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Walden University

2024

#### Abstract

# The Relationship Between South Texas Latino High School Graduation and Acculturative Stressors

by

Selmo Cristo

MS, Capella University, 2013
BS, Espirito Santo's Federal University, 1993

Dissertation Submitted in Partial Fulfillment
of the Requirements for the Degree of
Doctor of Philosophy
Clinical Psychology

Walden University

February 2024

#### Abstract

This study addresses the impact of three acculturation stressors—gender roles, socioeconomic status (SES), and disciplinary issues—on the internalizing behaviors of Latino high school students in South Texas. Empirical evidence collected nationwide shows that these acculturation stressors prevent satisfactory academic performance of Latino high school students in the U.S. The study tested the hypothesis that acculturation poses barriers to Latino students' graduation achievement in South Texas, as abundantly demonstrated in existing literature. This study used academic data from 1,918 Latino high school students enrolled in three South Texas campuses in the 2018-2019 school year. The theoretical framework was grounded on acculturation theory, emphasizing the assimilation of culture and group cohesion as vital for successful cultural assimilation among immigrants. Statistical procedures were designed to test whether these assumptions align with the significant acculturation pressures of gender roles, discipline, and SES. Results challenged solid evidence indicating that female sex and poverty are impediments to graduation; concomitantly, additional outcomes confirmed that disciplinary issues remain a significant obstacle to timely graduation in this cohort. The two themes that emerged were a new Latino's familial mindset favoring females' pursuit of education and the success of local educational benchmarks in South Texas programs. This research provides a better understanding of the factors contributing to Latino students' academic challenges in South Texas. New policies can ameliorate educational and economic disparities, fostering positive social change and improving outcomes for minority, undisciplined, and higher SES Latino students.

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### Dedication

I dedicate this study to the school psychologists working with the Latino student population in the Rio Grande Valley of Texas. I hope this research contributes to their professional endeavor in facing their daily challenges.

### Acknowledgments

I want to thank my committee members, Dr. Magy Martin and Dr. Anthony Napoli, for their support during the entire dissertation process, always encouraging me to face the challenges associated with this. Also, I thank my wife, Abadia Cristo, for her devotion and caring; my dissertation journey would not have been possible without our initial constructive partnership.

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#### Chapter 1: Introduction to the Study

This study addressed the degree to which gender, disciplinary issues, and socioeconomic status (SES) predicted graduation rates among Latino students in South Texas secondary schools. The rationale for this study was that there was a need to determine if the pattern of maladaptive acculturation demonstrated in nationwide quantitative research (Baldwin-White et al., 2017; Cleary et al., 2018; Moni et al., 2018; Sladek et al., 2020) also occurred among Latino high school students (LHSS) in South Texas. Researchers have identified five significant outcomes of Latino students' maladaptive acculturation—lower graduation rates (Sanchez et al., 2018), higher school attrition (Obinna & Ohanian, 2020), evasion, expulsion, and suspension—which they have attributed to gender roles commonly accepted by Latinx (Cao et al., 2023), SES (Castaneda et al., 2019), and disciplinary issues (Welch & Payne, 2018). In the present study, these factors were thus considered the intrinsic causes of LHSS's lower graduation rates in South Texas. Therefore, the research was guided by the hypothesis that the lower graduation rates among Latino students enrolled in South Texas secondary schools follow the phenomenon observed nationwide, mainly arising from demographic factors, such as lower SES and gender. These acculturation issues have led to considerable social and economic disparity, as the residents exhibited a lower graduation rate.

The scientific acknowledgment of this phenomenon in South Texas can encourage implementation of public policies related to the education of Latinos and other ethnic groups. Public and private resources can be used to promote programs designed to reduce the number of high school dropouts and increase the graduation rates in South Texas, which leads to substantial social and economic benefits. The remainder of this chapter

provides the foundations for this study, as demonstrated in the background, problem statement, purpose, theoretical framework, nature of the study, scope and limitations, significance of the study, and potential for social change. This chapter provides the background to the problem addressed in this study, examines what is known about the issue, identifies the existing research gaps that justify the study, and shows what can be understood through further research.

#### **Background**

A substantial body of literature is related to the relationships between acculturative stressors and the graduation rates of Latino students. Specifically, a wide range of studies has been conducted on the potential links between the acculturation process and the academic achievement of students of different ethnicities (Bae, 2020; Berry & Hou, 2017; Fang, 2020; Figge et al., 2021; Fute, 2020). Several authors have examined the association between acculturation disparities and well-being in different ethnic groups, including Latinos (Areba et al., 2021; Eisenberg et al., 2019). Identifying those disparities was relevant to understanding the acculturation process that interfered with academic pursuits. Concomitantly, acculturation difficulties and social inequalities were contemporary problems in the Latino community (Benuto & Leany, 2018). Empirical evidence further indicated that the acculturation process is particularly relevant among the factors influencing academic achievement (Manzano-Sanchez et al., 2018). Other potential challenges included incongruence between Latino youth's acculturation process in the United States and their family's cultural practices (Cuevas et al., 2021), which generated familial conflicts and hindered the youth's cultural adjustment (Nair et al., 2018; Glatz et al., 2021). Latino high school students must find a balance between

constructing their cultural identity and their education. This leads to a new mode of cultural exchange and the emergence of new values (Bostean & Gillespie, 2018). This acculturation process involves assimilating the new culture's practical aspects without relinquishing the search for identity (Evans & Liu, 2018). The results of those conflicting experiences interfere with Latino students' academic performance and the extent to which they are motivated, independent of their migration status (Manzano-Sanchez et al., 2018). In extant research, acculturation factors such as gender, SES, retention, dropout rate, and discipline (Espinola et al., 2019; Girardo-Garcia et al., 2019; Hernandez & Moreno, 2018; Holloway-Friesen, 2018; Peguero et al., 2021; Saenz et al., 2018) are considered independent variables (IVs), while graduation achievement is the most common dependent variable (DV) (Borman et al., 2021).

The focus of the study was to address the gap in the extant literature on the nature of the acculturation phenomenon in South Texas that limits the graduation rates among LHSS and its social and economic outcomes. Until now, research has focused primarily on acculturative stressors related to familial conflicts, performance, racial and ethnic identity, college achievement, substance use, and psychological maladjustments. The current situation in South Texas, characterized by economic disparities and the patriarchal culture of Latinos living in the borderland, and their relation to the acculturation process is still unknown. Recent studies have suggested that research on Latino students' acculturation process should focus on the relations among factors such as age, sex, and SES (Castaneda et al., 2019; Perez-Brena et al., 2017). Quantitative studies nationwide on acculturative stress tend to establish comparisons among racial groups. While Latino students' acculturation phenomena are discussed in the current

literature with limited demographic data, research conducted in schools where Latinos are the majority was also lacking.

Moreover, ethnic comparisons at the local level refrain from focusing on causes and effects. In an earlier investigation based on historical data from the state of Texas, Fitzgerald et al. (2013) compared the graduation rates of African American and Hispanic students. Morgan et al. (2018) replicated their work, but rather than focusing on racial background, they examined other factors and concluded that changes to the curriculum could facilitate access to higher education.

This study was needed because replicating nationwide studies in South Texas using acculturative variables (gender, SES, and disciplinary issues) served to identify the factors that contributed to the low graduation rates in South Texas school districts. Although Latinos' high school and higher education graduation rates in the United States have improved over the last 20 years, these statistics are not reflected in South Texas (Texas Education Agency, 2022). Nationally, these students rank third behind Whites and Asians/Pacific Islanders, while a clear relationship between educational achievement and poverty persists in South Texas (Hernandez, 2019). Approximately 57.6% of South Texas residents held a high school diploma, while only 9.9% had a bachelor's degree, leading to a 25.2% poverty rate (Cross et al., 2019). Thus, it was hoped that this study could contribute to a positive change in the social perspective of deep South Texas educational and economic authorities by showing the roots of Latino students' academic struggles. In summary, the research herein is relevant to educational psychology, and its outcomes may contribute to school counseling in deep South Texas, where the Latino student population predominates.

#### **Problem Statement**

The research problem was to elucidate the effect of acculturative stressors—such as gender roles, SES, and disciplinary issues—on LHSS's graduation rates in South Texas schools, and is lower than state and nationwide rates (Bae, 2020). The aforementioned nationwide phenomenon was replicated in rural, borderland areas where Latino students were the majority due to their family's cultural inheritance, which contrasted with the competitive environment of American schools. The phenomenon of low high school graduation in South Texas is still current and relevant. Scholarly investigations have been designed to determine the way acculturative stressors (such as gender, disciplinary issues, and SES) affected Latino high school students' internalizing behaviors that enforce maladaptive acculturation (Bostean & Gillespie, 2018; Mendoza et al., 2017; Roche et al., 2022; Taylor & Ruiz, 2017), as well as Latino youth's gendered-based self-perception as well as poverty SES (Ramos et al., 2019). Further, externalized behaviors from acculturation stressors predicted Latino children's academic success (Goulet et al., 2020).

Latino youth's familial relationships, as the primary source of acculturation, play a significant role in understanding cultural assimilation. Researchers have indicated that when domestic conflict replaces traditional cooperation among family members, Latino youth tend to control their internalized misbehavior (Perreira et al., 2019), but this may manifest as externalized behavior such as aggression (Smokowski et al., 2017). Similarly, Latino children experiencing acculturation stress are more prone to develop mental health issues that adversely affect their academic performance, including graduation rates (Kim et al., 2018; Perreira et al., 2019; Taylor & Ruiz, 2017). In the extant literature,

acculturative stress among Latino families is typically subsumed under the "acculturation gap" umbrella and is posited to arise from family expectations, arrangements, and conflicts among Latino immigrant families (Bostean & Gillespie, 2018; Shen & Dennis, 2019). Moreover, scholars have investigated these issues by associating the demographic status and maladaptive acculturation of multiethnic students enrolled in American schools (Guzel & Glazer, 2019; Luo et al., 2021; Xing et al., 2020).

#### **Purpose Statement**

The purpose of this study was to explore how demographic variables (i.e., SES, gender roles, and disciplinary issues) predicted Latino students' high school graduation prospects in South Texas. This assumption is corroborated by the evidence yielded by statistical studies indicating that acculturation and high educational achievement predicted Latino students' life achievement and female self-efficacy (Holloway-Friesen, 2018). This is important, as Latino females are required to conform to marianismo, a reasonable family value that attributes specific roles to women, such as motherhood, caring for family members, and domestic chores (Castillo et al., 2019), due to which Latina college students have tended to suffer from mental health issues (Sanchez et al., 2018). Poor mental health has been commonly diagnosed among Blacks and Latinos of lower SES, so it is another source of acculturative stress. Blacks and Latinos have also been less likely to find employment than Whites, negatively affecting their children's cognition (Brondolo et al., 2020). Research on disciplinary issues has further indicated that Latinos and Native Americans remain the primary targets for expulsion, exclusion, and placement in special education units due to disruptive behavior (Bal et al., 2019). It is also widely accepted that Latino high school students experience a wide range of

acculturative stressors that may lead to family conflict (Shen & Dennis, 2019), maladaptive behavior (Felkey & Graham, 2022), and substance use (Castañeda et al., 2019; Perreira et al., 2019; Ruiz et al., 2022). Conversely, parental/school support and positive social identity strengthened by family values (Perreira et al., 2019) and greater self-efficacy (Manzano-Sanchez et al., 2018) have been shown to improve academic performance. According to Bostean and Gillespie (2018) and Gonzalez, M. (2021), the time spent in the United States is correlated positively with effective acculturation and academic success. However, as family arrangements based on gender roles and ethnic pressures can hinder the acculturation process, Latino students' college graduation rate remains very low (8–25%) compared to that of students of other ethnicities (Murphy & Murphy, 2018). However, Latino students with adequate familial and institutional support are more successful academically (Araque et al., 2017; Jeynes, 2017; Manzano-Sanchez et al., 2018).

