

EXAMINING THE RELATIONSHIP BETWEEN
PERCEIVED PARENTAL BEHAVIORS AND
ADOLESCENT SELF-EFFICACY AND ACADEMIC
ACHIEVEMENT IN A MEXICAN POPULATION

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ABSTRACT: The present research examined adolescent perceived parental behaviors effects on adolescent self-efficacy and academic achievement. Two hierarchical regression analyses were conducted using data collected in Mexico through the Cross-National Study of Adolescents, a multi-country investigation into the effects of the parent-adolescent relationship. The sample included 1,200 participants, 14-17 years old, selected based upon their geographic location, level of marginalization, and level of urbanization. The study utilized the Unified Identity Theory to analyze how perceived parental behaviors, sociodemographic data, adolescent depression, problem behaviors, and work and/or study are related to adolescent self-efficacy and academic achievement.

Results from the first study indicated that parental positive induction, monitoring, and punitiveness were significantly related to adolescent self-efficacy. Specifically, positive induction and monitoring were positively related to self-efficacy, while punitiveness was negatively related to self-efficacy. These results show that support, involvement, and knowledge of the adolescent activities were associated with increased adolescent self-efficacy. The use of verbal and physical punishing behaviors was associated with lower levels of self-efficacy.

Results from the second study showed that academic motivation and educational aspirations have significant positive effects on adolescent academic achievement. Results obtained from separate models for mother and father parenting indicated a different pattern of results. Specifically, mothers autonomy granting was positively related to academic achievement, while permissiveness had a significant negative relation. None of the perceived parenting behaviors from the father model were significant.

Family science is an area of research in Mexico that has previously focused on qualitative studies and has little supporting quantitative research. The results point to the importance of positive induction, monitoring, autonomy granting in the development of adolescent self-efficacy. With regard to academic achievement, the primary variables of importance were academic motivation and educational aspirations. Each of these factors can be used by parents and educators to aid in the process of adolescent development and educational attainment. The findings from this study show differences from other previous research which have found perceived parental behaviors to be significantly related to adolescent academic achievement (Fan & Chen, 2001; Ingolsby, Schvaneveldt, Supple, & Bush, 2003). Future recommendations are discussed with emphasis placed upon policy makers, researchers, educators, and parents.

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CHAPTER I

GENERAL INTRODUCTION

Overview

For many years the importance of understanding family dynamics has been at the forefront of researchers, educators, policy makers and families minds to enhance the development of children and adolescents (Bronfenbrenner & Evans, 2000). Such research has primarily taken place in the United States and Western Europe with little research performed on samples from developing nations. Previous research done in the United States and Europe which was based upon minority and immigrant populations is useful; however as these populations acculturate and assimilate into their new countries there is a dynamic change from their country of origin (Seegan, Welsh, Plunkett, Merten, & Sands, 2012).

With respect to parenting behaviors, much of the previously conducted research throughout the history of family science was focused upon different parenting styles (Baumrind, 1966; Steinberg, Lamborn, Darling, Mounts, & Dornbusch, 1994). As this research progressed, scholars found not all parenting styles as cross-culturally valid, but different populations recognize certain parenting behaviors differently within the cultural context (Sorkhabi, 2005; Steinberg, 2001). For this reason, understanding how specific parenting behaviors affect the development of adolescents will help researchers to develop and enhance programs that can address the particular problems faced by distinct populations and cultures. Examples of the difference in cultures and populations are

noted in the divergence between collectivistic and individualistic orientations; those that are developing versus those that are developed; and amongst rural and urban living (Ingoldsby, Schvaneveldt, Supple, & Bush, 2003; Supple, Ghazarian, Peterson, & Bush, 2009). In an era that is ever more connected globally with significant societal, economic and educational changes, great importance lies with adequately preparing parents to equip their children and adolescents for the future.

Research has found an intergenerational transmission of the importance of education and work for adolescents within both collectivistic and individualistic countries, with a stronger emphasis in collectivistic cultures (Peterson, Bush, Wilson, & Hennon, 2005; Turner & Lapan, 2002). Through a surge in the rural to urban migration in Mexico in the past 50 years, intergenerational transmission was disrupted from the importance of working in the home or on the farm, to working on the streets and preparing for careers in the city (Levison, Moe, & Marie Knaul, 2001). If policy makers and educators are adequately prepared for this surge in migration to densely populated areas, the importance of family must not be forgotten. A regionally and culturally specific understanding of family dynamics in diverse cultural contexts, as they relate to adolescent development, is paramount in the creation of effective guidance on best practices; prevention/intervention efforts and parenting education programs.

Purpose

With many countries in Latin America developing the economies, political structures, and educational systems, recognition of where and how parents fit into these systems and how they can be better equipped to prepare their children for the future is crucial. The current study, on a nationwide Mexican adolescent sample, will examine

multiple variables of sociodemographics, perceived parenting behaviors (i.e., punitiveness, positive induction, permissiveness, monitoring, and autonomy granting) and their effects on adolescent self-efficacy and academic achievement. Through this examination, researchers will: a.) better understand the specific parenting behaviors that are prevalent among the Mexican population, and their consequences to the development of adolescents; b.) possess empirical evidence for both educators and parents to use to promote greater self-efficacy and academic achievement for adolescents c.) gain a stronger understanding of the pathways through which parenting behaviors inhibit or enhance an adolescent's development and; d.) strengthen empirical support for the Unified Identity Theory.

Mexican culture and society have undergone drastic changes in recent decades ranging from education reform and family planning to economic reform and rising drug trafficking violence (Esteinou, 2005; Heinle, Rodriguez-Ferreira, & Shirk, 2014). These changes, beginning around the 1970s, have altered family life throughout Mexico through increases in women in the workforce, increased divorce rates and increases in school enrollment for both males and females (INEGI, 2010; Diaz-Guerrero, 1991). These societal and cultural changes have had profound effects on how Mexican families are composed and how they approach parenting. Family science in Mexico has little influence on the Mexican society. For this reason, there are few direct or indirect studies of families and parenting (Esteinou, 2005).

The available reports/studies primarily take the form of qualitative research; however, demographic information is accessible which can shed light onto changing family dynamics. Of the existing knowledge, three important aspects stand out within

changing Mexican society, these are: a.) a reduction of the average number of children born to each woman b.) an increase in economic activity of women and c.) an increase in educational funding and attainment (INEGI, 2011; OCED, 2013). The demographic data informs an understanding of modern parental behaviors in Mexico and how research can develop a more substantive understanding of family science in how perceived parental behaviors are affecting adolescent development. The current study will utilize the Unified Identity Theory, based upon the Symbolic Interactionism Identity Theory framework, to explain adolescent self-efficacy and academic achievement and their relation to parental behaviors (LaRossa & Reitzes, 1993; Stryker, 1968; Turner, 2013). These insights can help to develop parental education materials which help families enhance positive adolescent development, and further elucidate how family theories may be used cross-culturally.

In addition to the importance of enhancing adolescent development, understanding what inhibits adolescent development is vital. By examining the different interactions, perceptions, and roles of the adolescent, conclusions may be drawn toward appropriateness of distinct parenting behaviors within cultural contexts within the hypothesized relationships of positive and negative parental behaviors (Peterson et al., 2005). Mexico is noted as a moderately collectivistic culture with a stronger orientation toward authoritarian parenting; understanding how this affects adolescent development is noteworthy (Peterson & Bush, 2013). Along with positive parenting, understanding behaviors which are linked to lower levels of self-efficacy and academic achievement is necessary (Bandura & Locke, 2003; Moyeda-Galicia, Sanchez-Velasco, & Robles-Ojeda, 2013).

Dissertation Organization

The organization of this dissertation includes four separate chapters.

- Chapter one provides a general introduction to the research topic.
- The second chapter includes a journal paper to be submitted to the *Revista Latinoamericana de Ciencias Sociales, Niñez y Juventud* (Universidad de Manizales, Colombia) focusing on multiple parental behaviors and their relationship to adolescent self-efficacy, with familism as a moderator.
- A journal paper to be submitted to *International Journal of Educational Psychology* (Spain) focuses on parental behaviors and their effects on academic achievement, with self-efficacy as a mediator is contained in chapter three.
- The fourth chapter provides a conclusion with summary of findings, strengths and limitations, implications, and future research.

Definition of Key Terms

Perceived parental behaviors is defined as a grouping of specific parenting behaviors experienced by adolescents (Henry & Peterson, 1995; Peterson, Rollins, & Thomas, 1985; Peterson, Bush, & Supple, 1999). *Parental positive induction* is composed of perceived parental support and involvement in helping adolescents understand how their behavior affects other people (Ellis, Thomas & Rollins, 1976). *Parental permissiveness* is based upon how much the parents permit the adolescent to do things on their own without questioning (Peterson, et al., 1985). *Parental punitiveness* assesses the extent to which mothers and fathers use controlling behaviors of verbal or coercive nature characterized as strict, harsh, and arbitrary practices (Peterson, et al.,

1985). *Perceived parental monitoring* assesses adolescents' perception of the extent to which mothers and fathers supervise their activities, friendships, and money (Peterson, et al., 1985). *Perceived autonomy granting* measures how mothers and fathers allow adolescents to make their own decisions and engage in activities without excessive parental intrusion (Sessa & Steinberg, 1991). *Familism* refers to adolescents' feelings and loyalties, rights, and obligations associated with family bonds (Bardis, 1959).

Adolescent self-efficacy refers to adolescents general sense of competence with regard to a broad range of behaviors and coping outcomes (Luszczynska, Scholz, & Schwarzer, 2005). *Adolescent depression* assesses adolescents risk for depression and how often they felt feelings of worthlessness, sadness, worry, and thoughts of suicide (LeBlanc, Almudevar, Brooks, & Kutcher, 2002). *Adolescent problem behavior* is evaluated upon how often adolescents engaged in various behaviors across multiple domains including risk taking, substance abuse, vandalism, and status offences (Chen, Greenberger, Lester, Dong & Guo, 1998). *Level of marginalization* is determined through an index of marginalization according to dimensions of education, housing and income from the Population National Council (CONAPO). *Adolescent work and/or study* is composed of adolescent self-reports of their current situation with regard to employment and schooling.

Adolescent academic motivation measures adolescents' effort exerted in school, importance of grades and education, extent of finishing homework on time, and liking school. *Educational aspirations* determine how much education adolescents plan on receiving. Each of these variables assesses the extent to which adolescents want to

continue their education and how much it means to them. *Adolescent academic achievement* is the self-report of grades received in school.

Unified Identity Theory is composed of Burke's Identity Control Theory and Stryker's Identity Theory (Stryker & Burke, 2000). The unification of these theories is used to predict adolescents' role and identity choices and the behaviors that derive from those decisions (Turner, 2013). Adolescent development is a process made up of the accumulation of experiences which create identity standards for those individuals to understand what are appropriate behaviors and their place within the family and society.

Hypotheses

Manuscript (Figure 1).

Hypothesis 1: Perceived parental positive induction, autonomy granting, and monitoring will be positively associated with adolescent self-efficacy;

Hypothesis 2: Perceived parental punitiveness and permissiveness will be negatively associated with adolescent self-efficacy;

Hypothesis 3: Adolescents who only work will have lower levels of self-efficacy than adolescents who attend school; and

Hypothesis 4: Familism will moderate the relationship between perceived parental behaviors and adolescent self-efficacy.

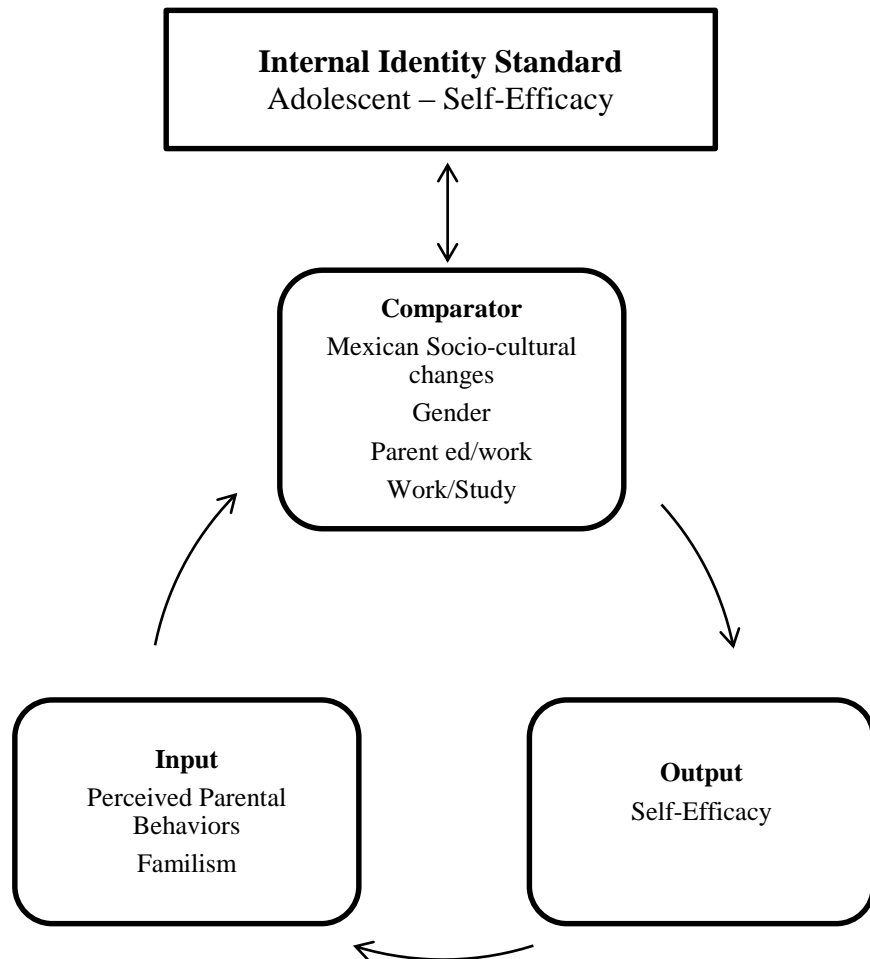


Figure 1 – Unified Identity Theory of Perceived Parental Behaviors and Adolescent Self-Efficacy

Manuscript 2 (Figure 2).

Hypothesis 1: Parental positive induction, autonomy granting and monitoring will be positively associated with academic achievement;

Hypothesis 2: Parental punitiveness and permissiveness will be negatively associated with academic achievement;

Hypothesis 3: Adolescents who work and attend school will have lower levels of academic achievement than students who attend school only;

Hypothesis 4: Academic motivation & educational aspirations will be positively associated with academic achievement;

Hypothesis 5: Adolescent's self-efficacy will mediate the association between perceived parenting behaviors and academic achievement;

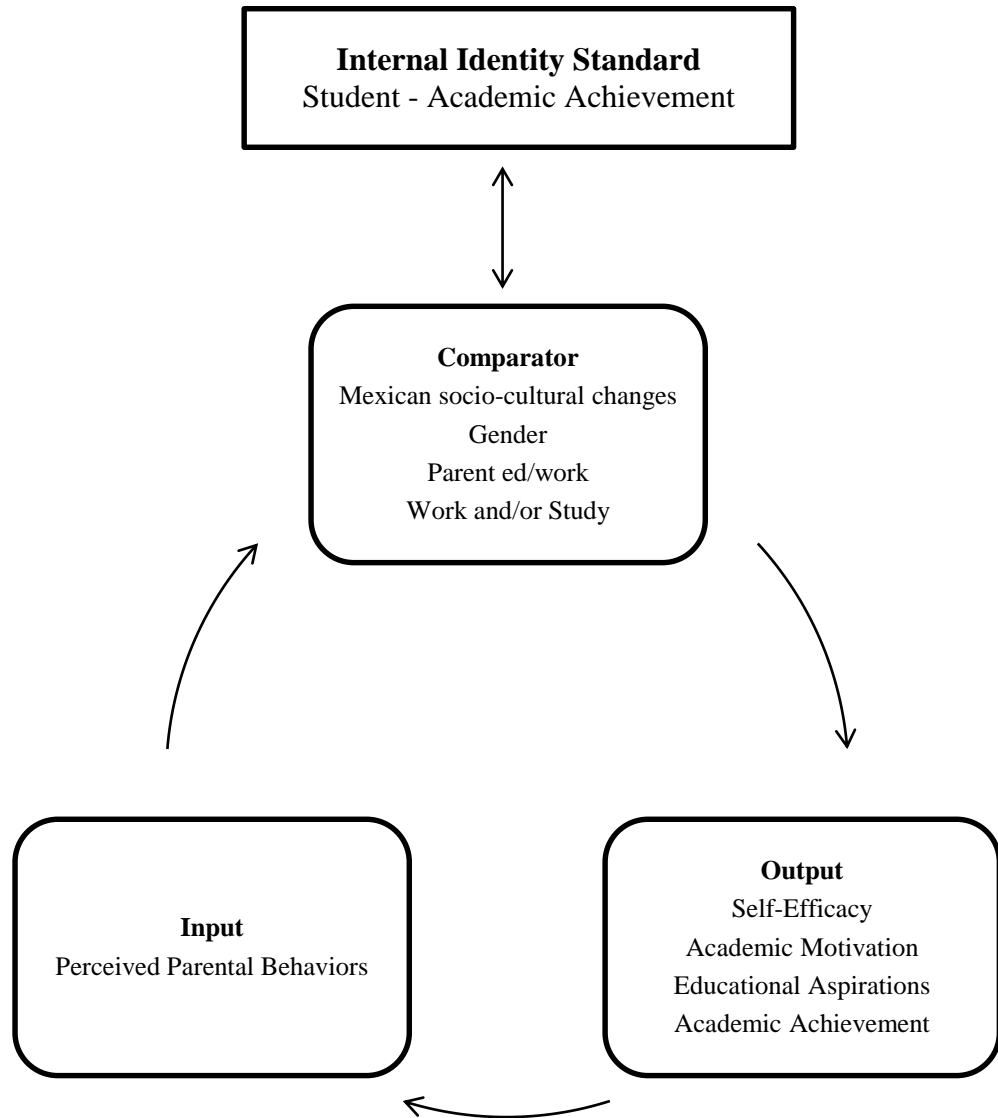


Figure 2 – Unified Identity Theory of Perceived Parental Behaviors and Adolescent Academic Achievement

Methodological Approach

Sample Description

The data examined in the present study is part of a larger Cross–National Study of Adolescents including data from samples of adolescents from Chile, Ecuador, Colombia, U.S., China, Russia, Kenya, India and South Korea (Bush et al., 2004; Ingoldsby et al., 2003; Peterson & Bush, 1999). All of the scales and items are measured by the adolescent's report of maternal and paternal parenting behaviors and family dynamics. Likert-scale responses were used for all items as 4-point responses (i.e., 1 strongly disagree to 4 strongly agree). Items were recoded so that the higher scores on the scales correspond to the greater frequency of behaviors and stronger agreement from the adolescent. The survey consists of scales and items which, for the purposes of this research, include sociodemographic variables, perceived parenting behaviors, familism, self-efficacy, academic motivation, educational aspirations, and academic achievement.

The sample consists of 1200 Mexican adolescents. The ages ranged from 14-17 ($M = 15.5$; $SD = 1.13$) living with parents and were nearly evenly distributed by gender (males 53.7%, females 46.3%). Surveys were administered through a Mexican organization specializing in the delivery of survey instrumentation through face to face interview style in the home of the adolescents. This was done in the event literacy was an issue. Interviewers were trained for data collection and input. The sample was collected through a stratified approach with systematic selection. The 1200 questionnaires were applied to the population of adolescents based on the different geographical settings, level of urbanization, level of marginalization, and presence of indigenous populations.

In order to make generalizations with the data, applying the questionnaire within the three regions in which the country was divided (i.e., North, Central, & South) was necessary. From the three regions listed above three states were chosen within each which resulted in classifications decided on three levels of urbanization for each geographic region (i.e., 3 urban sites, 3 semi-rural sites, and 3 rural sites) with 400 questionnaires given to each for a total of 1,200 surveys. From this systematic design, level of marginalization was also included to assure that the sample included near to equal numbers in classification of marginalization (i.e., low, medium, high).

Overview of Analysis

The first step in the analyses was to establish reliability of the different measures. Factor analysis using a maximum likelihood analysis and varimax rotation with a $\geq .40$ cutoff used for the Rotated Factor Matrix was completed with the perceived parental behavior scales. This was done to assure the constructs being used were culturally valid within the Mexican sample. Next, VIF tolerances were analyzed to examine any issues with multi-collinearity. In each parental model there were no issues with multi-collinearity and bivariate correlations were examined.

The first manuscript tested the effects of perceived parental behaviors on adolescent self-efficacy using a three-step hierarchical regression analysis with separate models for mother and father. The first step involved the input of sociodemographic variables, adolescent depression, and adolescent problem behavior. The second step introduced the work and/or study variables into the model to examine the effects this has on self-efficacy. The third step in the model included the perceived parental behaviors.

In a final separate step, familism was analyzed to find if it had moderating effects on perceived parental behaviors and adolescent self-efficacy.

The second manuscript tested the effects of perceived parental behaviors and academic motivation on adolescent academic achievement. The hierarchical regression models were separated into mother and father models and used a three step process. The first step analyzed the sociodemographic variables, adolescent depression and problem behavior, and work and/or study variables. The second step in the analysis input the perceived parental behaviors into the model to analyze their effects. The third step included school adjustment, academic motivation, and educational aspirations as related to adolescent academic achievement. The final examination in the manuscript was the analysis of the mediation effects of adolescent self-efficacy on perceived parental behaviors and their effects on adolescent academic achievement.

