factors (Arditti, 2005; University of Minnesota & Leadership Education in Maternal & Child Public Health, 2015). Therefore, the present study grounds and contextualizes the data using both an ecological model and critical race theory to describe the layers or forces that impact and influence individuals.

**PURPOSE OF THE DISSERTATION**

Research Question 1

Are there distinct latent classes, or different groups of individuals, who have been incarcerated and how are these latent classes associated with participants’ social institution experiences and gang embeddedness during their youth? Below is the figure that illustrates the conditional growth mixture modeling (GMM) that will be used to identify the latent classes.

![Figure 4.1 Conditional GMM](image-url)
H1: Latent classes will emerge highlighting the different groups of incarceration among Mexican American men. I expect to find 4 -5 distinct groups. The following variables will used to help determine the latent classes:

H2: There will be significant latent class level differences for those who have lower levels of suspension and expulsion, higher levels of religious involvement, are less embedded in a gang, and who lived at home.

Research Question 2

What is the association between participants’ incarceration trajectories/latent classes and their levels of depression and behavioral risk violence?

H3: There will be significant latent class level differences for experiencing depression and behavioral risk violence
Chapter 3: Methods

Participants

Participants were 120 adolescent Mexican American males who were affiliated with youth gangs in San Antonio, Texas during the years of 1996-1998 (timepoint 1). This longitudinal cohort was then followed up with between the years of 2009-2012 (timepoint 2 and 3). Timepoint 3 was retrospectively. Of the 120 participants 18 were not included in the data analyses because they were incarcerated zero times. Only participants that had been incarcerated were included in the analyses. The remaining 13 were lost to follow-up. Reasons for loss of attrition include being deceased, refusal to participate, or being in federal prison. In total there were 89 (M=30.81 years, SD=2.53, range: 26-39) Mexican American males included in the data analyses. During timepoint 3 (n = 89), 9% (n = 8) were high school graduates, 36% (n = 32) earned a GED, 27% (n = 24) attended trade or technical school, and 4.5% (n = 4) were currently in a GED program, apprentice program, or a 2-year community college at timepoint 3.

Of the 89 participants, 29.2% (n=26) were single (never married), 30.3% (n=27) were married and 23.6% (n=21) were informally married/living together. 27% of the participants (n=24) had 0 children responsible for supporting, 20.2% s (n=18) had 2 children they were responsible for supporting, and 15.7% (n=14) had 3 children they were responsible for supporting. At timepoint 3, 83.1% (n=74) were no longer associated with their original gang, 15.7% (n=14) were associated, and 1.1% (n=1) refused to answer. When asked if they were associated with other gangs, 78.7% (n=70) said no, and 19.1% (n=17) indicated being associated with another gang. See Table 1.1 for sample characteristics. The present longitudinal cohort study data set was a study supported by a grant from the National Institute of Health (Principal Investigators, Alvarado Valdez and Alice Cepeda).
Table 1.1. Sample Characteristics

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Still Associated with Gang</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>14</td>
<td>15.7%</td>
</tr>
<tr>
<td>No</td>
<td>74</td>
<td>83.1%</td>
</tr>
<tr>
<td>Refused</td>
<td>1</td>
<td>1.1%</td>
</tr>
<tr>
<td>Associated with other gang?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>17</td>
<td>19.1%</td>
</tr>
<tr>
<td>No</td>
<td>70</td>
<td>78.7%</td>
</tr>
<tr>
<td>Refused</td>
<td>2</td>
<td>2.2%</td>
</tr>
<tr>
<td>Earn GED</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>32</td>
<td>36%</td>
</tr>
<tr>
<td>No</td>
<td>57</td>
<td>64%</td>
</tr>
<tr>
<td>Attend trade or technical support</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>24</td>
<td>73%</td>
</tr>
<tr>
<td>No</td>
<td>65</td>
<td>27%</td>
</tr>
<tr>
<td>Characteristics</td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>------------------------------------------</td>
<td>----</td>
<td>----</td>
</tr>
<tr>
<td>Currently in school or training</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>4</td>
<td>4.5%</td>
</tr>
<tr>
<td>No</td>
<td>85</td>
<td>95.5%</td>
</tr>
<tr>
<td>Marital Status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single (Never Married)</td>
<td>26</td>
<td>29.2%</td>
</tr>
<tr>
<td>Married</td>
<td>27</td>
<td>30.3%</td>
</tr>
<tr>
<td>Informally Married/living together</td>
<td>21</td>
<td>23.6%</td>
</tr>
<tr>
<td>Married/in a live-in relationship but not living together</td>
<td>1</td>
<td>1.1%</td>
</tr>
<tr>
<td>Separated (from legal marriage)</td>
<td>8</td>
<td>9.0</td>
</tr>
<tr>
<td>Broke up from informal marriage/living together</td>
<td>1</td>
<td>1.1</td>
</tr>
<tr>
<td>Divorced</td>
<td>4</td>
<td>4.5</td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
<td>1.1</td>
</tr>
</tbody>
</table>
MEASURES

School Suspension and Expulsion

School suspension and expulsion was assessed using the following four items asked at the first time point (1996-1998), “Have you ever been suspended?” (responses are yes, no, don’t know/no response), “Were you expelled from middle school” and “Were you expelled from high school? (responses are: yes, no, don’t know/no response), and “How many times have you been suspended?” (responses are 1 time, 2-3 times, 4-5 times, 6 or more times, NA, don’t know/no response). The first 3 items were scored the following, 0 = no and 1 = yes. The last item was scored as: “1” = 1 time, “2” = 2 times, “3” = 3 times and “4” = 4 times. Not applicable and no response were scored as missing.

Public Housing

Public housing was assessed using the following item. “Do you currently live or have ever lived in public housing/projects (courts)?” (responses are yes living now, yes in past, no never, not applicable, don’t know/no response). This item was scored the following, 1=yes, living now, 2=yes in past, 3=no, never, 88=not applicable, and 99=no response, don’t know.

Resources

Available essentials was assessed using the 7-point Likert item, “On a scale from 1-7, when you were growing up did your family ever have a really rough time with things like---food, housing, clothes? Response options ranged from “never” to “all the time.” A higher score on this 7-point item were indicative of increased resources.
Out of home care

Out of home care was assessed using the following item, “Have you ever been placed in a foster home, shelter, mental/rehab hospital, or other residential placement away from your family? (Not jail or juvie).”