While these phenomena have been examined in limited ethnic and demographic settings, no research has been conducted in schools where Latinos are the majority. Consequently, the correlation between the acculturation stressors (SES, gender roles, and discipline) and Latino children's academic outcomes, the graduation achievement among the borderland's citizens remains 27.9% below the U.S.'s national average (Vela et al., 2018). These geographic and actual knowledge gaps motivated this study.

In summary, the purpose of this study was to explore the relationship between graduation rates and gender, disciplinary issues, and SES of LHSS enrolled in high schools in South Texas. The study's specific objective was to establish whether

acculturation stressors (including gender, SES, and disciplinary issues) as IVs predicted graduation rates—as the DV—among Latino students in the South Texas school district.

#### **Research Questions and Hypotheses**

The research questions, null hypotheses  $(H_0)$ , and alternative hypotheses  $(H_A)$  pertinent to this study were as follows:

- RQ1: What was the relationship between SES and Latino high school students' graduation rates in South Texas?
  - H<sub>A</sub>1: There was a significant relationship between Latino high school students' SES and their graduation rate in South Texas.
  - H<sub>0</sub>1: There was no significant relationship between Latino high school students' SES and their graduation rate in South Texas.
- RQ2: What was the relationship between Latino high school students' gender and their graduation rate in South Texas?
  - H<sub>A</sub>2: There was a significant relationship between Latino high school students' gender and their graduation rate in South Texas.
  - H<sub>0</sub>2: There was no significant relationship between Latino high school students' gender and their graduation rate in South Texas.
- RQ3: What was the relationship between disciplinary issues and Latino high school students' graduation rate in South Texas?
  - H<sub>A</sub>3: There was a significant relationship between Latino high school students' disciplinary issues and their graduation rate in South Texas.

Ha3: There was no significant relationship between Latino high school students' disciplinary issues and their graduation rate in South Texas.

#### **Theoretical Framework**

The theoretical framework that underpinned this study was acculturation theory (Berry, 1980). Acculturation theory posits that the reception of culture and retention of cultural heritage occurs in different independent dimensions (Van der Zee & Van Oudenhoven, 2022). The independent dimensions include four categories of acculturation—assimilation, separation, integration, and marginalization (Berry, 1992)—which are relevant to understanding the acculturation processes in this study. According to Berry (1980), acculturation involves changes at the group and individual levels. In his approach to acculturation, assimilation consists of adopting a receiving culture and discarding the heritage culture, separation entails rejecting the receiving culture and maintaining the heritage culture, integration involves adopting the receiving culture while still retaining the heritage culture, and marginalization implies leaving both the receiving and the heritage culture (Berry, 1992).

Acculturation theory was relevant to this study because it related to the complexities of the acculturation process of immigrant Latino students. Van der Zee and Van Oudenhoven (2022) showed that Berry's acculturation model emphasizes that an immigrant's desire to preserve their cultural heritage is independent of the desire to interact with a majority group from a different culture. Bulut and Gayman (2020) demonstrated that the acculturation model is a practical theoretical framework when examining other profiles of immigrant acculturation. Latino students balance dualistic

environments (home and school) from which their cultural identity is constructed, leading to conflicts and tensions (Alexander et al., 2017; Cruz et al., 2018). Acculturation theory was therefore applicable to justify examining the relationship between acculturalization stressors and academic outcomes of LHSS in the South Texas school district.

#### **Nature of the Study**

This quantitative study was based on a correlational research design to predict LHSS's graduation rates (DV) using SES, gender, and disciplinary issues (IVs) as the independent predictors. The main advantage of quantitative research was the facility to generalize the findings to other settings and populations, assuming there was no sampling bias and the sample was representative (Findley et al., 2021). Quantitative research facilitated an objective interpretation of the phenomenon under investigation because the positivist paradigm underpinned it. This worldview of scientific inquiry advocated the acquisition and development of knowledge objectively using inferential statistics to test hypotheses utilizing inferential statistics (Young & Ryan, 2020). The alternative paradigm was constructivism, which advocated the acquisition and development of knowledge subjectively by interpreting interview transcripts and other sources of qualitative data (Cleland, 2015). The statistical nature of a correlational research design facilitated the analysis of the relationships between variables (Fraenkel & Wallen, 2018), which was the primary focus of the present study.

The quantitative inquiry entailed analyzing secondary sources with data published by the TEA, and the appropriate instruments were applied. The data for this study were gathered via archival research. Although archival data had validity issues, given that a large sample was obtained from an archival database, some drawbacks were mitigated.

Heng et al. (2018) suggested supplementing archival research with other analyses.

Nonetheless, guided by the premise that a large dataset would mitigate the issues noted above, this study relied solely on archival records. Concerning reliability, the TEA database was stable, as data collected from the school districts were coded uniformly.

Further, as the data were published in raw form, this procedure reduced the likelihood of statistical errors (Scharkow, 2019). The data analysis was performed after the screened and cleaned data had been extracted from the TEA database into an Excel spreadsheet and then imported into the data editor of IBM SPSS v. 28.

#### **Definition of Terms**

Acculturation: Cultural change attributable to assimilation into a more dominant culture leads to balancing two cultures to keep pace with the prevailing culture in society (Yoon et al., 2020).

Cultural identity: Cultural identity is acquired through socialization, allowing individuals to perceive a sense of belonging and form an identity (Sibley & Brabeck, 2017).

Gender role: In typical patriarchal families, such as those prevalent in the Latino community, gender role refers to male and female attributes and expectations. For example, women are expected to engage in domestic chores, motherhood, and housewifery, while men are supposed to provide for and protect the family (Miville et al., 2017).

Latino(s): Latino is a generic term applied to individuals who share a similar cultural identity regardless of ethnicity (e.g., a Black Haitian and a native Indian from Peru would be classified as Latino; Zurita, 2019).

*Migrants*: Migrants are foreign-born individuals who do not enjoy full residency privileges and do not establish roots in the host country (Areba et al., 2021).

#### **Assumptions**

This study was guided by the assumption that the information obtained from the TEA database on Latino students in South Texas, including SES, gender, and disciplinary records, reflected the daily reality of their acculturative stressors that imposed a barrier to successful academic performance. Extant evidence indicated that Latino high school students' experience of cultural maladjustment resulted in low academic performance (Wu et al., 2020). Another assumption was that Latino students' poor academic performance did not stem from poor education in South Texas but rather from their struggles with cultural assimilation. The instruments used to collect the data were assumed to be reliable.

#### **Scope and Delimitations**

The specific scope of this study was limited to graduation rates among Latino students enrolled in secondary schools in South Texas and to the hypothesis that various acculturation stressors (such as lower SES, gender roles, discipline, and school evasion) had adverse effects on Latino high school students' graduation (Bostean & Gillespie, 2018; Mendoza et al., 2017; Taylor & Ruiz, 2017). This potentially causal relationship was examined by analyzing the data in the TEA database.

The term "Latino" is an official generic categorization that the U.S. federal government has applied to all individuals of Latin American origin, including indigenous immigrants, which has resulted in an unacceptable generalization that does not account for their ethnic identity (Bazo, 2019). As a result of this failure to recognize the diversity

of immigrants' cultures and backgrounds, the entire population of South America, the Caribbean, and Mexico are generically considered Latino. However, the people from these geographic regions are highly heterogeneous, comprising Blacks and natives from the Caribbean islands, Mexicans and Mexican Americans, Tejanos, mulattoes, non-Anglo Whites, and European descendants, as well as Incan Peruvians. Latinos' diversity extends beyond their biology to include culture. In addition to Spanish (the most common language in South America), hundreds of other languages and dialects are spoken from Mexico to Patagonia. In the United States, Hispanics are the most significant segment of the population considered ethnically Latino. In 2006, 43.2 million Hispanics were residing in the United States, which made them the second-largest minority group in this country (as these numbers did not account for Caribbean Island residents).

Moreover, in 2006, Latinos comprised 18.9% of the population of Texas (U.S. Census Bureau, 2006). However, as Hispanics have rarely been considered separately from other ethnicities in research and legislation, many (primarily members of the younger generation) have accepted both *Hispanic* and *Latino* as their racial and ethnic categorization (del Sol, 2017). Thus, while I recognized that the term "Latino" is imprecise and pertains to people with diverse ethnic origins and cultures, my goal in this study was to gain insight into the educational experiences of Latino children and adolescents in the United States by focusing on the antagonistic cultural forces within the American educational system and the treatment of migrants. According to the available data, there were 18 million Latino children in the United States in 2018, equivalent to 25% of all children in the country (US Bureau of Statistics 2016). However, they are still considered a minority, which poses a barrier to their assimilation while they attempt to

retain their racial identity, which is particularly challenging for first-generation immigrants (Evans & Liu, 2018).

#### Limitations

This quantitative study used inferential statistical analysis to examine the potential causal relationships between acculturation issues and graduation rates among Latino students in South Texas. However, quantitative research methods were limited because they did not permit in-depth qualitative exploration of a research problem and omitted important themes (Queirós et al., 2017). Although a mixed-methods approach involving the collection and analysis of both quantitative and qualitative data would provide more insights than using a quantitative method alone (Baškarada & Koronios, 2018), a thematic analysis of qualitative data was not possible using the available archival data. Moreover, the external and internal validity of the findings was threatened by the use of nonrandom sampling to collect the data and the choice of a correlational design to explore the relationships between the DV and IVs (Fraenkel & Wallen, 2018).

#### Significance of the Study

This study may have a positive influence and implications by contributing to the research on the graduation rates of Latino students in South Texas and other regions. Understanding the acculturation processes that affect high school students' cognition, behavior, and academic performance is necessary. It involved humanistic psychology, counseling, education, and educational psychology. Pandemic studies on maladaptive acculturation have neglected Latino high school students or have not addressed them sufficiently. Instead, they have focused on the mental health of children and their caregivers (Piña-Watson, 2019), a broader population of immigrant children and their

level of acculturation (Areba et al., 2021; Van der Zee & van Oudenhoven, 2022), and the acculturation process of Latino college students (Schwartz et al., 2021).

Therefore, this study had the potential to expand the current knowledge of Latino high school students' acculturation process and its effects on their education in three spheres: (a) it hypothesized a direct link between maladaptive acculturation and graduation rates among Latino high school students, (b) it possibly demonstrated that demographic variables mediated their social and gender status and their effect on graduation, and (c) it was conducted in a rural, borderland area embedded in a dual cultural environment that differed from the setting in which previous studies on acculturation were conducted. Although this research was conducted in a small number of schools in South Texas, it was guided by the findings reported for Latino students in the extant literature. In particular, their emotional, social, cultural, and cognitive issues were examined and related to their academic performance. By identifying factors that hinder or facilitate acculturation, this study is expected to positively affect the South Texas Latino community while motivating parents of school-aged children to become involved in school programs more directly. Thus, this study may promote positive social change in South Texas by providing Latino families and educational institutions with the most effective acculturation strategies, such as extracurricular and curricular changes and new motivational programs for incoming Latino students.