Limitations

There are several limitations within this study that are worth noting. First, the data collected is self-report from adolescents on their perceptions of parental behavior. Although, this has been found to be a stronger indicator than parental reports, having both parent and adolescent data would strengthen the study (Gecas & Schwalbe, 1986). Within the second manuscript adolescents' grades (i.e., academic achievement) are gained through self-report. Including teacher and peer data would strengthen the findings and open up other areas of analysis within future studies.

In this study there is no analysis including ethnicity or race beyond an indigenous option. As Mexico is an ethnically diverse country, examining the differences among different ethnicities would prove beneficial for researchers and policy makers. Future

analysis could include specific indigenous populations and analyze if there are differences found within their own parenting behaviors and academic achievement.

CHAPTER II

EXAMINING THE RELATIONSHIP BETWEEN PERCEIVED PARENTAL
BEHAVIORS AND ADOLESCENT SELF-EFFICACY IN MEXICO

Jonathan R. Douglas

Abstract. The purpose of this study is to determine the relationship between the perceptions of parenting behaviors (positive induction, punitiveness, permissiveness, autonomy granting, and monitoring) and adolescent self-efficacy among a nationally representative sample of Mexican adolescents. The sample consists of 1,200 Mexican 14-17 year olds with data collected based upon their geographic region, level of marginalization, and level of urbanization. Adolescents self-reported on sociodemographic data, adolescent depression and problem behaviors, work and/or study, parental behaviors, adolescent self-efficacy. Hierarchical regression analyses indicated that parental positive induction and monitoring were positively associated with greater adolescent self-efficacy for Mexican youth. In contrast, the perception of parental punitiveness was negatively associated with adolescent self-efficacy. Differences in mother and father models were found within adolescent depression and adolescent work and/or study. This study yields important insights on the effects of perceived parental behaviors and adolescent self-efficacy for a population that has not had quantitative empirical research conducted previously.

Background

The purpose of this study is to examine the relationship between dimensions of perceived parental behavior on adolescent self-efficacy from a nationwide sample of Mexican adolescents. Prior studies have analyzed parental behaviors and their effects on adolescents, but few have focused on adolescent self-efficacy. This gap in the research leaves open interpretation on the overall effects of parental behaviors and their effects on adolescent development. Additionally, existing research has targeted primarily North American and European populations and focused on the relationship between self-esteem and academic achievement, not self-efficacy specifically (Schunk & Meece, 2006).

In addition, to date, only one known study examines the relationship between perceived parental behaviors and self-efficacy among adolescents living in Mexico (Moyeda-Galicia, Sanchez-Velasco, & Robles-Ojeda, 2013). The current study will expand upon this previous research through looking beyond associations of adolescent depressive symptoms and self-esteem by further delineating the specific parenting behaviors associated with on adolescent self-efficacy. Through analysis of these specific parenting behaviors policy makers, educators, and parents will have a stronger understanding of how parenting can aid, or inhibit, positive adolescent development among Mexican youth. As this is a nationwide sample of adolescents, this study will garner a better understanding of adolescents throughout the country and not simply in one school, district, or area.

Literature Review

Context of Mexican Culture

Mexican culture has gone through drastic changes in recent decades ranging from education reform and family planning to economic reform and rising drug trafficking violence (Esteinou, 2005). These changes, beginning around the 1970s, have altered family life throughout Mexico through increases in women in the workforce, divorce rates and school enrollment for both males and females (Diaz-Guerrero, 1991). These societal and cultural changes have had profound effects on the composition of Mexican families and how they approach parenting. Family science in Mexico has little influence within Mexican society, for this reason, there are few direct or indirect studies of families and parenting (Esteinou, 2005).

There is qualitative research and demographic information available which can shine light onto changing family dynamics. Of the available information, two important aspects stand out within changing Mexican society; a.) a reduction of the average number of children born to each woman and b.) increased economic activity of women. Through changes in Mexican culture and society, the average number of children born to women by age 44 dropped from 6.3 in 1970 to 2.3 in 2010 (INEGI, 2010). With the reduction in the average number of children, women are not secluded to work at home. They devote fewer years to child rearing and have greater personal freedom and expansion of personal horizons. These aspects are supported by the increase of women in the workforce. Rates of female employment have increased from 17.5% in 1970 to 32% in 2010 (INEGI, 2010). The rise of women in the workforce brings new family forms which must adjust to dual-earner working families whose members hold different responsibilities and organization than in previous generations.

Although family dynamics in Mexico have changed, a women's occupation is "housework" and the mother is the "primary caregiver" to the children emotionally and through childcare remains a strongly held belief (Frías-Armenta & McCloskey, 1998). Convictions, such as the above, are noted through the deeply rooted values where gender roles and family come before individual interests. Within these cultural adherences, family structure over the years in Mexico has changed. Marriages have decreased since 1950 to 2010, 47.5% to 40.5%, with those who are single increasing from 28% to 35% in the same period (INEGI, 2010). This drop in marriages and rise in single living was accompanied by an increase of divorce in the same period, 0.4% to 1.4%. This adjustment is most notable among middle and high income groups, where what is considered a healthy relationship is one of emotional closeness, open communication, and disclosure of feelings. Such ideas are an alteration from the more practical and material customs of the ideal relationships in the past (Nehring, Esteinou, & Alvarado, 2014).

Hypothesized Relationships

Figure 1 presents the theoretical model that utilizes Burke's Identity Control Theory, with further supporting evidence from Stryker's Identity Theory, to describe and explain how Mexican socio-cultural changes and interactions between adolescents and parents develop their roles and identities among the variables presented. Through the Unified Identity Theory, this research explains how adolescents' roles and identities are chosen and how behavior is controlled by identity standards. With the use of each of these theories, adolescents' self-efficacy can be explained by the different contexts and interactions that create their roles and identities which are central to their own self-

development. For example, adolescents whose parents have attained little education and are in stressful work environments may have adverse relationships with their parents, resulting in higher levels of punitiveness and permissiveness. Through this lack of parental education and adverse parent-child relationship, the adolescent may increase the amount they must work, leading to less emphasis on education, lowering their levels of self-efficacy. These changes in education and work, and their importance nationwide, would show within the larger socio-cultural context of a changing Mexico which can cause difficulty in parents' ability to adapt to these changes and the urban office work instead of rural agricultural work.

The theoretical model also posits the level of autonomy granting and monitoring a parent allows for their adolescent will affect their relationship with the behaviors they promote at home (Sessa & Steinberg, 1991). Therefore, a parent who has low monitoring and high autonomy granting may be permissive and have low positive induction with their adolescent, which may result in lower levels of self-efficacy. On-the-other-hand, a parent who uses moderate levels of monitoring and autonomy granting would be more involved with their child and have higher levels of positive induction, which may result in higher levels of self-efficacy. The different variables and systems will be explained in the following paragraphs.

Unified Identity Theory

The changes in Mexican society, culture, and family dynamics place importance not only the adolescent and their individual outcomes, but also the analysis of adolescent interactions and perceptions toward relationships with families and how they view themselves. This includes how perceived parental behaviors, monitoring, and autonomy

granting affect adolescent self-efficacy. Within the Unified Identity Theory, investigation of familism and its possible moderating effects between the relationship of perceived parental behaviors and adolescent self-efficacy will be done.

Symbolic Interactionism was introduced in the 1930's and emphasizes families as collective entities in which individuals grow concepts of themselves and identities through social interactions over time (Mead & Mind, 1934). Various researchers have contributed to the development of this theory, and have made enhancements into a middle range theory which is used to explain how roles and identities shape our behaviors and development. Through the contributions of different theorists to Symbolic Interactionism, Identity Theory was realized and there is a substantial amount of literature which supports the use of the theory toward the explanation of individual's development (Burke & Reitzes, 1981; Turner, 2013).

This paper will focus on the unification of Burke's Identity Control Theory and Stryker's Identity Theory and how they can be used in conjunction as a Unified Identity Theory to explain adolescent's role choices, identity standards, and the resulting behaviors from each (Stryker & Burke, 2000). Burke's Identity Control Theory has a focus on control cycles which outline what is thought of as appropriate behavior, but does not focus on the effect of roles and the possibility of chosen identity for certain situations (Stets & Burke, 2000). Stryker's Identity Theory fills the gap in how we can predict role and identity choices and why (Stryker, 1968). For the current study, Figure 1 is a representation which integrates concepts from Burke's Identity Control Theory about how each variable interacts with one another, and is supported by Stryker's Identity Theory. The strength of using this Unified Identity Theory is the consideration of

adolescent perceptions of their environment, interactions with families and peers, and how each affects their development. Below in Figure 1, Burke's Identity Control model includes each variable of interest in how perceived parental behaviors affect adolescent's self-efficacy and how familism may moderate this relationship.

As can be seen, the four concepts below explain how an adolescent's internal identity standard is affected by the input from their environment, the comparison of the input against the identity standard, and the output, which is the chosen behavior (Burke, 1997). Identity standards are explained as control systems which are guided by a range of acceptable behaviors. Behaviors are modified to attain a match with the internalized identity standards. The collection of one's *idealized self* is seen as their internal identity standard, with their *working self* guiding moment to moment interactions (Turner, 2013).

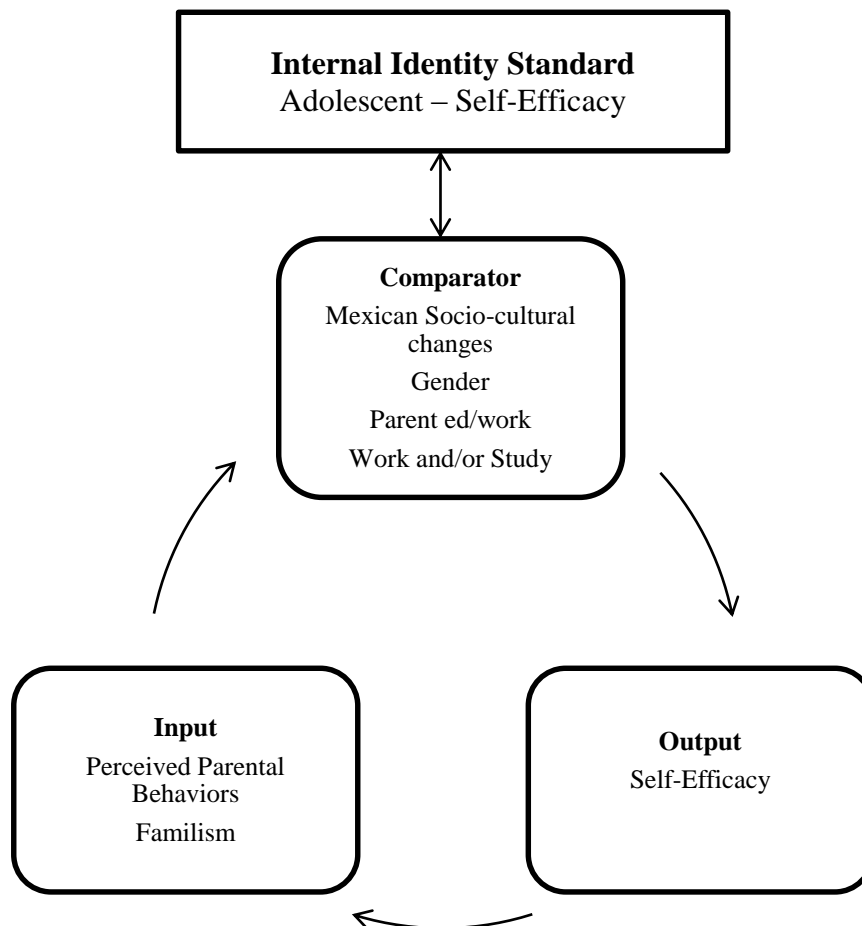


Figure 1 – *Unified Identity Theory of Perceived Parental Behaviors and Adolescent Self-Efficacy*

The first concept in the above model is the internal identity standard. This is explained as the way in which adolescents view their idealized self in the situation of their identity as a developing adolescent, primarily in terms of self-efficacy. Identity standards are created by both one's self and the society in which they live. This has basis within both expression of self and society. A different way of terming this would be how behavior is developed by culture and culture is developed by behavior (Stokes & Hewitt, 1976). Included is how an individual sees their role in society, what is expected of them, and the identity standard they choose within it (Stryker & Burke, 2000). Another way of understanding is through the role of the adolescent, which includes great developmental changes and the transition to adulthood; however, the identity standard they embrace within this role is potentially an adolescent with high self-efficacy and high work ethic or low self-efficacy and low work ethic. The interactions a child has with his or her parents and families are an ongoing process throughout their lives and affect how their perception of how their behavior is developed (Stryker, 1968). An understanding of this process is of great use within this research study due to the importance of adolescents' perceptions of themselves and parental behaviors. Through the interactions between adolescents and parents, in a variety of different situations, they are better able to understand what is expected of them within the family and outside of it (Bush, Supple, & Lash, 2004).

In Mexico, an adolescent's identity standard is associated with the socio-cultural changes explained above. These changes include the rural-urban migration, how parental

education and work influence adolescent development, and the traditional gender roles that are still established in the culture (Esteinou, 2005; Frias-Armenta & McCloskey, 1998). Adolescents may not be aware of it, but they have roles and identity standards for themselves in all situations in which they are placed. The greatest importance is how they choose to react and behave in these situations. This is explained as their role as an adolescent and the behaviors they choose to fit the internal identity standard. Each adolescent has an ideal of who they want to be and what it takes to attain the desired level of self-efficacy. For example, role-taking in the family may include how the daughters are supposed to lead in caregiving of other siblings and housework, while sons are expected to work outside the home or on the farm. The amount of hard work the adolescents put into each of these jobs would be examples of their identity standard within self-efficacy. These ideals are reinforced by the gender roles noted throughout Mexican culture and society (Levison, Moe, & Marie Knaul, 2001).

To better understand how and why adolescents have specific identity standards, self-efficacy, his or her identity salience hierarchy and commitment must be analyzed. Each of these factors has a strong effect on the identity standard development and how they perceive themselves as an adolescent. Identity salience is defined as “such that other things equal, one can expect behavioral products to the degree that a given identity ranks high in this hierarchy” (Stryker, 1968, p. 560). If an adolescent’s self-efficacy is placed high in the identity hierarchy with high a level of commitment, this will result in the specific identity standard used in any situation in which they feel it is needed. For example, if an adolescent’s is not committed and their identity standard includes low-self efficacy, they are less likely to work until the difficult job is completed. This may result

in parents using higher levels of punitive or permissive behaviors; consequently resulting in even lower levels of self-efficacy and higher levels of depression. Stryker and Burke (2000) explain it as, one's level of commitment shapes identity salience, which, in turn, shapes identity standard.

Through interactions with parents over the Mexican adolescent's lifetime they can understand the role they take in their family and what role they are expected to fulfill in society. Within these interactions is the process of development in how adolescents build their own perceptions of roles, identities, and behaviors (Stryker & Serpe, 1982). The second portion of this model is input. Through their experiences, adolescents are able to compile the information from their perceptions of parental behaviors and familism (input) to conceptualize the identity standard of adolescence and what they, and others, expect of them.

The input of the adolescent's perceived parental behaviors develops their own idea of what is an appropriate identity standard as an adolescent (Burke & Reitzes, 1981). For example, how parents monitor their adolescent's behavior and the level of autonomy granted to them provides information about what is expected. Previous studies from Latino populations have shown that adolescent with lower levels of monitoring from parents report lower levels of self-efficacy and achievement (Ingoldsby, Schvaneveldt, Supple, & Bush, 2003; Plunkett & Bámaca-Gómez, 2003). Similarly, higher levels of autonomy granting is associated with increases in an adolescent's sense of self-efficacy, and are often described alongside strategies used by parents to allow for positive expression and freedom to develop individually (Fuligni, 1998; Peterson, 2005). This

approach also allows for role clarity and a lack of skewed identity standards among adolescents in what is expected of them and how they are expected to behave.

The third portion of this model is the comparator. The comparator is the part of the control systems which evaluates the input of perceived parental behaviors with the identity standard of what type of adolescent they aspire to be (Stets & Burke, 2000). Therefore, does the input the adolescent is getting from parents align with the identity standard of the type of adolescent they would like to be? For example, as the oldest male adolescent in the family may have expectations to enter the workforce to help the family financially because of the emphasis on familism. Yet, they are also expected to go to school and get an education from both their family and society. This can cause a role strain in what is expected of them and a skewed identity standard, as they would like to be an adolescent who works hard and a good student, but the stress from both may cause strain, which may result in depression and lower levels of self-efficacy due to the burden placed upon them.

The final aspect of this model is output. The output is made up of the adolescent's behaviors: level of self-efficacy. Adolescents change behavior depending on the perceived favorable or negative input from parental behaviors. If an adolescent's behavior (output) is consistently not supported then they will have contradictions within their own identity standard, resulting in further modification of behaviors (Burke & Stryker, 2000). If this modification of behavior does not result in positive feedback and they are still receiving negative input, the identity standard will lose commitment and lower on the identity hierarchy, leading to higher levels of depression and lower levels of self-efficacy. For a situation to be best understood by an adolescent, they can change

their behavior so their perceptions of the situation fit within their identity. An example of this is when an adolescent feels they need more freedom (greater autonomy) yet continually argue with their parents, and as a result parents do not allow increased freedom. Instead, the parents show higher levels of punitiveness. If the adolescent can change their behavior to better fit with the identity and role that they perceive as important and their parents perceive this change to be real, then this change in behavior may result in higher levels of autonomy granting and align with the adolescents identity standard.

Perceived Parental Behaviors

There has been a considerable amount of research done on the influence of parental behaviors and parenting styles on child and adolescent development (Amato & Fowler, 2002; Peterson, 2005). Parenting behaviors and practices vary from culture to culture, and specific parenting behaviors would be viewed differently from country to country. Research in recent years has questioned whether or not these typologies of parenting would be useful across cultures, ethnicities, and SES (Bush et al., 2004; Ingoldsby et al., 2003; Tudge, Mokrova, Hatfield, & Karnik, 2009). Parenting behaviors and styles are systematically researched by developmental psychologists for preschool and elementary children. Their findings are consistent in supportive and involved parenting to have the best effects on nearly every indicator of health for the young child (Sorkhabi, 2005).

Judith Harris (1998) argued adolescents' peers are the foremost influencer and parental influence is diminished. In contrast, when children reach adolescence their values and ideals attributed to peers are already in place so the adolescent chooses friends

according to the predispositions created thus far in life. For this reason, parents have strong influences on their adolescents, even if they are slightly diminished as compared to earlier childhood. Research into parenting behaviors including reasoning, support, and autonomy granting for adolescents has shown similar effects, including contributions to academic competence, lower anxiety and depression, deterrence against problem behaviors and enhanced psychosocial development (Steinberg, 2001; Steinberg, Lamborn, Darling, Mounts, & Dornbush, 1994). This research is confirmed in samples from around the world with many different cultures and ethnicities including China, Pakistan, Scotland, Argentina, and Australia (Steinberg, 2001).

Parental Behaviors in Mexico

Even with the research done internationally, analyzing parenting behaviors culturally specific to Mexico is important (e.g., in Mexico that ‘families solve their own problems’ and there is no need for intervention from professionals) (Nehring et al., 2014). There is limited research on parenting and parenting behaviors in Mexico. The need for these investigations came out of changing circumstances in which Mexican society and families find themselves adapting to different circumstances including dual career families, changes in family formation and function, declining birth rate, and an increase of women in the workforce. Even with these changes there are still deeply rooted norms in the social context which are noted in Mexican culture including nepotism, gender roles, and the importance of family over the individual (Bush et al., 2004; Esteinou, 2005; Nehring et al., 2014).

Mexican families are seen as largely traditional, where values and social norms focus on family and within these values discipline and respect for parents are vital in the

societal context (Frías-Armenta & McCloskey, 1998). The importance placed upon these values is noted in research on collectivist societies, where family and community hold more importance than individual needs (Bush et al., 2004). The collectivistic nature in Mexican families is seen both in and out of the household regarding disciplinary strategies in parenting practices. For example, corporal punishment is seen as not only a necessary discipline approach but a method to produce good citizens and a role parents fill due to their interactions with their own parents and culture (Corral-Verdugo, Frías-Armenta, Romero, & Muñoz, 1995). The example above highlights the Mexican family as being directive and authoritarian in their family dynamics (Frías-Armenta & McCloskey, 1998). Mexican families also encourage family loyalty and friendship through relations within the family and the community.

Adolescent Self-Efficacy

Adolescence is a time of great change physically, cognitively, emotionally, and socially (Peterson, 2005). These changes have a strong influence on adolescent learning and motivation throughout their development. Self-efficacy is shown to effect individual's choices, the effort they put forth, persistence with which they confront decisions, and eventual achievement of desired outcome (Bandura, 1993). This can be seen in those who doubt their own capabilities versus those who are self-efficacious. Adolescents who view themselves as self-efficacious individuals participate willingly, work harder, and persist longer when difficulties are encountered and end up achieving at higher levels than those who are not (Hoeltje & Zubrick, 1996).

Self-efficacy is part of a broad research area around human agency, mastery, and control. A more refined focus is based upon one's perceptions and assessment of their

own agency, competence, and effectiveness (Gecas, 1989). Self-efficacy is developed throughout the life course and is derived from four primary sources: vicarious experiences, verbal persuasion, emotional arousal and personal mastery (Bandura, 1993).

Vicarious experiences are those in which the individual sees others performing difficult or challenging tasks with successful outcomes. These experiences begin as an infant in what is seen through others experiences, primarily family at this point, and how they handle these experiences. As adolescents progress through life other actors, such as peers and teachers, provide an alternative lens for approaching and handling difficulties. These vicarious experiences are further reinforced due to the role taking in which adolescents are involved.