Religious Involvement

Religious involvement was assessed using the following 2 items, “How often do you currently go to church,?” and “When you were growing up did you go to church services every week?” The items were based on a 4 point Likert scale including never, sometimes, often, and very often. Those who responded to the items as not applicable, and no response were coded as missing.

Gang Embeddedness

Gang embeddedness during timepoint 1 (1996-1998) was assessed using 4 different components including, history of gang membership, family/friends gang membership, and external factors (i.e., having a pregnant girlfriend). History of gang membership was assessed using two items, “Have you ever been in any other gangs? Response options include, yes=1, no=0, not applicable=88, and don’t know/no response=99. Those who responded to the items as not applicable and no response were coded as missing.

Organization/Activity of the gang was assessed using the one question, “How organized would you consider your gang?” The question was coded organized=1 and not organized=0

The third component, family gang membership included the following item, “Do any of the relatives who live in the neighborhood/barrio belong to a gang? (response options scored the following, 1=yes, 2=no, 88=not applicable, 99=no response/don’t know). Those who responded to the items as not applicable and no response were coded as missing.
Lastly, the external component will be assessed using the item, “If you had a girlfriend or your girlfriend got pregnant would you quit the gang? (scored the following way, 0 = yes, 1 = no, 88 = not applicable, 99 = don’t know/no response). Those who responded to the items as not applicable and no response were coded as missing. The dichotomous items were summed to create one composite score, in which the higher the score the more embedded they were in a gang.

Depression

The Center for Epidemiological Studies-Depression (16 items) (CES-D; Radoff, 1977; α=.85-.90) was utilized to assess how often over the past week (8-items) and the past 30 days (8-items) they experienced symptoms associated with depression during Timepoint 3 (2009-2012). Response options were based on a 4-point Likert scale, where 0 is rarely or none of the time, to 3 is most of the time. An example item includes, “I felt that I could not shake off the blues even with help from my family.” The reliabilities for the present study were α=.91 & .92, for the past 7 days and the past 30 days.

Behavioral Risk Violence

Behavioral violence risk was assessed by using questions that assessed if men had been shot at with a gun in the past year in addition to any other behavioral violence including, such as armed robbery or assault and property related violence such as, selling drugs. The present researcher followed the same procedures in assessing Behavior Risk Violence as Nowotny, Frankenberger, Cepeda, and Valdez (2019).
**Prison History/ Incarceration**

Prison history, which was the criterion variable, was calculated by the number of months they were incarcerated by each year from year 1997-2011 as these were the years in which there was incarceration data.

Below is the table that lists the constructs used in the present study.

Table 2.1: Constructs measured at different timepoints

<table>
<thead>
<tr>
<th>Constructs/Measures</th>
<th>Timepoint</th>
<th>Year Assessed</th>
</tr>
</thead>
<tbody>
<tr>
<td>School Suspension and Expulsion</td>
<td>Timepoint 1</td>
<td>1996-1998</td>
</tr>
<tr>
<td>Public Housing</td>
<td>Timepoint 1</td>
<td>1996-1998</td>
</tr>
<tr>
<td>Out of home care</td>
<td>Timepoint 1</td>
<td>1996-1998</td>
</tr>
<tr>
<td>Gang embeddedness</td>
<td>Timepoint 1</td>
<td>1996-1998</td>
</tr>
<tr>
<td>Behavioral Risk Violence</td>
<td>Timepoint 2</td>
<td>2009-2012</td>
</tr>
<tr>
<td>Depression</td>
<td>Timepoint 3</td>
<td>2009-2012</td>
</tr>
<tr>
<td>Prison History</td>
<td>Timepoint 3</td>
<td>2009-2012</td>
</tr>
</tbody>
</table>

**PROCEDURE**

This 15-year longitudinal cohort study offers a unique opportunity to examine the long-term effects of these systemic policies among males living in west San Antonio who were associated with gangs during their youth. This 3 timepoint study took place from 1996 to 2012. More specifically, timepoint 1 took place during 1996-1998. The participants were then followed up with between the years of 2009 and 2012 (timepoint 2 and 3). Data for timepoints 2 and 3 were taken at the same time, however, timepoint 2 was retrospective data. During timepoint 3 participants were asked about timepoint 2 questions, using memory anchors. These retrospective questions were based on the Natural History Interview (Hser et al, 2001, 2007). This interview protocol is specifically designed to collect retrospective data over the life course using memory anchors. Using memory anchors, such as major life events, loss of a job, or incarceration
episodes to retrospectively answer questions on drug use, criminal involvement treatment, and
other related behaviors has demonstrated effectiveness in previous studies. The study used
various methods such as ethnographic field observations, focus groups, and life history intensive
interviews.

At timepoint 1, researchers recruited 160 adolescent Mexican American males who were
associated with youth street gangs. At the timepoint 1 study, researchers identified areas in the
San Antonio area that had high concentration of Mexican American gang activity (Valdez &
Sifaneck, 2004; Yin et al, 1996; Kasada 1993; Wilson, 1987). Upon identifying these areas, two
indigenous field workers began systematic field observations and recording extensive field notes,
an approach that was based on Wiebels outreach model (Wiebel, 1993; Valdez & Sifaneck,
2004). The concentration on these areas was based on the public databases such as the U.S
Census, criminal justice data, public housing statistics, and other government reports (Valdez,
Kaplan, & Cepeda, 2006).

Upon understanding the community and using social mapping (this is the process of
notating the places in which gangs would gather, such as parks, recreational centers, public
housing spaces, etc), the field workers established an “ethnographic presence” which allowed the
study/project to be visible and “approved” in the community (Valdez & Sifaneck, 2004; Sifaneck
& Neaigs, 2001). The process of social mapping took approximately six months and fieldwork
observations continued throughout four years.

After gaining trust and rapport in the community, field workers were able to collect
observational data on where gangs most frequented in the community. Researchers did not use
law enforcement or school administrators to access this community as to not to be associated
with authorities. Prior work by this research team identified 26 gangs and membership (Valdez,
2003). Validity of membership was verified by cross referencing them with other sources (i.e., gang member contacts, key respondents, and field workers observation).