These research findings may benefit Latino students and local school leaders in South Texas. Moreover, improving the acculturation experience for Latino students may enhance their mental well-being. Given that this study focused on high school students, it was also guided by research on school-aged children, 64% of which was based on

qualitative methods. Quantitative methods were adopted in only 32% of the cases (Maehler et al., 2021). Moreover, Morela et al. (2017) noted that female high school students often played sports to cope with the acculturation process. Recently, Petrenas et al. (2018) examined young migrants' assimilation in Spain and found that they would benefit from intramural and extramural activities. However, archival research has rarely been conducted in this context. As one of the few exceptions, Testa et al. (2019) analyzed archival data and compared the acculturation experiences of two immigrant populations. Therefore, after reviewing the extant literature that was related most closely to the phenomenon in the focus of this study, it was established that (a) there was a robust theoretical basis for adopting Berry's theory and (b) a geographical comparison of the findings yielded by this investigation was possible because of the extensive body of research in the United States and overseas.

#### Summary

This chapter provided the background for the study, the research problem, an explanation of the study's purpose and nature, and the primary theoretical framework. The research filled a significant gap in the literature, and the available evidence supported its goal (to find a link between Latino students' academic achievement and a flawed cultural assimilation process). The problem statement was based on the same premise from which a statistical procedure was designed. As acculturative stress was the primary determinant of Latino students' poor academic performance, an archival study would help to show whether their poor acculturation, identified nationwide, was also evident in South Texas. Through this study, I aimed to link gender and SES with the disciplinary issues impacting Latino graduation rates in three high school campuses in South Texas.

By adopting Berry's cultural assimilation theory as the theoretical framework, I sought to establish the link between Latino students' cultural identity and their school performance, allowing the development of new strategies to address Latinos' unique cultural identities. The nature of this study referred to Latino students facing a socialization process that required them to cope with contrasting cultural environments. From a pre-adulthood perspective, living in a dualistic system promotes conflicts, and the resulting cultural maladaptation will eventually affect academic achievement. Thus, this study conducted statistical analyses to establish whether the low graduation rates among Latino students in South Texas were related directly to their cultural difficulties. The study was guided by the premise that Latino students were culturally dislocated when placed in a new cultural environment. Due to this, they adopted maladaptive behaviors that hindered their academic achievement.

#### Chapter 2: Literature Review

This archival quantitative research examined the relations among gender, SES, disciplinary issues, and graduation rates of Latino high school students enrolled in three high school campuses in South Texas. The study focused on acculturation and how it adversely affected students' internalizing and externalizing behaviors (Bostean & Gillespie, 2018; Mendoza et al., 2017; Taylor & Ruiz, 2017). The stressors mentioned above were assumed to predict South Texas's high school graduation rates. As immigrants come to the United States, they inevitably face the pressure to retain their cultural identity acquired over generations of cooperative and community-based socialization, which often conflicts with the American values of competition and selfefficacy (Sibley & Brabeck, 2017). An ample body of literature addressed Latino high school student's academic difficulties attributed to acculturation difficulties. It focused on parental support and the achievement gap (Araque et al., 2017), linguistic barriers (Despagne & Suarez, 2019), school attrition (Obinna & Ohanian, 2020), self-efficacy (Manzano-Sanchez et al., 2018), gender roles (Miville et al., 2017), and parental and educational support (Gándara, 2017). While Latino parents have supported their children's education, many have not been educated sufficiently to guide them through school and career choices (Gándara & Mordechay, 2017). As a result, Latino children have felt pressures to perform in school to fulfill familial obligations and secure family cohesion.

This chapter begins by describing the plan for the literature search and emphasizes the use of the database, the search's online platforms, and related keywords.

Next, the theoretical framework for this study that was relevant to understanding the complexities of acculturation is further discussed.

#### **Literature Search Strategy**

The key sources used in the literature search included the following databases:

APA PsycInfo, Psychiatry Online, SAGE Journals, the Education Resources Information

Center (ERIC), APA PsycArticles, Education Sources, Psychology Database combined

search, Google Scholar, and Microsoft Academic Center. The following terms or

combinations were used when the databases above were searched: acculturation,

acculturative, migrants, stressors, Latino, self-efficacy, academic achievements,

graduation rates, retention, disciplinary issues, gender roles, mental health, immigrants,

family, ethnicity, identity, and Latino values. The search was restricted to the most current

sources, particularly those published in the past 5–7 years.

#### **Berry's Theory of Acculturation**

Berry's (1997) acculturation theory was the study's primary theoretical framework. The theory indicates that accepting a new culture and retaining a cultural heritage occurs in different independent dimensions (Van der Zee & van Oudenhoven, 2022). This led to the formation of four categories of acculturation: assimilation, separation, integration, and marginalization (Berry, 1992). These categories were relevant to understanding the acculturation processes in the study.

According to Berry (1997), acculturation involves changes at the group and individual levels. In his approach to acculturation, assimilation consists of adopting a receiving culture and discarding one's heritage culture, separation involves rejecting the receiving culture and retaining the heritage culture, and integration consists of adopting

the receiving culture while still maintaining the heritage culture. Finally, marginalization consists of rejecting both the receiving and the heritage cultures (Berry, 2019).

Therefore, this framework was relevant to investigating Latino students' acculturation complexities. Van der Zee and van Oudenhoven (2022) supported Berry's (1997) acculturation model that emphasized that immigrants' desire to preserve their cultural heritage is independent of the desire to interact with a majority group from a different culture. Bulut and Gayman (2020) showed that Berry's model was a practical, theoretical framework for examining other immigrant acculturation profiles. Therefore, the theory informed this research on the relation between Latino high school students' acculturalization stressors and academic outcomes in the school district studied.

The theoretical framework selected was consistent with the literature search, which will be discussed further below. Latino students balance dualistic environments (home and school) from which their cultural identity is constructed, producing conflictive tensions (Alexander et al., 2017; Cruz & Rodl, 2018). The DV for this study was the graduation rates of Latino high school students enrolled in the study campuses. The IVs were gender, SES, and discipline. These are pivotal in understanding the social pressures imposed on Latino students that have prevented them from having a satisfactory graduation rate.

The concepts in Berry's model were relevant to the variables of concern in this case. The four different strategies of acculturation that Berry (1992) discussed represented the attitudes of groups from a nondominant culture toward a dominant group in their society. In the case of this study, the Latino community was the nondominant group that underwent acculturation in secondary schools with a different dominant group.

Using this theoretical framework helped to shed light on how acculturation processes influence Latino secondary school students and the potential relationship between their effects and the students' graduation rate.

Immigrant students and other minorities have experienced different cultural shifts because of the influence of the dominant group in society. This study examined the potential effect of acculturation, which occurred during direct contact between students from the Latino community and those from the dominant cultural group. According to Berry (1992), acculturative stress is a type of psychological stress in which stressors, such as anxiety and feelings of alienation, result from the acculturation process.

Acculturative stress leads to adaptation difficulties and contributes to identity confusion (Schumann et al., 2020). Berry's theory addressed immigrants' adaptation and showed that factors can either support or hinder adaptation and thus lead to different responses (Ward, 2020).

This theoretical framework helped determine the stresses involved in the acculturation process and, in turn, their influence on the academic performance and graduation rate of the population of interest in the proposed study. Meca et al. (2017) examined the dimensions and categories in Berry's model and showed that they were relevant when exploring undocumented Latino immigrants' experiences. Further, studies and researchers have discussed the need for additional dimensions. However, contemporary views on the acculturation process have heavily relied on the Berry model, which indicates that the process is bidimensional (Meca et al., 2017). In this literature review, Schwartz and Zamboanga (2008), as proponents of Berry's acculturation approach, evaluate the acculturation process—assimilation, integration, separation, and

marginalization among Hispanic college students and how they responded to pressures associated with acculturation.

#### **Key Themes and Variables**

The literature review presented below covers the following themes: (a) an ethnic definition of Latinos (adults and children) in the United States to categorize the population studied herein correctly; (b) the demographic, sociocultural, SES, and educational characteristics of the Latino population in the United States, and the Rio Grande Valley of Texas in particular; (c) the primary mental health issues suffered by Latino secondary school students educated in the United States and the Rio Grande Valley; (d) the sociocultural experiences of Latinos residing in the Rio Grande Valley, with an emphasis on the Latino migrants' adaptation, familial arrangements, and the process of acculturation; (e) a justification of the quantitative methods employed in this study; and finally (6) the theoretical foundation for this literary review.

As the term "Latino" applied to a mixture of diverse cultures, individuals subsumed into this broad category have brought many traditions to the United States over the last 50 years. Those who have settled in large numbers in certain regions, such as Mexican immigrants in California, Texas, and other states close to the southern border, have retained their cuisine, religious beliefs, and folklore. However, this success story is not familiar to all Latino immigrants, many of whom have suffered discrimination that has resulted in compromised physical and mental health. For example, low SES was correlated with heightened stress and poor sleep patterns among Latinos. However, Mendoza et al. (2017) asserted that Latino children exhibited behavioral issues attributable to suboptimal physical development compared to their peers. Nonetheless,

given that the diversity in Latino cultural assets and their effect on American society is taken for granted, they have remained studied insufficiently.

The limited evidence has indicated that Latinos' tangible cultural heritage has not prevented them from negotiating cultural values in their host country—in this case, the United States. As Latino women are more prone to assimilate into American culture than men, given that mothers tend to be involved more in their children's upbringing and education, this attitude is likely transferred to Latino students (Berumen et al., 2019). However, not all outcomes of Latinos' assimilation into the American lifestyle have been positive, as it has, for example, been shown to lead to obesity and alcohol abuse. Chronic weight gain is particularly prevalent among second-generation immigrants and has had adverse effects on Latino children.

As Latinos (including those who are foreign-born) comprise the largest minority ethnic group in the United States and tend to suffer from low SES based on pretax income (Noel, 2018), it was essential to examine the issues that contribute to their inability to improve their quality of life. Poor English proficiency is one of the primary factors that has limited immigrants' educational and earning potential. A further barrier is created for newly arriving Latinos because of their different cultures and habits. As a result, many Latino community members cannot escape poverty and the resulting discrimination and may resort to alcohol abuse, which is particularly prevalent among Latino men. Although women have been affected less by this problem, poor mental health has been associated with alcoholism in Latinos of both genders (Castañeda et al., 2019).

Latino children are particularly vulnerable to the social and economic barriers that poverty imposes. Their parents' financial difficulties and pressures related to immigration status cause instability that often manifests in behavioral problems in school and the broader community. Consequently, a pervasive cycle threatens children's healthy development and limits their adult life prospects (Mendoza et al., 2017). Surveys conducted in South Texas corroborate with that of Mendoza et al. (2017) and found that unhealthy development results in high infant mortality rates among undocumented immigrant children (Ockenfels-Martinez 2015).