Verbal persuasion is what others tell the individual they can accomplish. Receiving information about one's abilities and possibilities has a strong effect on adolescents because of the lack of previous experience when new challenges arise. Interactions adolescents have with their parents, peers, and educators are vital in identity formation.

Emotional arousal occurs within one's emotional states and reactions which are present in a variety of situations. Emotions range from the arousal of fear in a situation that an individual sees as dangerous, to the arousal of excitement when a difficulty is presented that the individual feels efficacious in their ability to overcome.

The final component and most influential is that of personal mastery. When a task is accomplished, an individual becomes cognitively and motivationally efficacious in their abilities. How motivated and committed one is to his or her role and identity will influence interactions within the societal context. Simply possessing knowledge and

skills is not enough. One must also be able to use skills correctly in difficult scenarios in order to accomplish their goal (Bandura & Locke, 2003).

Although there are few studies that have analyzed the relationships between parenting behaviors and adolescent self-efficacy in Mexico, and Latin America, in general, the research that has been done has shown that self-efficacy has consistent results across different cultural groups (Ingoldsby et al., 2003). Hoeltje and Zubrick (1996) found that in families where parenting styles are nurturing rather than punitive, male and female adolescents have higher levels of self-efficacy. Through a meta-analysis of self-efficacy research, it was found that beliefs of efficacy are consistent with their contribution to behavioral functioning, motivation, and performance (Bandura & Locke, 2003). In one study done on parental influence of adolescent self-efficacy in Mexico, Moyeda-Galicia et al., (2013) found one of the primary mechanisms through which adolescents gain a high social and academic self-efficacy is in cohesive families with high expressiveness. In correlational research, economic hardship and low parental education are related to difficulties in development and learning, which are both closely related to self-efficacy (Shunk & Meece, 2001).

Avenues families may take to increase self-efficacy in adolescents are positive communication, verbal persuasion, parental involvement, vicarious experiences, parents who build a sense of competence. Also, parents who offer challenges, emotional arousal, personal mastery, and allow their children to set high, but realistic, aspirations for challenges have been associated with higher levels of self-efficacy (Shunk & Meece, 2001). Thus, families in which parents are supportive, nurturing, and warm with their children allow greater autonomy and result in higher self-efficacy for adolescents

(Seegan, Welsh, Plunkett, Merten, & Sands, 2012). Research on parent-adolescent relationships has found adolescents' perceptions of parenting behaviors are more influential than their parent's actual behavior (Gecas, 1989).

There are also cultural differences outside of the family which may affect Mexican adolescents. Some of these factors include gender roles, structural differences between boys and girls, and age of assessment. Gender roles have been changing in Mexican culture, yet continue to hold a strong orientation toward mothers caregiving role. In a study by Moyeda-Galicia et al. (2013), it was found that girls have lower self-efficacy than boys in Mexico. Although this finding is not concretely supported, research in the area has revealed mixed findings when controlling for gender (Shunk & Meece, 2001). These findings may be attributed to the structural differences in Mexico for boys and girls, in which girls are more likely to stay home to care for siblings while boys are more likely to work outside the home to support the family financially. Both have the possibility of enhancing self-efficacy in significantly different ways.

Within the differentiation of gender roles in Mexico, it is also important to analyze how education and work affect adolescent's sense of self-efficacy. Although Mexico has made substantial progress in educational attainment, a sizeable portion of the adolescent population works to aid their families financially (Levison et al., 2001). Work is fulfilled through household chores and childcare (primarily a female area) or agriculturally and via street vendor tasks (primarily a male area). At what age this change from educationally focused to labor focused occurs may have significant effects on adolescents self-efficacy. This is primarily due to older and more educated adolescents having higher levels of self-efficacy than younger and less educated

adolescents (Gecas, 1989; Pajares & Schunk, 2001). As education can have a positive effect on self-efficacy, so can one's work.

Parental work stress affects adolescent development, as well as adolescents' perceptions of their work as having a high degree of flexibility and value (Gecas, 1989). Therefore, leaving school to work or doing both during adolescence will not necessarily lower self-efficacy. However, rewards and the sense of competence in work is a stronger determinant of their self-efficacy.

Age of assessment was found to relate to higher levels of self-efficacy (Shunk & Meece, 2001). This is linked to the increase in personal mastery and stronger control of emotional arousal. Throughout the period of adolescence, there is a great deal of development related to how one feels about themselves and the conceptualization of whom they are (Peterson, 2005). Self-efficacy has even been shown to aid in lessening the effects of depression. Depression is likely seen when a person feels they have little to no control over their lives (Gecas, 1989). In times of difficulty with work or school, injury or family conflict depression may increase, but increasing self-efficacy has a strong mediation effect on levels of depression (Bandura & Locke, 2003).

Summary

In summary, the available research proposes parenting behaviors, positive induction, punitiveness, permissiveness, autonomy granting and monitoring, to analyze the relation with adolescent self-efficacy. Although there is limited research in this area among Mexican samples, the following hypotheses are made with regard to Mexican adolescents:

- 1). Perceived parental positive induction, autonomy granting, and monitoring will be positively associated with adolescent self-efficacy;
- 2). Perceived parental punitiveness and permissiveness will be negatively associated to adolescent self-efficacy;
- 3). Adolescents who only work will have lower levels of self-efficacy than adolescents still involved in schooling; and
- 4). Familism will moderate the relationship between perceived parental behaviors and adolescent self-efficacy.

This study contributes to the literature by expanding the research on parental behaviors beyond self-esteem, academic achievement, and problem behaviors. Self-efficacy is continually a primary variable in the understanding of individuals' motivation and persistence in education, careers, and family adjustment; further highlighting its importance (Bandura, Barbaranelli, Caprara & Pastorelli, 1996; Hoeltje & Zubrick, 1996; Turner & Lapan, 2002). This study extends the knowledge of parenting because it analyzes specific behaviors rather than parenting styles. Through an understanding of specific parenting behaviors, researchers and educators can gain a more relevant understanding with cultural specificity of certain behaviors which may not validate cross-culturally (Amato & Fowler, 2002; Frías-Armenta & McCloskey, 1998). This study also expands the research by looking at the influence of adolescent's perceptions of both father and mother. Previous research has shown differences between the influence of mothers and fathers on the developmental outcomes of adolescents in Mexico (Frías-Armenta & McCloskey, 1998; Moyeda-Galicia et al., 2013; Nehring et al., 2014).

Method

Sample

The sample consists of a total of 1200 Mexican adolescents. The ages ranged from 14-17 ($M = 15.5$; $SD = 1.13$) living with parents and were nearly evenly distributed between gender (males 53.7%, females 46.3%). Surveys were administered through a Mexican company specializing in the delivery of survey instrumentation through face to face interview style in the home of the adolescents. This was done in the event literacy was an issue. Interviewers were trained for data collection and input. The sample was collected through a stratified approach with systematic selection. The 1200 questionnaires were applied to the population of adolescents based on the different geographical settings, level of urbanization, level of marginalization, and presence of indigenous populations.

Geographical setting was determined by dividing the country into three main geographical regions; this offers a different view of the population according to their location: North, Center, and South, with Indigenous being an option for those around the country. Each of these regions have differing levels of urbanization, geographical conditions, social and human development, presence of indigenous groups, type of migration, economic situation, distribution of income, and the emergence of different phenomena and social problems (INEGI, 2010; Heinle, Rodriguez-Ferreira, & Shirk, 2014). Through data collection in each of these areas, the sample is representative of the entire country.

Level of urbanization is considered an important indicator of modernization and demographic transition for Mexico. The process of urbanization in Mexico has changed

tremendously since the 1980's with large increases to highly dense urban areas, which has produced strong effects on people's daily lives and the make-up of families (Sobrinho, 2012). In this study, the categorization of the process of urbanization is considered rural when inhabitants do not exceed 5,000, semirural when it has between 5,001 and 15,000 and urban when it is above 15,001.

Level of marginalization is taken into account as an indicator of the development of states. To determine levels of marginalization the Population National Council (CONAPO), has built an index of marginalization which allows the differentiation of localities according to the dimensions of education, housing and income; through which the population is identified as those who receive basic goods and services for their development. Using this index the states were classified as high, medium and low marginality. This variable was not part of the stratification process but was a variable that was captured.

In order to make generalizations with the data, applying the questionnaire within the three regions in which the country was divided (North, Central, South) was necessary. With the classifications described above researchers decided on three zones (urban, rural, and semi-rural) with 400 questionnaires given to each level of urbanization for a total of 1,200 surveys.

Survey Instruments

The data examined in the present study is part of a larger cross-national study of adolescent social competence including data from samples of adolescents from Chile, Ecuador, Colombia, U.S., China, Russia, Kenya, India and South Korea (Bush et al., 2004; Ingoldsby et al., 2003; Peterson & Bush, 1999). All of the scales and items are

measured by the adolescent's perceptions of maternal and paternal parenting behaviors and family dynamics. Likert-scale responses were used for all items as 4-point responses (i.e., 1 strongly disagree to 4 strongly agree). Items were recoded so that the higher scores on the scales correspond to the greater frequency of behaviors and stronger agreement from the adolescent. The survey consists of scales and items which measure sociodemographic variables, perceived parental behaviors, familism, and adolescent self-efficacy.

The current study relied on adolescent self-report of their perceptions of parental behaviors, familism, and self-efficacy. This adolescent self-report strategy is justifiable through previous research suggesting youth perceptions of parental behavior are stronger predictors than are parental reports (Gecas & Schwalbe, 1986). Through the use of adolescent self-report the bias which may occur from parents who may want to hide certain behaviors is minimized. Adolescent perceptions of their self-efficacy and parental behaviors are more likely to reflect their reality than would parental reports.

Perceived Parental Behaviors

Parental positive induction, punitiveness, permissiveness, and monitoring were assessed by items from the Parent Behavior Measure (PBM), a shortened version of the Rollins and Thomas Parenting Inventory that has resulted from previous factor analytic studies (Peterson & Bush, 1999). Each of the variables within the PBM were analyzed utilizing a the maximum likelihood analysis and varimax rotation with a $.40 \geq$ cutoff used for the Rotated Factor Matrix. The items present in each of the scales indicated appropriate factor loadings for adolescent's perceptions of Mexican mother and father parenting behaviors.

Parental permissiveness. Parental permissiveness was assessed by three items anticipated to show how much the adolescents are permitted to do things on their own without questioning (e.g., “This parent usually lets me do anything I want to do”). Results revealed a Cronbach alpha of .53 for mothers and .48 for fathers. As this scale is composed of only three items the alpha level is lower than desired, but the items from this scale are pertinent to the research.

Parental positive induction. Parental positive induction was assessed using 11 items that were anticipated to measure the degree mothers and fathers are perceived as being accepting, nurturing, approving, warm, and explaining how the adolescent’s behavior affects others (e.g., “This parent explains to me how good I should feel when I do what is right”). This resulted in 11 items reflecting maternal positive induction for Mexican adolescents ($\alpha = .81$). Perceptions of paternal positive induction were best represented by eleven items ($\alpha = .82$).

Parental punitiveness. Parental punitiveness was assessed using 14 items that were anticipated to measure the degree to which mothers and fathers are perceived as using verbal and physical threats and behaviors (e.g., “This parent tells me that I will be sorry that I wasn't better behaved”). Results indicated 14 items reflecting perceived maternal punitiveness for Mexican adolescents ($\alpha = .83$). Adolescent perceptions of paternal positive induction were best represented by 14 items ($\alpha = .84$).

Monitoring. Parental monitoring was measured by a six item subscale taken from the Parent Behavior Scale (Peterson, Rollins & Thomas, 1985). This scale captures the degree to which adolescents perceive their parents knowledge of how they spend free time, who their friends are, and how they spend money (e.g., “This parent knows where I

am after school or work”). This resulted in a Cronbach alpha that ranging from $\alpha = .77$ to $\alpha = .78$.

Autonomy Granting. Parental autonomy granting was assessed using a scale of ten items anticipated to measure the degree to which adolescents make decisions and are engaged in activities without parental oversight or control which would hinder their choices about friendships, dating, clothing, career plans and educational goals (e.g., “I feel that this parent gives me enough freedom”) (Sessa & Steinberg, 1991). Reliability analysis resulted in ten items reflecting maternal autonomy granting for Mexican adolescents ($\alpha = .77$). Paternal autonomy granting was best represented by ten items ($\alpha = .77$).

Adolescent Self-Efficacy. Adolescents’ general sense of self-efficacy refers to a stable sense of competence within a broad range of behaviors and coping outcomes (e.g., If I can't do a job the first time, I keep trying until I can) (Schwarzer & Jerusalem, 1995). This is conceptualized differently from context specific sense of self-efficacy which was proposed by Bandura (1997). Participants generalized self-efficacy was measured with 15 items. The participants responded to the items in terms of a four-point Likert scale which varied from “Strongly Agree” (1 points) to “Strongly Disagree” (4 point) with a low score indicating a high sense of self-efficacy, except in the case of derogatory items which were reverse coded (i.e., high scores on these items indicates low self-efficacy). The scores for each item were then averaged for a total self-efficacy score. The scores for each item were averaged to create a scale score ($\alpha = .78$).

Familism. The familism scale assesses adolescents’ feelings and loyalties, rights and obligations associated with family bonds (e.g., A person should rely on their family if

the need arises) (Bardis, 1959). The participants responded to the items in terms of a four-point Likert scale that varying from “Strongly Agree” (4 points) to “Strongly Disagree” (1 point). Each of the items are averaged for a total score, with higher scores indicating higher levels of familism ($\alpha = .75$).

Parental Civil Status. Parental civil status was assessed by the adolescent’s response to the marital status of their parents (separated, widowed, divorced). This variable was coded as 0 = not married and 1 = married.

Parental Education. Parental education was measured by the adolescent’s response to both their mother and father separately. This separation allows for analysis of both models; parental and maternal. Education categories ranged from 1 to 4, 1 = primary school (completed and not completed); 2 = Middle school (completed and not completed); 3 = Prep/Technical studies (Preparatory and Technical school); 4 = College (University and Graduate studies).

Parental Work. Parental work was measured by the adolescent’s response to their parents work status for both mother and father. This separation allows for analysis of both models; paternal and maternal models. Work categories ranged from 1 to 3, with 1 = no work (retired or unemployed); 2 = part time (less than 5 hours per day); 3 = full time (8 hours or more per day).

Adolescent School/Work. Adolescents’ current situation were measured by self-reports of time spent at school, work, or both. Dummy effect coding was used to test school/work differences in self-efficacy. The school/work categories ranged from school only, work-only, school & work, and no school or work, with no school or work used as the comparison group.

Geographic Region. Adolescent's geographic region was measured by adolescent response to where they live in the country, or if they are part of an indigenous population. Dummy effect coding was used to test these geographical differences in adolescent self-efficacy. The categories ranged from North, Center, South, and Indigenous, with Indigenous being used as the comparison group.

Gender. Adolescents were asked if they were male or female and this response was dummy coded with females = 0 and males = 1 to test for gender differences in self-efficacy.

Problem Behavior. The frequency of adolescent problem behaviors across multiple domains (e.g., risk taking, substance abuse, vandalism, status offences) was assessed with a 22 item 4 point scale (Chen, Greenberger, Lester, Dong, & Guo, 1998). The respondents were asked how often during the past 6 months they engaged in various problems, such as got drunk, got into a physical fight, smoked cigarettes, ran away from home, and cheated on a test (1-never, 2 - sometimes, 3 – often, 4 - always.) Responses were averaged with higher scores indicating that the participants engaged in more problematic behaviors. Resulting Cronbach's alpha of .83.

Depression. The Kutcher Adolescent Depression Scale is used for the identification of adolescents at risk for depression, and was assessed with a six item scale with a 4 point Likert scale (LeBlanc, Almudevar, Brooks, & Kutcher, 2002) The respondents were asked how often during the last week they felt depressive symptoms (e.g., "Thoughts, plans or actions about suicide or self-harm"). The participants responded to the items in terms of a four-point Likert scale which varies from "Never" (1 points) to "Everyday" (4 point) with a high score indicating high levels of depression.

The scores for each item were then averaged for a total depression score. This resulted in a Cronbach alpha of .77.

Analyses

Hierarchical multiple regression analyses were run to test the hypotheses of which perceived parental behaviors are associated with self-efficacy among Mexican adolescents. Separate statistical models were tested for mother and father perceived parental behaviors as related to adolescent self-efficacy to prevent issues with multicollinearity between adolescent perceptions of each parent and their behavior. In previous studies the importance of analyzing parenting behaviors separately has been shown due to the different effects of each parent, specifically in Latin America (Ingolsby et al., 2003). Each statistical model was ran with a three-step procedure to determine the association and amount of variance accounted for in adolescent self-efficacy.

The first step involved the entry of seven sociodemographic variables consisting of gender, age of adolescent, parent civil status, parent work, parent education, level of marginalization, geographic region, adolescent problem behavior and adolescent depression. The use of the sociodemographic variables within the first step was to analyze which of the variables were significantly related, as well as to note which of those lost power as other primary variables were placed into the model.

Step two in the analysis included the use of adolescent involvement variable in school only, work-only, school and work, and no school or work. To analyze these variables separately was important because there is a lack of literature on the effects of school vs work in Mexico. The placement of the variables in the second step allow for analysis of their effects without the perceived parenting variables in the model.

In the third step of the hierarchical multiple regression, perceived parental behaviors (i.e., positive induction, permissiveness, punitiveness, monitoring, and autonomy granting) were entered. The placement of these variables was to analyze their specific effects while controlling for the variables in step one and step two. As it was hypothesized that they would have significant relationships with adolescent self-efficacy, placing them in the final step allows for clear understanding of their final effects. Lastly, familism was run as a moderator in order to analyze the effect on the relationship between parental behaviors and adolescent self-efficacy.

Results

The means, standard deviation, and range for the independent variables and dependent variables are shown in Table 1.

Table 1. Descriptive statistics of study variables – Adolescent Self-Efficacy

Variable	N	Range	Mean	Std. Deviation
Adolescent age	1200	14-17	15.45	1.13
Adolescent gender	1200	.00-1.00	0.54	0.50
Parental civil status	1185	.00-1.00	0.73	0.45
Father work	1030	1.00-3.00	2.85	0.45
Father education	994	1.00-4.00	1.84	0.96
Mother work	1162	1.00-3.00	1.69	0.89
Mother education	1047	1.00-4.00	1.70	0.88
Level of marginalization	1200	1.00-3.00	2.26	0.85
North	260	.00-1.00	0.22	.041
Center	314	.00-1.00	0.26	0.44

South	300	.00-1.00	0.25	0.43
Indigenous	326	.00-1.00	0.27	0.45
Adolescent Problem Behavior	1200	1.00-4.00	1.19	0.22
Adolescent depression	1200	1.00-4.00	1.51	0.47
Work-only	100	.00-1.00	0.08	0.28
Study-only	894	.00-1.00	0.75	0.44
Work & study	112	.00-1.00	0.09	0.29
No work or study	94	.00-1.00	0.08	0.27
Autonomy granting mother	1200	1.00-4.00	3.07	0.40
Autonomy granting father	1059	1.00-4.00	3.00	0.42
Positive induction mother	1200	1.00-4.00	3.29	0.37
Positive induction father	1060	1.00-4.00	3.16	0.43
Punitiveness mother	1200	1.00-4.00	2.12	0.45
Punitiveness father	1060	1.00-4.00	2.06	0.46
Permissiveness mother	1200	1.00-4.00	2.72	0.54
Permissiveness father	1057	1.00-4.00	2.62	0.56
Monitoring mother	1200	1.00-4.00	3.12	0.51
Monitoring father	1056	1.00-4.00	2.96	0.54
Familism	1200	1.00-4.00	3.21	0.31
Self-efficacy	1200	1.00-4.00	2.88	0.38

Linear regressions were conducted to determine any issues with multi-collinearity that would otherwise cause inconsistencies in the separate regression analyses. None of the independent variables were found to have issues with multi-collinearity, with a VIF <

.40 (Michael & Abiodun, 2014). Bivariate correlational analyses were ran to analyze the relationships between the various independent variables and the dependent variable. In the mother model adolescent self-efficacy was correlated with punitiveness $r(1200) = -.31, p < .001$, monitoring $r(1200) = .24, p < .001$, and positive induction $r(1200) = .23, p < .001$. As the mother is considered the emotional support in Mexican culture, it is important to note these perceived maternal behaviors and their relationships with adolescent self-efficacy. Self-efficacy within the father model was most highly correlated with punitiveness $r(1060) = -.27, p < .001$, father education $r(994) = .18, p < .001$, and monitoring $r(1056) = .18, p < .001$. With the father in Mexican society being noted as the disciplinary and breadwinner, it is interesting that each of the results above highlight this fact.