Participants in the study were compensated with $50 to participate in the interview. To ensure anonymity, participants’ names and gang names were only known by the field workers and the project administrator (Valdez & Sifaneck, 2004). Pseudonyms or identification numbers were used and assigned by the project administrator. Physical locations that participants shared also had fictitious names.

Based on the extensive life history interview the research team was able to follow-up with 112 (89 included the current study’s analyses) of the 160 participants for timepoint 2 and timepoint 3. At timepoint 1, researchers had asked participants for their grandparents and other family members contact information so that researchers could contact the participants in the future. Participants that were not at timepoint 2 and timepoint 3 either deceased, refused to participate, or was in federal prison
Chapter 4: Analyses

Statistical analyses were conducted using SPSS and *Mplus* Version 8 (Muthén and Muthén, 1997-2021). Descriptive statistics were conducted to describe the data set. ANOVAs and Chi-square tests of independence were utilized to test for associations. Growth mixture modeling (GMM) was conducted to identify homogenous subgroups.

GMM can be considered an extension of Latent Growth Modeling (LGM) (Wang & Bodner, 2016). However, one of the main differences lies with the assumption in GMM, in which subgroups exist within the given population. Another main difference is that GMM allows for parameter differences among the subpopulations (Wand & Bodner, 2016). More specifically, GMM is used to determine mean growth trajectory and variation among individuals across and within the subpopulations within the larger population. These subpopulations, or latent classes, are not known a-priori but are derived empirically. Regardless of the exploratory nature of the technique, researchers should have some idea as to how many groups to expect based on previous literature. Further, GMM assumes that membership to latent classes does not change over time (Muthén et al., 2002). To better understand GMM, an unconditional (without covariates) growth model is represented in Figure 3.1 below where Y represents the various time points and \( c \) represents the latent class variable.
Figure 3.1: Unconditional Growth Mixture Model (GMM)

A growth mixture modeling equation can be written as:

\[ Y[t]_n = \sum_{c=1}^{C} (nc (g_{0c} \cdot A_{0c}[t] + g_{1nc} \cdot A_{1c}[t] + e[t]_{nc})) \]

GIVEN \( 0 \leq nc \leq 1 \) AND \( \sum_{c=1}^{C} nc = 1 \)

where subscript \( c \) is the group to which the individual, \( n \) belongs to. The left side of the equation represents the individual scores on variable \( Y \) repeatedly measured at the different time points. The subscript \( c \) on the right side of the equation indicates that the groups can differ on the shape of the data, the intercept, and the slope of the latent classes. More specifically, the mean of \( g_{0n} \) \( \mu_{g0} \) describes the average starting point and the mean of \( g_{1n} \) \( \mu_{g1} \) describes the average amount of change throughout the timepoints. Variances and covariances of \( g_{0n} \) \( \mu_{g0} \) and \( g_{1n} \) \( \mu_{g1} \) describe the extent to which individuals in the sample differ from one another based on their starting point, amounts of change, and how interindividual differences at the starting points are related to the interindividual differences in total amounts of change. Lastly, \( e[t]_n \) represents the time specific residual and \( nc \) represents the probability that the individual \( n \) belongs to class \( c \) (Ram & Grimm, 2009).

When the model includes covariates, the model is known as a conditional GMM. Below is the model for the present study. The covariates included in the model include: school suspension, type of housing, out of home care, gang embeddedness, access to resources and religion.
Figure 4.1 Conditional GMM

**Hypothesis 1:**

Previous researchers have outlined a sequential step processes to help guide researchers to conduct growth mixture modeling (Ram & Grimm, 2009; Wikrama, Lee, O’Neal & Lorenz; 2017). The present researcher used the procedure outlined by Wikrama, Lee, O’Neal and Lorenz (2017) to build the models, as these authors further detail the steps in a manner where a researcher with some background in SEM can understand the process.

Step 1 of the Wikrama et al., (2017) process calls for the building of a traditional growth curve model (LGCM). In Step 2, these authors recommend that an unconditional latent class growth analysis (LCGA) is modeled, as it is the next step in modeling growth models. In Step 3, these authors recommend specifying a growth mixture model (GMM), first an unconditional model then a conditional model (further details are entailed below). In Step 4, estimation problems in testing any of the aforementioned models are addressed. In Step 5, the authors should select the optimal model, based on model fit, theoretical considerations and any
encountered estimation problems in testing these models. Below is the table that outlines each of
the analyses and the variables included.

Table 3.1 Models and variables used for Hypothesis 1

<table>
<thead>
<tr>
<th>Models</th>
<th>Variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>LGCM</td>
<td>Months incarcerated per year</td>
</tr>
<tr>
<td>Unconditional LCGA</td>
<td>Months incarcerated per year</td>
</tr>
<tr>
<td>Unconditional GMM</td>
<td>Months incarcerated per year</td>
</tr>
<tr>
<td>Conditional GMM</td>
<td>Months incarcerated per year &amp; covariates</td>
</tr>
</tbody>
</table>

Note: covariates include the following: school suspension, type of housing, out of home care, gang embeddedness, access to resources and religion.

The fit statistics that helped select both the number of classes and the best fitting model for the growth mixture models included Bayesian Information Criterion (BIC; Schwartz, 1978), Akaike Information Criterion (AIC; Akaike, 1987), the sample size adjusted BIC, entropy, and approximate likelihood ratio rests (LRTs). For the BIC, AIC, SSABIC fit statistics, a better fitting model has lower values on these indices of model fit (Nylund, Asparouhov & Muthén, 2007). On the other hand, higher values of entropy indicate more clear distinct classes that the participants are grouped into (Infurna & Grimm, 2018; Ram & Grimm, 2009). LRTs, more specifically, Lo-Mendell-Rubin Adjusted likelihood ration test (LMR-LRT), Vuong-Lo-Mendell-Rubin Likelihood ratio test (VLMR LRT), and bootstrap likelihood ratio test (BLRT) were used to compare the fit of the model in comparison to other models with fewer classes (Lo, Mendell, & Rubin, 2001). In particular, VLMR LRT allows the researcher to statistically determine which model was significant compared to a model that estimated \( k-1 \) classes, where is \( k \) the number of classes. While the BLRT index formally tests two competing models,
researchers have found that BLRT\textsuperscript{18} performs better than VLMR LRT (during simulation studies) in accurately determining the number of classes from the data (Nylund, Asparouhov, & Muthén, 2007). Therefore, the present researcher used all three of the LRTS indices and paid close attention to the BLRT index to determine the best model (Nylund, Asparouhov, Muthén, 2007).