As noted earlier, language proficiency is central to Latino children's educational success and career prospects in adulthood, as they must acquire sufficient English proficiency quickly to secure socioeconomic advancement. Acquiring a new language contributes partly to helping immigrant adults' identity (Evans & Liu, 2018).

The first generation of students' fluency or deficiency in Spanish is associated with their attitude toward family values; conversely, their fluency in English represents estrangement and willingness to acculturate (Bostean & Gillespie, 2018). However, many immigrants rely primarily on their original language because of ideological motives and a strong desire to keep their traditions and customs alive (Tseng, 2021). Therefore, these attitudes must be understood better to determine immigrants' attitudes toward American education.

In some areas of South Texas, such as the Rio Grande Valley, parents' involvement in their children's education improved, but the parents' cultural view of education was hindered. This barrier was particularly damaging for girls as, according to the traditions of a patriarchal society, long-term education for female children was

useless because of their future domestic role in the family. Further, as boys were expected to work to help support the family, this often caused them to drop out of school early rather than motivating them to study hard (Richardson & Pisani, 2017).

These statistics were consistent with the nationwide data, in which 11% of Latino adults aged 25 and older held a bachelor's degree, compared to 17% of Blacks and 30% of Whites (Meir et al., 2014). However, as such investigations were rare and no recent data were available, more studies were needed to determine whether the Rio Grande Valley's level of schooling among Latinos in Texas was comparable to that in other U.S. states or regions. Such information was crucial, given the established link between regular education and children's general and mental health (Cervantes et al., 2018). Indeed, according to Meir et al. (2014), programs that target migrant children explicitly yield positive results concerning the participants' mental health status.

As many Latino community members' immigration status has not been resolved, they face the fear of deportation constantly, which compromises their mental health even further. According to a survey conducted by Ockenfels-Martinez et al. (2018), 25% of the children of undocumented parents feared deportation, and 40% reported separation anxiety symptoms. To avoid detection by the authorities, many families limit their interactions with the broader community, thus further harming their children's development (Cervantes et al., 2018).

In their study, Taylor and Ruiz (2017) focused on the stressors that led to poor mental health among migrant children and identified loneliness, economic hardship, and discrimination as the key factors contributing to depressive symptoms in this population. Although this study focused on Latino children, it is worth noting the structural and

cultural stressors that Kim et al. (2017) identified that both immigrant Latino and Chinese children experience upon moving to the United States. As these stressors affected their mental health, it was essential to examine the role of federal government interventions, such as financial and social work support, in Latino children's ability to develop resilience. Although research on this topic was limited, Meir et al. (2014), for example, found that short-term interventional programs yield positive outcomes for migrants' atrisk children. In particular, the authors noted that working to improve these children's cognitive efficacy and emotional control strengthened their mental health. More recently, Perreira et al. (2019) reported that lower levels of acculturative stress among immigrant children were associated with depression/anxiety symptoms. More significantly, parents' acculturative stress was linked to susceptibility to smoking. Conversely, higher levels of family functioning and children's more robust sense of ethnic identity were associated with fewer depression/anxiety symptoms and lower susceptibility to alcohol or smoking.

In summary, the evidence provided in the current literature remained insufficient to offer a comprehensive picture of Latino school children's mental health status. As the studies above were not conducted in educational settings, these findings must be explored further in schools as the primary setting. Additional evidence revealed an intriguing factor in Latino children's mental health related to their parent's poor English proficiency. Language brokering, or the translator role that these children play to facilitate communication, has been identified as a source of mental health imbalance, which is a phenomenon not much discussed. Pressured to translate various English sources of communication (spoken and written), these children often resist improving

their English, exacerbating their depressive symptoms further (Kam et al., 2017; Kim et al., 2017).

There is a long history of inaccurate evaluation of ethnic groups' levels of education and intelligence. The debate about the suitability of systematic, statistical assessment of IQ, English proficiency, and employment eligibility has persisted for more than 100 years, as the "Bell Curve" found commonly to reflect most natural phenomena that discriminated against African Americans and Mexican Americans. Latino students' academic expectations from kindergarten to higher education have been studied extensively and summarized in Manzano-Sanchez et al. (2018) systematic review of 186 articles. Although the "Bell Curve" was not accepted as a racial doctrine in this study, it was relevant to the expectations placed upon Latino students' academic performance and the level of self-efficacy they could attain in a positive environment.

Some studies have examined acculturation stressors' influence in predicting

Latino students' high school graduation. First, compared to other ethnic groups, including

African Americans, Asians, and Whites, Latino students' graduation rates placed them

behind substantially. Elliott and Parks (2018) concluded: "High school graduation

statistics showed that Latinos were less likely to graduate from high school, and

therefore, were less likely to pursue higher education." A flawed process of acculturation

caused this racial discrepancy in academic achievements (Kim et al., 2018; Taylor &

Ruiz, 2017), including maladaptive behaviors and substance addictions (Ruiz et al.,

2022). Covert racism impeded Latino students' academic success and high school

completion. The contemporary literature concluded that Latino students' lower high

school graduation rates reflected gender roles associated with familial pressures

(Richardson & Pisani, 2017), early pregnancy (Obinna & Ohanian, 2020), events of retention observable in Texas and possibly nationwide (TEA, 2022), and SES (Girardo-Garcia et at., 2019). Similarly damaging were the educational institutions' disciplinary codes that prescribed Latino students' suspension decreased the likelihood of timely high school completion. Further, research has found that Latino students' suspension rates are 50% higher than Whites (Chu & Ready, 2018).

#### **Latino Students' Graduation**

There is a gap in quantitative research on Latino students' graduation rates nationwide (Elliott & Parks, 2019; Holloway-Friesen, 2018). However, there were gaps in the literature and our understanding of the specific factors responsible for the ethnic gap in academic achievement and graduation of high school students nationwide and in different regions. The linear logistic model revealed that gender, SES, parents' support, language proficiency, students' motivation, and state-sponsored supportive programs predicted Latino students' graduation nationally (Girardo-Garcia et al., 2019). Logistic regression on archival data indicated that interventional programs that strengthened racial and cultural identities reduced the academic achievement gap between Latino and African American students compared to other ethnic groups (Borman et al., 2021).

#### Gender Roles

Additional constructs of interest in this study, such as gender roles, were crucial in understanding Latino family arrangements and the effects of a patriarchal society on women's educational achievements. In a Latino family, female adolescents tended to oppose their mother's cultural values, which caused conflict (Allison & Takei, 2020; Gonzalez, 2021). Latino families did not motivate females to pursue further education

(Richardson & Pisani, 2017); therefore, the typical gender roles in Latino families may explain their gender educational gap. Overall, females, including Latinas, are 48% less likely to graduate on time (Borman et al., 2021). The issue of Latino enrollment in high schools and colleges, as well as their continuation and completion, remained an urgent social and racial disparity. Elliott and Park (2017) showed that Latinos were less likely to graduate from high school and, accordingly, less likely to pursue higher education.

Although Latinas' college enrollment has increased over the past few years, they have remained underrepresented (Hernandez & Ortez, 2019). Latino students' lower school retention rates were attributed to three factors: the pressure related to their undocumented status, the students' sets of priorities that place the family as the primary focus, and finally, overt discrimination that prevented their assimilation into other groups (Elliot & Parks, 2018).

#### **Socioeconomic Status**

Poverty was the other crucial factor that predicted Latino student graduation. The linear logistic model indicated that Latinos' SES predicts high school graduation and familial and institutional support (Giraldo-Garcia, 2018). Similar statistical models have associated SES with school suspension (Cruz & Rodl, 2018), while unfair school discipline of Latino students also predicted dropout (Peguero et al., 2017).

### **Disciplinary Issues**

Latino students' conflict with school rules was explained better by their difficulties in assimilating the local culture and a culture of prejudice, which led to unfair disciplinary punishments. Latino and Black students were twice as likely to receive

school sanctions than their White counterparts, which motivated them to drop out of school (Espinola et al., 2019).

#### **Summary and Conclusions**

As revealed by current literature, the phenomenon that was the focus of this proposed study required further exploration. Previous research in this field fully justified the methods chosen and variables of interest. As this chapter discussed, significant themes in this proposal corroborated scholarly evidence that familial, cultural, and behavioral barriers prevented Latino students from demonstrating satisfactory academic achievement. The patriarchal society defined rigid roles for boys and girls, and Latino families resisted change (Singh, 2021). The phenomenon of maladaptive acculturation also threatened Latino students' complete assimilation of the local culture (Kiang et al., 2017). The literature demonstrated that poor acculturation was related directly to Latino children's mental health problems (Perreira et al., 2019). Still, the literature identified three variables that affected Latino students' high school graduation: 1) Gender roles, which affected both boys' and girls' graduation rates (Schroeder et al., 2019); first-year high school students in Texas were more likely to be placed on suspension (TEA, 2022), and finally, SES predicted high school completion, as disadvantaged children were less likely to graduate (Girardo-Garcia et al. 2019).

# **Gaps in the Literature**

Several previous studies concluded that a relationship existed between maladaptive acculturation and national graduation rates. However, no research has been conducted to explore the reasons for the poor graduation rates of Latino students in a rural region of South Texas. The present study contributed to filling this gap by

conducting inferential statistical analysis using the archival data published by the TEA.)

The following chapter describes and justifies the methodological approach chosen and applied to address the research questions and test the associated hypotheses.

## Chapter 3: Methodology

This quantitative research used a correlational design with archival data that addressed the statistical relationships between acculturation stressors and Latino students' high school graduation rates. Gender, SES, and discipline were the IVs, while the graduation rate was the DV. The following sections describe the research design and rationale, the population, the sample, the data collection procedures, and the definitions of the variables. The most appropriate data analysis methods to address the research questions are discussed based on a methodological literature review. The chapter closes by considering the threats to validity and summarizes the methodology.

## **Research Design and Rationale**

The correlational design involved collecting data to determine the degree to which a relationship exists between two or more variables (Fraenkel & Wallen, 2018). The SES, gender, and disciplinary issues affecting Latino high school students enrolled in the South Texas school districts were the IVs. The DV was the Latino students' graduation rate. The rationale for a correlational research design was consistent with previous research concluding that a relationship between graduation rate and demographic and acculturation factors had already been established (Borman et al., 2021; Cruz & Rodl, 2018; Elliott & Park, 2018; Espinola et al., 2019; Peguero et al., 2017).

The research was conducted using electronic archival data, so the data collection process was cost-effective and non-intrusive. The data was retrieved for the 2018–2019 academic year, and because the last database was published in 2021, this information was current. As the study focused on Latino/non-Latino students enrolled in the 12th grade in high schools in South Texas and adjacent areas, the relevant information was sourced

from the TEA's archival records. This online archive was chosen because it contained relevant data for this study, including gender, disciplinary issues, SES, and graduation rates. Moreover, as the state of Texas issued this report annually, the South Texas data were compared to those from other counties using the records that spanned the preceding 3 years to determine the statistical significance of the IVs mentioned herein and the way they interrelated with graduation rates.