Table 2. *Bivariate Correlations of study variables – Adolescent Self-Efficacy – Mother Model*

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1. Self-efficacy	1																
2. Age	.02*	1															
3. Gender	-.01	.07*	1														
4. Parental civil status	.05	.01	.04	1													
5. Parent education	-.03	-.01	.00	-.22**	1												
6. Marginalization	.13**	-.03	.03	-.07*	.24**	1											
7. Ad. Problem behavior	-.11**	.12**	.15**	-.08**	.10**	-.09**	1										
8. Ad. depression	-.17**	.06*	-.12**	-.04	.03	-.04	.05	1									
9. Work-only	.06	.21**	.09**	-.06*	-.01	-.13**	.10**	.06	1								
10. Study-only	.09**	-.24**	-.12**	.03	.00	.18**	-.14**	-.06*	-.52**	1							
11. Work & study	-.08**	.05	.16**	.03	.02	-.06*	.10**	.04	-.10**	-.55**	1						
12. No work or study	-.11**	.12**	-.08**	-.02	-.01	-.10**	.03	.01	-.09**	-.50**	-.09**	1					
13. Autonomy granting	.18**	.06	.00	.06	.01	.07*	-.05	-.09**	-.03	.10**	-.04	-.09**	1				
14. Monitoring	.24**	-.06*	-.11**	.06*	.03	.03	.04	-.14**	-.03	.14**	-.11**	-.09**	.31**	1			
15. Positive induction	.23**	-.07*	-.07*	.08**	.01	.06	.02	-.05	-.07*	.15**	-.07*	-.10**	.40**	.50**	1		
16. Punitiveness	-.31**	-.05	.04	-.01	.01	-.09**	.06*	.21**	-.03	-.06*	.09**	.03	-.19**	-.10**	-.10**	1	
17. Permissiveness	.08**	.07*	.13**	.06*	-.02	.01	-.04	-.04	.01	.03	-.03	-.03	.32**	.05	.04	-.08**	1
18. Familism	.10**	-.08**	-.03	.03	.02	-.05	.03	-.09**	-.03	.05	-.02	-.03	.29**	.25**	.35**	-.07*	.06*

*p < .05 **p < .01

Table 3. *Bivariate correlations of study variables – Adolescent Self-Efficacy – Father Model*

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1. Self-efficacy	1																
2. Age	.02	1															
3. Gender	-.01	.07*	1														
4. Parental civil status	.05	.01	.04	1													
5. Parent education	.06	-.05	.06	.05	1												
6. Marginalization	.18**	-.01	.02	.00	-.03	1											
7. Ad. problem behavior	-.11**	.12**	.15**	-.08**	.07*	-.09**	1										
8. Ad. depression	-.17**	.06*	-.12**	-.04	-.07*	-.06*	.05	1									
9. Work-only	.06	.21**	.09**	-.06*	.02	-.14**	.10**	.06	1								
10. Study-only	.09**	-.24**	-.12**	-.03	-.06*	.21**	-.14**	-.06*	-.52**	1							
11. Work & study	-.08**	.05	.16**	.03	.05	-.08*	.10**	.04	-.10**	-.55**	1						
12. No work or study	-.11**	.12**	-.08**	-.02	.02	-.13**	.03	.01	-.09**	-.50**	-.10**	1					
13. Autonomy granting	.16**	.06*	.06*	.03	-.01	.12**	-.04	-.11**	-.02	.09**	-.04	-.09**	1				
14. Monitoring	.18**	-.05	-.07*	.11**	-.01	.02	.12**	-.17**	-.03	.09**	-.02	-.09**	.24**	1			
15. Positive induction	.18**	-.03	-.03	.14**	-.02	.10**	.03	-.10**	-.08**	.10**	.00	-.07*	.39**	.46**	1		
16. Punitiveness	-.27**	-.05	.06	.07*	-.02	-.16**	.08*	.22**	-.01	-.10**	.13**	.02	-.15**	-.050	-.08**	1	
17. Permissiveness	.04	.11**	.17**	.01	-.05	.01	-.03	-.09**	.01	.04	-.01	-.07*	.32**	.11**	.14**	-.03	1
18. Familism	.10**	-.08**	-.03	.03	.01	-.05	.03	-.09**	-.03	.05	-.01	-.03	.22**	.20**	.26**	-.06	.02

*p < .05 **p < .01

A multiple regression model was tested to investigate whether the association between perceived parental behaviors (positive induction, punitiveness, permissiveness, monitoring, and autonomy granting) and adolescent self-efficacy depends on the level of familism. After centering the perceived parental behaviors and self-efficacy, and computing the perceived parental behaviors and familism interaction term, the two independent variables and interaction term were entered simultaneously into a regression model (Aiken & West, 1991). The results indicated that familism does not significantly affect the association between perceived parental behaviors and adolescent self-efficacy; however, familism does have a significant correlation to self-efficacy itself $r(1200) = .10$, $p < .001$.

Maternal Model. In step one of the regression model (see Table 4 below), parental civil status ($\beta = .064$, $p < .05$) and maternal education ($\beta = .118$, $p < .001$) were found to have a significant effect, indicating parents whom are still married and mothers with higher levels of education are associated with greater levels of adolescent self-efficacy. With regard to geographic locations the North ($\beta = .162$, $p < .001$) and South ($\beta = .132$, $p < .001$) regions of the country were positively associated with adolescent self-efficacy, in comparison to adolescents who responded as Indigenous. Adolescent depression was the only variable with a significant negative association ($\beta = -.095$, $p < .01$) to adolescent self-efficacy.

Step two of the model included the variables of work-only, study-only, and work and study to the analysis. Parental civil status, mother education, North and South regions, and adolescent depression all remained significant, with depression having a negative relation. With the addition of the school and/or work variables, gender moved

to significance with females being found to be associated with higher levels of self-efficacy ($\beta = -.063$, $p < .05$). Adolescent problem behavior emerged as having a significant negative relationship to adolescent self-efficacy ($\beta = -.066$, $p < .05$). Among the school and/or work variables, work-only ($\beta = .190$, $p < .05$) and study-only ($\beta = .168$, $p < .05$) were found to have a positive effect on adolescent self-efficacy when compared with those who do not work or study. Work and study was failed to attain significance within this analysis.

Standardized regression coefficients in Step 3 of the analysis (see Table 4) indicated the sociodemographic variables; age of adolescent, gender, parent civil status, and mother work failed to achieve statistical significance. Although, parental civil status and gender were found to be significant in the other steps of the model, with the perceived parenting behaviors included in the analysis these variables lost power. Mother education was found to significantly impact adolescent self-efficacy ($\beta = .095$, $p < .01$), indicating the higher a perceived mother's level of education the higher reported levels of adolescent self-efficacy. Level of marginalization ($\beta = -.067$, $p < .05$) rose to significance and was found to have a negative effect on adolescent self-efficacy. Therefore, adolescents who live in areas of higher marginalization are associated with lower levels of self-efficacy. Among the geographic region variables North ($\beta = .084$, $p < .05$) and South ($\beta = .081$, $p < .05$) were found to keep their significance in the analysis. With this finding it is shown that adolescents living in the North and South of the country are associated with higher levels of self-efficacy than those who live in the Center of the country when compared with those who responded as Indigenous. The dummy coded variables of work-only and study-only were found to be statistically significant. Both

work-only ($\beta = .139, p < .001$) and study-only ($\beta = .103, p < .05$) were found to have a positive relation to self-efficacy, when compared with those who do not work or study.

The perceived maternal parenting behavior variables which significantly impacted adolescent self-efficacy were maternal monitoring ($\beta = .140, p < .001$), positive induction ($\beta = .128, p < .001$), and punitiveness ($\beta = -.221, p < .001$). Thus, adolescents who perceive their mothers as having higher levels of monitoring and positive induction reported higher levels of self-efficacy, while maternal punitiveness negatively affected adolescent self-efficacy. Overall, this model resulted in an R^2 of .199, $p < .001$ after all variables were input.

Table 4

Unstandardized Beta and Standardized Beta for Perceived Mother Parenting Behaviors and Adolescent Self-Efficacy

Predictor Variables	B	SE(B)	β
Step 1			
Age	.014	.010	.041
Gender	-.044	.024	-.058
Parent Civil Status	.054	.027	.064*
Mother Work	-.015	.014	-.036
Mother Ed.	.050	.014	.118***
Marginalization	-.017	.015	-.038
North	.144	.037	.162***
Center	.013	.035	.015
South	.114	.034	.132***
Ad. Problem Behavior	-.110	.059	-.065
Ad. Depression	-.077	.028	-.095**
Step 2			
Age	.014	.011	.043
Gender	-.047	.024	-.063*
Parent Civil Status	.056	.026	.066*
Mother Work	-.016	.014	-.037
Mother Ed.	.052	.014	.121***
Marginalization	-.020	.015	-.046
North	.128	.037	.144***
Center	-.005	.035	-.006
South	.095	.034	.110**
Ad. Problem Behavior	-.112	.058	-.066*

Ad. Depression	-.077	.027	-.095**
Work-only	.273	.060	.190***
Study-only	.149	.044	.168***
Work/Study	.065	.058	.048
Step 3			
Age	.010	.010	.029
Gender	-.020	.023	-.026
Parent Civil Status	.037	.025	.043
Mother Work	-.017	.013	-.040
Mother Ed.	.040	.014	.095**
Marginalization	-.029	.014	-.067*
North	.074	.036	.084*
Center	-.043	.033	-.051
South	.070	.032	.081*
Ad. Problem Behavior	-.004	.056	-.002
Ad. Depression	-.046	.026	-.056
Work-only	.199	.057	.139***
Study-only	.092	.042	.103*
Work/Study	.052	.055	.039
Autonomy Granting	.005	.032	.005
Monitoring	.105	.025	.140***
Positive Induction	.131	.036	.128***
Punitiveness	-.183	.025	-.221***
Permissiveness	.017	.022	.025

Maternal - $R^2 = .076$ for step 1***, $R^2 = .099$ for step 2***, $R^2 = .199$ for Step 3***

STEP 3

Multiple Correlation $R = .447$

Adj. R-Square = .184

F-Value = 12.902 (df = 119, 1003)

Significance F .000***

N = 1004

B = unstandardized betas; SE (B) = standard error of unstandardized beta; β = standardized beta

* $p < .05$; ** $p < .01$; *** $p < .001$

Paternal Model. In step one of the model, father education was found to be significant ($\beta = .128$, $p < .001$). Both the North ($\beta = .184$, $p < .001$) and South ($\beta = .159$, $p < .001$) regions of the country were found to be statistically significant, when compared with those who responded as Indigenous. Adolescent depression was the only significant variable with a negative effect on adolescent self-efficacy within the first step ($\beta = -.157$, $p < .001$). Within step two of the model each of the variables explained above kept their

significant relation to adolescent self-efficacy. The addition of the work/study variables did not change the findings of the model, but with this addition work-only ($\beta = .154$, $p < .001$) and study-only ($\beta = .128$, $p < .05$) were found to be significant, when compared with those who do not work or study.

Standardized regression coefficients in Step 3 of the analysis (see Table 5) indicated, among the sociodemographic variables; age of adolescent, gender, parent civil status, and father work failed to achieve statistical significance with adolescent self-efficacy. Higher levels of father education were found to be significantly related to adolescent self-efficacy ($\beta = .086$, $p < .01$). Adolescent depression ($\beta = -.096$, $p < .01$) resulted in keeping its significance and had a negative impact on adolescent self-efficacy. Therefore, adolescents who reported higher levels of depression were associated with lower levels of self-efficacy. The dummy coded variables of North ($\beta = .159$, $p < .001$) and South ($\beta = .143$, $p < .001$) regions were each found to be significantly related to adolescent self-efficacy, when compared with Indigenous. The dummy coded variable of work-only ($\beta = .138$, $p < .001$) was found to be statistically significant, meaning that adolescents who reported working only were associated with higher levels of self-efficacy in comparison to adolescents who do not work and do not attend school.

Several of the perceived father parenting behavior variables were significantly related to adolescent self-efficacy; paternal monitoring ($\beta = .093$, $p < .01$), positive induction ($\beta = .098$, $p < .05$), and punitiveness ($\beta = -.187$, $p < .001$). This indicates adolescents who perceive their fathers as having higher levels of monitoring and positive induction are associated with greater levels of self-efficacy reported, while higher levels

of punitiveness were found to negatively impact self-efficacy. Overall, the model resulted in a total R^2 of .185.

Table 5.
Unstandardized Beta and Standardized Beta for Perceived Father Parenting Behaviors and Adolescent Self-Efficacy

Predictor Variables	B	SE(B)	β
Step 1			
Age	.015	.011	.044
Gender	-.031	.025	-.041
Parent Civil Status	.056	.032	.055
Father Work	.040	.026	.048
Father Ed.	.051	.013	.128***
Marginalization	-.006	.016	-.012
North	.170	.039	.184***
Center	.043	.036	.049
South	.137	.034	.159***
Ad. Problem Behavior	-.107	.061	-.062
Ad. Depression	-.132	.029	-.157***
Step 2			
Age	.014	.011	.043
Gender	-.034	.025	-.044
Parent Civil Status	.055	.032	.055
Father Work	.043	.026	.052
Father Ed.	.051	.013	.128***
Marginalization	-.007	.016	-.016
North	.157	.039	.171***
Center	.027	.036	.031
South	.121	.034	.141***
Ad. Problem Behavior	-.100	.061	-.058
Ad. Depression	-.133	.029	-.158***
Work-only	.234	.064	.154***
Study-only	.114	.047	.128*
Work/Study	.050	.059	.038
Step 3			
Age	.008	.011	.025
Gender	-.010	.025	-.013
Parent Civil Status	.054	.032	.054
Father Work	.040	.025	.048
Father Ed.	.034	.013	.086**
Marginalization	-.011	.016	-.024
North	.146	.038	.159***
Center	.018	.035	.020
South	.123	.033	.143***

Ad. Problem Behavior	-.025	.060	-.014
Ad. Depression	-.082	.029	-.096**
Work-only	.210	.062	.138***
Study-only	.081	.045	.090
Work/Study	.036	.058	.028
Autonomy Granting	.046	.032	.051
Monitoring	.065	.025	.093**
Positive Induction	.090	.034	.098**
Punitiveness	-.150	.027	-.187***
Permissiveness	-.027	.023	-.039

Paternal - $R^2 = .104$ for step 1***, $R^2 = .120$ for step 2***, $R^2 = .185$ for Step 3***

STEP 3

Multiple Correlation $R = .430$

Adj. R-Square = .168

F-Value = 10.615 (df = 19,906)

Significance F .000***

N = 907

B = unstandardized betas; SE (B) = standard error of unstandardized beta; β = standardized beta

* $p < .05$; ** $p < .01$; *** $p < .001$

Discussion

Based upon the review of the literature, researcher hypothesized adolescents in Mexico would have higher levels of self-efficacy when they perceive their parents as using the behaviors of positive induction (reasoning and support), monitoring (keeping track of adolescent's activities), and autonomy granting (granting freedom). Perceived parental punitiveness (punishing behaviors) and permissiveness (lack of oversight/control) were expected to result in lower levels of self-efficacy. Adolescents' who work-only were hypothesized to have lower levels of self-efficacy than those who are still involved in schooling. The final hypothesis stated familism would moderate the relationship between perceived parental behaviors and adolescent self-efficacy.

A total of 1,200 adolescents from North, Central, and South Mexico were given a face-to-face interview style survey to assess their perceptions of a variety of parenting behaviors, and their own feelings of self-efficacy. The total sample consisted of approximately the same amount of males and females, averaging 15.5 years of age.

Analyses were ran for mothers and fathers separately as previous research has shown differences between mothers and fathers influence on their adolescents development in Mexico.

Overall, the development of self-efficacy among Mexican adolescents was similar among parental civil status and parental work status with each of these variables failing to attain statistical significance. Divergent from previous research, age of adolescent and gender were not found to be significant. Previous research has found that males and older adolescents have higher their levels of self-efficacy (Gecas, 1989). Levels of parent education for both mothers and fathers were significant. This result further supports the finding of positive effect parents education has on an adolescent's self-efficacy (Ingolsby et al., 2013). The importance of parental education can be explained as how the adolescent compares their own internal identity standard of self-efficacy to their parent's expectations and behaviors towards education. Both the level of marginalization and depression were found to be negative related to self-efficacy in the mother model, but only depression was significant within the father model. This may be attributed to mother headed, or single mother, households in Mexico not having the same resources as a dual headed household, and therefore, having higher levels of marginalization in the population.

Of interesting note, was the finding of work-only and study-only as having a significant effect in the mother model, but work-only, not study-only, was significant in the father model. This may be attributed to the cultural norm where men are the breadwinners and place more importance on work, even if education is still thought of as

important. This finding can be interpreted to mean that the father's work has a stronger commitment to their identity and is placed higher within the identity hierarchy.

Perceived monitoring resulted in greater self-efficacy for both mother and father models but autonomy granting was not significant in either. This finding may be due to the importance of family (familism) in Mexico. There is evidence in which Mexican adolescents may not expect autonomy granting from their parents as they are expected to remain involved with the family, resulting in the positive effects of monitoring on the adolescent's self-efficacy (Moyeda-Galicia et al., 2013). Perceived positive induction was positively related to self-efficacy for both the mother and father models. Through reasoning and support, parents are able to work alongside their children in resolving issues and overcoming difficulties instead of resorting to conflict in the relationship (Hoeltje & Zubrick, 1996). Through the input of monitoring and positive induction the adolescent can see that these positive behaviors would be congruent with what they see as their own internal identity standard of self-efficacy and what would be expected from parents. Perceived parental punitiveness had a negative impact on adolescent self-efficacy in both the mother and father model. This finding further supports previous findings in both Mexico and other Latino populations, which show using punishment as a parental behavioral strategy has negative consequences for adolescent self-efficacy, although these consequences may not be as strong as for other populations (Ingolsby et al., 2013; Hoeltje & Zubrick, 1996; Moyeda-Galicia et al., 2013). If an adolescent has high self-efficacy but receives negative input (punitiveness) for their behavior then this would cause a skewed identity standard which results in lower levels of self-efficacy.

Conclusion

In general, the findings of this paper are similar to those found among other Latino populations and Latinos in the U.S., where parental induction, monitoring, and parental education positively contribute to self-efficacy while punitiveness, marginalization, and depression have the opposite effect. Interestingly, work-only and study-only were significant positively related variables in the mother model; however, work-only was significant in the father model. This is in comparison to adolescents who responded as no work or study. To date, there is not any research which has delved into how the work and/or school dynamic effects Mexican adolescents' self-efficacy, but this finding does highlight an interesting divergence between the importance placed upon education between parents. Lastly, familism was not a moderator of the perceived parental behaviors and instead had direct effects. This finding highlights the importance of family in Mexican culture and its effects on adolescent development.

The first hypothesis of positive induction, monitoring and autonomy granting being positively related to adolescent self-efficacy was partially supported. Only autonomy granting was not significant in either model. It has been found that Latino parents do not grant their children as much freedom as other cultures, for example the U.S., and because of this autonomy granting loses power. The second hypothesis of punitiveness and permissiveness being negatively related to self-efficacy was also only partially supported. Permissiveness was not found to be significant. This may be attributed to the limited length of the scale (three questions) or to the fact Mexican parents have high levels of monitoring, and, therefore, do not engage in overly permissive parenting behaviors. Hypothesis three of adolescents involved in schooling will have

higher levels of self-efficacy was not supported. The variable of work-only for adolescents was significantly related to positive self-efficacy, as was study-only in the mother model. The fourth hypothesis was not supported; familism did not moderate the relationship between perceived parental behaviors and adolescent self-efficacy.

Through the use of the Unified Identity Theory adolescent self-efficacy can be predicted through the congruence of perceived parental behaviors towards the adolescent's internal identity standard, how this compares to their wider world, and which behaviors they place highest within their identity hierarchy. The most powerful perceived parental behaviors were positive induction, monitoring and punitiveness. If the parent knows where the adolescent is and what they are doing this has a positive impact on the adolescent's self-efficacy. While being punitive in their parenting behaviors was found to have a negative relationship to self-efficacy. The fact that punitiveness is a significantly related is of interest as Mexican parents have been found to be generally punitive in their parenting behaviors and it is a culturally accepted norm.

The findings from this research demonstrate a nationally representative sample of adolescent perceptions of parental behaviors and their own self-efficacy can shine light on specific aspects which are culturally relevant to Mexico. Much of the research in this area is focused on American and European populations and has not analyzed these effects within a Mexican population. There is research done on Mexican American populations and parental behaviors, but many of these studies focus on adolescent self-esteem or parental self-efficacy.

This is an ever increasingly important area of research because Mexican culture has gone through drastic changes in recent decades with economic reform (e.g., higher

wages and lower unemployment), increase in media influence (e.g., cultural values and ideals are changing), and rising drug violence country-wide (a stressor and threat to many). In order to better understand how these cultural changes have affected families, empirical research must support, or debunk, the qualitative anthropological findings already present in the country. Through this research not only can the present generation begin to see the story of how Mexican culture and families have changed and adapted over the years, but also future generations can use this information. This is made even more important in this difficult time in the country's history with such high rates of violence and government corruption.

For those working in academia, social work, family policy, and for parents, this information may aid in the understanding of specific parenting behaviors prevalent among the Mexican population and their consequences for the development of adolescents. Through a stronger understanding of the pathways through which parenting behaviors inhibit or enhance an adolescent's self-efficacy, parents, teachers, and family educators can begin to work toward promoting these behaviors and passing the knowledge onto the upcoming and future generations of parents. As family education and therapy are not viewed highly, or as particularly important in Mexico, this information can be a solid base off of which parents can be educated toward the benefits of positive parenting behaviors and limiting punitive behaviors.