Further, although there are no strict thresholds for minimal proportions for latent classes, researchers have suggested that a class size should contain 5\% of the data in order to classify it as a class (Nylund, Asparouhov, Muthén, 2007). However, it is acknowledged that there is subjectivity in determining the number of classes and the size of a class. It is also important to note that there is no consensus or common practice in accepting the best criteria for determining the number of class (Nylund, Asparouhov, Muthén, 2007). The principles discussed above will help the present research guide these decisions. Below are the outlined steps that the present researcher utilized to analyze the longitudinal data.

**Step 1: Conduct a LGCM**

The purpose of conducting a LGCM was to first understand the overall fit of the data prior to taking into account heterogeneity of the data. More specifically, the aim was to determine if the shape of the data was linear or nonlinear (i.e., quadratic or cubic). To do this, the present researcher conducted a LGCM with an intercept factor and a linear slope factor. The next model allowed for quadratic change and the last model allowed for cubic change. The models that allowed for both quadratic and cubic change resulted in non-convergence and will no longer be considered. Models were compared using model fit indices (described earlier in text), in which poor model fit indicated that there was heterogeneity in the months incarcerated per

\textsuperscript{18} BLRT empirically estimates the chi-square distribution and has been found to outperform other likelihood ratio tests during simulation studies (Nylund, Asparouhov, & Muthén, 2007).
year data. Table 4.1 describes the fit statistics for the intercept only and the linear LGCM models.
Table 4.1. Fit Statistics for Single Group Model

<table>
<thead>
<tr>
<th>Model of Change</th>
<th>AIC</th>
<th>BIC</th>
<th>CFI</th>
<th>TLI</th>
<th>RMSEA</th>
<th>SRMR</th>
<th>$x^2$</th>
<th>df</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Linear</td>
<td>7541.317</td>
<td>7591.090</td>
<td>0.151</td>
<td>0.224</td>
<td>0.248</td>
<td>1.607</td>
<td>847.896</td>
<td>105</td>
<td>$p &lt; .001$</td>
</tr>
</tbody>
</table>

Note: AIC=Akaike Information Criterion, Bayesian Information Criterion, CFI=Comparative Fit Index, TLI=Tucker-Lewis Index, RMSEA=Root Mean Square Error of Approximation; SRMR=Standardized Root Mean Square Residual,
According to Hu and Bentler (1999), recommended model fit indices include the following: CFI ≥ .95, RMSEA ≤ .06, and SRMR ≤ .08. To proceed to GMM, poor model fit is expected as that indicates that there is heterogeneity in the data. Using the model fit indices to guide the selection of best model, the LGCM fit the data poorly, which provided evidence that heterogeneity in the longitudinal changes in the months of being incarcerated per year existed (Wikcrama, Lee, O’Neal & Lorenz, 2017). More specifically for both models, CFI was well below .95, were greater than .06 for RMSEA, and greater than .08 for SRMR. Further, for the linear model, the variances for the linear growth factors were statistically significant (13.42, p<.001 and .076, p<.001, for the intercept and slope factors, respectively), which means that there was significant variation in the growth function between individuals.

**Step 2: Conduct unconditional LCGA**

As indicated by Wikcrama, Lee, O’Neal and Lorenz (2017), the second step in GMM was to estimate an unconditional LCGA (without any predictors), which is restricted version of GMM that estimates the means but fixes the variances of intercept and slope to zero. To conduct a LCGA, the present researcher started with specifying the model with two classes and increased classes until the optimal class model was selected. To determine best model fit, fit indices included BIC, entropy, LMR Adjusted LRT, and VLMR LRT. More importantly, VLMR LRT p-value indicated which model was significant compared to the k-1 model. Further, although there are no strict thresholds for minimal proportions for latent classes, the present researcher sought to ensure that each class had at least 5% of the sample.

Altogether, the fit statistics and the latent class proportions indicated that a 2-class model was the optimal class model. As indicated below in Table 5.1, the 2-class model was the only statistically significant model compared to the three and four class model. Although the AIC,
BIC, SABIC values were smaller for the 3 and 4 class model, based on the VLMRT LRT, the 2-
class model was the only model that was significant \((p=.03)\). Further, for entropy, all models had
relatively high entropy, .92 for the 2-class model. Therefore, the present researcher selected the
2-class model.

Table 5.1 Fit Statistics for LCGA

<table>
<thead>
<tr>
<th>Fit Statistics</th>
<th>2 classes</th>
<th>3 classes</th>
<th>4 classes</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIC</td>
<td>7552.713</td>
<td>7395.152</td>
<td>7304.366</td>
</tr>
<tr>
<td>BIC</td>
<td>7602.485</td>
<td>7452.390</td>
<td>7369.070</td>
</tr>
<tr>
<td>SABIC</td>
<td>7539.369</td>
<td>7379.806</td>
<td>7287.019</td>
</tr>
<tr>
<td>Entropy</td>
<td>.921</td>
<td>.932</td>
<td>.952</td>
</tr>
<tr>
<td>LMR Adj. LRT ((p))</td>
<td>-3853.987 ((p=.03))</td>
<td>152.254 ((p=0.75))</td>
<td>90.095 ((p=.22))</td>
</tr>
<tr>
<td>VLMR LRT ((p))</td>
<td>181.763 ((p=.03))</td>
<td>-3756.356 ((p=0.74))</td>
<td>-3674.576 ((p=.21))</td>
</tr>
<tr>
<td>Group size ((n, %))</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C1</td>
<td>(n = 28, 31.4%)</td>
<td>(n = 7,7.8%)</td>
<td>(n = 4, 4.4%)</td>
</tr>
<tr>
<td>C2</td>
<td>(n = 61, 68.5%)</td>
<td>(n = 27, 30.3%)</td>
<td>(n = 56, 62.9%)</td>
</tr>
<tr>
<td>C3</td>
<td>(n = 55, 61.7%)</td>
<td>(n = 3, 3.37%)</td>
<td></td>
</tr>
<tr>
<td>C4</td>
<td>(n = 26, 29.21%)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: AIC=Akaike Information Criterion, BIC=Bayesian Information Criteria, LMR Adj.
LRT=Lo-Mendell-Rubin Adjusted LRT test. n=class sample size (from most likely class
membership). \%= Class proportions (from most likely class membership).
The 2-class model showed two distinct trajectories of months of incarceration per year. The first class contained 31.4% ($n = 28$) of the sample and described a high initial score with a significant negative slope. The second class contained 68.5% ($n = 61$) of the sample and described a low initial score with a significant negative slope. See table 6.1 for parameter estimates for each trajectory.