This study's quantitative design was consistent with the strategies adopted for similar scholarly investigations in the school psychology field targeting children and adolescents experiencing acculturative stress in American schools that focused on familial conflict and the educational environment (d'Abreu et al., 2019). A broad range of qualitative studies has been conducted to find the relationship between Latino students' acculturative stressors, academic performance, and familial and cultural inheritance (Booth et al., 2021; Vos et al., 2021), among other factors. Authors of these studies have tended to address the issue of acculturative stress by conducting meta-analyses (d'Abreu et al., 2019), focusing primarily on demographics (Taggart, 2018) and longitudinal data, qualitative studies about adult Latinas (Lopez et al., 2020). In the past, quantitative studies on acculturative stressors predominated (Boruszak-Kiziukiewicz & Kmita, 2020). Therefore, additional statistical studies are needed to advance knowledge related to the impact of acculturative stressors on Latino secondary students' academic performance, including graduation.

#### **Population**

The target population was approximately N = 5,000 Latino students enrolled in South Texas high schools in the 2018–2019 academic year. The educational records of

this population were sourced from the TEA database in the public domain. During the 2018-2019 academic year, N=1,918 students were enrolled in Grade 12 on three campuses before graduation. Recruitment of the participants was unnecessary because the required archival data were sourced from existing students' academic and demographic records. The TEA database is a stable and complete body of data for the entire state, which can be searched by county and district. The data consisted only of the student's academic and demographic records for the 2018-2019 academic year, and any legal or other historical documents were excluded.

About 98% of the 2018–2019 cohort comprised Latino students; therefore, the data obtained from the three campuses were appropriate for addressing the research questions and testing the associated hypotheses. This student composition was the reason for focusing on the three campuses in South Texas. The student composition reflects the prevalence of Latinos within the border region and is not the consequence of any gender-/race-oriented public education policies that would impact satisfactory academic performance nationwide (Fuller et al., 2019).

According to the TEA, 91.1% of the student population was economically disadvantaged, and only a small percentage of the students attending the three chosen schools enjoyed adequate financial stability. The prevalence of poverty among Latinos in South Texas was relevant for this study because ample evidence confirmed that low SES negatively impacts the acculturation process (Cruz & Rodl, 2018; Giraldo-Garcia, 2018). The TEA findings further revealed that, in South Texas, the student-to-teacher ratio (37.3:1) is more than double the statewide average of 15:1 (TEA, 2022).

### **Sample Size**

A power analysis was conducted with G\*Power v.3 software to estimate the minimum sample size to conduct a chi-square ( $\chi^2$ ) test for independence, with the following input parameters: a small, medium, and large effect size (0.1, 0.3, and 0.5, respectively); a conventional level of statistical significance ( $\alpha$  = .05); adequate statistical power (1 -  $\beta$  = .8); and the degrees of freedom for a 2 x 2 cross-tabulation (df = 1). The minimum sample sizes to estimate  $\chi^2$  should be at least N = 785, 88, and 32, respectively, substantially less than the observed sample size (N = 1,918).

A power analysis was also conducted to estimate the minimum sample size to conduct binary logistic regression, with the following input parameters: a two-tailed test; a small, medium, and large effect size (odds ratio = 1.5, 2.0, and 3.0, respectively); the observed proportion of students who did not graduate (Pr = 0.08); a conventional level of statistical significance ( $\alpha = .05$ ); adequate statistical power ( $1 - \beta = .8$ ); and a moderate correlation between the predictor variables ( $R^2 = .25$ ). The minimum sample sizes should be at least N = 842, 280, and 113, respectively, all of which were substantially less than the observed sample size (N = 1.918).

#### **Data Collection Procedures**

The TEA collected data from all school districts across the state. It published relevant records on its website and maintained an archival database on students' academic achievement, graduation, dropout rates, and demographics, from which information can be retrieved free of charge in Excel or .pdf format. This study was limited to quantitative archival analysis, so the TEA database was the only data source.

The MS ® Excel files were reviewed to extract the DV and the IVs. The DV was the graduation ratio, while the IVs included gender, SES, and academic records (graduation, gender, SES, and discipline). Although the TEA database was accessible freely through the organization's official website and is in the public domain, formal permission was required. Following the Institutional Review Board (IRB) regulations, permission to use the archival data for this research was obtained from the TEA's Director of Information Analysis.

### **Instrumentation and Operationalization of Constructs**

Table 1 defines the four empirical variables directly measured by the TEA in binary categories and coded by 1 or 0.

**Table 1**Definitions of Variables

Variable	Functional definition	Conceptual definition	Measurement level	Coding of categories
Graduation	DV	Whether or not the student graduated	Binary categories	0 = No 1 = Yes
Gender	IV	Male or Female	Binary categories	1 = Male 0 = Female
Socio- economic status (SES)	IV	Whether or not the student was economically disadvantaged	Binary categories	1 = Yes $0 = No$
Discipline	IV	Whether or not the student was disciplined	Binary categories	1 = Yes 0 = No

No instrument (e.g., survey or questionnaire) was administered by this researcher to collect the archival data. No constructs were operationalized, assuming that a construct is defined as a theoretical concept, theme, or idea that was not directly measurable but

can be operationalized by aggregating multiple empirical measurements (Bhandari, 2023).

### **Data Analysis Plan**

The categorical data analysis defined in Table 1 to address the research questions was performed using SPSS v. 27 with the protocols described by Field (2018). The measurement level of data was binary categories (i.e., each category was coded dichotomously as 0 or 1). Consequently, the statistical methods that could be implemented to address the research questions were restricted to those that applied to binary categorical data. The chi-square ( $\chi^2$ ) test for independence and binary logistic regression were proposed as two options.

# Chi-Squared ( $\chi^2$ ) Test for Independence

The  $\chi^2$  test for independence devised over 120 years ago determined if a statistically significant bivariate association exists between the frequencies of two categorical variables organized into a cross-tabulation, with one variable in the rows and the others in the columns. The purpose of the  $\chi^2$  test is to determine whether the observed probability of the association between the two variables is greater than the probability expected by random chance (McHugh, 2013).

The first assumption is that the frequencies in each category must be collected by independent random sampling; however, it is not entirely required because it does not measure how much the observed association between the two variables deviates from the association expected by random chance. The second assumption is that there should be no systematic differentiation between the dependent and the independent variable(s). If the researcher has made this differentiation, alternative methods (e.g., logistic regression) are

preferable to analyze the relationships between categorical data (Hosmer et al., 2013). The third assumption is that the differences between the frequencies within each cell of the cross-tabulation should not be excessive; specifically, the ratio between the most significant and most negligible frequencies should ideally be no more than 10 (Agresti, 2018).

The minimum expected frequency in each cell of a cross-tabulation depends on the total sample size required to avoid a false statistical inference, which must be predicted by power analysis (Aberson, 2019). Moreover, the value of  $\chi^2$  increases automatically when the sample size increases; consequently, if the sample size is considerable (e.g., when N > 1,000, as in the present study), a statistically significant association is almost inevitable. Therefore, when the sample size is large and the association is statistically significant, the effect size (i.e., Phi for a 2 x 2 cross-tabulation or Cramér's V for a larger cross-tabulation) is more valuable than the p-value to estimate the strength of the association (Ialongo, 2016). Larger effect sizes (Phi > .5) reflect substantive associations (Agresti, 2018).

An additional limitation is that the use of multiple  $\chi^2$  tests in one study may lead to family-wise Type I errors or false positive results (i.e., a null hypothesis positing no significant association may be rejected due to random chance when, in fact, there is no association, and so the null hypotheses should be retained). When more than one inferential test is performed using the same variable in one study, then the probability of generating a false positive result is estimated by the formula  $1 - (1-\alpha)^k$  where  $\alpha =$  the statistical significance level (e.g., .05) and k = the number of tests performed (Frane, 2015).

## **Binary Logistic Regression**

Binary logistic regression analysis is a multivariate modeling technique commonly used to predict a DV or outcome with only two possible categories. This method helps to identify the factors that cause the DV to change from a category coded by 0 (the reference category) to a category coded by 1 (the target category). The model constructed in the present study consisted of an equation that predicts the odds or likelihood of the event of interest (i.e., graduation) coded by 1 relative to the likelihood of the opposite event coded by 0 (i.e., nongraduation) using three independent predictor variables (i.e., gender, SES, and discipline) as the predictors. When three predictors are used in one model, logistic regression results differ from when the three predictors are analyzed in three separate models. The reason for this difference is that when three predictors are used in one model, the effect of each predictor is evaluated, assuming that the other two predictors have been controlled or held statistically constant.

In addition to the minimum sample size predicted by power analysis in Chapter 3, the following underlying assumptions of logistic regression (Hosmer et al., 2013) were checked: First, the interpretation of the p-values of the regression coefficients assumes that the data were randomly sampled from a defined population. Second, the goodness-of-fit of the data to the logistic function is indicated by the Omnibus  $\chi^2$  statistic. Third, the predictor variables must be independent (i.e., unrelated to or overlapping) and not multicollinear (i.e., not strongly correlated with each other. Multicollinearity was indicated by variance inflation factor (VIF) statistics > 5. Fourth, the odds ratio (OR) is interpreted as the effect size. The OR estimates the likelihood of the event in the DV coded by 1 relative to the likelihood of the event coded by 0 when the level of the

predictor variable changes from 0 to 1 (e.g., from 0 = female to 1 = male, from 0 = not economically disadvantaged to 1 = economically disadvantaged, and from 0 = not disciplined to 1 = disciplined. If OR = 1.0, then the predictor has zero effect. If OR > 1.0, then a change in the predictor increases the likelihood of the DV. If OR < 1.0, then the predictor decreases the likelihood of the DV. The 95% CI of the OR indicates the range within which the OR is captured in 95 out of 100 samples. According to the American Psychological Association, OR = 2.0 is the "recommended minimum effect size representing a practically significant effect for social science data" (Ferguson, 2016, p. 305). Consequently, if both the lower and upper limit of the 95% CI are < 2.0, then the predictor variable has a negligible effect, below the minimum level required to reflect practical significance. If the 95% CI is > 2.0, the OR represents a significant effect.

## Threats to Validity

The findings of this study may lack external validity, meaning that the results and conclusions could not be extrapolated from the sample to the population from which the sample was drawn (Findley et al., 2021). The generalizability of the findings was restricted by sampling bias, which occurs when some members of a population are more likely to be selected in a sample than others (Gay & Mills, 2019). Due to sampling bias, the characteristics of the students in the chosen school district may have differed from those of the population of students in all other school districts in Texas. Moreover, the findings of this study were not representative of statewide or nationwide secondary Latino students across the United States.

Internal validity refers to the degree to which the existence of causal relationships can be proven. Inferential statistics derived from the analysis of cross-sectional data

collected by nonrandom sampling cannot definitively prove the existence of causal relationships between prior causes and subsequent effects (Mercer et al., 2017; VanderWeele, 2021). Proof of a causal relationship requires the participants to be randomly assigned into at least two groups (i.e., a control group and a treatment group) before comparing the effect(s) of an experimental manipulation of the IV(s) on the DV(s) (Rosenbaum, 2017). Nevertheless, the prior assumption of "post hoc ergo propter hoc" cannot always be rationalized (Summers, 2017). Extraneous variables or covariates the researcher did not measure or consider may confound the relationships between independent and dependent variables. Confounding occurs when the correlation between two variables is distorted because both variables are correlated with one or more others that were not included in the analysis (VanderWeele, 2021). For example, SES may be correlated with many other variables, including income, education, occupation, place of residence, ethnic origin, religious background, and time; therefore, it is difficult to establish which component of SES is most important (Long & Renbarger, 2023). Disciplinary issues may be correlated with immigration status, causing instability that manifests in behavioral problems in school (Alexander et al., 2017; Cruz & Rodl., 2018).