Recommendations for future research are to include parental responses. Understanding how parents themselves feel about their parenting behaviors and what works will provide credence to the empirical findings being compiled. For the future of adolescent research, scholars can look at differences in locality of the country and in race

and ethnicity. As Mexico is a diverse country, teasing out the specific differences between different behaviors espoused by the different populations would prove beneficial

CHAPTER III

EXAMINING THE RELATIONSHIP BETWEEN PERCEIVED PARENTAL
BEHAVIORS, ACADEMIC MOTIVATION, AND ACADEMIC ACHIEVEMENT IN
MEXICO

Jonathan R. Douglas

Abstract. This study examines the extent to which adolescents' perceived parental behaviors (positive induction, punitiveness, permissiveness, autonomy granting, and monitoring) are related to Mexican adolescent academic achievement. The sample consists of 1,200 Mexican adolescents aged 14-17 with self-report data being collected based upon their geographic region, level of marginalization, and level of urbanization. Adolescents reported on sociodemographic data, adolescent depression and problem behaviors, work and/or study, parental behaviors, academic motivation, educational aspirations, and academic achievement. Results from hierarchical regression analyses indicated that adolescent academic achievement was positively related to autonomy granting and negatively related to permissiveness. In contrast, in the father model none of the perceived parental behaviors were found to have a significant relation to academic achievement. Academic motivation and educational aspirations positively impacted academic achievement in both models. This study brings important empirical information to researchers and educators for the improvement of adolescent academic achievement in Mexico.

Background

The current study contributes to the literature and knowledge within the field of parenting, adolescent development, and academic achievement through expanding the research on perceived parental behaviors and their effects on adolescent academic achievement. Research on perceived parenting behaviors and adolescent academic achievement is of great importance for policy makers and educators. Through empirical studies professionals in the field can create and adapt policies to inform fellow educators and families about best practices for the promotion of higher educational aspirations and academic achievement. With the great strides made in the educational system in Mexico over the previous two decades, importance lies in understanding how parenting can further aid educational attainment for adolescents. As Mexico moves forward, it will become increasingly relevant that adolescents and young adults attain a certain level of education for development throughout the country to continue.

Mexican society and culture have gone through significant changes in recent decades ranging from education reform and family planning to economic reform and rising drug trafficking violence. Some of the largest and most influential of these changes were the rural to urban migration; increases of women in the workforce; family dynamics; and most notably for this research, educational gains (Lächler, 1998). Each of these societal and cultural changes has had profound effects on Mexican families, their composition, and parenting approaches. Within policy, research, and guidance programs, the field of family science has had little influence in Mexican society and is a relatively ignored area of study (Esteinou, 2005).

The purpose of this study is to investigate the relationship between dimensions of perceived parental behaviors (i.e., positive induction, punitiveness, permissiveness, monitoring, autonomy granting) and adolescent academic motivation, educational aspirations, and academic achievement from a nationwide sample of Mexican adolescents. Within this analysis, researchers will investigate the role of adolescent self-efficacy as a mediator of the relationship between parental behaviors and academic achievement. Through this research parents, educators, social workers and policymakers can better understand the influence of parenting behaviors and self-efficacy within the realm of adolescent academic motivation and achievement.

Literature Review

Education in Mexico

With regard to education, Mexico has gone through drastic reforms and has had some very promising outcomes. Beginning in the 1980s through today access to education, attendance, funding, and educational attainment has increased dramatically. From 1970 to 2010, years of schooling for those 15 years and older increased from 3.68 to 8.6, respectively (INEGI, 2010). This increase brought Mexican educational attainment closer to the Organization for Economic Cooperation and Development (OCED) average and highlights the divides between younger Mexicans of 25 to 34 years old (44% with upper secondary qualification) and 55 to 64-year-olds (23% upper secondary qualification) (OECD, 2013). The estimated percentage of young Mexicans to attain upper secondary education is 49%, an increase from 33% in 2000. These increases occurred in part to government regulations in education reform, but were also influenced by the familial and cultural importance placed on education. This is further reiterated in

Mexico through the availability of education for nearly all four-year-olds due to a preprimary education reform which was created for early childhood to increase kindergarten readiness in young children and families (OECD, 2013).

Even with these accomplishments, the country's ambitions for further improvement remain. As Mexico is part of the Organization for Economic Cooperation and Development, there is a basis for comparison to other nations in the world, including other developing Latin American countries. Of Mexico's population, 64% has not completed an upper secondary education; this is among the smallest percentage within OECD countries. Mexico has one of the lowest enrollment rates among 15 to 19-year-olds (56%) despite this birth cohort comprising the largest age group in the country's history (OECD, 2013). These enrollment rates are quite low in comparison to the OECD average of 84% or among other Latin American countries such as Argentina (72%), Brazil (77%), and Chile (76%). With the enrollment and graduation rates lagging behind, compulsory education was altered to include upper secondary education in 2013, with the goal of universal attainment by 2022 (OECD, 2013). Growth in educational attainment throughout the country further supports the importance of education within Mexican society.

Major changes in the economy have taken place over the years; however, the needs for additional modifications persist. Two areas have had distinct effects on the Mexican government's distribution of funds among educational initiatives and the increase in educational attainment. These areas are a.) the reduction of the average number of children born to women and b.) the increase of economic activity of women. For example, through changes in the Mexican society and culture since the 1970s a sharp

decrease is seen in the number of children born to women by age 44, dropping from 6.3 in 1970 to 2.3 in 2010 (INEGI, 2010). This reduction allowed for women to devote fewer years to child rearing, and therefore, decreased seclusion at home for caregiving activities. This allowed females to have greater personal freedom and expansion of personal horizons, which includes educational attainment. An example of this is shown in the percentage of the adolescent population attending school. For the first time in Mexico's history, the percentage of women in secondary school overtook that of men in 2010. Currently, among 15 to 17-year-old women 68% are attending school while this percentage is 66% for men (INEGI, 2011).

The second important economic change is the increase of women in the workforce. Between 1970 and 2010, rates of economic activity among women increased from 17.5% to 32% (INEGI, 2010). With the rise of women in the workforce, changes within the family require adaption of responsibility sharing, family dynamics, communication within the family, and role distribution (Esteinou, 2005). Although research has some mixed findings within this area, overall maternal employment has few adverse effects on children and depends on a variety of circumstances including home and work influences affecting the mother's psychological ability to parent effectively (Peterson, 2005). Research has identified work contexts of mothers, and fathers, as factors indirectly interfering with parenting due to the parents' work-related emotional impact causing disturbances in their feelings and moods at home (Crouter & Bumpus, 2001). For this reason, work overload can affect the stress levels of parents which indirectly affect the parent-adolescent relationship.

With these changes in family dynamics and organization, there is still a strong cultural belief of women's occupation residing in the home and their primary role as the caregiver for children. Deeply rooted cultural values and norms pass along the ideal in which gender roles and families come before individual interests. Until recently, families in Mexico were based upon an agrarian society and collectivistic culture, it is through this history that gender roles and cultural values were ingrained in society (Esteinou, 2005). For example, the rural-urban migration tendency throughout Mexico over the last few decades has had effects on families and on how education is funded, promoted and obtained. In 1950, 58% of persons lived in urban areas; by 2010 this statistic climbed to 78% and is still rising (INEGI, 2010). Such a significant jump in rural-urban migration brings disruption within many family dynamics and traditions. These changes are most notable among middle and high socio-economic groups which have moved to urban areas where a strong relationship involves emotional closeness and open communication, a change from the practical and material customs of the past (Nehring, Esteinou, & Alvarado, 2014).

Hypothesized Relationships

Figure 1 presents the theoretical model which utilizes Burke's Identity Control Theory, with further supporting evidence from Stryker's Identity Theory, to describe and explain how Mexican socio-cultural changes and interactions in the parent-child relationship develop adolescents' roles and identities among the variables presented. Through the unification of these identity theories (Unified Identity Theory) this research explains how adolescents' roles and identities are chosen, and how their behavior is controlled by their identity standards. With the use of these theories, adolescents'

academic development is explained through the different contexts and interactions creating their roles and identities and is central to their own self-development. For example, parents who have high levels of educational attainment and positive work environments have positive relationships with their adolescents, resulting in higher levels of positive induction, monitoring, and autonomy granting. Through the importance parents place on education and relationships with their child, the adolescent may have higher levels of self-efficacy and increase their own academic motivation, which would ultimately result in higher levels of educational attainment.

Unified Identity Theory

As Mexican society, culture, education and family dynamics have changed, investigation is crucial to determine how perceived parental behaviors, monitoring, autonomy granting educational aspirations, and academic motivation affect adolescent academic achievement. Adolescent self-efficacy mediation between the relationship between perceived parental behaviors and academic achievement is further investigated through the Unified Identity Theory.

Although Unified Identity theory includes several different perspectives, this paper will focus on Burke's Identity Control Theory and Stryker's Identity Theory. Using them as a Unified Theory of Identity to explain an adolescent's role taking, identity choice and the resulting behaviors from each (Turner, 2013). This is explained in Figure 1 below, which incorporates concepts from Burke's Identity Control Theory and the interactions each variable has with one another and is supported by Stryker's Identity Theory (Stryker & Burke, 2000). The concepts from previous researchers' views on identity theory were compiled through generations of family research to explain an

individual's perception of their role and identity within society, how this affects their behaviors, and which identity to use in certain situations (Turner, 2013).

Symbolic Interactionism was introduced in the early 1900's and has undergone many adaptations and modifications since original inception (Stryker, 1959). Through the work in identity theory, Burke's Identity Control Theory and Stryker's Identity Theory, researchers are able to analyze how an individual's contexts, interactions, roles, and identities affect their choices and development. Burke's Identity Control Theory focuses on controlling behavior by identity standards; however, does not give great credence to roles and identity standards importance in specific situations (Stets & Burke, 2000). Stryker's Identity Theory fills in the puzzle Burke left out, through predicting which identities will be chosen and why (Stryker, 1968). Therefore, with a number of acceptable identity standards, why is one chosen over the others? The strength of these theoretical perspectives is their ability to take into account the adolescent's perceptions of their own interactions and environments and how these, in turn, affect identity choice and development.

The four concepts below explain how an adolescent's internal identity standard is influenced from the input of their environment, the comparison of the input against the identity standard, and the output of the behavior chosen (Burke, 1997). The first concept in the model below is internal identity standard. This is explained as an adolescent's perception of themselves in a specific situation, such as their identity as a student. The collection of their *idealized self* for this specific identity is also comprised of their *working self*, which is guided by specific moment-to-moment interactions (Burke, 1997). Identity standards are created by the society and self, which have basis in self-expression

and social responsibility. This includes how the adolescent views their role in society, the expected behaviors for this role, and the identity standard within the role (Stryker & Burke, 2000). An example of this is an adolescent in the role of student, which includes going to school and learning. Within the identity standard they hold, this role can be that of a student with high achievement focused on future education or a student with low achievement focused on work.

Within Mexico, roles and identities can be affected by the socio-cultural changes in education and family dynamics which have begun to change behaviors throughout the country. Socio-cultural changes explained below encompass changes in rural-urban migration, parental education and work, increases in educational attainment, and the view of traditional gender roles in the country (Esteinou, 2005; Frias-Armenta & McCloskey, 1998). Whether the adolescent is aware of it or not, they have roles and identity standards for themselves. In this research, this is seen as the role of a student and the behaviors used to fit the internal identity standard. Adolescents involved in schooling have an ideal model of what type of student they want to be. This includes understanding societal and familial expectations, and their own expectations of themselves within their academic development (Burr, Leigh, Day, & Constantine, 1979; Bean, Bush, McKenry, & Wilson, 2003).

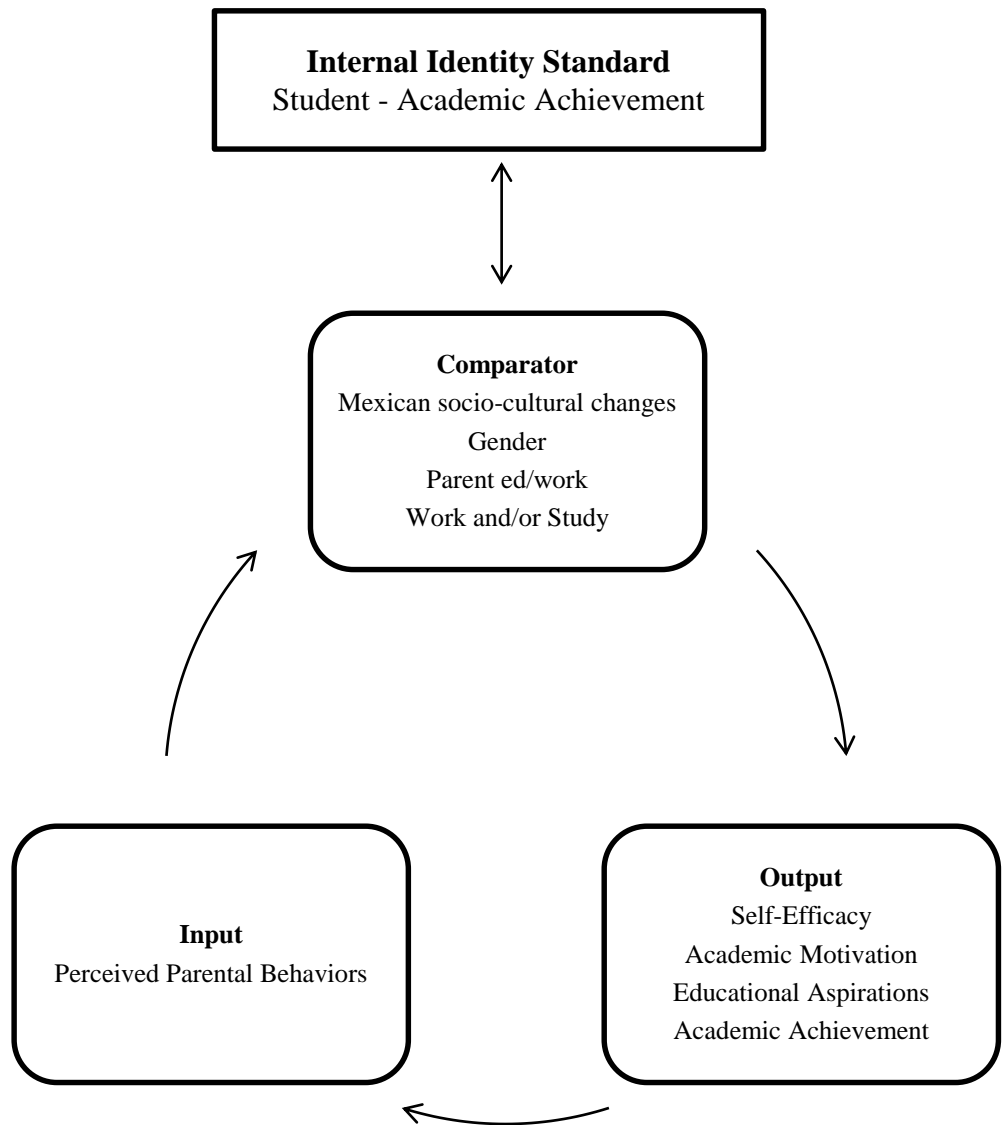


Figure 1 – *Unified Identity Theory of Perceived Parental Behaviors and Adolescent Academic Achievement*

Through interactions an adolescent has with parents, families, and friends, the process of development throughout their lives is built and perceptions of identities and behaviors are developed (Stryker, 1968). From adolescents' environment and

interactions with parents, they gather the second step in the model (input).

Understanding the significance of interactions and the processes adolescents go through is very useful within this research study to highlight the importance of adolescent perceptions of themselves and parental behaviors in their academic development. By analyzing the information from perceived parental behavior (input) adolescents are able to conceptualize their identity standard of what it means to be a student. The input of the adolescent's perceived parental behaviors allows for them to develop the appropriate identity standard of student in the school, home, and society (Burke & Reitzes, 1981).

Identity salience is defined as “such that other things equal one can expect behavioral products to the degree that a given identity ranks high in this hierarchy” (Stryker, 1968, p. 560). Identity salience hierarchy and commitment will have a strong effect on identity standard and how adolescents approach and think of their role and identity as a student. Another way of describing this is explained by Stryker and Burke (2000) as one's level of commitment shapes identity salience which, in turn, shapes identity standard. An example of this is when an adolescent fulfills the role of student with their identity standard of high achieving and high aspirations, but their parent's illicit punitive and permissive behaviors which do not support this identity standard. A decline in motivation and aspirations is the result of longing for parental praise and not having this need met.

The third step in the model is the comparator. The comparator is the portion of the control system which assesses the input of perceived parental behaviors with the idealized identity standard (Stets & Burke, 2000). Another way of asking this is, “does the input that the adolescent is receiving from their parents match the identity standard

student that they want to be?” For example, an adolescent’s role in school may resemble a follower. Because of this, their identity standards may have a low level of self-efficacy and low levels of academic motivation; although, in the home they are expected to be caregivers and help the family financially through work. This example demonstrates how the adolescent participates in two contrasting types of role taking (school vs. home), which may cause role-strain. The importance placed on these different roles can create a strain in understanding the expectations placed on them, their ability to fulfill roles, and ultimately achieve identity standards (Stryker & Burke, 2000). Conversely, if an adolescent’s parents utilize positive induction and monitoring behaviors with regard to academics, their identity standard may have high levels of self-efficacy and academic achievement, allowing them to overcome this role-strain and avoid difficulties with skewed identity standards.

The final portion of the model is output. The output is the adolescent’s observable actions: academic motivation, educational aspirations, and academic achievement. Adolescents will modify behavior to align with their role as a student. This modification will align with the identity standard to fit the type of student which obtains favorable praise from the input (perceived parental behaviors). Lack of support for an adolescent’s output results in incongruence within their identity standard, which will further modify their behaviors. If this modification of behaviors is not successful, their identity in the hierarchy will lose commitment and lower in importance, potentially leading to stress, frustration, and depression. For example, if an adolescent student is expected by others, and themselves, to get good grades but consistently fail to do so, their expectations will decline and academic motivation will decrease. Therefore, when

parental monitoring and autonomy granting is accompanied with a high level of self-efficacy, the likelihood of the adolescent's grades reflecting their hard work and dedication is high.

Parental Behaviors and Academic Achievement

Adolescence has long been known as a time of great difficulty for both youth and families. These difficulties are noted in the parent-adolescent relationship and were previously thought of as due to physiological changes, sexual impulses and changes in peer relationships. Through adolescent development research in terms of their social competence, academic achievement, and the relationships this has with parenting behaviors, this idea has been changed (Peterson, 2005). Although a significant amount of adolescents experience troubled family relationships, the majority of adolescents report they value their parents' opinions, respect their authority, and feel attached to their parents (Amato & Fowler, 2002; Kaplan Toren, 2013; Steinberg, 2001).

Adolescents' feelings and opinions toward parents as authority figures have shown to depend on the type of parenting behaviors used. A meta-analysis completed by Fan and Chen (2001) which included 92 correlational coefficients, identified parental involvement to have a significant positive correlation of .25 with student's academic achievement. This study highlights the importance of investigating specific parenting behaviors, as parenting styles are not congruent across cultures worldwide.

Through studies involving Mexican and Mexican-American adolescents, researchers have found normative parenting styles have undergone change alongside societal and economic changes (Supple, Ghazarian, Peterson, & Bush, 2009). For example, a study by Esteniou (2005) discovered distinct differences in parenting

approaches among parents separated into first generation (50-60 yrs. old) and second generation (25-35 yrs. old). This study noticed first-generation parents as authoritarian and had a stronger focus on material and security support which promoted traditional standards. The second generation was more authoritative, utilizing expressiveness and flexibility with their adolescents and a stronger focus on communication (Esteinou, 2005).

These findings highlight the changes which started with economic and societal standards moving from traditional Catholic norms to an emphasis on admission of feelings, open communication, and emotional closeness (Nehring et al., 2014). The changes emphasized above are also seen within the realm of educational reform and parental promotion of academic achievement. The renewed attention to education reform has policy makers and educators searching for better ways to promote education for those who are at risk of academic failure. As outlined in the previous section over educational attainment in Mexico, students study less over time and focus more on household or labor force work (Levison, Moe, & Marie-Knaul, 2001). Figure 2 shows how this relationship is differentiated between boys and girls. Through a study done by Levison et al., (2001) among urban Mexican students, both boys and girls followed this decline in emphasis placed on education, although in different paths with boys focused on labor force and girls emphasis on home duties.

Research on work and education among adolescents in Mexico identified a recent ‘feminization’ of agricultural work in rural areas (Levison et al., 2001). This change is attributed to the lower birth rates in both urban and rural areas. The study also focused on what was viewed as ‘work’ among the population, and found that housework was

often not included in the variable of work. The difference between housework and labor further highlights the difference in the interpretation of female and male roles. When housework was not included in the analysis girls were found to be 13.8% more likely to specialize in school than boys. However, when housework was included in the analysis, researchers found girls were 7.7% less likely to specialize in education than boys and 14.1% more likely to combine work and school (Levison et al., 2001). The findings of this study stress that as Mexican adolescent age they tend to focus more on work, either labor force or in the home, to the detriment of their educational attainment. With the societal norms in Mexico continuing to guide men towards activity, women are linked with more towards passivity (Nehring et al., 2014).