Table 6.1: Parameter estimates for the 2-class unconditional GMM trajectory.

<table>
<thead>
<tr>
<th>Class</th>
<th>Intercept</th>
<th>Slope</th>
</tr>
</thead>
</table>
|       | Est. (SE) | $p \leq$ | Est. (SE) | $p \leq$
| “High” | 10.70 (.73) | .001 | -0.71 (.06) | .001 |
|        | $n = 28$ |       |       |       |
| “Low”  | 2.29 (.55) | .001 | -0.12 (.04) | .001 |
|        | $n = 61$ |       |       |       |

Steps 3-5: Specify a Growth Mixture Model (GMM), Address Estimation Problems, and Select the Optimal Model.

For the last three steps, two separate unconditional growth mixture models were first fit to the months per year incarcerated data, a 2-class and a 3-class model. Although the previous steps indicated that a 2-class model was a better fit, common practice for GMM is to have competing models to determine best model. It is important to note that previous researchers have recommended conducting unconditional (without covariates) mixture models first to ensure that the appropriate number of latent classes emerge without the influence of the covariates (Enders
& Tofighi, 2007; Grimm, Ram & Estrabrook, 2017; Esposito, Affuso, Dragone, Bacchini, 2020). Therefore, the present researcher followed this approach.

Based on the previous steps, the researcher conducted a linear unconditional 2-class model and found the model to be significant (VLMR LRT=\(p=.03\)). When the researcher conducted a 3-class model, the model did not converge. Additional steps were taken to address non-convergence like increasing the start values (Jung, Wickrama, 2008; Hipp & Bauer, 2006; Li et al., 2014; Liu & Hancock, 2014). Following the guidelines of Lubke (2012), reporting non-converged models is considered best practice and we report that the three-class model did not converge.

Based on previous analyses and the fit statistics, the 2-class model was kept. The BLRT yielded significant results (\(p\leq .01\)) and the growth factors (intercept and slope) were significant for the 2-class model. For the 2-class model, the first class contained 92.1\% (\(n = 82\)) of the sample and is described a low initial score that indicated less time in prison in 1997. This group also had a significant negative slope (\(p\leq .01\)). The second class contained 7\% (\(n = 7\)) of the sample and described a low initial score of months in prison (at year 1997) with a non-significant negative slope (\(p=.98\)). See table 7.1 for fit indices on all growth mixture models.
Table 7.1: Fit Indices for conditional GMM

<table>
<thead>
<tr>
<th>Fit Statistics</th>
<th>Unconditional</th>
<th>Conditional</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2 classes</td>
<td>2 classes</td>
</tr>
<tr>
<td>AIC</td>
<td>7381.248</td>
<td>9859.701</td>
</tr>
<tr>
<td>BIC</td>
<td>7438.486</td>
<td>9987.928</td>
</tr>
<tr>
<td>SSABIC</td>
<td>7365.902</td>
<td>9823.851</td>
</tr>
<tr>
<td>LMR Adj. LRT</td>
<td>139.737 (p=.39)</td>
<td>171.630 (p=.26)</td>
</tr>
<tr>
<td>VLMR Adj LRT</td>
<td>-3742.681 (p=.36)</td>
<td>-4964.352 (p=.26)</td>
</tr>
<tr>
<td>BLRT</td>
<td>-3742.681 (p≤.01)</td>
<td>-4964.352 (p≤.01)</td>
</tr>
<tr>
<td>Entropy</td>
<td>1.0</td>
<td>.98</td>
</tr>
<tr>
<td>Group Size (n, %)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C1</td>
<td>n = 82, 92.1%</td>
<td>n = 69, 79%</td>
</tr>
<tr>
<td>C2</td>
<td>n = 7, 7.8%</td>
<td>n = 18, 20%</td>
</tr>
<tr>
<td>C3</td>
<td>n = 13, 14.9%</td>
<td></td>
</tr>
<tr>
<td>C4</td>
<td>n = 23, 27.5%</td>
<td></td>
</tr>
</tbody>
</table>
Next, the researcher introduced the covariates and the distal outcomes to a 2-class model (conditional model) followed by a 3-class and a 4-class model. Of the 3 models, the 2-class model yielded significant results with optimal fit indices. It is also worth highlighting that for the 4-class model, one of the classes contained 0% (n=0) of the sample, therefore the present researcher continued to compare between the 2 and 3-class conditional model. Even though the 2-class model resulted in a slightly higher AIC and SSABIC values (AIC=9859.701; SSABIC=9823.851) compared to the 3-class model (AIC=9806.738; SSABIC=9751.585), the BIC for the 2-class model yielded a smaller value compared to the 3-class model. Previous researchers have found that BIC is the better criterion in determining latent classes, therefore the present researcher continued to further closely examine the 2-class model. For the 2 and 3 class models, the entropy value was .98, indicating that these were clear and distinct classes. Even though the 2 and 3-class yielded significant BLRT values, the researcher ultimately selected the 2-class conditional model based on the previous steps/analyses determining the number of latent classes (indicating two latent classes previously). Additionally, the 2-class conditional model was also selected to ensure not selecting a model that results in spurious latent classes (Guerra-Peña & Steinley, 2016). The findings indicated that a 2-class conditional model best fit the data with a “high and quick decelerating” (20.3%, n=18) class and a “low and steady deceleration” (79%, n=69) class. See Figure 5.1 for the estimated means for class trajectories and table 8.1 for parameter estimates for the two classes. Therefore, the present researchers’ first hypothesis was partially supported. While latent classes of incarceration did emerge, there was support for two latent classes.
Figure 5.1: Estimated means for class trajectories of months per year incarcerated from 1997 to 2011