#### **Ethical Considerations**

The ethical procedures included protecting the participants' privacy and confidentiality. Although research involving human subjects must conform to strict regulations, this study used data excluded personal identifiers. This research posed no risk to the students whose records were analyzed. Nonetheless, all relevant procedures will be followed, including obtaining the approval of the Institutional Review Board (IRB) and the TEA's permission to access the database. Moreover, to prevent

unauthorized access to any documents used in this research, all files were stored on a password-protected computer and subsequently destroyed based on a protocol established in consultation with the TEA, the IRB, and the committee members.

Approval by the IRB protected the participants' identity, ensured confidentiality, and eliminated any risk of emotional or physical harm to the research subjects. No specific measures were needed to safeguard the students' rights. The ethical considerations relate only to the sensitive issues of the relationships between graduation, gender, and SES, and disciplinary issues associated with individual students' records; however, the data analysis and results focused only on aggregated data, and no data to identify any individual students was recorded or reported for this research. The IRB approval number was 03-24-23-0931869.

### **Summary**

This quantitative research based on archival data examined how acculturation issues predicted the graduation of Latino students enrolled in secondary schools in South Texas. The rationale for choosing this design was based on the population of interest and the ability to examine the relationship between the available independent and dependent variables. While there was no specific sampling strategy, clearly defined procedures were used to extract the data from an existing database. Reliability and validity were outlined, and ethical practices and considerations were discussed. Chapter 4 describes the data collection and analysis process and the statistical analysis results.

### Chapter 4: Results

Chapter 4 offers an in-depth exploration of the data collection process, featuring a comprehensive descriptive analysis of the sample. This analysis focuses on the study participants' composition and characteristics and presents the critical findings. The implications of these findings provide an understanding of the subject matter with new perspectives and insights. The results begin with a reaffirmation of the research questions and hypotheses, followed by a detailed account of the outcomes of the data collection efforts. The research questions and their corresponding hypothesis tests are presented, offering a valuable contribution to the field. It ends with a summary of the results, interpretation, discussion, and implications arising from the findings.

## **Research Questions and Hypotheses**

The research questions guiding this study and the related null and alternative hypotheses are restated as follows:

- RQ1: What is the relationship between SES and Latino high school students' graduation rates in South Texas?
  - H<sub>0</sub>1: There is no significant relationship between Latino high school students' SES and their graduation rate in South Texas.
  - H<sub>A</sub>1: There is a significant relationship between Latino high school students' SES and their graduation rate in South Texas.
- RQ2: What is the relationship between Latino high school students' gender and their graduation rate in South Texas?
  - H<sub>A</sub>2: There is a significant relationship between Latino high school students' gender and their graduation rate in South Texas.

- H<sub>0</sub>2: There is no significant relationship between Latino high school students' gender and their graduation rate in South Texas.
- RQ3: What is the relationship between disciplinary issues and Latino high school students' graduation rate in South Texas?
- H<sub>0</sub>3: There is no significant relationship between Latino high school students' disciplinary issues and their graduation rate in South Texas.
- H<sub>A</sub>3: There is a significant relationship between Latino high school students' disciplinary issues and their graduation rate in South Texas.

In quantitative research, the term "significant relationship" has two meanings. The first meaning is that the p-value of the test statistic is less than a predefined threshold level, specifically p < .05; consequently, the relationship is declared to be "statistically significant." However, the policy of the American Statistical Association is that we are "moving to a world beyond p < .05" (Wasserstein et al., 2019, p. 1). Over 800 researchers from over 50 countries have agreed that "It is time for statistical significance to go" (Amrhein et al. 2019, p. 307). Practical significance and relevance are different qualities that transcend statistical significance and refer to the impressiveness of the results and usefulness in the real world (Mohajeri et al., 2020). The present study was concerned more with practical significance than statistical significance.

#### **Data Collection**

The archival data required to address the research questions and test the associated hypotheses were obtained from the TEA website. The data were freely accessible, and I experienced no problems downloading the data for this study. The data

collection proceeded precisely as described in Chapter 3, and therefore, no further details to describe the data collection process are required here.

# **Descriptive Analysis of Sample**

The descriptive characteristics of the sample (N = 1,918 Latino Grade 12 students on three campuses in South Texas) are summarized in Table 2. The proportion of male students (n = 1,038, 54.1%) was more significant than that of female students (n = 880, 45.9%). The SES of most students (n = 1,636, 85.3%) was classified as economically disadvantaged, significantly greater than that of non-economically disadvantaged students (282, 14.7%). A substantial proportion (n = 510, 26.65%) had been disciplined. Overall, from the total number of students (N = 1,918), a small proportion (n = 156, 8.1%) did not graduate, and 1,762 graduated, corresponding to 91.9%.

 Table 2

 Frequency Distributions of Gender, Socioeconomic Status, Discipline, and Graduation

Category	n	%
Gender		
Female	880	45.9
Male	1,038	54.1
SES		
Not economically disadvantaged	282	14.7
Economically disadvantaged	1,636	85.3
Discipline		
Not disciplined	1,408	73.4
Disciplined	510	26.6
Graduated		
Not graduated	156	8.1
Graduated	1,762	91.9 <sup>a</sup>

<sup>&</sup>lt;sup>a</sup> This proportion of graduated students on the three campuses (Rio Grande HS, Roma HS, and Mission HS) enrolled in the 2018–2019 school year is more significant than the statewide average (90.1%), according to the Texas Education Agency (2020).

### **Data Analysis**

# **Chi-Square Tests**

Based on the information in the review of the methodological literature in Chapter 3,  $\chi^2$  tests were justified to address the three research questions or test the hypotheses for the following reasons. First, although the empirical data were collected by independent random samplings, which were not essential for inference, the *p*-values were meaningful to determine if the associations deviated from those expected by random chance. Second,

the data collected in this study were stable and represented a non-ranked population of students enrolled in schools in a particular school year (2018–2019 school year). Because this study sampled data at one specific time point rather than repeated measures, the sampling was representative of the population; thus, the chi-square test was justified. Third, the DV and the IV(s) were identified in the research questions and hypotheses, implying a test of association between them. Therefore, the results are meaningful because the chi-square test measures the differences between the observed and the expected data. The chi-square ( $\chi^2$ ) test was appropriate for the research questions and hypotheses.

Therefore, chi-square tests were performed to assess the relationships of SES, gender, and disciplinary actions with graduation. All test statistics were found to be statistically significant (p < .001), which resulted in the rejection of the following three null hypotheses:

- H<sub>0</sub>1: There is no significant relationship between Latino high school students'SES and their graduation rate in South Texas.
- H<sub>0</sub>2: There is no significant relationship between Latino high school students' gender and their graduation rate in South Texas.
- H<sub>0</sub>3: There is no significant relationship between Latino high school students' disciplinary issues and their graduation rate in South Texas.

A chi-square test for association was conducted between SES and high school students' graduation. All expected cell frequencies were greater than five. There was a statistically significant association between SES and graduation,  $\chi 2(1) = 365.62$ , p < .001. There was a moderately strong association between SES and graduation,  $\phi = 0.437$ , p

< .001. Among the students who graduated, n = 1,584 were economically disadvantaged, and n = 178 were not. Additionally, among students who did not graduate, n = 104 students were not economically disadvantaged, and a smaller number (n = 52) were economically disadvantaged. Of the 282 non-economically disadvantaged students, 104 (36.9%) did not graduate, and 178 (63.1%) graduated. Of the 1,636 economically disadvantaged students, 52 (3.2%) did not graduate, and 1,584 (96.8%) graduated. Table 3 provides this information.

**Table 3**Cross-Tabulation of Graduation Versus Socioeconomic Status

			SES	Total	
			Non-economically	Economically	
			disadvantaged	disadvantage	
				d	
		Count	104 <sub>a</sub>	52 <sub>b</sub>	156
	Nongraduated	% within SES	36.9%	3.2%	8.1%
Graduation		Std. residual	16.9	-7.0	
		Count	178 <sub>a</sub>	$1584_b$	1762
	Graduated	% within SES	63.1%	96.8%	91.9%
		Std. residual	-5.0	2.1	
Total		Count	282	1,636	1,918
Total		% within SES	100.0%	100.0%	100.0%

*Note*. R (computed as Of-Ef/ $\sqrt{Ef}$ ) are standardized residuals comparable to *Z*-scores. A positive value of *R* indicates that the cell's observed frequency (Of), or counts, is above the expected frequency (Ef). A negative value of *R* indicates that the observed frequency for the cell is below the expected frequency. For statistical significance, the two-tail critical values of *R* are as follows: R = |1.96| p < .05; R = |2.58| p < .01; R = |3.29| p < .001, R = |3.89| p < .0001. Each subscript letter denotes a subset of SES categories whose column proportions do not differ significantly from each other at the .05 level.

A chi-square test for association was conducted between gender and graduation of high school students. All expected cell frequencies were greater than five. There was a statistically significant association between gender and graduation,  $\chi 2(1) = 60.96$ , p < .001. There was a moderately strong association between gender and graduation,  $\varphi = -.178$ , p < .001. Among the students who graduated, n = 907 were males, and n = 855 were females. Additionally, among students who did not graduate, n = 131 were male, and a smaller amount (n = 25) were females. Of the 880 females, 25 (2.8%) did not graduate, and 855 (97.2%) did graduate. Additionally, out of the 1,038 males, 131 (12.6%) did not graduate, and 907 (87.4%) did graduate. Table 4 provides this information.

 Table 4

 Cross-tabulation of Graduation Rate Versus Gender

			Ger	Total	
			Female	Male	
Graduation		Count	25 <sub>a</sub>	131 <sub>b</sub>	156
	Nongraduated	% within gender	2.8%	12.6%	8.1%
		Std. residual	-5.5	5.1	
		Count	855 <sub>a</sub>	$907_b$	1762
	Graduated	% within gender	97.2%	87.4%	91.9%
		Std. residual	1.6	-1.5	
Total		Count	880	1038	1918
Total		% within gender	100.0%	100.0%	100.0%

*Note*. R (computed as Of-Ef/ $\sqrt{Ef}$ ) are standardized residuals comparable to *Z*-scores. A positive value of R indicates that the cell's observed frequency (Of), or counts, is above the expected frequency (Ef). A negative value of R indicates that the observed frequency for the cell is below the expected frequency. For statistical significance, the two-tail critical values of *R* are as follows: R = |1.96| p < .05; R = |2.58| p < .01; R = |3.29| p < .001, R = |3.89| p < .0001.