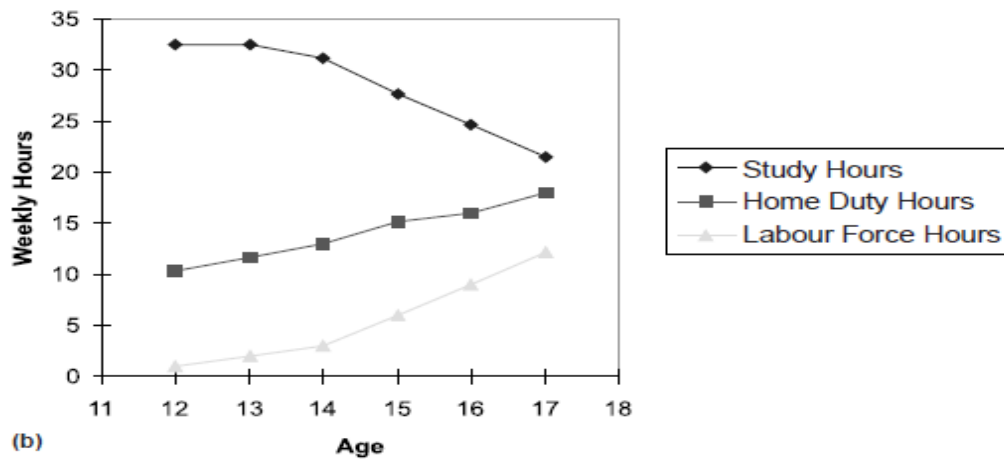
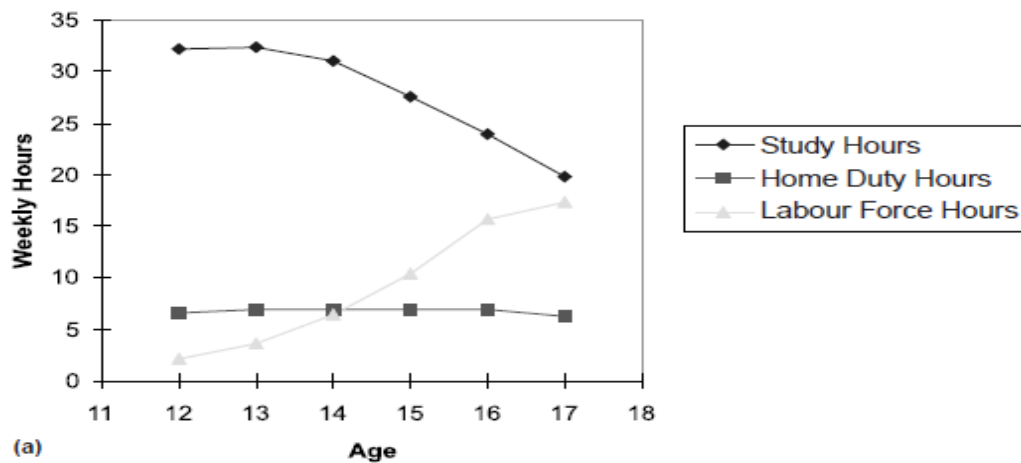


Figure 2 – *Weekly hours of boys (a) and girls (b) (12-17 yrs. old) in urban Mexico*

(Levison, et al., 2001)

It is not only the work of adolescents which should be analyzed, but also how the work-stress of parents and its effects on the parent-adolescent relationship. Although there is no direct effect discovered between parental work-stress and difficulties in adolescent psychological functioning, there is an indirect relationship found in certain studies (Crouter & Bumpus, 2001; Lächler, 1998). Through the research of Crouter and Bumpus (2001), the connection between stress at home and work was higher for mother-adolescent relationships than mother-child. This differentiation may be attributed to the reduction of control and increase in independence of adolescents in the creation of their own identities. As women in Mexico take on the majority of housework, this increase in stress can also have deleterious effects on fathers as they have shown to increase feelings of work overload depending on their wives (Crouter & Bumpus, 2001).

Another area of inquiry and research which has increased in recent years is Mexican parents' educational attainment and the effect on adolescents' academic motivation and achievement. Similar to other nationalities, Mexican parents typically receive less formal schooling, and have difficulties aiding their children with education even if academic achievement for children is valued. Mexican parents who have received less formal education may be unfamiliar with how the school system functions, have less confidence in helping their children with academics, and devote less time due to work constraints (Plunkett & Bamaca-Gomez, 2003). Even with these obstacles, parental

involvement and encouragement aid adolescents in the development of their self-esteem and academic motivation.

Within this same vein of research, parental autonomy granting and monitoring have been analyzed and investigated with regards to how they may promote or inhibit adolescent's academic achievement. Parental autonomy granting within this current study is defined as the adolescent's perceptions of parents' to establish freedom through behavioral and relational dimensions (Supple et al., 2009). This ranges from choosing friends and dating partners, to the clothing adolescents are permitted to wear. As Mexico is thought of as a 'moderately collectivistic' society, parental encouragement of freedom and the development of independence is viewed within the realm of educational and occupational decision-making; helping not solely the individual, but also the family and community in the future (Supple et al., 2009). Parental expectations are viewed within autonomy granting. As adolescents are allowed more individual freedom expectations to adhere to parent's requirements and to the adolescent's demanded roles and identity are placed. Parental expectations show a positive association with adolescents' academic achievement and motivation (Kaplan-Toren, 2013).

Monitoring of children is of great importance within Mexican society because of the expectation that adolescents follow by their parent's rules. Monitoring is seen as the supervision of adolescent activities, direction of school work and activities, peer relationships, and conformity to familial and community norms (Amato & Fowler, 2002). Parental monitoring is even further highlighted currently throughout Mexico with the drug violence that has been of great influence throughout the country and affected students in nearly every state (Heinle, Rodriguez Ferreira, & Shirk, 2014). Parental

monitoring of Mexican-origin families in the United States has found that higher levels of monitoring resulted in fewer problem behaviors in adolescents, as well as aiding in academic outcomes such as GPA (Plunkett & Bamaca-Gomez, 2003). The benefits of monitoring are oftentimes seen within the realm of high support and avoidance of harsh punishment; if there is low support and harsh punishment the findings of monitoring are reduced to non-significance (Amato & Fowler, 2002). The avoidance of harsh punishment is an area of difficulty and may not be culturally relevant in Mexico as it has been found that many Mexican families see corporal punishment as a positive and necessary practice to produce healthy citizens (Frias-Armenta & McCloskey, 1998). Along with this, many families in Mexico are more authoritarian in their behaviors and this often directly leads to harsh punishment.

Self-Efficacy and Academic Achievement

Changes in adolescence does not only include the adolescent themselves, but also those with whom they interact and learn from. These relationships include the adolescent's family relations, school connections, peer groups, as well as their own personal learning and motivation (Hoeltje & Zubrick, 1996; Kiran-Esen, 2012; Moyeda-Galicia, Sánchez-Velasco, & Robles-Ojeda, 2013; Shunk & Meece, 2001). Looking inwards, these relational alterations derive from changes in the physical, cognitive, and emotional aspects of the adolescent in their overall development. All of these changes can have a strong effect on one of the most pervasive aspects of personal agency that explains adolescent's capabilities to reach their academic aspirations, even if they must push through adversity in order to reach them (Bandura, Barbaranelli, Caprara, & Pastorelli, 1996). This personal belief of agency is known as self-efficacy, and has been

shown in research to have direct and indirect effects on adolescent's academic motivation and achievement, occupational choices, prosocialness, persistence and successful adaption in the face of adversity (Barca-Lozano, Almeida, Porto-Rioboo, & Peralbo-Uzquiano, 2012; Bandura, 1993; Pajares & Schunk, 2001; Pajares, 1996; Rutter, 2006).

Self-efficacy within this research is defined as adolescent's beliefs to regulate their own learning activities and to master difficult subject matters that affect their perception and assessment of their own skills (Bandura et al., 1996). Self-efficacy has been found to affect many different aspects of one's well-being, mental health, aspirations, etc., but within this study it will be focused on how self-efficacy may mediate the relationship between perceived parenting behaviors and academic achievement. In order to fully understand how an adolescent's sense of self-efficacy is developed, researchers must understand how it is created and from what experiences.

Self-efficacy is part of a broad research area that has developed around human agency, mastery, and control; with a finer focus based upon a person's perceptions and assessment of their own agency, effectiveness and competence (Gecas, 1989). Through a closer view into how self-efficacy is developed Bandura (1993) theorized that is developing throughout the life course and has four primary sources: emotional arousal, verbal persuasion, vicarious experiences and personal mastery. Each of these different experiences throughout the life course has a distinct effect on the adolescent's overall sense of self-efficacy.

Emotional arousal is seen within the adolescent's emotional states when an experience or challenge presents itself and how they react to it. This may be the arousal of anxiety when nearing the time for an exam because of lack of preparation or bad test

taking skills, or the arousal of excitement when the time for a presentation comes and the individual feels efficacious in their skills and abilities to complete the task.

Verbal persuasion is what others tell the adolescent about how well, or not well, they may do at a task or the promotion, or negation, of their abilities to complete said task. As children and adolescents may have little direct experience of their own, verbal persuasion from those they trust can have a strong effect on how they view new challenges that may arise. This may also be viewed within how interactions between the parent and adolescent aid in their development of their identities. For example, when taking a final or qualifying exam adolescents may not have had previous experience with such a stressful event, but through positive verbal persuasion and interaction their nerves can be put at ease and view their abilities to do well in the exam as efficacious.

Vicarious experiences are seen as those in which the adolescents sees or hears of others performing challenging tasks that have successful outcomes. Vicarious experiences can come from parents, peers or teachers in the school environment and is often one that builds up the adolescent's role taking and identity hierarchy. Beginning from this young age the experiences they are exposed to and how they are handled will scaffold the child through adolescence into what they view as possible and what they view themselves capable of. If parents have their children spend time with high achieving peers and enroll them in schools where educational achievement is highly sought after then they are more likely to be exposed to experiences that are not viewed as impassible but seen as obstacles to be overcome. Therefore, when compared with individuals who doubt their capabilities adolescents who have a high sense of self-

efficacy with learning or performing academically in a competent manner are more likely to work harder and persist longer in the face of difficulty (Shunk & Meece, 2006).

The final component and most influential is that of personal mastery. It is from personal experiences in attempting and accomplishing tasks that adolescents become both cognitively and motivationally efficacious in their abilities to overcome difficulties. Schools and parental involvement are seen as two of the best avenues through which adolescents can build their self-efficacy in their academic endeavors, and build upon this efficacy in their identity development for future occupational choices and work (Multon, Brown & Lent, 1991). It should be noted that just having knowledge and skills is not necessarily adequate when facing challenges, the adolescent must also be able to use them and feel that they can use them correctly to accomplish their ultimate goals (Bandura, 1993).

In self-efficacy research, it has been found that parents are one of the most influential aspects of an adolescent's development. It is in families that are supportive, nurturing, warm, and allow autonomy that have been found to result in higher levels of self-efficacy (Gecas, 1989; Seegan, Welsh, Plunkett, Merten & Sands, 2012). It is not only the behaviors of parents that has been found to be quite influential in self-efficacy research but also within the context of their own socioeconomic status, occupation, and education levels that are related to mastery (Gecas, 1989). This sense of mastery, personal control, and self-efficacy in relation to income and education is positively related when it is earned and not received through charity or welfare, further highlighting the degree to which personal mastery builds one's sense of self-efficacy. Parenting behaviors that are based on punitiveness, harsh punishment, and rejection are those that

have been found to be negatively predictive of self-efficacy and academic achievement (Hoeltje & Zubrik, 1996; Shunk & Meece, 2006).

As self-efficacy can be a global measure, as it is conceptualized in this study, or a task-specific construct, i.e. academic self-efficacy, it is important to note this within the present study. In studies in which self-efficacy has been conceptualized as task specific, the findings have been stronger towards academic achievement and persistence (Pajares & Schunk, 2001). In a study conducted by Zimmerman, Bandura, & Martinez-Pons (1992) it was found that student's perceived academic self-efficacy accounted for 31% of the variance in student's academic course attainment. This is a significant finding as there are many different aspects that go into a student's academic success.

Even with the previous research studies done there is a limited amount of research on adolescent self-efficacy and academic achievement in Latin America, with even less focusing on Mexico. For international research to advance in the field, it is of grave importance that other cultures beyond that of the United States and Europe be undertaken. Considering the relatively high levels of poverty and dropout rates in Mexico a better understanding of how parents, educators, and policy makers can enhance self-efficacy can be an important instrument to increase academic motivation, educational aspirations, and eventual academic achievement. Through research done in Chile and Ecuador by Ingolsby, Schvaneveldt, Supple, and Bush (2003) on parenting behaviors, adolescent self-efficacy and academic achievement it can be seen that there are important distinctions to be made between both countries and maternal and paternal parenting behaviors. For example, in Ecuador adolescents who perceived their mothers as granting a high degree of autonomy actually reported lower academic achievement, while

perceptions of father's granting a high degree of autonomy reported higher academic achievement. This was reversed when looking at the data from Chilean mothers but found to be similar for fathers (Ingolsby et al., 2003). As has been explained in the previous section over parenting behaviors adolescents in Latin American families perceive the responsibilities of mothers and fathers differently which may explain this divergent finding.

In one of the only studies with a focus on a Mexican sample it was found that expressive relations and familial cohesiveness were significantly and positively related to both self-efficacy and academic achievement (Moyeda-Galicia et al., 2013). Although expressiveness has not been noted as an important aspect of parenting in previous Mexican generations it is becoming of greater importance in recent generations, while familial cohesiveness is another sign of Mexico's moderately collectivistic society (Esteinou, 2005; Ingolsbly et al., 2003).

Summary

In summary, through the research available adolescent's sense of self-efficacy is closely related to academic achievement. Also the importance of parenting behaviors cannot be overstated when looking at adolescents and their overall development. Based on the previous studies discussed above the following hypotheses are made:

- 1). Parental positive induction, autonomy granting and monitoring will be positively associated with academic achievement;
- 2). Parental punitiveness and permissiveness will be a negatively associated with academic achievement;

- 3). Adolescents who work and study will have lower levels of academic achievement than students who study-only;
- 4). Academic motivation & educational aspirations will be positively associated with academic achievement;
- 5). Adolescent's self-efficacy will mediate the relationship between perceived parenting behaviors academic achievement.

Methods

Sample

The sample consists of a total of 1,200 adolescents from Mexico. The ages ranged from 14-17 ($M = 15.5$; $SD = 1.13$) living with parents and were nearly evenly distributed among gender (males = 53.7%, females 46.3%). Surveys were administered through a Mexican organization specializing in the delivery of survey instrumentation through face to face interview style in the home of the adolescents. This was done in case literacy was an issue. Interviewers were trained in the process of data collection and input. The sample was collected through a stratified method with systematic selection. The 1,200 questionnaires were applied to the population of adolescents based on the different geographical settings, level of urbanization, level of marginalization, and presence of the indigenous population.

Geographical setting was determined by dividing the country into three main geographical regions; this offers a different view of the population according to their location: North, Center, and South, with Indigenous also an option for adolescents. Each of these regions have different levels of urbanization, geographical conditions, social and human development, presence of indigenous groups, type of migration, economic

situation, distribution of income, and the emergence of different phenomena and social problems. Through data collection in each of these areas the sample is representative of the entire country.

Level of urbanization is considered an important indicator of development, along with modernization and the demographical transition which Mexico has been going through. The process of urbanization in Mexico has been one of great change since the 1980's with large increases to highly dense urban areas, which deeply effects people's daily lives and the make-up of their families (Sobrino, 2012). In this study, the categorization of the process of urbanization is considered rural when it does not exceed 5,000 inhabitants, semirural when it has between 5,001 and 15,000 and urban when it is above 15,001.

Level of marginalization is taken into account as an indicator of the development of states. To determine levels of marginalization the Population National Council (CONAPO), has built an index of marginalization that allows the differentiation of localities according to the dimensions of education, housing and income. The population who does not meet basic goods and services for their development is identified. Using this index the states were classified as low, medium, and high marginality. This variable was not part of the stratification process but was a variable that was captured.

In order to make generalizations with the data, it was necessary to apply the questionnaire within the three regions in which the country was divided, North, Center, and South. With the classifications described above it was chosen that there would be 3 zones, urban, semi-rural, and rural zones, with 400 questionnaires given based upon their level of urbanization for a total of 1200 surveys.

Survey Instruments

The data examined in the present study is part of a larger Cross–National Study of Adolescents including data from samples of adolescents in Chile, Ecuador, Colombia, U.S., China, Russia, Kenya, India and South Korea (Lash, Supple, & Bush, 2004; Ingoldsby et al., 2003; Peterson & Bush, 1999). All of the scales and items are measured by the adolescent’s perceptions of maternal and paternal parenting behaviors and family dynamics. Likert-scale responses were used for all items as 4-point responses (1 indicating strongly disagree to 4 strongly agree). Items were recoded so that the higher scores on the scales correspond to the greater frequency of behaviors and stronger agreement from the adolescent. The survey consists of scales and items which measure sociodemographic variables, adolescent depression and problem behavior, parenting behaviors, self-efficacy, academic motivation, educational aspirations, and academic achievement.

The current study relied on adolescents self-report of perceptions of parental behaviors. Adolescent self-report strategy has been justified by previous research which suggests youth perceptions of parental behavior are stronger predictors than are parental reports of their own parenting behaviors (Gecas & Schwalbe, 1986). Through the use of adolescent self-report the bias which may occur from parents who may want to hide certain behaviors is minimized. It is reasonable to assume that adolescent perceptions of their self-efficacy and parental behaviors are more likely to influence their own reality than would that of parents.

Perceived Parental Behaviors

Parental positive induction, punitiveness, permissiveness, and monitoring were assessed by items from the Parent Behavior Measure (PBM), a shortened version of the Rollins and Thomas Parenting Inventory that has resulted from previous factor analytic studies (Peterson & Bush, 1999). Factor analyses, utilizing a the maximum likelihood analysis and varimax rotation with a $\geq .40$ cutoff used for the Rotated Factor Matrix, was used for each of the scales within the PBM.

Parental permissiveness. Parental permissiveness was assessed by three items that were anticipated to show how much the parents permit the adolescent to do things on their own without questioning their decisions (e.g., This parent usually lets me do anything I want to do). This resulted in a Cronbach alpha of .53 for mothers and .48 for fathers. As this scale is composed of only three items the alpha level is low, but the items included are important towards understanding how this behavior affects adolescent development.

Parental positive induction. Parental positive induction was assessed using 11 items that were anticipated to measure the degree to which mothers and fathers are perceived as being accepting, nurturing, approving, warm, and explaining how their adolescent's behavior affects others (e.g., This parent explains to me how good I should feel when I do what is right). Maternal positive induction resulting Cronbach alpha was ($\alpha = .81$), and for paternal positive induction ($\alpha = .82$).

Parental punitiveness. Parental punitiveness was measured using 14 items that were anticipated to measure the degree to which mothers and fathers are perceived as using verbal and physical threats and behaviors (e.g., This parent tells me that I will be sorry that I wasn't better behaved). Resulting Cronbach alpha scores for maternal

punitiveness for Mexican adolescents ($\alpha = .83$) and for paternal positive induction ($\alpha = .84$).

Monitoring. Parental Monitoring was measured from a 6 item subscale taken from the Parent Behavior Scale (Peterson, Rollins, & Thomas, 1985). This scale captures the degree to which adolescents perceive their parents knowledge of how they spend free time, who their friends are, and how they spend money (e.g., This parent knows where I am after school or work). This resulted in a Cronbach alpha that ranged from $\alpha = .77$ to $\alpha = .78$.

Autonomy Granting. Parental autonomy granting was assessed using a scale of 10 items that were anticipated to measure the degree to which adolescents make decisions and are engaged in activities without parental oversight or control which would hinder their choices about friendships, dating, clothing, career plans and educational goals (e.g., I feel that this parent gives me enough freedom) (Sessa & Steinberg, 1991). Resulting Cronbach alpha scores for both maternal and paternal autonomy granting for Mexican adolescents ($\alpha = .77$).

Adolescent Self-Efficacy. Adolescents' general sense of self-efficacy refers to a stable sense of competence within a broad range of behaviors and coping outcomes (e.g., If I can't do a job the first time, I keep trying until I can) (Schwarzer & Jerusalem, 1995). This is conceptualized differently from context specific sense of self-efficacy that was proposed by Bandura (1993). Participants generalized self-efficacy was measured with 15 items. The participants responded to the items in terms of a four-point Likert scale which varies from "Strongly Agree" (1 points) to "Strongly Disagree" (4 point) with a low score indicating a high sense of self-efficacy , except in the case of derogatory items

which are reverse coded (i.e., high scores on these items indicates low self-efficacy). The scores for each item are then summed for a total self-efficacy score. The scores for each item were averaged to create a scale score with a resulting Cronbach alpha ($\alpha = .78$).

Parental Civil Status. Parental civil status was assessed by the adolescent response to whether their parents were not married (i.e., separated, widowed, divorced) or married. This variable was coded as 0 = not married and 1 = married.

Parental Education. Parental education was measured by the adolescents response to both their mother and father separately. This separation allows for analysis of both models; parental and maternal. Education categories ranged from 1 to 4, 1 = primary school (no finish and finish); 2 = Middle school (no finish and finish); 3 = Prep/Technical studies (Preparatory and Technical school); 4 = College (University and Graduate studies).

Parental Work. Parental work was measured by the adolescents response to both their mother and father separately. Work categories ranged from 1 to 3, with 1 = no work (retired or unemployed); 2 = part time (less than 5 hours per day); 3 = full time (8 hours or more per day).

Adolescent School/Work. Adolescent's current situation was measured by adolescent response for of their time spent at school, work, or both. Dummy effect coding was used to test school/work differences on academic achievement. The school/work categories ranged from school only and school & work.

Geographic Region. Adolescent's geographic region was measured by adolescent response to where they live in the country, or if they are part of an indigenous population. Dummy effect coding was used to test these geographical differences in adolescent self-

efficacy. The categories ranged from North, Center, and South, with Indigenous being used as the comparison group.

Gender. Adolescents were asked if they were male or female and this response was dummy coded with females = 0 and males = 1 to test for gender differences in self-efficacy.