Table 8.1: Parameter estimates for the 2-class conditional GMM trajectory

<table>
<thead>
<tr>
<th>Class</th>
<th>Intercept</th>
<th>Slope</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Est. (SE)</td>
<td>p ≤</td>
</tr>
<tr>
<td>“low, steady deceleration”</td>
<td>4.14 (.50)</td>
<td>.001</td>
</tr>
<tr>
<td>n = 69</td>
<td></td>
<td></td>
</tr>
<tr>
<td>“high, quick deceleration”</td>
<td>5.75 (1.44)</td>
<td>.001</td>
</tr>
<tr>
<td>n = 18</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Hypothesis 2:**
A one-way between subjects analysis of variance (ANOVA) was conducted to compare the effect of class membership on gang embeddedness in class 1 and class 2. There was not a significant effect of class membership (groups) on gang embeddedness for the two groups, \( F(1, 85) = .002, p = .96 \). A second one-way between ANOVA was conducted to compare the effect of class membership on religious involvement (M=1.66; range=1-4), which was operationalized as the frequency of church attendance. There was not a statistically significant difference in religious involvement based on class membership, \( F(1, 85) = .695, p = .40 \). Lastly, a third one-way ANOVA was conducted to compare the effect of class membership on religious involvement, specifically weekly church attendance. There was not a statistically significant difference in weekly church attendance based on class membership, \( F(1,85) = 2.90, p = .09 \).

To assess for class difference for suspension, expulsion, and out of home care, chi-square test of independence were conducted. The first chi-square test of independence was performed to examine the relation between class membership and expulsion in middle school. The relation between these variables were not significant, \( X^2 (1, N=87) = .20, p = .65 \). The second chi-square was performed to examine the relation between class membership and expulsion in high school. The relation between these variables were not significant \( X^2 (2, N=87) = 1.73, p = .42 \). The third chi-square test of independence was performed to examine the relation between class membership and suspension in school. The relation between these variables were not significant \( X^2 (3, N=81) = 2.77, p = .42 \). Lastly a chi-square statistic was conducted to examine the relation between out of home care and class membership, there was not a relation between the two variables \( X^2 (1, N=87) = 2.17, p = .14 \).

**Hypothesis 3:**
A one-way multivariate analysis of variance (MANOVA) was conducted to test whether there were class membership differences for depression (within 7 days and 30 days of the assessment) and behavioral risk violence. Results of the MANOVA yielded a statistically significant difference between the two groups (class 1 and class 2) on depression within the last 7 days, depression within the last 30 days, and behavioral risk violence, Wilk’s $\Lambda = .24$, $F(3,82) = 94.89$, $p < .01$, partial $\eta^2 = .77$. This finding indicates that approximately 77% of the multivariate variance of depression and behavioral risk violence is associated with class membership. However, upon examining Leven's Test of Equality of Error Variance, the assumption of variance was violated for the behavioral risk violence variable and these results should be viewed with caution.

Follow-up univariate ANOVAs indicated that depression within the last 7 days (class 1: $M = 1.75$, $SD = 2.16$; class 2: $M = 13.88$, $SD = 4.19$), last 30 days (class 1: $M = 2.43$, $SD = 2.61$; class 2: $M = 13.53$, $SD = 4.57$) and behavioral risk violence (class 1: $M = 2.13$, $SD = 2.16$; class 2: $M = 4.41$, $SD = 3.03$) were significantly different for those in class 1 (low and steady deceleration) and class 2 (high, quick deceleration), $F(1,84) = 280.635$, $p < .01$, $\eta^2 = .77$, $F(1,84) = 172.155$, $p < .01$, $\eta^2 = .67$, and $F(1,84) = 12.743$, $p < .01$, $\eta^2 = .13$. More specifically, those in the low, steady deceleration class had a lower average on depression at 7 days and 30 days (at the time of the assessment) compared to the high, quick deceleration. This was also true for behavioral risk violence.
Chapter 5: Discussion

The purpose of this study was to determine if latent classes of incarceration exist among men who were associated with gangs during their youth and to examine the association between the latent classes with depression and behavioral risk violence.

This chapter contains discussion and future research possibilities to help answer the research questions:

(R1): Are there distinct latent classes of incarceration and how are these latent classes associated with participants’ social institution experiences and gang embeddedness during their youth?

(R2): What is the association between participants’ incarceration trajectories and their levels of depression and behavioral risk violence?

The findings from the present study indicated that two latent classes exist within the longitudinal data of months per year of incarceration. When examining the associations between the latent classes and suspension, expulsion, religious involvement gang embeddedness, and having lived at home (vs out of home care such as foster), there were no significant associations. When examining the association between class membership and depression and behavior risk violence, significant associations were found such that the class that was characterized low, steady deceleration class was less likely to experience depressive symptomatology and behavioral problems.

The present study utilized a growth mixture model and two classes were identified. According to the present researchers’ knowledge, this analytic strategy had not been previously utilized to identify latent classes of Mexican American men who were associated with gangs that had been incarcerated. The findings in this study showed that when covariates were introduced
into the model, two latent classes remained. These findings suggest that individuals who are incarcerated are not a monolithic group, but rather consists of two groups among this sample of 89 Mexican American men from San Antonio, Texas.

The findings indicated that a 2-class conditional model best fit the data, where one class is described as a “high and quick decelerating” and a second class is described as a “low and steady deceleration” groups. Another finding worthy to note is the lack of an association between the classes and the dependent variables (suspension and expulsion, higher levels of religious involvement, gang embeddedness, and out of home care). These findings were contrary to what the present researcher expected. However, as expected, there were significant associations between class membership, depression (within 7 days and 30 days of time of the assessment) and behavioral risk violence.