A chi-square test for association was conducted between disciplinary issues and high school students' graduation. All expected cell frequencies were greater than five. There was a statistically significant association between disciplinary issues and graduation,  $\chi 2(1) = 330.02$ , p < .001. There was a moderately strong association between disciplinary issues and graduation,  $\varphi = -.417$ , p < .001. Among the students who graduated, n = 1,390 had no disciplinary issues, and a smaller number, n = 372, had disciplinary issues. Additionally, among students who did not graduate, n = 138 students had disciplinary issues, and a smaller amount (n = 18) did not have disciplinary issues. Of the 1,408 students with no disciplinary issues, 18 (1.3%) did not graduate, and 1,390 (98.7%) graduated. Additionally, out of the 510 students with disciplinary issues, 138 (27.1%) did not graduate, and 372 (72.9%) graduated. Table 5 provides this information.

**Table 5**Cross-Tabulation of Graduation Versus Discipline

			Discipline		
			Nondisciplined	Disciplined	
Graduation		Count	18 <sub>a</sub>	138 <sub>b</sub>	156
	Nongraduated	% within discipline	1.3%	27.1%	8.1%
		Std. residual	-9.0	15.0	
	Graduated	Count	$1390_a$	$372_b$	1762
		% within discipline	98.7%	72.9%	91.9%
		Std. residual	2.7	-4.5	
T-4-1		Count	1408	510	1918
Total		% within discipline	100.0%	100.0%	100.0%

*Note*. Standardized residuals, R (computed as Of-Ef/ $\sqrt{\rm Ef}$ ), are comparable to Z-scores. A positive value of R indicates that the cell's observed frequency (Of), or counts, are above the expected frequency (Ef). A negative value of R indicates that the observed frequency for the cell is below the expected frequency. For statistical significance, the two-tail critical values of R are as follows: R = |1.96| p < .05; R = |2.58| p < .01; R = |3.29| p < .001, R = |3.89| p < .0001.

The graduation outcomes for each IV in Table 6 show the distribution according to each category. Gender differences in high school completion demonstrated that the graduation rate of females (97.1%) was substantially greater than that of males (87.3%). In addition, disciplinary issues prevent graduation at 27.0% failure, contrasting with a completion rate of 72.9%.

**Table 6**Cross-tabulation of Graduation Outcome by Independent Variables

Independent				
variables (IVs)		Graduat	ion outcome	
		No	Yes	Total
	Count	52	1584	1636
Economic disav.	% within level	3.1%	96.8%	
	Std residual	-6.72	0.29	
G 1	Count	131	907	1038
Gender	% within level	12.6%	87.3.%	
(male)	Std residual	8.54	-3.98	
	Count	25	855	880
Gender	% within level	2.8%	97.1%	
(female)	Std residual	-8.49	3.51	
	Count	138	372	510
Discipline	% within level	27.0%	72.9%	
•	Std residual	13.54	-11.45	
	Count	346	3718	100
Total	% within level	8.8%	91.2%	

*Note*. Standardized residuals (R), often denoted as R and calculated using the formula (Of - Ef) /  $\sqrt{E}$ f,

correspond to Z-scores. When R is positive, it signifies that the observed frequency (Of) or counts for the cell exceed the anticipated frequency (Ef). Conversely, a negative R suggests that the observed frequency for the cell falls short of the expected frequency.

### **Binary Logistic Regression Model**

Binomial logistic regression was performed to ascertain the effects of SES (non-economically disadvantaged vs. economically disadvantaged), gender (female vs. male), and disciplinary action (nondisciplined vs. disciplined) on the likelihood that students graduated. The logistic regression model was statistically significant,  $\chi 2$  (3) = 507.355, p < .001. The model explained 53.9% (Nagelkerke  $R^2$ ) of the variance in student graduation and correctly classified 95.0% of cases. All three predictor variables were statistically significant, as shown in Table 7. Economically disadvantaged students had 8.359 higher odds of graduating than those not economically disadvantaged (B = 2.123, OR = 8.359, p

< .001). Males had decreased odds of graduating compared to females by 0.081 times (B = -2.513, OR = 0.081, p < .001). Lastly, students with disciplinary issues had decreased odds of graduating compared to those with no disciplinary issues by 0.049 times (B = -3.016, OR = 0.049, p < .001).

**Table 7**Binary Logistic Regression Model to Predict Graduation Rate

	В	SE	Wald	df	P	OR	95% CI for EXP(B)	
							Lower	Upper
SES (economically disadvantaged)	2.123	.243	76.409	1	.000	8.359	5.193	13.457
Gender (male)	-2.512	.266	88.936	1	.000	.081	.048	.137
Disciplined (yes)	-3.016	.288	109.761	1	.000	.049	.028	.086
Constant	4.402	.366	144.813	1	.000	81.616		

*Note*. Standardized residuals (R) are often denoted as R and calculated using the formula (Of - Ef) /  $\sqrt{Ef}$ , corresponding to Z-scores.

When R is positive, it signifies that the observed frequency (Of) or counts for the cell exceed the anticipated frequency (Ef). Conversely, a negative R suggests that the observed frequency for the cell falls short of the expected frequency.

# **Summary**

The purpose of this study was to explore how demographic variables (i.e., SES, gender roles, and disciplinary issues) predicted Latino students' high school graduation prospects in South Texas. There were three research questions and hypotheses that were addressed:

RQ1: What is the relationship between SES and Latino high school students' graduation rates in South Texas?

H<sub>0</sub>1: There is no significant relationship between Latino high school students' SES and their graduation rate in South Texas.

- H<sub>A</sub>1: There is a significant relationship between Latino high school students' SES and their graduation rate in South Texas.
- RQ2: What is the relationship between Latino high school students' gender and their graduation rate in South Texas?
  - H<sub>A</sub>2: There is a significant relationship between Latino high school students' gender and their graduation rate in South Texas.
  - H<sub>0</sub>2: There is no significant relationship between Latino high school students' gender and their graduation rate in South Texas.
- RQ3: What is the relationship between disciplinary issues and Latino high school students' graduation rate in South Texas?
  - H<sub>0</sub>3: There is no significant relationship between Latino high school students' disciplinary issues and their graduation rate in South Texas.
  - H<sub>A</sub>3: There is a significant relationship between Latino high school students' disciplinary issues and their graduation rate in South Texas.

Chi-square tests and binary logistic regression were conducted to test each of the three null hypotheses. Regarding the first null hypothesis, a Chi-square test revealed a significant relationship between high school students' SES and graduation rate (p < .001). Low SES students (96.8%) have significantly higher graduation rates than Non-Low SES students (63.1%). Low SES students are 1.53 times more likely to graduate than Non-Low SES students. Gender showed significant results for females with substantial odds of graduating compared to males by applying the same formula: Females graduation

(97.2%) / Males graduation (87.4) = 1.11; therefore, females are 1.11 more likely to graduate than males. As for the third hypothesis, non-disciplined students (97.7%) and disciplined students 72.9% = 1.34; therefore, students with clean records are 1.34 times more likely to graduate than undisciplined students. Following up this significant relationship by conducting binary logistic regression revealed that economically disadvantaged students had 8.359 higher odds of graduating than those not economically disadvantaged (B = 2.123, OR = 8.359, P < .001). Thus, the first null hypothesis was rejected, and is concluded that there is a significant relationship between Latino high school students' SES and their graduation rate in South Texas.

Regarding the second null hypothesis, the results of a binary logistic test revealed a significant association between high school students' gender and their graduation rate (p < .001). Results of binary logistic regression revealed that males had decreased odds of graduating compared to females by 0.081 times (B = -2.513, OR = 0.081, p < .001). Thus, this second null hypothesis was rejected and concluded that there is a significant relationship between Latino high school students' gender and their graduation rate in South Texas.

Lastly, regarding the third null hypothesis, results of a binary logistic test indicated a significant relationship between disciplinary issues and graduation rate (p < .01). Results of binary logistic regression revealed that students who had disciplinary issues had decreased odds of graduating compared to those students that had no disciplinary issues by 0.049 times (B = -3.016, OR = 0.049, p < .001).

#### Chapter 5: Discussion, Conclusions, and Recommendations

### **Purpose and Nature of the Study**

The purpose of this quantitative study using a correlational design was to examine the relationships between the graduation rates and gender, disciplinary issues, and SES of Grade 12 Latino students (N = 1,918) enrolled in three high schools in South Texas in 2018–2019. Secondary archival sources of relevant data were downloaded from the TEA website. SPSS was used to conduct hypothesis tests on the TEA data. Using binary logistic regression analysis, evidence was provided to address three research questions and support three associated hypotheses. Chi-square tests for independence were also performed to compare observed and expected results.

### **Summary of Key Findings**

As demonstrated in Chapter 4, the analyses conducted on the students' records related to all three schools separately, as well as combined, confirm that gender, discipline, and SES statuses were appropriate indicators of Latino students' acculturation, given that the analyses revealed that being male, being from a non-economically disadvantaged family, and having disciplinary issues in school are factors that are associated with lower academic success (as measured by the graduation rates).

# **Interpretation of the Findings**

This study was motivated by the considerable body of evidence found in past and current literature indicating that, in general, Latino students underperform academically compared to their peers of other racial backgrounds due to a variety of factors. The hypothesis is that because of social, economic, and cultural stressors, Latino students have poor acculturation development. Moreover, most authors have concurred that their

limited acculturation upon arrival in the United States impedes their ability to achieve their full potential, as they tend to experience greater disciplinary issues and do not fully participate in the school curriculum. For this reason, in the present study, gender, discipline, and SES were considered the critical acculturation stressors, given that in South Texas, where this study was conducted, the majority of the Latino population is economically disadvantaged, and that reflects the significant difference between lower SES and higher SES students. Furthermore, it is believed that owing to the patriarchal Latino culture, female students are less supported by their families in their educational pursuits, justifying gender as one of the stressors. The findings yielded by a nationwide study conducted by Borman et al. (2021) indicated that Latinas are less likely to graduate on time. The nationwide results, however, do not strictly reflect what was found in South Texas.

Results from this quantitative research challenge two assumptions: First, lower SES students are less likely to graduate due to prevalent poverty and lack of parental involvement. Contrary to what was expected, statistical inferences show that South Texas's low-SES students (96.8%) have significantly higher graduation rates than their non-low-SES counterparts (63.1%). In terms of probability, low-SES students are 1.53 times more likely to graduate than non-low-SES students. This unexpected outcome may reflect the significant poverty situation in South Texas derived from the fact that differences of subjects distributed by SES status are the following: "economically disadvantaged" (N = 1,636) and "non-economically disadvantaged" (N = 282). This study challenges Giraldo-Garcia (2018), who asserted that poverty predicts lower secondary school attainment.

Second, the obtained results for gender also challenge the prevailing stereotype that in Latino culture, females are expected to perform domestic duties and are thus less motivated to pursue regular secondary education. In South Texas, female students across the three campuses were more likely to graduate than their male peers as the probability indicated that the odds of females graduating were approximately 1 time higher than the odds of males, who have decreased odds of graduating at -3. These unusual gender differences results confirm the findings of local researchers such as Richardson and Pisani (2017), who explained that in Latino culture, males are expected to be providers, a patriarchal value that pressures some students to start earning income to support their families, which would prevent them from fully engaging in school. Moreover, as the dropout rates were not included in the present analyses, their impact on the male and female graduation rates should also be examined before reaching definitive conclusions regarding the role of gender in academic success among Latino students enrolled in South Texas's schools.