Problem Behavior. The frequency of adolescent problem behaviors across multiple domains (e.g., risk taking, substance abuse, vandalism, status offences) was assessed with a 22 item 4 point scale (Chen, Greenberger, Lester, Dong, & Guo, 1998). The respondents were asked how often during the past 6 months they engaged in various problems, such as got drunk, got into a physical fight, smoked cigarettes, ran away from home, and cheated on a test (i.e., 1-never, 2 - sometimes, 3 – often, 4 - always.) Responses were averaged with higher scores indicating that the participants engaged in more problematic behaviors. Resulting Cronbach's alpha of .83.

Depression. The Kutcher Adolescent Depression Scale is used for the identification of adolescents at risk for depression, and was assessed with a six item scale with a 4 point Likert scale (LeBlanc, Almudevar, Brooks, & Kutcher, 2002). The respondents were asked how often during the last week they felt depressive symptoms (e.g., Thoughts, plans or actions about suicide or self-harm). The participants responded to the items in terms of a four-point Likert scale which varies from "Never" (1 points) to "Everyday" (4 point) with a high score indicating high levels of depression. The scores for each item are then averaged for a total depression score. This resulted in a Cronbach alpha of .77.

School Adjustment. Adjustment to school is measured through using modified version of self-report items from the Denver Youth survey Interview Schedule (Elliot, 1990). A 10-item Likert scale, Perceived Adjustment to School, will assess the extent to which respondents feel a lack of acceptance, alienation, and loneliness in school contexts or are inclined to skip classes and become suspended from school (e.g., “I don’t feel as if I really belong in school, and “Even though there are lots of students around, I often feel lonely at school.”). Each item is answered on a four-point Likert scale that ranges from “strongly agree” to “strongly disagree.” Scores for scale are averaged for a total school adjustment score, with a resulting Cronbach alpha of .64.

Academic motivation. Academic motivation was assessed with five items measuring adolescent’s effort exerted in school, importance of grades and education, extent of finishing homework on time, and liking school (e.g., Education is so important that it's worth it to put up with things about school that I don’t like). The participants responded to the items in terms of a four-point Likert scale which varies from “Strongly Agree” (4 points) to “Strongly Disagree” (1 point). The scores for each item were averaged to create a scale score ($\alpha = .77$)

Educational aspirations. Adolescent’s aspirations for future education was measured through self-report. Categories ranged from 1 to 5, including responses from 1 = I don’t plan to have any education; 2 = Elementary; 3 = Secondary; 4 = Preparatory; 5 = University.

Academic Achievement. Adolescent’s academic achievement was measured by self-report of grade received in school at that time. The categories ranged from 1 to 6,

with 1 = Mostly 10; 2 Mostly 9; 3 = Mostly 8; 4 = Mostly 7; 5 = Mostly 6; 6 = Some 5 or less.

Analyses

The initial analysis ran was that of descriptive statistics, mean, standard deviation, and range of each major variable. This was be done to better understand what the data shows in a manageable and easily understandable manner. Next bivariate correlational analyses were run with each independent variable, the mediator, and the dependent variable of academic achievement. The bivariate correlational analyses allow for an easily interpretable view of the relationships between the variables and in what direction they are affecting one another.

Hierarchical multiple regression analyses were run to test the hypotheses that perceived parenting behaviors, academic motivation and educational aspirations significantly impact academic achievement among Mexican adolescents. Separate statistical models were tested for mother and father parental behaviors as having a significant impact on academic achievement to prevent issues with multi-collinearity between adolescent perceptions of each parent and their behaviors. In previous studies it was found to be critical that evaluation of parenting behaviors is done separately because they show different effects, specifically in Latin America (Ingolsby et al. 2003).

Each statistical model was done with a three-step procedure to determine the association and amount of variance accounted for in adolescent academic achievement. The first step included the entry of eight sociodemographic variables including gender, age, parent civil status, parent work, parent education, level of marginalization,

adolescent problem behavior and adolescent depression. Also included within this step was the introduction of geographic region and work/study variables.

Step two of the hierarchical multiple regression included perceived parental behaviors (i.e., positive induction, permissiveness, punitiveness), monitoring, and autonomy granting to examine the effects while controlling for the variables in step one.

Step three included the variables of school adjustment, educational aspiration and academic motivation. The final step includes self-efficacy as a mediator, to analyze its effects on the relationship between perceived parental behaviors and adolescent academic achievement.

Results

The means, standard deviation, and range for the control, independent variables, and dependent variables are shown in Table 1.

Table 1. *Descriptive statistics of study variables*

	N	Range	Mean	Std. Deviation
Adolescent age	1200	14-17	15.45	1.13
Adolescent gender	1200	.00-1.00	0.54	0.50
Parental civil status	1185	.00-1.00	0.73	0.45
Father work	1030	1.00-3.00	2.85	0.45
Father education	994	1.00-4.00	1.84	0.96
Mother work	1162	1.00-3.00	1.69	0.89
Mother education	1047	1.00-4.00	1.70	0.88

Level of marginalization	1200	1.00-3.00	2.26	0.85
Adolescent Problem Behavior	1200	1.00-4.00	1.19	0.22
Adolescent depression	1200	1.00-4.00	1.51	0.47
North	260	.00-1.00	0.22	.041
Center	314	.00-1.00	0.26	0.44
South	300	.00-1.00	0.25	0.43
Indigenous	326	.00-1.00	0.27	0.45
Study-only	894	.00-1.00	0.75	0.44
Work & study	112	.00-1.00	0.09	0.29
Autonomy granting mother	1200	1.00-4.00	3.07	0.40
Autonomy granting father	1059	1.00-4.00	3.00	0.42
Positive induction mother	1200	1.00-4.00	3.29	0.37
Positive induction father	1060	1.00-4.00	3.16	0.43
Punitiveness mother	1200	1.00-4.00	2.12	0.45
Punitiveness father	1060	1.00-4.00	2.06	0.46
Permissiveness mother	1200	1.00-4.00	2.72	0.54
Permissiveness father	1057	1.00-4.00	2.62	0.56
Monitoring mother	1200	1.00-4.00	3.12	0.51
Monitoring father	1056	1.00-4.00	2.96	0.54
Self-efficacy	1200	1.00-4.00	2.88	0.38
School Adjustment	1006	1.00-4.00	2.42	0.28
Educational Aspirations	969	1.00-5.00	4.58	0.63
Academic motivation	1006	1.00-4.00	3.29	0.46

Academic achievement	1002	1.00-6.00	4.23	0.85
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Linear regressions were run to examine if there were issues with multi-collinearity that may cause discrepancies in later analyses. None of the independent variables were found to have any issues with multi-collinearity, $VIF < .40$ (Michael & Abiodun, 2014). Bivariate correlational analyses were done to examine the relationships between the independent variables and the dependent variable. Within the both the mother and father models (Table 2 & 3) adolescent academic achievement was most highly correlated with adolescent problem behavior $r(1002) = -.16, p < .01$ and adolescent academic motivation $r(1002) = .34, p < .01$. With regard to academic motivation the strongest correlations were found. For the mother model academic motivation was most highly correlated to positive induction $r(1006) = .32, p < .01$ and monitoring $r(1006) = .32, p < .05$. Similarly in the father model, academic motivation was most highly correlated with positive induction $r(895) = .28, p < .05$ and monitoring $r(891) = .25, p < .05$. With different roles and identities taken by parents in Mexico, it is of interesting note that the correlations from each parent are quite similar.

Table 2. *Bivariate correlations of study variables – Academic Achievement – Mother Model*

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1. Academic Achievement	1																
2. Age	-.06	1															
3. Gender	-.09**	.07*	1														
4. Parental civil status	.10**	.01	.04	1													
5. Parent education	.02	-.01	.00	-.22**	1												
6. Marginalization	.10**	-.03	.03	-.07*	.24**	1											
7. Ad. problem behavior	-.16**	.12**	.15**	-.08**	-.10**	-.09**	1										
8. Ad. depression	-.15**	.06*	-.12**	-.04	.031	-.04	.05	1									
9. Study-only	.03	-.24**	-.12**	.03	.00	.18**	-.14**	-.06*	1								
10. Work & study	-.03	.05	.16**	.03	.02	-.06*	.10**	.04	-.55**	1							
11. Autonomy granting	.15**	.06	.00	.06	.01	.07*	-.05	-.09**	.10**	-.04	1						
12. Monitoring	.12**	-.06*	-.11**	.06*	.03	.03	.04	-.14**	.14**	-.11**	.31**	1					
13. Positive induction	.15**	-.07*	-.07*	.08**	.01	.06	.02	-.05	.15**	-.07*	.40**	.46**	1				
14. Punitiveness	-.12**	-.05	.04	-.01	.01	-.09**	.06*	.21**	-.06*	.09**	-.19**	-.10**	-.10**	1			
15. Permissiveness	-.06	.07*	.13**	.06*	-.02	.01	-.04	-.04	.03	-.03	.32**	.05	.04	-.08**	1		
16. Educational Aspirations	.16**	.15**	-.06	.05	.03	.21**	-.11**	-.05	.15**	-.15**	.13**	.12**	.10**	-.16**	.05	1	
17. Academic Motivation	.34**	-.01	-.07*	.08*	-.00	-.06	.13**	-.15**	-.02	.02	.23**	.32**	.32**	-.15**	.02	.14**	1
18. Self - Efficacy	.18**	.02	-.01	.05	-.03	.13**	-.10**	-.17**	.08**	-.08**	.18**	.24**	.23**	-.31**	.08**	.10**	.18**

*p < .05 **p < .01

Table 3. *Bivariate correlations of study variables – Academic Achievement – Father Model*

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1. Academic Achievement	1																
2. Age	-.06	1															
3. Gender	-.09**	.07*	1														
4. Parental civil status	.10**	.01	.04	1													
5. Parent work	.01	-.05	.06	.05	1												
6. Marginalization	.13**	-.01	.02	.00	-.03	1											
7. Ad. problem behavior	-.16**	.12**	.15**	-.08**	.08*	-.09**	1										
8. Ad. depression	-.15**	.06*	-.12**	-.04	-.07*	-.06*	.05	1									
9. Study-only	.03	-.24**	-.12**	.03	-.06*	.21**	-.14**	-.06*	1								
10. Work & study	-.03	.05	.16**	.03	.05	-.08*	.10**	.04	-.55**	1							
11. Autonomy granting	.09**	.06*	.06*	.03	-.01	.18**	-.04	-.11**	.09**	-.04	1						
12. Monitoring	.11**	-.05	-.07*	.12**	-.01	.02	.12**	-.17**	.09**	-.02	.24**	1					
13. Positive induction	.13**	-.03	-.03	.14**	-.02	.10**	.03	-.10**	.10**	.00	.39**	.46**	1				
14. Punitiveness	-.08*	-.05	.06	.07*	-.02	-.16**	.08*	.22**	-.10**	.13**	-.15**	-.05	-.08**	1			
15. Permissiveness	-.05	.10**	.17**	.01	-.05	.01	-.03	-.09**	.04	-.01	.32**	.11**	.14**	-.03	1		
16. Educational Aspirations	.16**	.15**	-.06	.05	.02	.28**	-.11**	-.05	.15**	-.15**	.12**	.05	.11**	-.14**	.04	1	
17. Academic Motivation	.34**	-.01	-.07*	.08*	.09**	-.04	.13**	-.15**	-.02	.02	.14**	.28**	.25**	-.09*	-.02	.14**	1
18. Self - Efficacy	.18**	.02	-.01	.05	.06	.18**	-.10**	-.17**	.09**	-.08**	.16**	.18**	.18**	-.27**	.04	.10**	.18**

*p < .05 **p < .01

Maternal Model. In step one of the regression model, parental civil status ($\beta = .116, p < .001$) and gender ($\beta = -.099, p < .01$) were significantly related with academic achievement; indicating that adolescents whose parents are still married, and adolescent females, are associated with higher levels of academic achievement than those who are not married and adolescent men. Level of mother education ($\beta = .157, p < .001$) and marginalization ($\beta = .093, p < .05$) were positively related to academic achievement. It is interesting that marginalization was found to have a positive relationship to adolescent academic achievement; signifying the higher the level of marginalization is associated with higher levels of academic achievement. Adolescent problem behavior ($\beta = -.095, p < .01$) and adolescent depression ($\beta = -.127, p < .001$) were negatively related to adolescent academic achievement.

Step two of the model introduced the perceived parenting behaviors into the analysis. From the step one variables, gender, parent civil status, mother education, marginalization and adolescent depression failed to attain significance. Adolescent problem behavior lost power with the introduction of the perceived parenting behaviors into the analysis. Of the five perceived parenting behaviors only autonomy granting ($\beta = .156, p < .001$) and permissiveness ($\beta = -.093, p < .01$) were found to have a significant relationship with adolescent academic achievement.

Standardized regression coefficients in Step three of the analysis (see Table 3) indicated among the variables from step one and two, age of adolescent, mother work, marginalization, North and South regions, work and study and study-only, did not achieve statistical significance. Gender ($\beta = -.067, p < .05$) and parental civil status ($\beta = .094, p < .01$) have statistically significant relationship with academic achievement.

Within these two variables it was found that adolescent girls and adolescents with married parents reported higher levels of academic achievement. Level of perceived mother education ($\beta = .136, p < .001$) significantly impacts adolescent academic achievement, showing that the higher a mother's level of education the greater reported levels of academic achievement. Adolescent depression ($\beta = -.098, p < .01$) has significant negative relation to academic achievement, indicating that adolescents with higher reported levels of depression are associated with lower levels of academic achievement. In this final steps of the multiple regression analysis the geographic region of Center ($\beta = -.094, p < .05$) was found to be significant, showing that adolescents living in the central area of Mexico are associated with lower levels of academic achievement compared to those responded as Indigenous.

The perceived mother parenting behaviors variables that were found to be significantly related to adolescent academic achievement were maternal autonomy granting ($\beta = .127, p < .001$) and permissiveness ($\beta = -.096, p < .01$). Thus, it appears that mothers who are perceived as granting higher levels of autonomy for their adolescents are associated with higher levels academic achievement, while parents who are perceived to use higher levels of permissiveness with their adolescents are associated with lower levels of academic achievement. Academic motivation ($\beta = .266, p < .001$) and educational aspirations ($\beta = .124, p < .001$) of the adolescent had a statistically significant effect on academic achievement. Therefore, adolescents with higher levels of academic motivation and educational aspirations are associated with higher levels of academic achievement. Final findings of the multiple regression analysis resulted in an R^2 of .201, $p < .001$.

Mediational analyses done with the Baron & Kenny (1986) method and Sobel's test through SPSS with self-efficacy as the mediator were found to have significant findings. Mother positive induction and punitiveness were both mediated by adolescent self-efficacy, although, when controlling for the all other variables in the regression analysis each of these variables have non-significance.

Table 4.

Unstandardized Beta and Standardized Beta for Perceived Mother Parenting Behaviors and Academic Achievement

Predictor Variables	B	SE(B)	β
Step 1			
Age	-.014	.026	-.019
Gender	-.171	.059	-.103**
Parent Civil Status	.234	.067	.122***
Mother Work	.035	.034	.037
Mother Ed.	.143	.034	.157***
Marginalization	.089	.037	.091*
North	.041	.092	.021
Center	.009	.087	-.051
South	-.094	.085	.004
Ad. Problem Behavior	-.362	.142	-.095**
Ad. Depression	-.239	.069	-.127***
Study-only	-.050	.098	-.018
Step 2			
Age	-.026	.025	-.035
Gender	-.134	.058	-.081*
Parent Civil Status	.213	.066	.112***
Mother Work	.027	.033	.029
Mother Ed.	.133	.033	.146***
Marginalization	.086	.036	.089*
North	.019	.091	.010
Center	-.020	.086	-.071
South	-.129	.084	0.010
Ad Problem Behavior	-.239	.142	-.063
Ad. Depression	-.222	.068	-.118***
Study-only	-.089	.097	-.032
Autonomy Granting	.330	.084	.156***
Monitoring	.066	.064	.039
Positive Induction	.096	.093	.042
Punitiveness	-.071	.065	-.038
Permissiveness	-.149	.056	-.093**

Step 3

Age	-.044	.025	-.058
Gender	-.112	.056	-.067*
Parent Civil Status	.180	.063	.094**
Mother Work	.022	.032	.023
Mother Ed.	.123	.032	.136***
Marginalization	.058	.035	.060
North	.024	.088	.013
Center	-.032	.083	-.094*
South	-.172	.081	-.016
Ad Problem Behavior	-.130	.139	-.034
Ad. Depression	-.184	.066	-.098**
Study-only	-.050	.094	-.018
Autonomy Granting	.269	.080	.127***
Monitoring	-.018	.062	-.011
Positive Induction	-.025	.090	-.011
Punitiveness	-.011	.065	-.006
Permissiveness	-.153	.054	-.096**
School Adjustment	-.061	.101	-.021
Academic Motivation	.494	.066	.266***
Educational Aspirations	.171	.047	.124***

$R^2 = .086$ for step 1***, $R^2 = .125$ for step 2*, $R^2 = .201$ for Step 3***

STEP 3

Multiple Correlation $R = .449$

Adj. R-Square = .181

F-Value = 10.125 (df = 20,823)

Significance F .000***

N = 824

B = unstandardized betas; SE (B) = standard error of unstandardized beta; β = standardized beta

* $p < .05$; ** $p < .01$; *** $p < .001$

Paternal Model. Step one results from the multiple regression analysis were similar to the mother model. Parental civil status ($\beta = .116$, $p < .001$) and gender ($\beta = -.099$, $p < .01$) have a significant relation to adolescent academic achievement, indicating that adolescents whose parents are still married and female adolescents are associated with higher academic achievement. Levels of father education ($\beta = .154$, $p < .001$) and marginalization ($\beta = .105$, $p < .01$) resulted in a significant relation to academic achievement with higher levels of marginalization and father education indicating higher

levels of academic achievement. The only variable with a significantly negative relation within the first step of the model is that of adolescent depression ($\beta = -.168, p < .001$).

Step two of the analysis introduced the perceived parenting behaviors into the model. Adolescent gender (females), parental civil status, father education, marginalization and adolescent depression were still found to have a significant impact on adolescent academic achievement. Of great interest was the fact there was not a single perceived parenting behavior (positive induction, punitiveness, permissiveness, autonomy granting, and monitoring) found to be significant.

Standardized regression coefficients in Step three of the analysis (see Table 5) indicated that, gender, father work, adolescent problem behavior, geographic regions of North and South, work and study, and study-only did not attain significance. Age of adolescent ($\beta = -.068, p < .05$), parent civil status ($\beta = .099, p < .01$), and father education ($\beta = .131, p < .001$) were each statistically significantly related to academic achievement. Indicating younger adolescents and adolescents whose parents were married were associated with higher levels of academic achievement. The higher a perceived fathers level of education was associated with higher adolescents' level of academic achievement. Marginalization ($\beta = .076, p < .05$) and adolescent depression ($\beta = -.150, p < .001$) were statistically significant, with the higher the level of marginalization being associated with higher academic achievement, and the higher adolescent depression the lower the levels of academic achievement. Among the geographic region variables only Center ($\beta = -.094, p < .05$) was significantly related to academic achievement, in comparison to Indigenous. In the final step of the regression analysis it was found that

academic motivation ($\beta = .264, p < .001$) and educational aspirations ($\beta = .113, p < .01$) had a positive impact on adolescent academic achievement.

Mediational analyses done with the Baron & Kenny (1986) method and Sobels test through SPSS with self-efficacy as the mediator was found to have significant findings. Father positive induction and punitiveness were both found to be mediated by adolescent self-efficacy, although, when controlling for the all other variables in the regression analysis each of these variables resulted in non-significance.

Table 5.

Unstandardized Beta and Standardized Beta for Perceived Father Parenting Behaviors and Academic Achievement

Predictor Variables	B	SE(B)	β
Step 1	5.103	.512	
Age	-.037	.027	-.049
Gender	-.165	.061	-.099**
Parent Civil Status	.269	.082	.116***
Father Work	-.017	.063	-.009
Father Ed.	.130	.031	.154***
Marginalization	.102	.039	.105**
North	.070	.095	.036
Center	-.108	.086	-.058
South	.039	.087	.020
Ad Problem Behavior	-.242	.147	-.064
Ad. Depression	-.324	.073	-.168***
Study-only	-.066	.099	-.025
Step 2	4.409	.613	
Age	-.036	.027	-.048
Gender	-.153	.063	-.092**
Parent Civil Status	.252	.083	.109**
Father Work	-.018	.063	-.010
Father Ed.	.121	.032	.144***
Marginalization	.103	.039	.106**
North	.097	.097	.049
Center	-.108	.086	-.058
South	.040	.087	.020
Ad Problem Behavior	-.198	.150	-.052
Ad. Depression	-.317	.075	-.164***
Study-only	-.067	.099	-.025
Autonomy Granting	.119	.080	.061

Monitoring	.031	.062	.020
Positive Induction	.096	.088	.046
Punitiveness	.032	.066	.019
Permissiveness	-.071	.056	-.048
Step 3	3.114	.705	
Age	-.051	.026	-.068*
Gender	-.113	.060	-.068
Parent Civil Status	.231	.079	.099**
Father Work	-.056	.060	-.032
Father Ed.	.111	.031	.131***
Marginalization	.073	.038	.076*
North	.063	.093	.032
Center	-.176	.084	-.094*
South	.007	.084	.004
Ad Problem Behavior	-.093	.146	-.024
Ad. Depression	-.272	.073	-.141***
Study-only	-.060	.096	-.023
Autonomy Granting	.083	.077	.042
Monitoring	-.030	.060	-.019
Positive Induction	-.015	.085	-.007
Punitiveness	.044	.065	.025
Permissiveness	-.060	.055	-.040
School Adjustment	-.082	.104	-.029
Academic Motivation	.497	.069	.264***
Educational Aspirations	.151	.050	.113**

$R^2 = .097$ for step 1***, $R^2 = .106$ for step 2**, $R^2 = .183$ for Step 3***

STEP 4

Multiple Correlation R = .428

Adj. R-Square = .161

F-Value = 8.172 (df = 20,750)

Significance F .000***

N = 751

B = unstandardized betas; SE (B) = standard error of unstandardized beta; β = standardized beta

*p < .05; **p < .01; ***p < .001

Discussion

Based upon the review of literature, it was hypothesized that adolescents in Mexico would have higher levels of academic achievement when they perceived their parents as using positive induction (support and reasoning), autonomy granting (freedom granting), and monitoring (knowing adolescent's activities). Perceived parental

permissiveness (lack of oversight in adolescent activities) and punitiveness (punishing behaviors) were hypothesized to result in lower academic achievement. It was expected that adolescents who work and study would have lower levels of academic achievement than those who study-only. Educational aspirations and academic motivation were hypothesized as having a positive relation to academic achievement. Lastly, adolescent self-efficacy was analyzed to investigate if it was a mediator between the relationship of perceived parenting behaviors and academic achievement.