While two classes were identified in the GMM analysis, the classes differed by the rate of their deceleration. The low and steady deceleration class had a slope of -0.13 months of incarceration while the high and quick deceleration class had a slope of -0.29 months of incarceration. It is also important to note that the majority (79.7%) of the participants had a lower initial incarceration intercept compared to the class that started off high with a quick deceleration. This means that the majority of the participants steadily decreased over time. However, the class that started off with increased incarceration quickly decelerated over time. Further, this group ended with on average a lower amount of months being incarcerated than the steady deceleration class. It is also important to note that this class had more of an opportunity to decelerate. In comparison, the “low and steady” class may have encountered more difficulty to remain out of the criminal [in]justice system which therefore may have contributed to the slower deceleration. In
addition, support systems may have differed between the two classes, in which the “high, quick deceleration” class may have had more of a support system that may

When comparing the effect of class membership on gang embeddedness, religious involvement, weekly church attendance, suspension, expulsion in middle school, expulsion in high school and out of home care, there were no statistically significant findings. One reason for the lack of class differences on these outcome variables may be due to the limitation of the items used to assess these constructs. It is also important to note that these constructs were not the validated measures in their entirety, but a sampling of items from the original measures. In data collection efforts such as these, sacrifices need to be made so as to not overburden the participants. As a result, one can assess fewer constructs with complete measures or assess additional constructs with a reduced number of items. Another limitation of the study may be the overall mean of participants' religious involvement, which may have limited the ability to replicate prior findings. Nonetheless, this longitudinal, secondary data set offers a unique and valuable opportunity to examine and further understand the lives of males who were associated with gangs from adolescence to adulthood.

When examining class membership differences for depression and behavioral risk violence, significant differences were found. Previous researchers have found associations between depression and incarceration (Turney, Wilderman, & Schnittker, 2012; Schnittker, 2014; Perkins, Kelly, Lasiter, 2014; Porter & DeMarco, 2017; Swisher, Roettger, 2012). However, previous studies have not examined how depression may differ based on class membership. Interestingly, participants who were in the high, quick deceleration class had higher levels of depression symptoms during the last 7 days and during last 30 days (at the time of the assessment) than the low, steady deceleration class. More specifically, the high, quick deceleration class’
average on the depression scale was 13.88 for the past 7 days and 13.53 for the past 30 days. Based on prior research, some researchers have used a cutoff score of >10 as an indicator for depressive symptoms on the CES-D eight item measure (Mikolajczyk, Bredehorst, Khelaifat, Maier, & Maxwell, 2007). This >10 cutoff score has also been found to be similar to the >25 cutoff score for the full 20-item scale, which is considered “moderately depressed” (Roberts, Chen, & Roberts, 1997). These findings are interesting given the high, quick deceleration class had a high onset and ended with fewer months of yearly incarceration than the low, steady deceleration class. Further, the high, quick deceleration class also had higher rates of behavioral risk violence compared to the low, steady deceleration class. However, one important factor to note is that depression was assessed at the last timepoint during this longitudinal study. Therefore, the present researcher does not know how participants’ symptoms of depression changed or if they received any mental health services. Further the findings do not inform the present researcher if participants were experiencing depressive symptoms before or during incarceration.

Previous studies have found that the experience of incarceration is associated with depression, as once imprisoned, individuals have to cope with their loss of freedom, confinement, and the dangers of being in prison to name a few (Turney, Wildeman, Schnittker, 2012; Sykes [1958] 2007). This experience of being in prison is known as “prisonization” (Turney, Wildeman, Schnittker, 2012; Sykes [1958] 2007; Clemmer, 1940, Goffman, 1961). Therefore, there is a need to provide mental health services to those who are formerly incarcerated and those who were associated with gangs during their youth.

**LIMITATIONS**

As mentioned briefly above, this longitudinal cohort study provides a unique opportunity that follows a cohort of males living in west side San Antonio from adolescence up to when they
were in their 30’s. The longitudinal data provided the present researcher an opportunity to conduct GMM, which identified two latent classes of incarceration. Though this study provides great insight on the heterogeneity of those who have been incarcerated, limitations are present.

As previously mentioned, one of the few measures used in the present study was the CES-D. Other measures/constructs used in the present study consisted of proxies of other constructs, such as the Adverse Childhood Experiences (ACEs) Questionnaire. Though the ACEs were not included in this study, similar questions were asked of the participants. It would be interesting to use those items/questions for additional analyses on this longitudinal cohort study. A second limitation to the study was that the present researcher did not include number of years in a gang to measure gang embeddedness, however, this would be interesting to include in future analyses. Other studies have measured gang embeddedness differently and currently there is no one measure that is used across research studies. For example, Pyrooz and colleagues (2013) measured gang embeddedness using frequency of contact with the gang, position in the gang, importance of the gang to the respondent, proportion of friends in the gang, and frequency of gang-involved assault.

Another limitation in the study was that the present researcher did not include the reason for their incarceration and the duration for each time they were incarcerated. Although the aggregation of the incarceration data allowed the present researcher to conduct GMM, desegregating the incarceration data for separate analyses may provide additional insight on how the latent classes further differ. Moreover, additional analyses need to be conducted to further assess the differences between the two latent classes, as the primary hypothesis assessed how many latent classes existed. Given that two latent classes were identified, researchers in the future should examine these two classes more closely. These classes may provide insight concerning the assessment of months incarcerated over time in other communities.
IMPLICATIONS

The present study has important implications for those who were associated with gangs during their youth and were in the criminal [in]justice system as participants from the two different latent classes may have different mental health and reentry needs. The overall prison system in the U.S does not provide true reentry programs to help people to reintegrate in their communities (Whelan, 2020). Rather, the prison reentry industry (PRI) serves to support the mass incarceration system, or what is called the “revolving door incarceration system” (Ortiz & Jackey, 2019; Soto, in press). In the continual state of control and surveillance once people are on parole, especially for parolees who are members of communities of color (Soto, in press). One prime example and the inception of this revolving door was the “war on drugs” in which racist laws disproportionately targeted Black and Brown communities (including those in this study). Therefore, it is critical for psychologists to maintain our “analytic gaze to structures and policies” (Fine & Cross, p. 289, 2016) that contribute to the mass incarceration and the “revolving door incarceration system.”

In one ethnographic study conducted on Chicanos who were formerly incarcerated, researchers found that once the participants left the prison system, they shared that they did not have adequate support to re-enter society because the essentials such as employment, housing, transportation, education while managing their parole and probation were difficult. This inability to re-enter society led to return to prison at a fast pace (Soto, in press). In addition to the poor transitional support, Soto states that the parole, probation and unannounced visits by parole officers is another form of “mental incarceration” as they limit individuals to live full lives (Soto, in press).

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19 This term was used in the Soto (in press) study to describe their participants. Chicanos is often used to describe Mexican Americans.
Understanding these carceral systems 20 and how they function in and out of prison is essential as policy makers, researchers, educators, landlords, employers, etc., can have a more thorough understanding of how people have been products21 of the prison industrial complex. The findings in the Soto (in press) study highlight the need for more support in helping formerly incarcerated individuals in securing employment (as many businesses ask for incarceration history), finding affordable housing that would also not discriminate, substance use recovery programs, improving school systems, and also have the ability to reimagine what the U.S [in]justice system can look like.