On the other hand, as expected, disciplinary issues were negatively related to graduation rates. As pointed out by several authors, Latino, and Black students tend to be unfairly disciplined, which results in frequent absences from school as well as higher dropout rates, compromising their ability to gain qualifications and improve their already low SES (Espinola et al., 2019). Outcomes from statistical calculations in South Texas show that "disciplined" students (those who have disciplinary issues) have much-decreased odds of graduating (- 3.016) compared to "nondisciplined" students (those who faced a few or no disciplinary sanctions) as this later group reached approximately 1.34 of the probability of graduating. Therefore, any disciplinary problems Latinos exhibit

must be treated more constructively so as not to impede their academic performance. Unfortunately, low SES among Latinos in South Texas is a well-known issue and must be addressed at the policy level, given that in reducing the likelihood of graduation, the SES of one generation prevents the next one from exiting from poverty (Cruz & Rodl, 2018; Giraldo-Garcia, 2018).

Moreover, urgent action must be taken on Latino migrants' status in the United States in the context of acculturative stressors. As the three schools in focus in this research are located in a South Texas rural area that receives thousands of Latino migrants every year, it is reasonable to assume that the majority of these students were born outside the United States. The uncertainty about their future would further compromise their ability to fully engage in the local community, school activities, and academic curriculum, indicating that they require targeted assistance to overcome challenges beyond their control. According to this study, gender inequality in graduation prevents a higher graduation rate for males, higher SES students need support for better graduation, and the school's model for dealing with disciplinary issues must be revised. In South Texas's schools, being male, having higher SES, and having disciplinary records were the significant factors in failing to graduate in the 2018–2019 school year.

#### **Theory**

The results reported in this work and the inferences derived from those findings are partly consistent with Berry's acculturation theory discussed in Chapter 3, considering the assimilation difficulties experienced by migrants and their children in the host country. As in other parts of the United States, Latino students living in South Texas go through maladaptive behavior to adjust to American schools. During the process of

assimilation, they strive to absorb the local culture while being pressured to retain that of their country of origin, which may lead to ambivalent attitudes toward their way of life, including education.

Although Berry (1997) proposed the acculturation model more than four decades ago, it remains relevant, as those arriving in a new country can be seen to progress through its six constituent phases: assimilation, separation, integration, marginalization, reception, and retention (Van der Zee & van Oudenhoven, 2022). More recently, Berry (2019) indicated that, depending on the differences and similarities between the home and the host country, the model of acculturation for migrants could be linear or nonlinear. In the case of Latino students living in South Texas, it is linear from heritage culture into host country culture, and due to the heterogeneity of the local population (approximately 90% of those living in South Texas are of Latino descent), the migrants' direct interaction with locals is facilitated by group identity. As Berry (1997) theorized, the assimilation stage is crucial for the youth migrants' acculturation as mediated by the school's culture and norms. The lower graduation rate for undisciplined Latino students, as well as for males in South Texas, reflects difficulties in the process of assimilation.

Therefore, the findings yielded by the present study concur with the postulates of Berry's acculturation model if the student's economic status is excluded. The analysis included one geographic area, primarily Latino students. Furthermore, qualitative research anchored in Berry's theory may explain the Latino students' subjective experiences of assimilation for those who recently arrived in the United States or those who are children of migrants from Latin America. Individual interviews with students, their parents/guardians, and teachers could supplement the findings obtained, thus

expanding the understanding of their challenges as they attempt to establish their identity in the United States. As previously discussed, Berry's theory cannot be applied to explain the relevant discrepancies in graduation rates for low- and high-SES students in South Texas. Given that Latino students, especially those from non-economically disadvantaged backgrounds, face academic struggles, it is necessary to probe deeply into the reasons behind such adverse outcomes, as the repercussions of their failure to gain education extend beyond their circumstances to the broader society, as well as national economic prosperity.

Berry's theory is tested here because many youths struggle to adapt to the higher competition and motivation-based culture in most American schools, including a gender-based analysis of recent research. This view is supported by the results reported by Guarnizo et al. (2019), suggesting that females are more prone to assimilate the new culture than males, which may partly explain the greater graduation rates among female Latino students compared to their male counterparts whose records were analyzed as a part of this study.

However, it is encouraging to note that, in light of Berry's (1992) views on acculturation, results from this study point to a positive advancement in educational programs toward ameliorating the assimilation process. Despite the disciplinary issues and South Texas's borderland prevalent poverty, the graduation rate for the three campuses (91.9%) is slightly above the statewide figure of 90.3% (TEA, 2020). Because Latino students face linguistic, social, and cultural barriers, the higher graduation rate in South Texas indicates their strong desire to assimilate into the American culture and enjoy all the associated privileges and obligations. Nonetheless, the racial composition in

South Texas and, thus, in the three high schools that were the focus of this investigation is not representative of other educational settings in the United States. Therefore, the assimilation issue, as Berry proposed, must be evaluated through broader studies based on more extensive and diverse samples. Contemporary immigration hypotheses have attempted to contribute to this discussion.

It is frequently purported that young immigrants with supportive parents can overcome educational difficulties and even outperform nonimmigrants (Cebolla-Boado et al., 2021; Miyamoto et al., 2018). This concept is known as the *immigration paradox* and is often justified when examining Asian students in the United States, who are typically the highest achieving across all educational levels. While this study focused solely on Latino students in South Texas, the obtained results point to the resilience of migrants' children as, despite limited economic resources, they are committed to completing their education and becoming productive members of U.S. society. This assertion is supported by the fact that, in South Texas, the graduation rates among students of low SES were greater than among their peers who were not economically disadvantaged. However, males and students with disciplinary issues still struggle to overcome their difficulties and thus need support to achieve their full potential. The immigration paradox hypothesis is not entirely probed among Latino students in South Texas.

### **Limitations of the Study**

This study was conducted in deep South Texas, specifically within the borderland region with prominent Latino culture. Its demographic makeup is, therefore, distinct from that found in the eastern and northern parts of the state, where the ethnic profile reflects the greater presence of other racial groups, primarily African Americans and Caucasians.

While this region was specifically chosen for this study, as the aim was to assess the impact of Latino background on graduation rates, focusing the research on this narrow part of Texas was also one of its limitations, as the findings yielded cannot be generalized to other parts of Texas or the United States. Furthermore, the three acculturative stressors (gender, discipline, and SES) were chosen for this investigation based on the available data indicating that they primarily affect the academic success of recent migrants and the first generation of immigrants. However, due to legal constraints, students' immigration status was not obtained and could thus not be included in the analyses; its impact on graduation rates could not be established. A further limitation arises from the fact that the income stratification could not be obtained from the TEA database due to legal policy. Additionally, no social/economic rank could be established, and the student cohorts from the three high schools included in the analyses were categorized as "economically disadvantaged" and "non-economically disadvantaged" groups to form IVs.

Finally, the analyses presented here were based on the 2018–2019 school year data. While this can be seen as a limitation, it was a deliberate choice, as the aim was to avoid any impact of the subsequent COVID-19 pandemic on student performance.

Nonetheless, as the data are inevitably outdated, no inferences from their analyses can be made regarding the current graduation status among Latino students in South Texas.

Despite its limited span and the shortcomings mentioned above, the research herein may serve as the basis for future investigations, particularly those designed to compare Latino students' academic achievements before and after the COVID-19 pandemic.

#### Recommendations

Although the present study is subject to several limitations and the reliability of the obtained findings is low, they are still of value, as they point to the need for further investigations involving larger student cohorts from more diverse school districts. For this purpose, adopting Tukey's HSD or Bonferroni test would be beneficial to reduce the Type I error in comparing Latino and non-Latino groups. Also, it is recommended that researchers focus on the well-known issues that the majority of the Latino population faces in the United States, especially low SES and disproportionately severe disciplinary measures in school, which prevent students from fully participating in educational settings.

Future studies on this topic in South Texas would be beneficial if supplemental quantitative data were mixed with qualitative interviews, allowing Latino students and their parents to share their acculturation experiences in their own words. Subjective narratives involving parents and children could clarify their attitudes towards American schools and identify their acculturation process and associated difficulties. A pertinent issue that requires greater scrutiny for future research is related to the multidimensionality of the South Texas Latino students' cultural assimilation. They search for group identity in American schools while respecting and adhering to their parents' heritage culture. Results from research within this frame will entice a greater effort on behalf of educational institutions to support these students, coupled with strong family ties, which could serve as a mediator variable in the acculturation process.

## **Implications**

The conclusions reached in this study hold several implications for research and practice. First, they confirm that Berry's acculturation theory still applies, but only if positive assimilation results from the three IVs are considered. Second, the prevalent view that Latino females are less likely to graduate than Latino males was challenged, as in South Texas, the reverse was true, suggesting that the patriarchal family arrangements, while potentially reinforcing gender differences, may not play a role in Latino students' process of assimilation in educational settings. Third, as the graduation rates among economically disadvantaged Latino students were higher than among those with stable economic resources, this finding needs to be explored further. The reasons behind it require more comprehensive explanations than those presented here. Finally, while only three South Texas high schools were included in the current analyses, precluding any generalization of the obtained results, they are still valuable for local policy interventions. Latino students predominate in these three schools, and investing in resources that would improve their educational performance while alleviating some of the identified stressors that affect poor and male Latino students would yield benefits for the entire community.

Therefore, South Texas is still a place for social change. The local communities already receive support from local and state-sponsored programs, envisioning their complete assimilation into the American culture. However, at present, the educational attainment in this region remains low despite considerable public investments in education. In particular, two of the three schools investigated here are in a county where only 56% of the residents hold a high school diploma (TEA, 2020). This meager academic achievement contributes to the overall low SES. Because SES affects school

performance (Demetriou et al., 2020), the results yielded by this research highlight the challenges that male Latino students, undisciplined students, and those with stable incomes have to overcome to graduate from high school and pursue further education. Thus, further long-term programs are urgently needed to reduce the adverse impacts of acculturation stressors, thus preventing school evasion and improving the life outcomes for these Latino students.

### Conclusion

The present study offers insight into the factors that contribute to or hinder the academic success of Latino high school students in South Texas, allowing school officials and other stakeholders to use the obtained findings to address the challenges these students face in order to help them achieve their full potential. Some of the results reported here contradict the expectations initially posed for this study, suggesting a need to dispense with all preconceived notions of how particular student groups should perform in school or other settings. The implementation of local benchmark programs and precollege dual enrollments indicates that many Latino students captured in this analysis might have pursued higher education upon graduating from high school. On the other hand, higher SES and disciplinary issues appear to be relatively strong sources of acculturative stress among high school students in South Texas, resulting in lower graduation rates. These issues can be mitigated by actively involving these students in the school community, such as after-school programs and cross-curricular activities. Accordingly, even students with disciplinary issues may be more compliant with the rigid behavioral demands of American schools if they see such adherence as beneficial to them and their peers.

Finally, while graduation rates of female high school students in South Texas were higher than those of their male counterparts, this study refrains from attributing a substantial weight of responsibility to Latinos' patriarchal family arrangements.

Nonetheless, this gender disparity must be further investigated to identify the factors that contribute to lower academic success among Latino males. The patriarchal mindset may pressure males to leave school and start working to help support the family financially. However, it is also likely that they have more difficulties assimilating the local culture than females. Results from this study teach the academic community that unexpected results mean that research is a continuous investigative process that propels alternative forms of inquiry to achieve satisfactory answers when challenges are discovered.

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