A total of 1200 adolescents from North, Central, and South Mexico were given a face to face interview style survey to assess their perceptions of a variety of parenting behaviors, academic motivation, educational aspirations, self-efficacy, and academic achievement. The total sample consisted of approximately the same amount of males and females, whose average age was 15.5. Analyses were ran for mothers and fathers separately, as previous research has shown that there are differences between mothers and fathers influence on their adolescents development in Mexico.

The obtained data allows for this research to conclude that within the maternal model, consistent with the research literature, that gender, parental education, depression, autonomy granting, permissiveness, academic motivation and educational aspirations contribute to adolescent's academic achievement (Amato & Folwer, 2002; Kaplan Toren, 2013; Moyeda-Galicia et al., 2013; Plunkett & Bamaca-Gomez, 2003; Supple et al., 2009). In contrast to the research, work and study vs study-only, monitoring, punitiveness and positive induction were not found to be significant in relation to an adolescent's academic achievement (Bean et al., 2003; Fan & Chen, 2001; Levison et al., 2001). The findings for the father model differ in that marginalization was found to be

significant, while monitoring and permissiveness were not found to have a significant effect on adolescent academic achievement. This divergence supports the importance of separating perceived parental behaviors due to the differences between the parental effects of mothers and fathers on their adolescents.

Within the mother model, gender was found to be significantly related, with females having higher academic achievement than males. This finding has been mixed within the research, but has been supported when looking at Latino populations specifically (Ingolsby et al., 2003). Parental civil status, with parents who are still married, was found to have a positive impact on academic achievement. This may be attributable to the fact that few Mexican households are divorced and if one parent, primarily fathers, is not at the home they are still involved within the decision making of the family. Levels of parental education for both models were found to have a positive relation to academic achievement, signifying that parents with higher levels of education have adolescents with higher academic achievement. Parents with higher educational attainment are often better prepared to help their own children in their educational endeavors and how the school system works (Plunkett & Bamaca-Gomez, 2003). Adolescents would use their parental civil status and education level within the comparator portion of the Unified Identity Theory model to assess if having married parents and parents with higher educational attainment are compatible with their own internal identity standard.

Depression within both models was found to have a negative effect on academic achievement. This has been supported throughout research worldwide and is significantly important within the context of Mexico because families seek out help from

professionals less than do populations in the U.S. or Western Europe due to the idea that it should ‘stay within the family’ (Moyeda-Galicia et al., 2013). It is of great interest that within the father model, but not the mother model, that marginalization was found to have a positive impact on academic achievement. The idea that the higher the level of marginalization the higher academic achievement goes contrary to much of the research that shows the lower one’s SES the lower their academic achievement (Ross, Rouse, & Bratton, 2010). An explanation for this finding may be that fathers who live in higher marginalization must work more hours and difficult jobs, their children see this and the importance placed within their internal identity standard of being a student and identity hierarchy and how each these support and align with what is expected of them.

It has been noted that work within Mexico for adolescents is an important aspect of their growth into young adulthood. Work in adolescence is important for both males and females in Mexico, but in different ways since males often work outside the home and females take on the role of caretaker of the home. Yet, the results from this research show that there is no significant effect on academic achievement from either the mother or father model when investigating the relationship between work and study vs. study-only.

Of great interest in this study is the finding of autonomy granting being found to be positively related to academic achievement and permissiveness as having a negative relation in the mother model, but neither being found significant in the father model. Findings from this represent that the input of autonomy granting and permissiveness have a stronger effect with mothers than with fathers on their own internal identity standard. The deviation of this finding between parents also highlights the strong cultural norms of

parenting in Mexico where the mother is seen as the emotional support and communicator in the family, while the father is seen as the disciplinarian and focuses more on final say within decisions instead of the process to get to those decisions (Esteinou, 2005; Frias-Armenta & McCloskey, 1998).

Monitoring, positive induction and punitiveness were not found to attain statistical significance with adolescent academic achievement. The findings of these perceived parental behaviors not significantly effecting academic achievement is a divergence from previous research that has noted positive induction and monitoring positively effecting, and punitiveness negatively effecting, academic achievement at varying degrees for each parent (Bean et al., 2003; Fan & Chen, 2001; Ingolsby et al., 2003). Monitoring in Mexico has often been noted as a vital part of child-rearing in that knowing where and what your child is doing is of great importance to keep family cohesion high (Moyeda-Galicia et al., 2013). The finding that this does not have an effect on academic achievement may further strengthen the finding above in that adolescents do not expect or receive low levels of monitoring from their parents and, therefore, it does not affect their academic achievement. Positive induction and punitiveness were the only two variables that were found to be mediated by adolescent self-efficacy in both models, yet when all other variables were input they were found to be not significant, regardless of self-efficacy. Each of these variables shows the lack of influence of these perceived parenting behaviors on adolescent academic achievement.

Academic motivation and educational aspirations were each found to be positively related to adolescent academic achievement in both the mother and father models. Therefore, both academic achievement and educational aspirations are placed

high within the adolescent's identity hierarchy and have significant effects on their eventual academic achievement. Academic motivation has a strong effect on academic achievement because of the drive students may have to finish secondary school, but they may not have the knowledge to have aspirations of moving beyond secondary into university studies. With the strides made throughout Mexico in the increase in educational attainment within finishing upper-secondary and increases in university attendance the aspirations adolescents have may be on the rise in the future.

Conclusion

Previous research on Mexican adolescent academic achievement and parental behaviors has not empirically sorted out the direct and indirect effects of specific perceived parenting behaviors and self-efficacy and their relationships with academic motivation and educational aspirations. Through the current study the effects of each perceived parenting behaviors vary widely, with self-efficacy mediating the effects of positive induction and punitiveness in each model. Neither of these variables attained significance in the analyses. Autonomy granting was found to have a positive relation and permissiveness a negative relation in the mother model, the father model did not have any perceived behaviors found related towards academic achievement. Parental civil status and parental education were found to be positively related to academic achievement, with females having higher academic achievement than males. Marginalization was found to have a positive effect on academic achievement, but only in the father model. Depression was found to have a negative impact in each model. Both academic motivation and educational aspirations were found to be positively related to adolescent academic achievement.

The first hypothesis was found to be only partially supported in the mother model with autonomy granting being the only perceived parenting behavior that is positively related to academic achievement. This is surprising due to previous research findings with other populations in the U.S. and Latino populations in other countries finding monitoring and positive induction of having a significant positive relation to academic achievement, with differences found between mothers and fathers (Bean et al., 2003; Turner & Lapan, 2002). As this sample was a nationally representative Mexican sample, it is interesting to see the differences between Latino populations in the U.S. who may have acculturated to American culture and those who are still living in Mexico. Latino parents have been noted to monitor their adolescents more than other populations, for example the U.S. or Europe, and focus more on strong family ties. Because of this cultural norm within family dynamics, monitoring loses its power. Positive induction, which would be expected to be stronger among mothers, is not found to be significant in either model, which instigates a need for further research in this area as it is seen in previous research to have a positive relationship with academic achievement.

The second hypothesis was only partially supported within the mother model with only permissiveness, not punitiveness, being found to be significantly related to academic achievement. The father model resulted in having neither punitiveness nor permissiveness being found to be significant. With fathers in Mexico being seen as taking the role of the disciplinarians and less involved in day to day decision making, it is interesting that neither of these variables would come out as significant. This may be attributable to the premise where fathers past and current experiences, work and education, are the primary pathways through which they exert their influence and

expectations on academics. As mothers in Mexico are seen as the primary caregivers and emotional support, it is not surprising that a mother high in permissiveness would lower their adolescent's academic achievement due a lack of involvement in their adolescent's lives. These findings also highlight the importance of parental involvement in their adolescent's lives and the lack of power for punitiveness, due to the cultural norms of the area.

Hypothesis three was not supported. It was found through the analysis that students who study-only do not have significantly higher academic achievement than those who work and study. This may be attributable to the idea that adolescents experience their work as not conflicting with their own academic studies and may be placed high within their identity hierarchy. Previous research, done with smaller populations, has shown that increasing an adolescents work hours, either labor or housework, results in a lower emphasis on studies, but the findings from this study did not evaluate overall achievement (Levison, et al., 2001). As there has been little research in this area with Mexican adolescents this research highlights an area that would benefit greatly from more investigations into how the work/school dynamic effects adolescent's academic achievement.

Academic motivation and educational aspirations, from hypothesis four, were found to be significantly related to positive adolescent academic achievement. Although the number of people going to university in Mexico is increasing, there is still a large portion of the population may not see this as a viable option, especially if in early adolescence. In this finding, educators can continue to support students to complete school while also placing more emphasis on the educational possibilities for student's

futures; therefore, working towards increasing adolescents educational aspirations throughout the country.

The final hypothesis of self-efficacy being a mediator of perceived parental behaviors was found to be partially supported. Self-efficacy was run as a mediator for each of the perceived parenting behaviors for both the mother and father model. It was found that self-efficacy did mediate the relationship between mother and father positive induction and punitiveness, but with all other variables placed in the regression analysis these variables lost power. Although the perceived parenting behaviors were not found to be significant, this finding does show how self-efficacy can be used as a pathway towards higher academic achievement. Even though in this study the perceived parenting behaviors were not significant, self-efficacy has been found in research to be a strong determinant of academic achievement and is affected by parental behaviors. Therefore, it can be seen that specific parenting behaviors can increase an adolescent's self-efficacy, which in turn can increase their academic achievement.

From the findings of this nationally representative sample on adolescent perceptions of parental behaviors, adolescent self-efficacy, academic motivation and educational aspirations and their effects on academic achievement, policy makers, educators and parents can gain a stronger understanding of the pathways through which adolescents can increase their academic achievement. There has been much research done on American and European populations, with regard to their academic achievement, but this fails to look at specific cultural and societal influences of Mexico.

As Mexico has gone through far-reaching changes within economic reform (i.e., lower unemployment and higher wages), rising violence (e.g., drug and gang violence),

and changes in cultural values (i.e., increase in women in workforce and education), it is important that Mexicans themselves understand how to adapt to these changes. With an increase in empirical evidence educators and researchers can gather and interpret their own experiences and that can influence policy makers while bringing parents closer to their own adolescent's educational endeavors.

For those who work in academia, education policy, and for parents, the information gained in this study, and future research, can aid in the recognition of the pathways which affect an adolescent's academic achievement. For those in academia, future research in how peer relationships, in and out of the school, affect academic achievement will be an important step. As adolescents throughout Mexico are influenced by their peers, the influence of the media, and violence countrywide, it will be of increasing significance that these influences are understood. As it has been seen that perceived parental behaviors have little predictive power towards academic achievement, the next step would be to find other pathways that parents affect their adolescent's academic achievement, self-efficacy for example.

For the large number of adolescents who are involved in the workforce while studying it will be of great use to understand the best approaches towards integrating the emphasis placed upon both, without having work take over the emphasis placed upon education. As work hours are viewed differently between males and females, labor force vs. home duty hours, it will be equally important to include this differential in future studies. Future research may also include how leaving school, for the short or long term, affects adolescents academic achievement in the present and near future.

Finally, comprehending the importance of academic motivation and educational aspirations to adolescents has shown that they may be the driving force behind eventual academic achievement. Therefore, educators and parents can work in tandem in the augmentation of academic motivation to finish high school and enjoy learning. Parental education has been shown to be an important variable in adolescent's academic achievement, which emphasizes how parents who are knowledgeable in how schools work and what they teach, are better able to orient their children towards higher achievement. The best way for this to be done is through communication and involvement with the school and teachers, whether the child is having difficulties or not. Educational aspirations can be further heightened through policy makers increasing funding to college readiness programs, and the information available to teachers, students, and parents. This, and future, research will be key in making these types of decisions for schools nationwide.

Future research should focus on studies that would increase knowledge towards how an adolescent reaches high academic achievement and the pathways taken. Recommendations for this research would include collecting and compiling teacher and student data, peer relationship data, differences in locality of the country, as well as race and ethnicity. Each of these possible studies would bring a deeper understanding of the effects on adolescent academic achievement and how to increase it within specific populations. Empirical evidence, not just qualitative research, will be of ever increasing value in the future with decisions made from the grassroots to the governmental level.

CHAPTER IV

CONCLUSION

Summary of Major Findings

The purpose of the present research was to examine the effects of perceived parental behaviors and academic achievement on adolescent self-efficacy and academic achievement. Previous research has found significant relationships between specific parental behaviors and adolescent self-efficacy and academic achievement; however, studies have not researched these areas within a Mexican population (Barca-Lozano, Almeida, Porto-Rioboo, & Peralbo-Uzquiano, 2012; Ingoldsby, Schvaneveldt, Supple, & Bush, 2003). This study adds to the research by analyzing the effects of specific parenting behaviors within a Mexican sample. Peterson (2005) explains the importance of understanding adolescent development as it is a time of great change physically, cognitively, emotionally, and socially. This research begins to aid in this understanding of adolescent development within Mexico, and has important implications for policy makers, researchers, educators and families. Findings from the two studies in this dissertation are explained below according to their hypotheses:

Manuscript 1.

Hypothesis 1: Perceived parental positive induction, autonomy granting, and monitoring will be positively associated with adolescent self-efficacy.

Perceived parental positive induction and monitoring had a significant positive association on adolescent self-efficacy. Autonomy granting was not found to be significant in either the mother or father models. This hypothesis was partially supported.

Hypothesis 2: Perceived parental punitiveness and permissiveness will be negatively associated with adolescent self-efficacy.

Perceived parental punitiveness had a significant negative association to adolescent self-efficacy. Permissiveness did not have a significant finding with self-efficacy in either parental model. This hypothesis was partially supported.

Hypothesis 3: Adolescents who only work will have lower levels of self-efficacy than adolescents who attend school.

In the regression analysis it was found that adolescents who work-only and study-only were positively related to adolescent self-efficacy within the mother model. In the father model work-only was significant and it had a positive relationship to self-efficacy. This hypothesis was not supported.

Hypothesis 4: Familism will moderate the relationship between perceived parental behaviors and adolescent self-efficacy.

Familism was not found to moderate the relationship between perceived parental behaviors and adolescent self-efficacy. This hypothesis was not supported.

Manuscript 2.

Hypothesis 1: Parental positive induction, autonomy granting and monitoring will be positively associated with academic achievement.

Parental autonomy granting had a significant positive association to adolescent academic achievement in the mother model, not the father model. Parental positive induction and monitoring failed to attain significance. This hypothesis is partially supported.

Hypothesis 2: Parental punitiveness and permissiveness will be negatively associated with academic achievement.

Parental permissiveness was found to have a significant negative association to adolescent academic achievement within the mother model, not the father model. Punitiveness was not found to be significant. This hypothesis is partially supported.

Hypothesis 3: Adolescents who work and study will have lower levels of academic achievement than students who study-only.

Work and study and study-only were not found to be significant. Signifying there were no differences found between work and study and study-only and their effects on adolescent academic achievement. This hypothesis was not supported.

Hypothesis 4: Academic motivation & educational aspirations will be positively associated with academic achievement.

Academic motivation and educational aspirations were found to be positively associated with adolescent academic achievement. This hypothesis was supported.

Hypothesis 5: Adolescent's self-efficacy will mediate the relationship between perceived parenting behaviors academic achievement.

Adolescent self-efficacy was found to mediate the relationship between parental positive induction and punitiveness and adolescent academic achievement. Neither

positive induction nor punitiveness was found to be significant in the mother or father model. This hypothesis is partially supported.

Discussion

The current study proposes research within the scope of the Unified Identity Theory, under which adolescent self-efficacy and academic achievement are affected through perceived parental behaviors and academic motivation. The present study contributes to adolescent well-being and development through providing important information about the influence of parental behaviors and their effects. Perceived parental behaviors and academic motivation were the primary independent variables in this work and it is important to revisit these constructs. Perceived parental behaviors refers to how parents are perceived as being supportive, involved, punitive, permissive, level of oversight, and freedom granted. Each of these different behaviors is summed up using five primary constructs: positive induction, punitiveness, permissiveness, monitoring, and autonomy granting. The relationships these variables have with adolescent self-efficacy was positive if the parent utilized positive induction and monitoring, and was negative if perceived as using punitive behaviors. This is supported from previous research that showed parents who were nurturing and supportive had children with higher levels of self-efficacy (Hoeltje, Silbum, Garton, & Zubrick, 1996; Ingolsby et al., 2013; Moyeda-Galicia, Sánchez-Velasco, & Robles-Ojeda, 2013).

When analyzed in the academic achievement manuscript, it was only the parenting behaviors of autonomy granting (positive association) and permissiveness (negative association) that were found to be significant and only in the mother model. Although each of these have been supported in previous research, it is important to note

that in other research the perceived parenting behaviors of positive induction and punitiveness were also found to be significant (Bean, Bush, McKenry, & Wilson, 2003; Kaplan Toren, 2013; Plunkett & Bámaca-Gómez, 2003). This divergence from previous research may be explained as the behaviors of positive induction and punitiveness not having strong influence through the input of the adolescent's identity standard of student.

The output behaviors found to be significant were academic motivation and educational aspirations. If adolescents felt academics were important and placed high within their identity hierarchy, then this would result in higher academic achievement. Previous research supports this finding for both males and females (Barca-Lozano et al., 2012). Having adolescents realize their educational goals cannot be overstated as an important factor in Mexico's overall growth in coming years and generations.

The use of the Unified Identity Theory to explain adolescents' identity choices and behaviors is a relatively new approach that can be used in a variety of situations. Through the continued use of this theory researchers can begin to analyze and predict what behaviors adolescents will choose in certain situations according to what they are committed to and what they view as important (identity hierarchy). Through analysis including the perceived parental behaviors, it is possible to see their effect while also analyzing a variety of other variables that influence adolescent development.

Implications

The results from this study have a number of implications for family life education, family research, and educational initiatives at the individual, family, community, and national levels. Parenting behaviors that are seen as positive towards adolescent self-efficacy can be promoted in family life education courses and in

different trainings included within family policy initiatives that may take place at the community, regional, or national levels. The support and involvement parents portray to adolescents can be promoted among families to break away from the long held belief that physical and harsh punishments are needed. For those working in education, the promotion of educational aspirations can be used as an incentive for furthering educational achievement. As Mexico has only in recent decades increased post-secondary attendance, supporting adolescence in their dreams for further education can increase achievement. Emphasizing the importance of education and moving towards an area of thought where children are more motivated to succeed will result in higher academic achievement.

Strengths and Limitations

There are a number of strengths in the current study. With the use of geographic location, level of marginalization, and level of urbanization researchers are able to generalize the findings to a national level and not one area or region. This is of great use as it is oftentimes difficult to compile a nationally representative sample. This study also integrated the work and/or study variables which have not been analyzed previously regarding adolescent self-efficacy and academic achievement. Understanding the effects of work and/or study on adolescent development is of great importance in Mexico as many adolescents leave school for work or child rearing.

Weaknesses in the current study include low reliability within the construct of permissiveness, lack of parent or peer data, and limitations from regression analysis. Permissiveness was composed of only three items which resulted in a low reliability. The construct was used because of its importance within the compilation of perceived

parenting behaviors; however, the low reliability and specificity within the questions involved in the scale do not allow for generalizations to be made. As this research was compiled using only adolescent self-report data it is constricted within its ability to understand a wider view of adolescent development. With the introduction of parent, peer, and educator data a stronger understanding of the direct and indirect effects on adolescent development can be created. As this current study-only used a hierarchical regression model there is difficulty in causal relationships and understanding how numerous other variables effect adolescent self-efficacy and academic achievement.

Future Research

Future research in the area of self-efficacy and academic achievement must focus on the Mexican population specifically. There is a dearth of information on Mexican Americans, but this does not cover the whole story of the differences culturally and socially. It is important to understand that there are differences between these two populations and the experiences had on a daily basis. Through future studies that encompass the effects of parental behaviors on self-esteem, problem behaviors, depression, and adolescent work, researchers can begin to fill in the puzzle of adolescent development in Mexico. Research in family studies will also be aided through the integration of adolescent, parent, and peer data. As the current study uses only adolescent self-report there are areas of interest that could not be examined. If this other sources of information are included more comprehensive knowledge can be derived from the empirical research.

The use of the Unified Identity Theory is a positive first step in the utilization of predictive theoretical models for adolescent development. The Unified Identity Theory

has not been put into practice among family researchers, but has decades of research supporting its use towards such an endeavor. With further supporting research using this theory, refinement can begin to better understand adolescents' role and identity choices and the behaviors that derive from them.

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