Moreover, Critical Race Theory (CRT) can help to have a deeper understanding of these carceral systems and other inequities. Using CRT is important now more than ever, as 5 states including the state of Texas have recently signed laws that would prohibit or limit how race, racism, or CRT is being taught in schools. This legislative action further highlights how policies can intentionally mask historical context and perpetuate racism as a result of current day policy implementation. Therefore, it is vital that researchers continue to engage in critical theories.

In addition to the systems mentioned above, the health care system, specifically, fully integrated behavioral health (IBH) care needs to be a U.S widespread practice. There have been a few states that have implemented IBH in one capacity or another, however, at the moment IBH is only covered if the provider uses the Psychiatric Collaborative Care Model and is only for Medicare recipients. These programs are greatly needed as these larger systems play a critical role

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20 This can include formal incarceration, such as state and federal prisons, local jails, immigrant and juvenile detention centers, military prisons, and carceral programs of probation and parole. In addition to formal institutions, the carcerality includes policies, surveillances, criminalization, and “the promise and threat of criminalization and the possibility/solution of incarceration” (Tapia, 2020, para. 2).

21 Products is used here to make the point that the prison industrial complex system is intentional in monetizing off of people who are incarcerated and from those who remain in the revolving door incarceration system (Gotsch & Basti, 2018; Jain, 2017).
in the overall health and well-being of individuals, especially those who are formerly incarcerated. More importantly, mental health services may not be a priority once released from prison as other essentials such as transportation, employment, food, and housing intuitively may be more important. However, in having more IBH services available, the health care gap in which a formerly incarcerated individual may fall through narrows, as an IBH provider would not only assess physical health but mental health as well. IBH service providers may also help to identify any other comorbid mental health conditions that individuals may be experiencing, such as post-traumatic stress disorder, anxiety disorders, etc. Further, IBH program would further help to destigmatize receiving mental health care as this would be part of a normal checkup when seeing an IBH health care provider.

**Future Research Studies**

Future research studies should deeply and critically consider the root causes of these systemic and inequitable problems those living in the U.S have to face, specifically for communities of color. This critical examination needs to do more than focus on the symptoms of the injustice that the larger systems have created. One way to continue to engage in critical work is to work with the community, such as using community-based participatory research, utilizing qualitative methodologies to maintain the descriptive stories of the participants’ lived experiences. In addition, researchers need to incorporate critical research theories such as critical race theory that provide a historical contextualization of the lived experiences of marginalized communities. In addition, the continual efforts of bridging the gap between the researchers and policy makers are greatly needed if researchers are interested in getting at the root of these health inequities rather than simply treating the symptoms.

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Marginalized communities is often used to describe communities that have been pushed aside from society which then makes it difficult for these groups to thrive in society.
than treating the symptoms. Previous studies have outlined models that help translate research into policy and practice (Uzochukwu et al, 2016).

Additional populations that should be of interests to researchers are those who are undocumented, in the U.S prison system and are then deported to their birth country after their sentencing. These individuals are people who may have lived in the U.S from a few years to most of their lives and are then sent to their birth country, without a safety net in place (i.e a family support system). This is especially concerning as their family members may be of mixed status family members and may not be able to return to their birth country with them. Further, the rapport with the family members in their birth country may not be as strong compared to their family members that were in the U.S. For example, someone can be 18 years of age with a twenty-year prison sentence and be deported to their birth country at age 38 with perhaps no memories and rapport of their family members that they have in their birth country. The mental health of these individuals is of concern as that adds to the trauma and stress of the individual. To the present researchers’ knowledge this population is greatly understudied.

Other future studies should focus on formerly incarcerated individuals who aspire to pursue higher education or certification. In the state of California, there are grass roots initiatives developed for formerly incarcerated individuals to attend higher education, however, those leading the initiatives have encountered challenges for these students to succeed as universities and colleges have not been developed for formerly incarcerated individuals.

Future researchers should work with administrators, faculty, and campus leaders to create programs and formal support for formerly incarcerated students (as organizations, programs, and initiatives have been developed by students when they realize there is no support for them). One prime example of how this can transpire is the Berkeley Underground Scholars (BUS) which was
started in 2013 at the University of California Berkeley by students impacted by the [in]justice system. BUS received funding from UC Berkeley when students voted on a referendum for the organization to receive this funding and have since then partnered with Senator Loni Hancock, Senator Nancy Skinner, and several faculty across disciplines, including Sociology, Ethnic Studies, African American Studies, Public Policy, Local Government & Community Relations, and Law. More importantly, the Underground Scholars Initiative has had different chapters open throughout the UC system at the undergraduate and graduate level.

Further, campus advisors lack the knowledge and understanding in working with students with criminal records. Researchers should aim to work with advisors to develop training and resources available to work with all students to ensure they are supported and can be successful.

CONCLUSION

In summary, three primary conclusions are presented based on the analyses: 1) two latent classes emerged using GMM, 2) no significant differences were found between the classes based on gang embeddedness, religious involvement, weekly church attendance, suspension, expulsion in middle school, expulsion in high school, and out of home care and 3) there were significant differences on class membership for depression and behavioral violence. The present dissertation contributes to the literature using “critical bifocality.”

Additional research is needed to replicate the findings in the present study, specifically the latent classes among a larger sample. Further, much research is needed to understand what support different latent class may need and how they may differ (or not) while they are in prison and once, they are released from prison. In prison, many people do not have the ability to participate in programming due to strict eligibility requirements, which in many cases, only allow people to participate during their last two years of their sentencing (Ortiz & Jackey, 2019). Further, there is
a need to ensure that once released, individuals have adequate support and access to mental health care providers. More importantly, these mental health care providers and others should be equipped to work with formerly incarcerated individuals.
References

1935-10-29, HOLC Redlining Maps of San Antonio, UTSA Special Collections

1935-10-29. HOLC Redlining Maps of San Antonio. Hand colored map showing concentrations in San Antonio neighborhoods. Color codes are split into 3 groups: “Negro”, “Mexican” and “white” UTSA Special Collections


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Vita

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